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**FINDING THE BALANCE BETWEEN POLITICAL AND ECONOMIC INTEREST:
A QUALITATIVE ANALYSIS OF CORPORATE SELF-REGULATION IN THE
PETROLEUM INDUSTRY IN THE CASE OF NORD STREAM 2**

MA thesis

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Author's Declaration

I have written this master's thesis independently. All viewpoints of other authors, literary sources and data from elsewhere used for writing this paper have been referenced. This thesis contains 20,360 words in total excluding the abstract, table of contents, list of abbreviations, bibliographic references, and appendices.

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The defence will take place on 04 June 2018 at Lossi 36, Tartu, Estonia.

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Abstract

In absence of traditional state regulation, corporations choose to self-regulate their behavior at times. Caring for the environment, initiating social projects, fighting modern slavery; the list of voluntary corporate initiatives is quite extensive. However, the motivation behind these commitments often remains obscure as can be seen in the case of the petroleum industry. Petroleum corporations extensively pollute the environment with their products and, at the same time, promise to contribute to its long-term protection. This research seeks to address the question why petroleum corporations decide to self-regulate in the first place and how they select the commitments appropriate to their business. Based on the psychological concept of self-regulation, the case study of the research examines the self-regulatory behavior of the corporations involved in the gas pipeline project Nord Stream 2: the executing corporation Nord Stream 2 AG and the investing corporations Uniper, OMV, Wintershall, ENGIE, and Shell. The qualitative analysis supports the hypotheses that (1) corporate self-regulation occurs as a consequence of tension between external political interest and internal financial interest and (2) petroleum corporations self-regulate with a strong focus on the energy transition and environmental protection. The empirical findings align with the literature review in criticizing the lack of appropriate quantitative measurements and sanctions concerning non-compliance with voluntary commitments. The voluntary commitments remain fragile with the corporations having absolute authority over their own self-regulation governance and little incentive to improve their transparency. However, best self-regulatory practice is being showcased by ENGIE's commitment to the issuance of green bonds. By raising funds for environmentally sustainable projects through the green bonds market, ENGIE reacts to both external political pressure deriving from the energy transition and the corporate objective of profit maximization. The research concludes by pointing out that self-regulation in form of green bonds constitute an opportunity to both address the much-discussed credibility problem of the petroleum industry and serve a new and growing ESG market.

List of abbreviations

bcm	billion cubic meters
CSR	corporate social responsibility
EEZ	exclusive economic zone
EIA	Environmental Impact Assessment
ERC	External Review Committee
ESG	environmental, social and governance
EU	European Union
GRI	Global Reporting Initiative
NCP	National Contact Points
OECD	Organization for Economic Co-operation and Development
SDG	Sustainable Development Goals
UN	United Nation
UNFCCC	United Nations Framework Convention on Climate Change

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1 INTRODUCTION

The initial research of this thesis revolved around one rather simple legal concept: incorporation. The attribution of legal personality to incorporated business entities constitutes an integral parts of today's modern economy. The ability for a corporation to form a revenue stream and manage its resources separately from its shareholders is deeply ingrained in today's understanding of international business (McBride, 2011: 2-5). Incorporation has become a constituting element to such an extent that it is difficult to imagine the international economy without multinational corporations with operations crossing national borders. As members of society, corporations are, at the same time, entitled to form a legally independent corporate entity and required to behave in a responsible manner (Wilmot, 2001). But what exactly constitutes responsible corporate conduct when a corporate entity operates in legislative environments with differing standards and in absence of binding multilateral regulation?

The cross-border nature of multinational corporations and their operations obscures the attribution of state responsibility for their business conduct in unprecedented ways. Large corporations can accumulate a high level of market capitalization with their financial power exceeding the gross domestic product of entire states. Exemplarily, the market capitalization of Apple, currently approximated at \$886.6 million (Nasdaq, 2018a), surpasses the total economic performance of states like Norway, Saudi Arabia, and Argentina (World Bank, 2017). This financial power provides necessary resources to seek out the most favorable tax environments for the corporation's revenues. In the absence of a sovereign ruler in the international political realm, rules and laws between states will differ in extent and content, possibly annulling each other or exposing legislative gaps. Whereas common citizens are primarily bound to declare their income in the location of their residency, multinational corporations will be able to employ tax

strategies favoring their own financial interests instead. The exploitation of these legislative loopholes was famously exposed in the practice of the *double Irish* (Darby III and Lemaster, 2007). Multinationals like Starbucks and Alphabet declared their profits in Ireland and the Netherlands, ultimately shifting revenue streams to low-tax environments and avoiding taxation in high-tax legislations within the European Union (EU). The practice was perfectly legal based on the taxation code of the individual EU member states. The public and EU member states missing out on taxation revenues, however, deemed the taxation strategy inappropriate and unethical (European Commission, 2016).

The preferred method of regulating corporate behavior considered unethical is the implementation of command-and-control policies on a national basis and extending the approach in bilateral and multilateral agreements. But outside of this binding legal environment, multinational corporations might already choose to self-regulate their behavior by committing themselves to high standards of conduct and business ethics. At times, these individual standards of conduct exceed the legal requirements of the host state and can be counted towards corporate awareness for responsible behavior; at other times, the commitment remains a mere public relations statements. Exemplarily, Starbucks was one of the corporations which employed the *double Irish* taxation strategy while stating in its corporate standards of business conducts “community involvement” as one of its core business ethics (Starbucks, 2011: 23). Thus, the research arrived at its very topic: corporate self-regulation in the absence of government-mandated regulation and the low credibility of corporate commitments to responsible behavior.

1.1 Puzzle of Self-regulation

The first puzzle concerns the very nature of the commitments: *Why do corporations voluntarily restrict their own business conduct in absence of binding state regulation?* Economic research in the field of public choice suggests that political pressure in the immediate environment of a corporation will lead to self-regulative behavior (Williams, 2004; Moerel, 2012). Self-regulation is defined as the voluntary constraint of corporate behavior to preempt political action (OECD, 2002). One

prominent example is the current situation at the international corporation Facebook. Exposed data breaches in the social media network has put the corporation under intense pressure to reform its data privacy strategy. Although most governments across the world do not demand extensive levels of data protection and security, Facebook recently decided to apply the tough EU data privacy standards on a global scale (Politico, 2018). Voluntary commitments support the notion that corporations will have to find a balance between the economics of profit maximization inherent to for-profit organizations and the political environment affecting their operations since unanticipated government regulations and public pressure might leave a corporation's operations and profit sources vulnerable (Maxwell, Lyon, and Hackett, 2000). High political tensions might then tilt the balance in favor of more extensive risk management of the political environment (Parker, 2002).

The corporations seek to manage the political risk through different means with self-regulation being a rather public method. The voluntary constraints are intended to raise the costs of regulating entities to enter the market of regulation and, thus, lower the risk of further regulation (Flohr, 2014). In highly profitable and regulated markets, self-regulating behavior will likely avoid high costs for the corporation and form an incentivized option from a public choice perspective (Public Utility Research Center, n/a; Camison-Zornoza and Boronat-Navarro, 2010). In addition, self-regulative behavior may be an advantageous strategy for the corporation to maintain its reputation and ethical standards (Grasmick and Appleton, 1977). In the example of Facebook, applying the highest possible data privacy standard globally might ease tension between regulator and regulating entity and protect the public reputation of the company which is already being negatively affected under the hashtag #deletefacebook (Fortune, 2018).

The second puzzle addresses the long-term impact of similar corporate behavior: *How can a self-regulative commitment be credible if self-regulation remains inherently non-binding and non-compliance can go widely unnoticed and unpunished?* As the previous example of Starbucks has shown, the credibility problem is inherent to business codices: The corporations define their own standards of business conduct, alter, interpret, and possibly re-interpret their meaning and content, and decide to which extent it will be permissible to abide by or ignore them. In absence of an independent regulating entity,

the corporations take upon themselves the responsibility to regulate their own behavior and essentially become regulated and regulating entity at the same time. Academic research on anti-corruption measures suggests that transparent and clear monitoring processes with external reviews could aid the credibility of voluntary commitments (Giavazzi, Cottone, and De Rosa, 2014; Giavazzi, 2014), but more industry-specific measures are missing in the academic literature.

1.2 Research Objectives

The objective of this research will be to examine the activity of self-regulation in the petroleum industry and provide insight into possible solutions for the long-term viability of voluntary corporate commitments to environmental, social, and governance (ESG) standards. Within the topic self-regulation, the petroleum industry provides an interesting research example. The industry has been notoriously known for polluting the environment while providing essential energy resources to modern societies. The contradiction in corporate behavior and corporate aspirations of contributing to society have been contradicting, if not mutually exclusive. The research focus was further narrowed to focus on the gas pipeline project Nord Stream 2. The project which is currently still in the permitting process has been fiercely debated with the German government supporting and the Danish Senate blocking the project (Nord Stream 2, 2018a; Folketinget, 2017). Examining the corporate behavior and self-regulation of the executing corporation Nord Stream 2 AG and the investing corporations Uniper SE, OMV AG, Wintershall Holding GmbH, ENGIE S.A., and Shell plc¹ will add a new perspective to the political debate surrounding the project and provide more industry-specific understanding of the theoretical and practical occurrence of self-regulation. The research will seek to answer the following research question and will anticipate a discussion based on the following two hypotheses:

¹ Throughout the research, only the abbreviated form of the investing corporation's names will be used to facilitate the reading flow (Uniper SE - Uniper, OMV AG - OMV, Wintershall Holding GmbH - Wintershall, ENGIE S.A. - ENGIE, Shell plc - Shell). Nord Stream 2 AG will be spelled out in full in order to differentiate between the project and the executing corporation more easily.

Why do corporations decide to self-regulate their corporate behavior in absence of binding state legislation, and how do corporations involved in the gas pipeline project Nord Stream 2 and headquartered in the European Union self-regulate?

- (1) Corporate self-regulation in form of standards and monitoring will be motivated by political opposition and hampered by financial pressure.
- (2) The examined downstream petroleum corporations will self-regulate with strong focus on the energy transition and environmental protection.

The research will commence by outlining the theoretical framework of psychological self-regulation and providing a literature review of corporate social responsibility measures, reactionary commitments, and credibility issues associated with corporate self-regulation. The theoretical framework will give structure to the research and facilitate the understanding of the multifaceted nature of corporate self-regulation. The research will create a more holistic understanding of corporate self-regulation and emphasize its interdisciplinary nature throughout the subsequent empirical analysis and discussion of the case study. The case study will explore self-regulation in the context of Nord Stream 2 and discuss differences and similarities between the executing Nord Stream 2 AG and the investing corporations. The research will conclude with the examination of the specific political and economic interests shaping self-regulation in this specific case and a discussion of the relevance of international frameworks and green bonds for voluntary commitments in the petroleum industry.

2 THEORETICAL FRAMEWORK

Since its acknowledgement as an academic discipline, psychological concepts have transcended their boundaries to appear in economic and political research. Behavioral psychology has been translated into concepts of economic behavior (Crusius, van Horen, and Mussweiler: 2012: 680), and ethics, a character trait formerly reserved to sentient beings, has entered the academic as well as public discussion regarding policy and regulation question (Norman, 2011). Daniel Kahneman even received the 2002 Nobel Prize in economics for “having integrated insights from psychological research into economic science” (Nobel Media, 2002). Kahneman (2003: 166) points out that psychological research can be especially valuable when guiding economic research without questioning the fundamental assumptions of the economic discipline.

The theoretical framework builds on Kahneman’s interdisciplinary idea of psychology and economics by adapting the psychological theory of self-regulation (Baumeister and Vohs, 2007) to corporate behavior. The original psychological theory of self-regulation separates the factors shaping human self-regulation into four categories: standards, monitoring, willpower, and motivation. As a first step, the content of each category will be elaborated from its traditional perspective of psychology. Since the theoretical model has been exclusively used to explain human behavior, each category will be adapted to include the macro- and microeconomic theory of corporate self-regulation as a second step. Thus, the research will be guided by the framework of psychological self-regulation but based on fundamental economic assumptions. The theoretical section will continue by discussing two of the most prominent forms of self-regulation – corporate social responsibility and reactionary commitments – and conclude by addressing the main issue of credibility in voluntary self-regulation.

2.1 Psychological Theory of Self-regulation

Self-regulation is a term commonly used to refer to “freedom, autonomy, agency, responsibility, maturity, ego-strength, willpower, self-control, choice, purposiveness, self-direction, voluntary action, self-intervention” in the discipline of psychology (Karoly, 1993). The concept describes the practice of voluntary restriction in human behavior (Carver and Scheier, 2016: 3), more colloquially known as “self-stopping” (Baumeister and Vohs, 2007: 4). The individual will monitor her behavior by comparing her behavior with a set of ideal standards. The ideal standards will vary depending on the individual’s personal preferences, her physical and emotional resources, and the perceived expectations in her immediate environment (Baumeister and Heatherton, 1996; Carver and Scheier, 1982).

The concept of self-regulation has been employed to describe the economic phenomenon of corporations imposing voluntary restrictions upon their business activities. Within a traditional command-and-control regulatory environment, governmental entities impose restraints on corporate behavior through legislation (Maxwell, Lyon, and Hackett, 2000: 1). In absence of traditional regulation, corporations increasingly commit to voluntary codes of business conduct and corporate social responsibility (OECD, 2002: 73). Similar to self-regulation in human behavior, corporate self-intervention seeks to find the right balance between their inherent profit-maximizing behavior and the ideal standards set by their environment. In order to understand this specific type of self-regulation in-depth, the theoretical framework will continue by examining corporate self-regulation according to each category of the psychological model of self-regulation proposed by Baumeister and Vohs (2007): *standards*, *monitoring*, *willpower*, and *motivation*.

2.1.1 Standards

Standards constitute the ideal behavior individuals prefer for themselves. The act of self-regulation will seek to bring the individual’s actual behavior in line with these sought-after ideals (Baumeister and Vohs, 2007: 3). A system of standards with a serial

hierarchic fashion may enable the individual to respond to different standards at the same time by applying assembling criteria (Simon, 1967: 33-34). In the case of contradicting criteria and objectives, standards will need to be clear and well-defined to allow for the sequencing of standards (ibid.).

In relation to corporate self-regulation, the corporate code of business conduct can be viewed as an individual set of ideal standards. At the minimum, the voluntary standards emphasize the corporation's commitment to upholding national legislation in a particular policy area. Codes of business conduct are traditionally composed by the individual committing corporation, refer to internationally acknowledged frameworks and industry standards, and address a variety of issues (Haufler, 2001: 1). Social matters, like pledges to observe universal human rights and prevent race- and gender-related discrimination, are often addressed in voluntary commitments. Environmental issues for, by way of example, the prevention of extensive industrial pollution or protection of local animal populations are also commonly addressed. In addition to these main themes, corporations increasingly include commitments to anti-money laundering, taxation, and anti-corruption measures in their statements. (OECD, 2001; OECD, 2011)

The standards of business conduct of the U.S. American corporation Starbucks state that the corporation "is committed to complying with local laws, regulations, and codes and to working fairly and honestly with government officials" (Starbucks, 2011: 12). This type of voluntary standard does not constitute self-regulative behavior since the commitment does not extend beyond national regulation and does not impose restrictions on the corporation's operations. However, the standards stated in the code of business conduct exceed national legal requirements at times. Exemplarily, the German postal service Deutsche Post AG commits itself to using environmentally friendly technology and continuously reducing its corporate CO2 output (Deutsche Post AG, 2018). Although Germany's environmental policy is comparatively comprehensive (Yale University, 2018a), Deutsche Post AG takes its environmental standards one step further by voluntarily committing itself to more extensive environmental protection. These practical examples of corporate self-regulation illustrate that standards may vary greatly in extent, but always determine an ideal striven for.

2.1.2 Monitoring

After specifying the level and content of self-committing standards, the individuals will theoretically self-monitor and reduce discrepancy between standards and actual behavior to their best ability (Károlyi, 1993: 31-36). The component of *monitoring* ensures that the individuals become aware of their behavior deviating from the standards and ultimately adjust their behavior according to their requirements. In a traditional command-and-control environment, the state will install the appropriate monitoring processes for the standards enforced by law (Stigler, 1971). If a corporation decides to engage in self-regulation by setting its own standards, corporate resources will have to be dedicated to monitoring and adjusting deviating corporate behavior effectively. Thus, leaving regulation to the corporations will transfer the cost of monitoring from the regulating entity to the individual corporations (Haufler, 2001: 114).

The transfer would be entirely beneficial to the regulating entity if the compliance capability would be given in each self-regulatory regime and at every time (O’Callaghan, 2016: 71). The inherent problem with voluntary corporate standards is the fact that they remain non-binding. Aside from assuming their traditional role of the regulated entity, the corporations take on the responsibility of penalizing their own non-compliance as the regulating institution (Chance, 1978). Since it is not in the corporation’s interest to jeopardize its operations by publicly acknowledging non-compliance, the question remains if voluntary corporate commitments merely provide a veil for corporate misdemeanors. In the current information-rich societies, the activities of civil society can substitute for some of the traditional state-regulated monitoring by threatening to share non-compliant corporate behavior online and possibly damaging the corporate brand (Haufler, 2001: 109). However, such activities will not erase the necessity for effective internal monitoring in corporate self-regulation.

2.1.3 Willpower

Whereas the factors *standards* and *monitoring* state how self-regulation will manifest itself, the category of *willpower* as well as the following category *motivation* showcase the reasons why an individual chooses to engage in or refrain from self-regulation. *Willpower* refers to the self-regulatory strength of individuals, meaning their ability to self-regulate their behavior. The process of self-regulation requires energy depending on the extent of control exercised and might lead to ego depletion. Ego depletion refers to a condition in which the individuals has fewer resources at their disposal than usual. The condition will decrease available willpower to control behavior and to engage in self-regulation. (Baumeister and Vohs, 2007: 2-3)

Based on the individualistic approach (Buchanan, 1949: 498; Downs, 1957), every individual, institution, and corporation holds private interests which it will pursue to maximize its own utility. Within human systems, the reduction in blood glucose following self-regulative activity has been equated to decreasing levels of willpower to pursue private interest through self-regulation in subsequent situations (Gailliot et al., 2007). Adjusting the finding to corporate self-regulation, low financial liquidity would equate to low psychological energy. Since the main objective of for-profit organizations is the maximization of profit, dedicating willpower towards in self-regulation would only be rational if it contributed to this particular goal. The availability of financial resources would enable the corporate dedication to long-term objectives, as for example self-regulation.

In the case of high expected value from cooperation and low transaction and commitment costs (Ayres and Braithwaite, 1992), self-regulation traditionally creates financial benefits if it occurs under the umbrella of industry associations. Prominent examples include the International Organization for Standardization (2018) and the United States Energy Association (2017). Long-standing industry self-regulation commitments such as the “Marine Stewardship Council (...), the Sustainable Forestry Initiative, or the Fair Labor Association” (Williams, 2004: 11) have continued to be effective and respected in their policy fields despite financial pressure from the individual

corporation's shareholders (Gereffi, Garcia-Johnson, and Sasser, 2001). This form of self-regulation serves the best interest of both the individual corporation and the industry. The corporation maximizes its utility by avoiding government regulation and operating in a flexible compliance setting shaped by practical industry knowledge, and the industry will benefit from an overall improved reputation and increased credibility (Baldwin and Cave, 1999: 126-128).

2.1.4 Motivation

Within the theory of self-regulation, *motivation* refers to the stimulus to engage in a certain behavior (Baumeister and Vohs, 2007: 2-3). The stimulus depends on a desire to live up to specific standards (Baumeister, Schmeichel, and Vohs, 2007: 23). Depending on the characteristics of the engaging person, the extent of desire will vary, and the motivation will be expressed differently (Higgins and Spiegel, 2004). Certain circumstances might motivate an individual to choose an approach strategy by acting whereas the same circumstances would incentivize another individual to employ an avoidance strategy by steering clear of specific actions (Scholar and Higgins, 2008: 490-493). The level of external and internal motivation will determine if individuals are inclined to self-regulate their behavior. In absence of either type of motivation, self-regulation will not take place.

In context of corporate self-regulation, the motivation to self-regulate will primarily derive from the threat of regulation in the political environment affecting the corporation's operations. The process of motivation formation can be best described by assuming a game-theoretical marketplace for regulation (Stigler, 1971). Within the market, the regulating institution will ultimately provide and legitimize the supply of regulation while the corporations affected by the regulation determine the primary demand (Becker, 1983). After both regulated and regulating entity have independently selected and announced their preferred level of regulation on the first stage of the game, the second stage will revolve around the question if the players choose to enter the marketplace. If the level of demanded and voluntarily implemented regulation by the

corporations does not match the preferred level of regulation of the regulating entity, the institution will enter the market and raise the legal requirements to its preferred level. The threat of more extensive state regulation when the regulating entity enters the marketplace will incentivize corporations to regulate their behavior voluntarily (Maxwell, Lyon, and Hackett, 2000). Preemptive self-regulation will lower the utility of raising the level of regulation according to the preferences of the regulating entity by drastically increasing the cost-to-benefit ratio of legal implementation. Due to the reduced willingness of the regulating entity to enter the market, the threat of further binding legislation affecting the operations of the regulated entity might be avoided.

Aside from the regulatory threat, the non-monetary incentives of reputation and first-mover advantage will incentivize corporate self-regulation (Williams, 2004: 12). Out of these three factors, corporate reputation has especially developed into an important asset in strategic long-term business considerations (Svendsen et al., 2001). In recent years, reputation has become a priced corporate asset with visible impacts on the corporate statement. Therefore, self-regulative commitments might be solely publicized to ensure the protection of a corporate reputation (Kolk and vanTuder, 2002). Responsible conduct has been increasingly relevant in maintaining and developing relationships with various kinds of stakeholders, ranging from employees and investors to customers and suppliers. A company known for its irresponsible social and environmental behavior might miss out on valuable business opportunities and forego the opportunity of the first-mover advantage.

2.2 Practical Corporate Self-regulation

Corporate self-regulation was defined as the phenomenon of corporations exercising control over their own behavior to preempt political action from regulating entities (Baldwin and Cave, 1999: 125). The freedom to set an individual focus in their self-regulation has led corporations to use manifold descriptions, among others: code of conduct, corporate governance report, compliance guideline, corporate social responsibility report, and ethics code. In addition, there does not exist one agreed upon definition of socially appropriate corporate behavior (Armstrong and Green, 2013: 1926);

some philosophers even support the sentiment that corporations are not able of morally responsible behavior at all (Velasquez, 1983). In face of this variation, ambiguity regarding the extent and comparability of self-regulative commitments has been a common theme in academic research. But two common forms of self-regulative measures which will be discussed in the further review have been highly visible: corporate social responsibility and reactionary commitments.

2.2.1 Corporate Social Responsibility

One recent trend in corporate self-regulation has been the increasing public proliferation of environmental and social standards (Williams, 2004: 10). The standards often exceed the regulatory requirements, especially of less regulated legal environments in nation-states without sufficient institutional leverage and establishment. The corporate behavior of developing codes of conduct and publicly committing to them seems to contradict the objective of maximizing profits inherent to multinationals (OECD, 2001). Armstrong and Green show that voluntary corporate social responsibility (CSR) initiatives can be an important part of increasing welfare in unregulated markets, but financial incentives like an opportunity to enhance the intangible asset of reputation or marketing socially responsibly sourced products, would be required due to the profit-driven nature of corporations (Ellen, Mohr, and Webb, 2000). One might criticize that the corporate effort to self-regulate might not be genuine when the voluntary commitments are merely used to improve the corporate image. However, an action motivated by self-interest does not make the action in itself ineffective or unacceptable; following Smith (1776, 2008: 25) “it is not from the benevolence of the butcher, the brewer, or the baker, that we can expect our dinner, but from their regard to their own interest”. The assumption of self-interest does not imply a lower level of morality (Flohr, 2014: 204). Private incentive should even be one of the main factors researchers and policymakers should focus on in explaining and regulating self-regulation (Williams, 2004: 14).

Exemplarily, Kolk and van Tulder (2002) examined the nature of self-regulatory codes regarding child labor in multinational textile corporations. Their findings suggest

that monitoring codes of conduct throughout a textile supply chain can be virtually impossible because international supply chains have become highly fragmented and non-transparent. However, the threat of reputational damage creates a strong incentive to address misbehavior despite the high costs associated with the implementation of appropriate monitoring and sanctions systems. Accordingly, increased awareness of intangible issues as for instance human rights, sustainability, and diversity within civil society and the government will create the necessary self-interested financial incentives for corporations to commit to self-regulative measures in context of corporate social responsibility.

2.2.2 Reactionary Commitments

Regarding the origin of self-regulation, there has been increasing evidence for the hypothesis that companies implement corporate social responsibility measures to offset previous corporate social irresponsibility and avoid associated public scrutiny (Kotchen and Moon, 2011). Referring to the example of the textile sector, the 2013 Savar building collapse with a death toll of over 1,100 garment workers gave rise to fierce opposition from labor rights groups which demanded the improvement of workers' safety. Since the catastrophe, more than 220 textile corporations have signed the *Accord on Fire and Building Safety in Bangladesh* which seeks to improve transparency and accountability in the textile industry and prevent similarly fatal events (Financial Times, 2018). Similarly, following the arrest of two Afro-American men at one of its stores, Starbucks reacted to the intense public outcry by announcing a nationwide racial-bias education training for all its employees (Starbucks, 2018).

This type of reactionary corporate behavior which may arise in practical self-regulation supports the discussed theoretical framework. The pressure within the immediate political environment of the corporation needs to be comparatively high and specific to incentivize corporate self-regulation. The example of Starbucks reaction to the outcry on social media shows that self-regulative action will occur if the political pressure focuses on one specific policy area. At the same time, the textile manufacturers' demand

for more extensive government regulation of this specific policy area indicates that the corporations view safety as a business-crucial issue which they seek to address with the means of self-regulation (Financial Times, 2018). But their hesitation to fully commit to it suggests that collective action problems and related equity issues exist within the industry which cannot be overcome through self-regulative measures. The private sector's interest to contribute to the universal ratification of self-regulative frameworks such as the United Nations (UN) Convention against Corruption is hampered by the highly competitive markets in developing countries with less strictly enforced legislation (Vlassis, 2014: 280). Can voluntary corporate self-regulative commitments therefore ever provide a credible addition to traditional command-and-control legislation if the commitments will only be reactionary by nature?

2.3 Credibility Issues

Generally, the practice of corporate self-regulation does not enjoy the best standing in the society. The publicized self-regulatory commitments are inherently non-binding since the corporations assume the role of both regulated and regulating entity. This leads to a deep conflict in interest when non-compliance occurs, since the rules can be easily bent and standards changed according to the corporation's current needs (Chance, 1978). Some researchers argue that voluntary corporate commitments merely provide a veil to hide corporate misdemeanors and whitewash the corporate image based on hollow promises. This might not come as a surprise when corporations only decide to commit to self-regulation under intense political pressure and when most of their corporate credibility has already been lost (cf. Politico, 2018). At the same time, national administration "has little capacity of developing a 'big picture' view of a (multinational corporation's) global value chain" (OECD, 2013: 22-23) which leads to further transparency issues and a low level of perceived genuine credibility. Since private power "may be legitimately held only for the purpose of furthering the public good" (Parkinson, 1995: 30-31), self-regulation should contribute to an improved economic outcome for it to be a respected practice.

Academic literature which openly critiques self-regulative commitments of corporations is abundant. Parker (2002: 26-27) underlines that standards of ethical corporate behavior cannot replace legalistic compliance commitments. She presents further evidence that non-binding, voluntary commitments promise great deeds and merely lead to whitewashing of the corporate image instead of the corporation achieving the promised targets (Cleek and Leonard, 1998). The elaboration of the chosen standards too often only scratches the surface of the addressed issues without committing to quantifiable measurements or issuing a strategy how to ensure the standards in the long-term and under financial pressure. Substantive principles and values are often not well-integrated in system-oriented compliance programs, thereby ignoring the fundamental core of the voluntary commitments.

Williams (2004: 15-16) also points out that self-regulative commitments are inherently fragile and tend to failure. Since the benefits of self-regulation usually concern collective goods, the self-regulating corporation must deal with the problem of free-riding and the effort of only one corporation is hardly sufficient to achieve the protection of collective goods. The players will only stay committed to the long-term goal of self-regulation if the commitments hold more individual utility than abandoning them (Tesler, 1980: 27-28). Intangible incentives, such as reputation, legal and regulatory risk, and first-mover advantage (Williams, 2004: 12-13), are difficult to quantify in contrast to tangible assets in form of sales and profit and their benefits might not be sufficiently clear to justify the corporate adherence to a voluntary self-regulative commitment. All doubts of whitewashing aside, if it can be assumed that a corporation is willing to commit to certain voluntary standards, how does its management ensure credibility and long-term commitment?

Recurrent themes concerning the improvement of credibility in self-regulative commitments are transparency and independent monitoring. Self-regulation is an activity which seeks to inform the public about specific corporate commitments. This approach should ideally stand in contrast to the activity of lobbying which seeks to avoid public scrutiny. Any credible self-regulatory activity should be characterized by the opposite: open communication with the public and an honest approach with the highest possible

degree of transparency (Flohr, 2014: 204-206). Transparency is fundamental in delivering the best economic outcomes in the policy-making process. As asymmetrical distribution of information distorts the free market, inefficient outcomes in non-transparent markets are likely to be observed (Downs, 1957). In the corporate world, transparency has its origin in the boardroom where individual self-interest and group pressure might come in the way of best practice, as could be observed in the case of the Enron bankruptcy (Zandstra, 2002: 19). Without independent monitoring and delegated accountability, corrupt practices flourished and the corporation formerly posing as “the world’s greatest corporation” (ibid.) had to file for bankruptcy. In context of self-regulation, transparency will be the key to a credible and viable commitment. Only when provided with quantifiable objectives and metrics which, at best, will be monitored by an independent entity, and address the collective action problem within the relevant industry can self-regulative commitments contribute to a successful regulation environment (Williams, 2004).

3 METHODOLOGY

Based on the interdisciplinary theoretical framework, the research will seek to analyze self-regulation in the practical environment of the petroleum industry. As mentioned in the introduction, the analysis will specifically examine the corporate behavior in downstream gas corporations headquartered in the EU in the context of the gas pipeline project Nord Stream 2. The methodology section will outline the reasons behind selecting this specific case and map out the chosen indicators according to the categories of the model of self-regulation (Baumeister and Vohs, 2007).

3.1 Case Selection

A group of corporations which has been heavily criticized for its unethical behavior and its non-compliance with voluntary self-regulative commitments is the petroleum industry. The petroleum industry has always had a divided attitude towards self-regulation. On one hand, most of petroleum corporations have committed to environmental protection and the energy transition from traditional to renewable sources to some extent. Petroleum corporations play a central role in modern societies by supporting virtually all functions of modern life with traditional energy resources. The corporations' business activities secure the main energy supply in many world economies, making their operations political by nature (Foreign Affairs, 2015).

On the other hand, the industry has been notoriously known for its extensive pollution of flora and fauna and disregard for long-term effects on human settlements in the proximity of its extraction and pipeline projects. Examples of self-regulative

commitments and contrasting corporate behavior abound: In 2003, energy corporation BP adopted the slogan “Beyond Petroleum:”, only to close its solar energy unit completely nine years later (Encyclopædia Britannica, 2018) and re-adopt a “fresh commitment to low carbon” in 2018 (The Economist, 2018). Similarly, the Norwegian energy corporation Statoil stated its intent to change its name to Equinor in a corporate move away from traditional energy resources to renewable energy (Statoil, 2018a). The corporate move is being supported by the Norwegian State, Statoil’s main shareholder with 67 percent (Statoil, 2018b: 8), which attributes greater credibility to the new corporate approach to diverge from selling the enormously profitable petroleum resources of Norway. In stark contrast, the Dutch energy corporation Shell has become infamous for its unethical corporate behavior in Nigeria which led to the involvement of the United Nations (UNEP, 2011). The question if corporate self-regulation in the petroleum industry merely constitutes an opportunity to whitewash polluting business operation becomes pressing when comparing Shell’s corporate claims to commit to environmental protection and sustainability with this corporate behavior (Shell, 2018a).

Petroleum sourcing and transportation projects are characterized by high economic returns and high risk of default. The intense financial pressure was experienced by the entire industry especially in 2016 and early 2017 when low trading prices for oil and gas translated into serious economic impediments for petroleum operations (Nasdaq, 2108b; cf. appendices 1-6: ‘willpower’). This obvious tension between economic pressure in their operations and the conflicting nature of their self-regulative commitments in the cross-border political environments make petroleum corporations a suitable object for analyzing and understanding corporate self-regulation more in-depth.

The petroleum market is divided into three sectors: upstream corporations dealing with the exploration and drilling of crude oil and natural gas, midstream corporations handling the transportation of the petroleum products, and downstream corporations processing, purifying, distributing, and marketing the final products (Labmate Online, 2018). Upstream corporations operate widely outside of the public eye and publish little information on their homepages. Their corporate behavior supports the hypothesis that corporations only self-regulate and publish information motivated by extensive external political pressure, but, at the same time, analyzing the absence of their behavior would create the problem of induction within academic research. The abundance of information

published by mid- and downstream petroleum corporations and their closer relationship society through the daily public energy supply make the focus on this part of the industry more feasible.

The trend of self-regulation has spread globally, but “there are significant intra-regional variations in practice” and commitments diverge to the point where the question arises “what exactly constitutes appropriate (corporate) behavior” in a specific industry (OECD, 2001: 3). Since international petroleum corporations are “registered and operate in more than one country (... with) subsidiaries report(ing) to the corporation’s central headquarters” (Encyclopædia Britannica, 2018b), the selection of an appropriate geographical focus will prove essential in collecting coherent data. The geographical area is chosen to encompass the EU in which member states, to varying extent, surrender parts of their sovereign decision-making power to the institution.² The differences between the political environments of the individual member states will be suitable to show the influence of political interests on corporate self-regulation, but the context of the EU will provide a coherent research framework.

In the context of mid- and downstream petroleum operations in the EU, the gas pipeline project Nord Stream 2 is currently one of the most politically contentious petroleum projects. The project will be executed by Nord Stream 2 AG headquartered in Switzerland with Russian energy corporations Gazprom as the sole shareholder and financed with investments from the multinational energy corporations Uniper, OMV, Wintershall, ENGIE, and Shell headquartered in EU member states (cf. appendix 1). Since the gas pipelines will cross through the exclusive economic zones (EEZ) of Russia, Finland, Sweden, Denmark, and Germany, the project has been at the center of EU-wide discussion (cf. Deutsche Welle 2017; Reuters, 2018a). The political tension and increasing financial pressure concerning the gas pipelines will provide a relevant and interesting case study to understand corporate self-regulation in mid- and downstream gas corporations in more detail, and the research findings will hopefully add a new facet to the critical discussion of the project.

² The author is aware of the academic discussion if the EU constitutes a supranational or international organization. The organization exhibits both characteristics in relation to the policy area of energy. The question will not be addressed further in the research.

3.2 Research Objective

The objective of this research will be to provide a holistic understanding of corporate self-regulation in the EU petroleum industry within the context of Nord Stream 2. The research question guiding the research reads as follows:

Why do corporations decide to self-regulate their corporate behavior in absence of binding state legislation, and how do corporations involved in the gas pipeline project Nord Stream 2 and headquartered in the European Union self-regulate?

The analysis will be conducted within the discussed theoretical framework and focus on reputation in corporate social responsibility and reactionary commitments in the wider discussion. Based on the theoretical framework, political interests and economic objectives will be regarded as the independent variables which affect corporate self-regulating behavior as the dependent variable. The public choice perspective of the research will assume perfect rationality within players and utility maximization in an environment characterized by political and economic tension as the corporations' objective. The empirical case will be guided by two hypotheses which are postulated based on the discussed theoretical framework:

- (1) Corporate self-regulation in form of standards and monitoring will be motivated by political opposition and hampered by financial pressure.
- (2) The examined downstream petroleum corporations will self-regulate with strong focus on the energy transition and environmental protection.

Since the discussed issues of reputation, regulatory risk, corporate social responsibility, and reactionary corporate behavior are inherently intangible and difficult

to quantify, the research will be conducted in a qualitative manner and in the awareness of the possible inaccuracy in anticipating the economic costs of these issues.

3.3 Research Model

The research methodology will be based on the discussed model of self-regulation proposed by Baumeister and Vohs (2007). The model analyzes self-regulation based on psychological processes and divides them into four categories: *standards*, *monitoring*, *willpower*, and *motivation*. The theoretical framework illustrated the adaption of the model from human behavior to corporate behavior with help of macro- and microeconomic theories of self-regulation. The research will collect information for each category of self-regulation from the corporations' main public statements (corporate code of conduct, annual reports, and sustainability reports) and elaborate it in profiles for each corporation (cf. appendices 1-6). The qualitative analysis will draw on the collected information and display the relevant data appropriately. In general, the data research will follow the categories of self-regulation in the following manner:

3.3.1 Standards

Standards constitute one of two parts of the dependent variable of self-regulation and indicate the preferred behavior an individual seeks to achieve within the self-regulatory act. In context of corporate self-regulation, the preferred standards will be visible in the corporation's public self-regulation commitments. The following policy areas are predominantly discussed in academic literature regarding corporate self-regulation and will be in the focus of this research:

- environment and sustainability,
- human rights and labor rights,
- finances and taxation,
- workplace safety,

- anti-corruption and anti-bribery, and
- diversity.

To assess the extent of the self-regulatory commitment, the varying degree will be categorized as the corporation not mentioning the specific policy area, adherence according to national law, and adherence according to international standards. The commitments will be generally evaluated for being formulated broadly, indicating weak commitment, or specifically, indicating strong commitment.

3.3.2 Monitoring

Monitoring constitutes the second part of the dependent variable of self-regulation. Monitoring processes ensure the individual's mid- to long-term commitment to selected self-regulation. At corporations, the extent of monitoring procedures will be indicated by

- the internal position assigned monitoring responsibility, and
- the type and frequency of external publications on voluntary commitments.

With increasing importance in hierarchy (not assigned, internal/external audit, legal department, compliance officer/ethics committee, CEO/CFO/COO, or board of directors³), the long-term commitments will be deemed to be enforced more thoroughly.

3.3.3 Willpower

The individual's extent of *willpower* to correct mismatches between actual and expected behavior will determine if individuals ultimately control internal urges and self-regulate their behavior. In the case of corporations, the willpower will be characterized by the intensity of financial pressure on corporate operations and non-monetary interests

³ Inspired by the methodology in Giavazzi (2014).

within the shareholder group. Therefore, the components to be examined and to establish the independent variable of willpower in the individual corporations will be:

- revenue and profit for the most recently concluded calendar year (2017), and
- the corporation's main shareholders and their objectives.

3.3.4 Motivation

The category of *motivation* in individuals refers to the stimulus which incentivizes humans to self-regulate their behavior. In the context of corporate behavior, the motivation to self-regulate derives from the political environment and expected threats from the regulating entity. The empirical analysis will examine the independent variable within the political environment of the EU member states whose EEZ will be affected by the Nord Stream 2 project by collecting the following data:

- the geographical location of Nord Stream 2 operations and the investing corporations' headquarters,
- the country's percentage contribution to the EU gross domestic product (GDP) establishing relational national economic power,
- the country's energy import dependence in general and specifically gas establishing economic interest in the Nord Stream 2 project, and
- the country's environmental performance index indicating national commitment to fighting climate change.

3.4 Limitations

The reader should be aware of certain limitations which will apply to this research:

Anthropomorphism

Attributing human traits, emotions, and intentions to business entities can be difficult in the sense that corporate behavior is not equated to human behavior in some schools of thought of moral philosophy. However, from the perspective of law, corporations are

equated to humans as legally independent, responsible, and liable. Like human beings, corporations will seek to maximize their economic utility. Although corporations are social communities, corporate motives are largely independent from individual motives and emotions through the separation of management and ownership. Thus, the examined corporations will be assessed as independent individuals affected by their circumstances as much as human individuals according to Wilmot (2001).

Partly exclusion of political environment of investing corporations

All investing corporations are headquartered in the EU, and most of them concentrate on the EU market for their downstream activities. Analyzing each individual political environment that the investing corporations operate in would not be in the interest of the research. The empirical analysis will instead focus on collecting information about the member states affected by the Nord Stream 2 project and supply additional information if one of the countries with corporate headquarters are specifically involved.

External communication

Although self-regulation occurs in both external and internal corporate behavior, the analysis will focus exclusively on the external communication of the examined corporations. As stated above, public information on the downstream energy sector is widely available and accessible, providing an adequate analytical foundation. The analysis will deliberately exclude any lobbying efforts of the individual corporations from the analysis. Although lobbying constitutes a part of the active engagement between corporations and their respective legislative environments, the activity not be deemed a part of corporate self-regulation.

4 EMPIRICAL ANALYSIS

The empirical analysis will examine corporate self-regulation in the executing and investing corporations of the Nord Stream 2 project. First, the current situation of the Nord Stream 2 project will be outlined. Secondly, the analysis will examine the proposed variables according to the psychological model of self-regulation (Baumeister and Vohs, 2007). The dependent self-regulation variables of *standards* and *monitoring* will be based on qualitative findings in the public behavior of the examined corporations, and the independent variables of *motivation* and *willpower* will be based on information from the corporations' political and the economic environment, respectively. The empirical insights will be structured by contrasting the executing Nord Stream 2 AG with the investing corporations Uniper, OMV, Wintershall, ENGIE, and Shell. The objective will be to provide extensive qualitative data on self-regulation of all involved corporations to, subsequently, enable a comprehensive discussion of the theoretical and practical nature of self-regulation within the petroleum sector generally and within Nord Stream 2 particularly.

4.1 Nord Stream 2

The Nord Stream 2 projects entails the construction and operation of two offshore pipelines which will transport natural gas through the seabed of the Baltic Sea from the St. Petersburg Region in Russia to Lubmin on the Northeast coastline of Germany. The pipeline will be approximately 1,200 kilometers long and able to transport a yearly maximum capacity of 27.5 billion cubic meters (bcm) of natural gas per pipeline (Nord

Stream 2, 2017a). The project management argues that the imported gas will compensate for falling gas production in the EU and facilitate connection to Russia's gas reserves in the future (OECD/IEA, 2018). The gas pipelines will be installed on a similar Baltic Sea route as the active Nord Stream twin pipelines crossing the national territory of Russia, Finland, Sweden, Denmark, and Germany. The Nord Stream pipelines carry a combined amount of 55 bcm of natural gas a year from Russia to EU territory, the same gas supply anticipated for the Nord Stream 2 pipelines. The Nord Stream project was implemented by the corporation Nord Stream AG, the predecessor to the Nord Stream 2 AG operating the current project, and the pipelines have been in operation since 2011 and 2012, respectively. If construction of the Nord Stream 2 pipelines commences in 2018 as planned, the gas transmission from Russia to the EU through the Baltic Sea will be doubled by the end of 2019. (Nord Stream 2, 2017a).

Picture 1: Proposed Nord Stream 2 pipeline route (green) alongside Nord Stream pipeline route (blue),
Source: Nord Stream 2 (2017b: 7).



The main difference between the two projects lies in their respective ownership structure. Gazprom owns 51 percent of the Nord Stream project, Wintershall and PEGI 15.5 percent, respectively, and ENGIE and N.V. Nederlandse Gasunie nine percent,

respectively (Nord Stream, 2018). The current Nord Stream 2 project is completely owned by Gazprom as the sole shareholder of the Nord Stream 2 AG which is responsible for construction and operation of the pipelines. The corporations Uniper, OMV, Wintershall, ENGIE, and Shell do not hold any shares in the business endeavor. Instead, the five European corporations signed a financing memorandum with Gazprom. Each corporation will contribute ten percent of the predicted construction costs to the project (ENGIE, 2017a; OMV Aktiengesellschaft, 2018a; Shell, 2017a; Uniper SE, 2017a; Wintershall, 2017a). In the beginning of 2018, the total costs were anticipated to amount to a total of €9.5 billion. Thus, each corporation's commitment will add up to €950 million with a mix of 30 percent owner's equity and 70 percent bank loans with corporate underwriting until the end of the anticipated construction phase in 2019 (Gazprom, 2017).

The political discussion surrounding the Nord Stream 2 project has been controversial at best and passively hostile at worst with Russia and Germany supporting and Denmark and the European Commission opposing the construction. At the same time, the financial uncertainty associated with the project has set the investing corporations' teeth on edge. With the theoretical discussion of self-regulation in mind, the empirical analysis will examine the self-regulative behavior of the executing Nord Stream 2 AG and the investing corporations in this tense political and economic environment. The empirical findings will be contrasted between the executing Nord Stream 2 AG and the investing corporations Uniper, OMV, Wintershall, ENGIE, and Shell within each category elaborated in the psychological model of self-regulation: *standards*, *monitoring*, *willpower*, and *motivation*. The elaborations will place emphasis on the findings related to Nord Stream 2 AG and select appropriate examples from the investing corporations to showcase similarities and differences.

4.2 Standards

The selected corporations were examined for their commitment to self-regulation in respect to environment and sustainability, human rights and labor rights, finances and taxation, workplace safety, anti-corruption and anti-bribery, and diversity (table 1).

Although both Nord Stream 2 AG and the investing corporations rely on international frameworks for guidance, the most striking difference is the extent and specificity of addressed policy area.

Table 1: Self-regulation standards in examined corporations,

Source: Author's own elaborations based on corporate profiles (cf. appendices 1-6: 'Standards').

	Environment / Sustainability	Human rights / Labor rights	Finances / Taxation
Nord Stream 2	Espoo convention	not mentioned	not mentioned
Uniper	German CSR Directive Implementation Act, German Commercial Code, SDG, World Bank Zero Flaring Initiative	Universal Declaration of Human Rights	national law
OMV	Austrian law, Paris Agreement, CDP Climate Change, SDG	UN Guiding Principles on Business and Human Rights, UK Modern Slavery Act	national law
Wintershall	Paris Agreement, World Bank Zero Flaring Initiative	Universal Declaration of Human Rights, ILO's core labor standards	not mentioned
ENGIE	Paris Agreement, SDG, Green Bonds market	UN Global Compact, French Transparency International, Extractive Industries Transparency Initiative	not mentioned
Shell	Paris Agreement, World Bank Zero Flaring Initiative, SDG	Universal Declaration of Human Rights, ILO conventions, UN Guiding Principles on Business and Human Rights, collaboration with Danish Institute for Human Rights	national law, collaboration with NGO 'The B Team'

Table 1 continued.

	Workplace safety	Anti-corruption / Anti-bribery	Diversity
Nord Stream 2	international H&S standards	not mentioned	not mentioned
Uniper	international H&S standards	SDG, internal standards	SDG, German law, Corporate Diversity Charter Germany
OMV	international H&S standards	OECD Anti-bribery Convention, UK Bribery Act	internal standards
Wintershall	international H&S standards	international standards	internal BASF standards
ENGIE	international H&S standards	international standards, ISO 37001 Anti-Bribery Management Systems	internal standards
Shell	international H&S standards	UN Global Compact, OECD Guidelines for Multinational Enterprises	internal standards

4.2.1 Environment

Nord Stream 2 AG emphasizes legal compliance and environmental issues in all its public statements (Nord Stream 2, 2018b). Exemplarily, the corporate management developed a specific conservation strategy for the Russian Kurgalsky nature reserve “in line with international best practice” and in cooperation with environmental experts and NGO (Nord Stream 2, 2018c). Environmental studies of the region have concluded that the pipelines will not affect the biodiversity of the region, but the corporation will seek to develop an action plan which will “enable (the corporation) to meet its obligations to international environmental standards compliance”. (Nord Stream 2, 2018b)

Nord Stream 2 AG also underlines its commitment to the Espoo process which regulates the environmental impact assessment in cross-border projects (United Nations,

2018a). The Espoo convention was signed by Germany, Denmark, Sweden, and Finland in 1995 (ibid.). The accurate preparation of the environmental assessment according to these international standards holds much value in the consultation phase before the actual construction and operation phase. Nord Stream 2 AG's continuous employment of Ramboll Finland to mitigate further environmental issues like underwater noise illustrates the corporation's willingness to self-regulate its environmental impact according to the specific inter-country requirements (Nord Stream 2, 2018d).

Support for local environmental projects is also common among the investing corporations with, as an example, Shell (2018a: 48) supporting bird surveys in Oman. But more generally, the investing corporations draw on international frameworks to guide their self-regulation regarding their impact on the environment as well (cf. appendices 2-6). The United Nation (UN) Sustainable Development Goals (SDG) concerning the objectives of affordable and clean energy and climate action are cited by four out of the five investing corporations, and another widely referenced UN initiative is the COP 21 Paris Agreement of 2015 regarding the global reduction of CO₂-emissions (cf. table 1). OMV, Wintershall, and Shell are also engaged in the World bank initiative "Zero routine flaring by 2030", but the list of projects, indices, and commitments aimed at environmental and climate action is comparatively extensive (cf. appendices 2-6: 'Environment / Sustainability'). The issues indicate a high willingness to self-regulate at first sight, but when examining the commitments in-depth, they remain at the surface of the issues and only become more specific in two of the investing corporations.

The only issue thoroughly addressed in all external communication of the investing corporations is their commitment to the global energy transition (ibid.). Most of corporate communication which could be deemed self-regulation revolves around the issue of reducing CO₂-emission and investing in renewable energy projects. The incentive behind focusing on this topic is clearly communicated by the individual corporations: The reputational risk inherent to operating in the petroleum industry and the possibility of tarnishing the corporate brand with irresponsible behavior would affect all corporate relationships from new investments and public relations to work force and business-to-business activities. OMV clearly states its objectives of supporting the energy transition as a business opportunity to "(1) gain access to new resources, (2) create a win-win situation for society, the environment and the Company, (3) secure social acceptance

of the business operations, (4) attract best employees, contractors, and investors” (OMV Aktiengesellschaft, 2017a: 3). ENGIE similarly cuts right to the chase of the matter with its corporate social responsibility objective “(...) to secure (the corporation’s) role as a leading stakeholder of the energy transition and associated services beyond energy” (ENGIE, 2017a). The reputational risk associated with the investment in traditional petroleum projects has already incentivized Uniper to refrain from investing in new coal-fired power plants and phasing out their current coal investments (Uniper, SE 2018: 102-103).

4.2.2 Other Categories

Aside from the environmental self-regulation commitments, most other policy areas such as diversity, human rights, taxation, and anti-corruption, are not directly addressed in the official communication of Nord Stream 2 AG (cf. appendix 1). This fact does not imply that the management does not care about these issues. However, the absence of publicized self-regulation commitment in those areas indicates that they are not deemed relevant to corporate operations at this point. The official communication of Nord Stream 2 touches on one other issue: work safety. During the construction and operation phases of the pipelines, “the highest international safety standards” (Nord Stream 2, 2018b) will be employed in order to ensure “safe and reliable” procedures. The commitment to the non-binding, international Health, Safety, and Environment standards can be viewed as a self-regulative measure on behalf of labor safety and was already in place during the construction of the previous Nord Stream pipeline. The investing corporations show similar intention to improve workplace safety at their petroleum sourcing and transportation sights (cf. appendices 2-6: ‘Workplace safety’). The prevention of death and injury cases remains an important issue as reputational risk can only be managed holistically when applied in all operations, and industrial standards and sharing best practice has become the norm (Shell Global, n/a).

Since reputation is an intangible asset, intangible issues in form of human rights, ethics grey zones, and the risk of corrupt behavior in the workforce are addressed in the

corporate self-regulation statements as well (cf. appendices 2-6: 'Standards'). The investing corporations refer to international frameworks, as, for instance, the Universal Declaration of Human Rights or ILO conventions. The fact that the mitigation of financial risks remains at the center of the investing corporation's strategy (Shell Global, 2018a) becomes evident when examining corporate self-regulation in the policy areas of taxation (cf. appendices 2-6: 'Taxation') and diversity (ibid.: 'Diversity'). The standards in the two intangible policy areas often remain weakly defined and will be usually implemented in accordance with country-specific law or internal standards without clear methods. Exemplarily, only Uniper refers to a specific diversity charter whereas the other four investing corporations remain unclear on how their self-imposed diversity objectives will be ultimately achieved (ibid.). The same holds true for the taxation strategy of the investing corporations with two of them refraining from mentioning their taxation strategies at all and the other three corporations stating that they will comply with appropriate national taxation laws (cf. table 1).

4.3 Monitoring

The analysis of the corporation's monitoring standards uncovered two main findings: the corporations' use of international frameworks to guide the content of their non-mandatory standards and the widespread absence of clear measurements and sanctions concerning non-compliance with voluntary commitments.

Table 2: Monitoring in examined corporations,**Source: Author's own elaborations based on corporate profiles (cf. appendices 1-6: 'Monitoring')**

	Internal responsibility	Method	Publication	
			Type of report	Frequency
Nord Stream 2	not publicly assigned	Internal best practice from Nord Stream AG	-	-
Uniper	Supervisory Board, Executive Board, Chief Sustainability Officer	GRI Standards, German Commercial law, internal review	annual financial report, sustainability report	biannually
OMV	Supervisory Board, Executive Board, Chief Compliance Officer	GRI Standards, Austrian Code of corporate governance, internal and external review	annual financial report, sustainability report'	annually
Wintershall	Executive Board, Chief Compliance Officer	internal review	sustainability report	annually
ENGIE	Board of Directors, Chief Executive Officer, Green Bond Committee	GRI Standards, internal and external review (specific focus on SRI)	Integrated financial and sustainability report, corporate social responsibility policy	annually
Shell	Board of Directors, Executive Board, Corporate and Social Responsibility committee	GRI Standards, internal review (Report Review Panel)	sustainability report	annually

4.3.1 International Frameworks

International frameworks are referred to in context of the official disclosure of non-mandatory corporate information at all examined corporations (cf. appendices 1-6: 'Standards')). Nord Stream 2 AG prepared its environmental analysis according to the multilateral Environmental Impact Assessment (EIA) framework and received an award from the Finnish Association for Impact Assessment for its environmental report (Nord Stream 2, 2018d). The transparent handling of the process can be attributed to the

Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, also known as The Aarhus Convention (European Commission, 2017a). The European Commission signed this convention into law to facilitate public access to information about environmental projects. Since nature constitutes a collective good to society, the procedure ensures that the effect of negative externalities will be limited in new projects concerning natural environments.

Additionally, Nord Stream 2 AG publicizes its stakeholder engagement plans for four out of the five EU member states whose EEZ will be affected by the pipeline project (Nord Stream 2, 2017b, 2017c, 2017d, 2017e). The individual engagement plans are structured similarly: Under the engagement process, the corporation commits itself to comply with national regulatory requirements, requirements of the internal conventions, as well as the International Finance Corporation Performance Standards in each of the countries. Each document concludes with the identification of possible stakeholders, information about public hearings, and a detailed public and governmental information and engagement plan.

The corporation's formulated intention to invite non-governmental environmental organizations to join the consultation process shows the corporation's willingness to engage in more extensive discussion. The corporation explains the monitoring procedure as part of its stakeholder engagement plans (exemplary, Nord Stream 2, 2017d: 40), but it does not include clear formulations for the monitoring process of its commitments following the end of the consultation phase. The corporation regularly publishes economic and environmental documents concerning the Nord Stream 2 pipelines but fails to specify which person within the corporate structure or at an external institution will be responsible for ensuring the commitments (Nord Stream 2, 2017f). The corporation has not expressed its intent to publish a regular report on its environment and economic commitments which would have addressed the credibility issues and improved long-term interaction with civil society.

Like Nord Stream 2 AG, the investing corporations refer to international reporting frameworks for their non-mandatory disclosure. Four out of the five corporations use the Global Reporting Initiative (GRI) standards to guide the reporting and membership with the UN Global Compact Standards is common (cf. appendices 1-6: 'Monitoring'). But

even within the standardized reporting GRI structures, there can be found differences in the corporations' approaches. For example, Shell and OMV choose to report in line with the more specific GRI G4 Oil and Gas sector supplements whereas Uniper G4 relies on the GRI Standard 103 guideline (ibid.). The corporations also refer to a range of different industry associations, such as the International Association of Oil & Gas Producers (Shell Global, 2018a) which provide their corporate members with different requirements (Shell, 2018a). Uniper even instated an internal task force on climate-related financial disclosure to ensure the monitoring of its energy transition commitments (Uniper SE).

4.3.2 Transparency

At first sight, the voluntary commitments seem to be supported by stable monitoring. External assurance and independent reviews are a part of all corporations' monitoring processes. Some of the corporations opt for external assurance by consulting companies (cf. appendices 2-5, 'Monitoring'), and Shell appoints an independent report review panel which comments on the corporate sustainability report (cf. appendix 6: 'Monitoring'). The corporations clearly attribute responsibility for enforcing their voluntary commitments within their corporate structures, and all of them include the board of directors into the monitoring process (table 2). However, when examining the intricate details of the corporate monitoring approaches, the metrics and processes used to measure their implementations are non-transparent at four out of the five examined corporations. Shell's independent report review panel points out that the focus on successes rather than risks or failures in the corporate sustainability report means that the depth of the commitments remains shallow despite referencing international frameworks (Shell, 2018a: 8-9).

Best practice could be observed in the OMV sustainability report which showcased the corporation's successes and failures concerning its commitment objectives measured against the previous year (cf. appendix 3: 'Monitoring'). But even at OMV, the missing transparency concerning the commitments becomes clear when examining the monitoring processes for clear sanctions. None of the surveyed corporations state clearly

how non-compliance with voluntary commitments will be sanctioned and resorted to internal rather than public proceedings in cases of non-compliance (cf. appendix 2-6: ‘Monitoring’). Even though the investing corporations showcase more detailed voluntary commitments and attribute responsibility within the corporate structure appropriately, the clear long-term credibility of their commitments remains as undefined as at Nord Stream 2 AG.

4.4 Willpower

A “strong financial foundation” (Shell International Limited, 2014: 4) and overall “good financial health” (ENGIE, 2018a: 28) will be necessary for the corporations to be able and willing to dedicate resources to voluntary self-regulation. Corporate efforts to ensure responsible behavior and contribute to investment in sustainable products outside of legally enforced regulation will only be financially viable if they are financed with available resources and contribute to overall profitability. Since self-regulation addresses long-term and mostly intangible assets, prioritizing self-regulation under financial pressure cannot be deemed a rational corporate activity. The analysis of the independent variable *willpower* and its effect on self-regulation in the examined corporations showcased two findings: (1) Low petroleum trade prices increased the financial pressure on all corporations, meaning fewer resources were available to be dedicated to voluntary self-regulation commitments, and (2) all of the surveyed corporations deem self-regulation, especially concerning the energy transition, to be a contributing factor to long-term profitability.

4.4.1 Economic Environment

The profitability of international petroleum corporations has been strongly affected by low oil and gas prices. Since the oil price dropped from \$100/barrel in 2014 to \$30/barrel in early 2016 (OECD/IEA, 2017), prices have stabilized around \$40-50 and

steadily increased in the second half of 2017 (Nasdaq, 2018b). With the first half of 2018 coming to an end, the price remains stable around the \$60-65 mark (ibid.). Due to the linkage between oil and gas prices, the volatility has also affected the profitability of gas trade and placed an even heavier financial burden on petroleum corporations (OPEC, 2018). The examined corporations struggled to reach the break-even point in their petroleum sourcing throughout 2015 and 2016, but strategic adjustments like investment in petroleum sourcing in low-production-cost fields and stronger partnerships with foreign corporations helped to stabilize revenue and profit streams as early as 2017 (table 1). One exception within the investing corporations is Uniper. The corporation was only founded in 2015 and has been engaged in fending off a hostile take-over bid by Finnish energy corporation Fortum (Uniper, 2018: 3; 2017b).

Table 3: Profit and revenue streams of investing corporations in 2016 and 2017,

Source: Author's own elaborations based on corporate profiles (cf. appendices 1-6).

	Revenue 2017	Profit 2017	Revenue 2016	Profit 2016
Nord Stream 2	-	-	-	-
Uniper	€72,745 million	€-538 million	€67,285 million	-€3,234 million
OMV	€20,222 million	€853 million	€19,260 million	€183 million
Wintershall	€3,244 million	€719 million	€2,768 million	€362 million
ENGIE	€65,029 million	€2,238 million	€64,840 million	€163 million
Shell	€254,040 million*	€11,184 million*	€194,448 million	€3,977 million

*lower depreciation and amortization and lower exploration expenses

Generally, the default risk for Nord Stream 2 receivables is perceived as lower than comparable investments by Uniper which indicates trust in the project's financial stability (Uniper SE, 2018a: 59). Since Nord Stream 2 AG does not publish an annual financial report, the current expenses and predicted profitability of the gas pipeline project cannot be determined based on public material.⁴ Uniper and Wintershall disclosed that

⁴ Future publications of annual reports cannot be expected since Nord Stream AG has never published annual reports either.

€285 million and €324 million, respectively, of their individually pledged €950 million has been withdrawn by the corporate management of Nord Stream 2 AG (ibid.: 34; Wintershall, 2018a: 10). Based on the publicly available information, no general assumption of the investment flows can be made except for that the project is progressing with its €8 billion investment in the current state of the gas market (Nord Stream 2, 2017a).

4.4.2 Energy Transition

The economic environment of the examined petroleum corporations has been evaluated as recovering at the current moment. Therefore, investing in voluntary self-regulation cannot be deemed a rational choice since the restrictions will likely hamper the corporations' financial recovery by occupying resources and limiting business opportunities. As a prerequisite for corporate self-regulation, voluntary commitments will have to contribute to the overall maxim of profit maximization to be considered an economically rational choice. As mentioned in the theoretical framework, the intangible assets of reputation and first-mover advantage will affect long-term profitability positively and incentivize the corporations to engage in self-regulation (Williams, 2004). The collected data indicates that these intangible assets play an important role in the current business strategy of Nord Stream 2 and the investing corporations. Their corporate focus relies heavily on positioning the corporate brand as favorable with regulators as possible and embracing voluntary self-regulation measures as part of serving changing energy demands in context of the energy transition (appendix 2-6).

The corporations involved in the Nord Stream 2 project go far in elaborating the importance of a favorable reputation for the long-term profitability of their operations. OMV states that CSR will help the corporation to “maintain (the company’s) license to operate and secure the social acceptance of (the company’s) operations” (OMV Aktiengesellschaft, 2017b: 3). Even Shell, a corporation notoriously known for the heavy environmental pollution of the Nigerian Ogoniland (Shell Nigeria, 2018), emphasizes its commitment to sustainability in its corporate responsibility communication (Shell, 2018a:

4). The mentioned matter of fact that their corporate self-regulatory standards lack specific long-term measurements and sanctions within the monitoring process underlines the public relations approach behind many of the voluntary commitments. Financial utility within a recovering economic environment will be ultimately maximized if the self-regulatory commitments only interfere with business operations as much as scrutiny threatens to expose irregularities.

A slightly different approach can be observed in the corporations' self-regulation regarding the energy transition. With national governments embracing less CO₂-intensive energy mixes, the corporations have come to understand that focusing on the environment and sustainability constitutes a market opportunity (ENGIE, 2018a: 8-16; Wintershall, 2017b: 23). By positioning their voluntary commitments in line with the increasing demand for less environmentally harmful energy products, the corporations will be able to improve their reputation as well as serve the future energy market better. All of the examined corporations heavily emphasize the contribution of their gas products in ensuring energy security within the EU market and achieving the new CO₂ targets (cf. appendices 2-6: 'Standards'). Similar to the other corporations, ENGIE indicates its transition to sustainability generated energy which will help combat long-term climate change (cf. appendix 5). But the investing corporation takes its self-regulatory approach one step further than all other examined corporations: The investing corporation proclaims its commitment to the Green Bonds Market to finance its energy transition projects which will focus on wind, solar, and hydroelectricity (ENGIE, 2018b: 29). Instead of perceiving self-regulation solely as a commitment benefiting society, the corporations openly acknowledge the opportunity for financing its shifting strategic focus in the long-term. The corporate strategy of conceiving the energy transition a business opportunity shows the importance of financial incentives for self-regulation and holds many interesting aspects for further discussion. But before continuing to the discussion, the general political environment of the Nord Stream 2 project will be examined in order to understand the complete picture of the factors influencing corporate self-regulation in the Nord Stream 2 project.

4.5 Motivation

In the context of corporate behavior, the main source of *motivation* to self-regulate derives from the immediate political environment and the persistence of regulatory threats. General political opposition to the petroleum industry and specific resistance to the Nord Stream 2 project will likely impede the operations of the examined corporations. Self-regulation in favor of the political actors' interest would be a rational response to avoid further regulatory risks. Within the political environment of Nord Stream 2, political interest revolves around the issues of EU energy dependence on Russia and energy mix changes within the context of action against climate change. Both issues motivate Nord Stream 2 and the investing corporations to self-regulate, with the former focusing on the foreign relations aspect and the latter seeking out market opportunities in the energy transition.

4.5.1 Political Environment

Political opposition towards the construction of Nord Stream 2 has been steadily increasing, and discussion of the proposed project has taken on a strong political nature (cf. appendix 1: 'Motivation'). The first political argument against the pipelines is the continuing conflict between Ukraine and Russia and Russia's power in avoiding Ukraine as a transit route for gas once Nord Stream 2 has come into operation (Reuters, 2018a). Secondly, the Polish government and then-U.S. Secretary of State Rex Tillerson strongly criticized the project for its impact on EU energy independence (Tagesschau, 2018). Their main opposition centers on the increased supply of Russian gas to the EU market which could destabilize EU security and energy independence (Reuters, 2018b). The issue of energy independence has been hotly debated with the involvement of the Polish Office of Competition and Consumer Protection on request from Polish government as the latest political measure (UOKiK, 2018). Vice-President for the Energy Union Maroš Šefčovič stated that "Nord Stream 2 does not contribute to the Energy Union's objectives" (European Commission, 2017b). When the organization sought a mandate to negotiate the key principles of the Nord Stream 2 project (Riley, 2016), the German government

assessed the involvement as outside of the Union's area of competence since the initial Nord Stream project had been executed under national law (Süddeutsche Zeitung, 2017; Bloomberg Markets, 2017). Whereas the European Commission distinctively mentioned a possible "legal void" or "the domination of (Russia's) energy laws" as reasons for its intervention (European Commission, 2017b), an EU legal opinion issued in March 2018 rejected the EU's assessment and deemed the involvement of the EU in the project of Nord Stream 2 to be in breach of the UN Convention on the Law of the Sea (Reuters, 2018c).

The UN Convention on the Law of the Sea defines international and national law in the continental shelf and open-water bodies called exclusive economic zones (EEZ). Part V, article 56 (1) of the convention states that "in the exclusive economic zone, the coastal State has (...) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources (...)" (United Nations, 2018b). Article 75 defines the range of the EEZ as maximum 200 nautical miles from the coast of the respective state. The exclusive rights of the state are extended under article 59 "to authorize and regulate the construction, operation and use of (...) (b) installations and structures for the purposes provided for in article 56 and other economic purposes" (ibid.). Regarding Nord Stream 2, the definition of an EEZ is of specific importance. Based on the UN convention, the EU member states whose EEZs are affected by the pipeline construction and operation have the sovereign right to deny Nord Stream 2 AG the commercial use of their territories and denies competency to the EU. Therefore, although the examined corporations are headquartered in five different European countries (Nord Stream 2 AG in Switzerland, Uniper and Wintershall in Germany, OMV in Austria, ENGIE in France, and Shell in the Netherlands), the immediate political environment of the Nord Stream 2 project will be shaped by the affected EU member states of Finland, Sweden, Denmark, and Germany (cf. appendix 1).⁵

⁵ The EEZ of Russia will also be affected, but the country has been excluded from the research as elaborated in the methodology section.

4.5.2 Political Interest

Within the group of affected EU member states, Denmark and Germany stand out based on their respective opposition and support to the Nord Stream 2 project. The political opposition in the Danish senate has already led to tension with the Russian government (EUobserver, 2017). The law proposal L43 of the Danish parliament led to a change in Danish national law requiring permission from the energy, security, and environment ministry to build “certain pipelines (*visse rørledningsanlæg*)” (Folketinget, 2017) in Danish national territorial waters (Energi-, Forsynings- og Klimaministeriet, 2017). The delays in the permitting process based on this sudden legal change has raised questions of symbolic politics towards Russia (Energi-, Forsynings- og Klimaudvalget, 2017-18; Energistyrelsen, 2017; Altinget, 2017). In contrast to the Danish opposition, the German government has been traditionally supportive of the Nord Stream 2 project. The government’s interest in becoming the energy hub for Russian gas through the Baltic Sea has shaped the country’s political support ever since the construction and successful operation of the Nord Stream pipelines (Die Bundesregierung, 2018). In April 2018, German chancellor Angela Merkel voiced her concerns regarding the Russia-Ukraine gas disputes and the political nature of the Nord Stream 2 project (Reuters, 2018b). At the same time, Nord Stream 2 AG had already received all necessary permits from the German government in March 2018 which, overall, confirms governmental support for the gas pipeline project (Nord Stream 2, 2018a). Germany can be considered an economic heavyweight within the EU compared to Denmark and wields great influence within the EU based on its economic power (Eurostat, 2017a). However, due to the UN Convention on the Law of the Sea, both member states have a veto right in the Nord Stream 2 project and should be considered for their political interest.

Table 4: German and Danish political interest regarding energy and environmental policy,
Source: Eurostat (2017a, 2017b); Yale University (2018b).

	Share in EU GDP (%)	Energy import dependence		Environmental Performance Index	
		General (%)	Gas (%)	Value (out of 100)	Place (out of 180)
Denmark	1.9	13.9	-44.4	81.60	3
Germany	21.1	63.5	88.6	78.37	13

Surveying the political environments of Germany and Denmark showed striking differences in the countries' dependence on energy and specifically gas imports and environmental standard. Germany has been seeking to push the agenda of the Nord Stream 2 project from the beginning. This does not come as a surprise when examining the country's current and future energy mix. With 63.5 percent of energy imports, Germany heavily depends on foreign energy sources. Compared to Denmark with only 13.9 percent of imported energy, the dependency is quite distinct. When inspecting the specific dependency on imported gas, the picture becomes even clearer: Germany depends heavily on gas imports to meet its national energy demands). In contrast, Denmark consistently exports gas and will likely not benefit from increased gas imports to the EU. (Eurostat, 2017b) Nord Stream 2 might even hamper the export of Danish surplus gas to one of its main buyers, Germany (ICF International, 2012: 32-33).

The examined corporations see the main regulatory risk in the CO₂-market and the country-specific interests (cf. appendices 2-6; ENGIE, 2018a: 37). Balancing environmental and economic objectives has led to policy challenges in Germany and Denmark, but both states show a strong commitment to environmental protection. In the Environment Performance Index (Yale University, 2018b), both rank in the top 20 out of 180 surveyed countries and Denmark stands out with exceptionally high scores. Regarding the means to counteract climate change, the Danish and the German government show clear differences in the preferred national energy mix. Denmark seeks complete independence of coal, oil, and gas resources by 2050 and has been reducing its CO₂ emissions drastically (Energistytelsen, 2018; Retsinformation, 2016). Germany, on the other hand, will support medium-term changes in the national energy mix with imported gas in the future while searching for more sustainable and renewable energy alternatives (Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit, 2005).

The strong focus on decarbonization and stricter climate protection regulations in European core markets poses a regulatory risk specific to the involved corporations. The risk will be two-fold: Stricter climate-protection policies in the main European markets will pose a financial and reputational risk for petroleum corporations and continuous investment in environmentally unfriendly energy sources will likely deter institutional investment (Uniper, 2018a: 96-10; ENGIE 2018a: 37). The first risk affects the

corporations equally, and self-regulation regarding CO₂-emission can be seen in all of the investing corporations. All the examined corporations emphasize their contribution to reducing CO₂-emission through their product portfolio and emphasize their commitment to shifting their sourcing and distribution focus to gas (cf. appendices 1-6: 'Standards'). The corporations argue that replacing coal with natural gas will enable the EU member states to achieve their collective environmental and climate change targets. The economic claim made by Nord Stream 2 AG exemplarily states that the new gas transportation line between Russia and Germany "would save about 14 percent of total EU CO₂ emissions" (Nord Stream 2, 2017a).

The second risk will be more specific to energy corporations with a stronger reliance on institutional investors in their ownership structure like OMV and ENGIE (cf. appendices 3 and 5: 'Willpower'). Their motivation to self-regulate and shift their business focus according to political interest is even more pronounced than at the other corporations which are predominantly privately held or corporate subsidiaries. The allocation of ENGIE's earnings from its share buyback program to employee saving schemes is a recent example of an institutional investor exerting its influence on the corporate strategy (ENGIE, 2017b). The direct influence of stakeholders on corporate behavior can also be observed in Nord Stream 2 AG addressing the Ukrainian gas transit system (Nord Stream, 2017g). The heated discussion of the Nord Stream 2 project aiding Russian foreign interest, first and foremost, has put the corporation under pressure to address the criticism and take a stand on the issue.

5 DISCUSSION

After analyzing the corporate self-regulation of Nord Stream 2 AG and the investing corporations according to the four psychological self-regulation categories, the discussion will now turn to the interpretation of the empirical findings. The most common sources of self-regulation within the examined petroleum corporations were corporate standards of conduct and compliance codes for general guidance as well as corporate social responsibility reports for specific self-regulation information (cf. appendices 1-6: ‘Main sources of public information’). Some corporate commitments were first assumed to be self-regulation when, in fact, the behavior was prescribed by international conventions with the affected national governments as signatories. The need for a holistic understanding of the examined industry and associated national and international regulation before progressing with the empirical data collection became apparent. The research showcased the financial self-interest behind all forms of corporate self-regulation and supported the economic assumption of utility maximization as the main corporate objective. Factors found to influence corporate utility were reputational and regulatory risks as well as market opportunities arising from first-mover advantages. The empirical findings were in line with the discussed theoretical framework, but the use of international frameworks and the idea of self-regulation through green bonds stood out within the research. As seen in the corporate self-regulation of investing corporation ENGIE, the green bonds market seeking to advance both social and corporate interest might be a viable strategy to overcome the credibility problems associated with corporate self-regulation in the international petroleum industry (cf. appendix 5). The section will discuss the empirical findings in the categories *standards* and *monitoring*, set them into context with help of the independent variables *willpower* and *motivation*, and conclude by showcasing the possibility of combining societal and corporate interest in the form of green bonds in the petroleum sector.

5.1 Standards

In line with Baumeister and Vohs (2007: 3), the corporate standards and CSR statements of the examined corporations showcased the ideal behavior the corporations aspire to abide by. The theoretical framework had anticipated self-regulation in a wide array of issues; environment and sustainability, human rights and labor rights, finances and taxation, workplace safety, anti-corruption and anti-bribery, and diversity (OECD, 2001; OECD, 2011). All of the examined issues could have possibly held financial relevance for the corporation within their internal and external environment. The research, however, showed that all of the examined corporations focus extensively on environmental, climate change, and work safety issues in their self-regulation. Most of them do not even publicly mention the issue of taxation. The findings indicated that political pressure was determining in the setting of priorities in the content of the corporation's self-regulation.

5.1.1 Nord Stream 2

Nord Stream 2 publicly commits to compliance with all national legislation concerning biodiversity and environmental protection (Nord Stream 2, 2018b). Furthermore, the corporation made its political engagement plans for the EEZ affected by the pipeline project public (Nord Stream 2, 2018e). Aside from touching on labor safety in the construction and operation process of the pipelines, the environment remains the only focus of the corporation (cf. appendix 1). In light of the tense relations between Russia and the EU as well as the US (ibid.), the question arises why Nord Stream 2 AG does not self-regulate more extensively in other areas than environmental issues. The issue of foreign security raised by the Danish government has not received special attention in the corporate self-regulation process (Folketinget 2017), and the Nord Stream 2 AG refrained from actively taking a stand on the EU seeking to extend its competence area to include the project.

This self-regulative approach can be explained by reference to the political environment of Nord Stream 2 AG: The corporation has ample support from the Russian government which depends on the pipelines for increased export of gas to the EU. Russia firmly backs the Nord Stream 2 project and seeks to support the project's implementation within the EU through the foreign affairs department. In the case of the permitting process, the Russian government sought to influence the policy-making process in Denmark when the Danish parliament voiced its concerns about national security problems (EUobserver, 2017). Within the EU, the German government and EU legal instances have taken a firm stance that regulation of the pipeline project should remain an issue of national sovereignty, limiting regulation to the individual member states (Reuters, 2018c). The support of the German government has extended further due to the perceived economic benefits of access to Russian gas for German manufacturing industries and country's political rapprochement with Russia (Die Bundesregierung, 2018).

Because the affected national legislations concern themselves widely with environmental issues when concerned with their coastal waters, Nord Stream 2 AG only had to react to the regulatory risk of not complying with the environmental standards sufficiently. The empirical analysis of the self-regulation in the case of Nord Stream 2 showed that there was a strong emphasis on the issue of environmental protection and sustainability (cf. appendix 2). Most of the corporate communication, which could be deemed an approach towards a self-regulatory regime, was driven by the corporation's need to emphasize its compliance with and care for the flora and fauna affected by the construction and operation of the twin pipelines. The regulatory risk of not receiving the necessary construction permissions from the EU member states whose EEZ will be crossed by the pipelines endangers the entire investment of EUR 9.5 billion in the Nord Stream 2 project (Nord Stream 2, 2018e). Communicating the corporation's dedication to upholding national and international standards and going the extra mile to ensure environmental protection and stability can be deemed a rational reaction according to the theoretical incentive structure proposed by Williams (2004). Reputation has long been underestimated as an economic asset in the strive for profit maximization, but the high costs associated with maintaining a compliant and friendly reputation can hold high benefits for individual corporations and the entire industry in the long-run (Haufler,

2001). At the same time, bolstering the reputation of the gas industry as a contributor to energy security and safe and environmentally friendly energy (Nord Stream 2, 2018f) can only be in the interest of the investing corporations headquartered in the EU.

Although the political environment seemed rather business-friendly at first, the rising opposition within the Danish senate posed a regulatory risk (Energi-, Forsynings- og Klimaministeriet, 2017). The sovereign right of the government to grant private rights and property to the corporations shows the ultimate strength of the regulating entity. As Parkinson (1995: 30-31) was cited in the literature review: Private power “may be legitimately held only for the purpose of furthering the public good”. The Danish government amending its interpretation of the UN Law of the Sea to include other factors such as security issues could have been a serious threat to the Nord Stream 2 project. However, the threat of more extensive regulation could be considered low due to two reasons: (1) Denmark will likely remain alone with its political opposition to the pipeline project. The Danish government was hoping for backing from the EU to solve the political issue of the pipeline construction. The European Commission and Poland had demanded more extensive regulation (European Commission, 2017a; Reuters, 2018b), and with their support, the Danish government could have backed its own stance and possibly deferred the decision-making process to the EU level. However, since the involvement of the EU was rejected by its own legal instances (Reuters 2018c), the likelihood of this scenario has been reduced greatly. (2) The possibility remains to delineate the Nord Stream 2 pipelines on a different route to avoid crossing the Danish EEZ. If the pipelines were to be constructed north of the coastal territory surrounding the Danish island Bornholm, the Danish government would not have the right to interfere with the construction of the pipelines. The proposed route would be more efficient and, therefore, the preferred alternative for Nord Stream 2 AG. But having the possibility of alternative routes which would exclude Denmark from the negotiation table reduces the political threat to the project immensely. (OSW, 2017) Because the Nord Stream 2 project is limited to the specific EEZs and their legislations (United Nations, 2018a and 2018b) and the project has already received the most necessary permits, especially from the supporting stakeholder Germany (Nord Stream 2, 2018a), the political pressure does not necessitate more extensive self-regulation than regarding environmental issues at this point.

5.1.2 Investing Corporations

In contrast to Nord Stream 2 AG, the content of self-regulation in the investing corporations covers a wide array of issues. The sustainability and governance reports of the investing corporation addresses corporate behavior in, among others, the energy transition, the management of its operations abroad, safety issues, business principles concerning contractors and suppliers, and taxation (cf. appendices 1-6). The approach of addressing more topics and elaborating them more in-depth can be partly attributed to the fact that governance structures develop over time and that the investing corporations operate in a more diverse political environment. Their projects span the entire world with different stakeholders and governments involved who will have their own requirements and expectations regarding the construction and operation of petroleum activities. Therefore, the self-regulative behavior of the investing corporations is shaped more by established international standards regulating the behavior of multinational corporations than national or bilateral legislation. The influence can be exemplarily observed in the corporate self-regulation in context of the Paris climate agreement which all investing corporations refer to in their self-regulation (cf. appendices 2-6: 'Standards'). The agreement was signed by 195 member states in context of the United Nations Framework Convention on Climate Change (UNFCCC) and proposed the limitation of global temperature rises to 1.5 degree Celsius (UNFCCC, 2018). The objective will be achieved by lowering the emission of CO₂ in all signatory states which, in turn, includes the operation of petroleum multinationals (ibid.). Both in the process of oil production and the usage of the products, high CO₂ emission are persistently affecting the global environment and climate spanning across national borders. These negative externalities can only be dealt with on an international level since their effect does not limit itself to artificially drawn national borders. The investing corporations tend to refer to the Paris Agreement in their reasoning for environmental self-regulation and partly adjust their strategic objectives (cf. appendices 2-6: 'Standards').

An issue nearly completely avoided in the self-regulation process of the investing corporations is taxation. Tax avoidance in multinational corporations constitutes a common form of tax noncompliance and differs from tax evasion in so far that the strategy only employs legal means to reduce tax liability. However, the line distinguishing

between “unacceptable avoidance and legitimate mitigation” is highly debatable (The Institute for Fiscal Studies, 1997: 3). However, opportunities for avoidance are not distributed “evenly across the tax paying population” and more available to multinational corporations which operate in different legislative environments (ibid.: 4). The Organization for Economic Co-operation and Development (OECD) has issued international guidelines on how transfer pricing within international corporate structure in order to provide corporations with standards for their tax compliance (OECD, 2017). Shell (2018a: 38) explicitly refers to the guidelines and assigns responsibility in form of an annual assessment by the board of directors, but remains strong on its assessment that it will seek the best taxation outcome for its own operation while “comply(ing) with applicable tax laws”. The same is stated by Uniper and OMV which refer to local laws as their main source of guidance on taxation issues (cf. appendices 2 and 3: ‘Taxation’) whereas Wintershall and ENGIE refrain from commenting on this economically important issue completely (cf. appendices 4 and 5: ‘Taxation’). The absence of any visible self-regulation in this area indicates the fine balance at multinationals between political pressure motivating behavioral change and the actual willpower to self-regulate. The issue of taxation is a factor with a direct and visible influence on corporate performance that any extensive corporate self-regulation concerning the corporate payment structure would be considered irrational. The findings clearly illustrate the “complex interaction between corporate strategy and regulatory requirements, particularly those related to financial disclosure and accounting”, discussed in the theoretical framework (Lambert, 2006: 54).

Even in this short discussion of the empirical findings in Nord Stream 2 AG and the investing corporations, the difference in the stakeholders shaping the political environment of the individual corporations became evident. Nord Stream 2 AG operates in a very limited geographical area with clearly defined stakeholders. The political demands and regulation concerning the corporation’s behavior are more clearly defined which, in turn, leads to the corporation’s self-regulation being more specific. In case of the investing corporations, regulatory standards and legislation vary greatly between the political environments they operate in. Thus, self-regulation will focus more on international demands which are mostly non-binding and often vaguely defined. An example for this vagueness are the SDG goals which are quoted by four of the five

investing corporations as guiding their corporate behavior (United Nations 2018c; table 1). The often-referenced goal of affordable and clean energy defines energy targets, as, for example, “by 2030, double the global rate of improvement in energy efficiency” (United Nations, 2018d). However, the goals often lack clear public measurements and sanctions in cases of non-compliance. Without the clear guidance, the corporations will be more inclined to follow national regulation and disregard the professed standards in cases of financially more beneficial projects contributing to corporate performance.

5.2 Monitoring

Regarding the research and public understanding of corporate self-regulation, the difficulty to distinguish between professed standards and actual corporate self-regulation remains the most pressing problem. The issue was addressed by turning to the second category of *monitoring* to establish the credibility of the voluntary commitments. The examination of corporate monitoring processes focused on the question if the self-regulation of the examined corporations only constitutes white-washing efforts to veil corporate misbehavior or if the corporations credibly commit to the long-term implementation and monitoring of their professed commitments. The theoretical discussion has shown that monitoring structures are at the core of any credible voluntary commitment. Transparent and clear monitoring structures provide the foundation for effectively attributing responsibility and accountability to raise the awareness necessary to public self-regulation (Flohr, 2014: 204).

The discussion has shown that it is of essential importance that corporations strive to clearly assign responsibility for the implementation and monitoring of their self-regulative measures. In contrast to the practice of lobbying which seeks to influence political outcomes behind closed doors, self-regulation should not be averse to public scrutiny and, in fact, favor it for enforcement purposes (ibid.). Giavazzi (2014: 186) suggests that notifying the board of directors about the monitoring process and results concerning compliance should become a standard in the industry and external assessment should be strongly promoted. The research has shown that all examined corporations include the supervisory board or, alternatively, the board of directors in the self-regulation

compliance process and assign the reporting and monitoring procedures to a specific position, such as a chief compliance officer or sustainability officer (table 2). The example of Shell has shown that inviting external review can assist the corporation in achieving its individually selected standards by providing objective assessment (Shell, 2018a: 8-9).

Despite the apparent differences in operation, location, and size, the exploratory research only shows slight differences between Nord Stream 2 AG and the investing corporations: Clear measurements of voluntary commitments and sanctioning of non-compliance remains an issue (cf. appendices 1-6). The stakeholder engagement plans devised by Nord Stream 2 AG include the attribution of responsibility during the different phases of permitting, construction, and operation. Exemplarily, the engagement plan concerning Denmark indicates that Nord Stream 2 AG will be responsible for the transfer of the monitoring and environmental results during construction to the appropriate authorities (Nord Stream 2, 2017b: 24-25). The attribution of responsibility in these cases creates a certain degree of transparency to civil society and other involved stakeholders. However, the corporation does not indicate how these processes will be monitored in the internal corporate structure or which position in the internal hierarchical structure will be accountable for the compliance process.⁶ The corporation compiles its information in documents concerning specific issues, but a comprehensive overview and regular account of self-regulation measures is not being published at the moment.

One could argue that these processes would follow along with the maturity process of a corporation. Internal structures become more evident, compliance and monitoring processes are being assigned, and specific positions for external affairs and compliance are being created. Nord Stream 2 AG claims that improved technology and industry consensus regarding relevant standards facilitated the implementation and monitoring of environmental measures within its operations (Nord Stream 2, 2018b). The previous experience with the construction of the Nord Stream pipelines through the Baltic seabed provided the corporation with best practice methods for planning the route of the Nord Stream 2 pipeline project (Nord Stream, 2017a). The corporation also points out the improvement in technology for data collection which facilitates both monitoring compliance of binding as well as non-binding regulation (ibid.).

⁶ It could be generally assumed the CEO, but a public indication is missing.

At first sight, the professionalism of the investing corporations' sustainability reports indicates a similar trend. The corporations assign responsibility and accountability throughout their self-regulation governance structures and include the board of directors (table 2). This approach is in line with the recommendations to provide compliance information to the board and responsible management as an important first step to prevent non-compliance (Lambert, 2006: 19). Especially the sustainability report of Shell stood out in its comprehensiveness and inclusion of an External Review Committee (ERC) providing an objective evaluation of the sustainability efforts of the corporation (Shell 2018a: 6-9). In the sustainability report of 2016, the ERC pointed out how Shell's intention on contributing to the management of climate change was often at odds with the corporation's economic strategy and not fully transparent on how to gain "investor support for progressively increasing and accelerating investment in low-carbon alternatives" (Shell, 2017b: 71). The case of the ERC underlines Shell's intention to self-regulate its own corporate behavior and commit to its self-regulation measures. At the same time, the existence of the ERC showcases the profound difficulties in determining the motivation behind self-regulative corporate behavior. In the early 2000s, Shell had chosen to ignore appropriate internal controls which resulted in a \$120 million settlement with the U.S. Securities and Exchange Commission (U.S. Securities and Exchange Commission, 2004). The corporation decided to commit \$5 million to extend its internal compliance program with the ERC a part of this self-regulative approach. The politically encouraged implementation of this supportive external monitoring layer shows that monitoring self-regulative commitments comes at a high financial cost and will require either political pressure or strong economic incentives as an incentive for implementation.

The empirical analysis showed that comparable economic incentives are few since the investing corporations mainly focus on pursuing the objective of profit maximization. The financial commitment of the investing European corporations is heavily incentivized by the business opportunity of increasing gas demand in EU member states (cf. appendices 2-6: 'Standards'). By strengthening their competitiveness within the EU and meeting the demand in gas with help of Nord Stream 2, the increasing demand in future decades will be able to be met by the corporations (Nord Stream 2, 2018f). In committing the considerable resources of approximately €9.5 billion to the approval and construction

process of the pipelines, the European corporations create barriers to market entry in the European gas market and invest in the future profitability of their own business, aside from all political reasons. In combination with the low oil and gas market prices, the willpower of Nord Stream 2 AG to self-regulate and monitoring commitments in the long-term was therefore estimated to be quite low. Like Nord Stream 2 AG, the investing corporations have to deal with profitability issues in the international oil and gas markets (table 3). At the same time, the corporations are faced with the increasing reputational and financial risk of investing in petroleum sourcing under the international energy transition.

5.3 International Frameworks

The research findings painted a rather somber picture of corporate self-regulation. The permanent focus on profit maximization leaves little willpower to engage in self-regulation except for circumstances of intensive political pressure. The case study of Nord Stream 2 and its investing corporations underlined that only immediate and specific political pressure has an effect on corporate self-regulative behavior in the petroleum industry. The moment political interest concerning a specific corporate behavior declines, the corporations will refrain from self-regulating their behavior. In like manner, political pressure from civil society is rarely sustained in the long-term due to the inherent problem of unfavorable cost-benefit ratios in larger groups (Olson, 1965: 49). The decrease in political pressure will lead to corporations focusing on veiling irresponsible behavior in the short- and mid-term and largely ignoring long-term monitoring of their social, environmental, and governance engagement as seen in the empirical analysis (cf. appendices 1-6: ‘Monitoring’).

An important first step would be the creation of an internationally valid and binding framework for sustainability and self-regulative reporting. The EU has taken first steps in this direction by implementing the *directive on disclosure of non-financial and diversity information by certain large companies* (European Parliament, 2014). The directive requires corporations with more than 500 employees to report on various issues,

for instance, their environmental impact, observance of human and labor rights, and anti-corruption measures. The directive fits into the greater picture of the renewed EU strategy 2011-14 for Corporate Social Responsibility which sought to enhance the visibility of corporate social responsibility measures within the EU (European Commission, 2011). The European Parliament refers further to the OECD Guidelines for Multinational Enterprises and holds them up as “the most credible international CSR standard”. (European Parliament, 2013). As part of the OECD initiative, the OECD National Contact Points (NCP) in the signatory states provide guidance on the implementation of the guidelines and effectively support the EU and national engagement with international corporations on national territory. (OECD, 2016: 11-18). Similarly, the efforts of the Global Reporting Initiative (GRI) have proven successful in establishing sustainability reporting at major corporations (GRI, 2018) with four out of five investing corporations employing the initiative’s frameworks (cf. table 2).

But even with the elaborate GRI framework as a foundation, the problem of standardizing and ensuring self-regulation efforts arises. The corporations employ different sets of reporting matrixes which they adapt to their own needs. A certain degree of comparability can be assumed when the corporations use the same general reporting approach. However, the sanctioning of non-compliance still remains excluded from these initiatives. Although the mentioned EU directive requires corporations to report on their due diligence processes (European Parliament, 2014: article 1), the methodology guidelines remain non-binding (ibid., 2014: article 2). Thus, the corporations ultimately remain accountable only to themselves. The OECD (2011: 26) states in its guidelines for multinational enterprises that “self-regulation (...) should not unlawfully restrict competition, nor should they be considered a substitute for effective law and regulation by governments”. Domestic law and regulation will always take precedence with the organization encouraging the corporations to embrace the international guidelines in all of their corporate behavior worldwide (ibid.: 17). The organization’s NCPs must not take on the function of a judicial body and solely base their influence on the reputational effect of their recommendations on the behavior of the examined corporations (OECD, 2016: 14). Still, the research has shown the powerful and coercive nature of political pressure on corporate behavior. In addition to the increased involvement in the policy area of self-

regulation, the prospect of using “energy output and technology to promote (EU) global interests” (Foreign Affairs, 2015) and the objective of reducing CO2 emission in favor of renewable, clean energy sources (Uniper SE, 2017b: 14) will likely create incentives for the EU to consolidate its influence further in the area of energy. Thus, the self-regulative behavior of examined corporations will likely be affected by the EU’s increasing involvement in both policy areas.

Although the theoretical framework indicates that motivation in form of political pressure can provide a substitute for corporate willpower (Baumeister and Vohs, 2007: 4), the empirical findings underline that researchers and policy-makers should pay increased attention to the financial self-interest of the individual corporations instead of purely increasing political pressure. The political denunciation of irresponsible corporate governance does not necessarily lead to more responsible governance in the future, but usually incentivizes more responsible behavior in other non-monetary and non-business crucial categories (Kotchen and Moon, 2011: 13). Kolk and van Tulder (2002: 269) already show that the reputational risk of not adopting child labor codes could be greater than the public criticism the corporations would be facing in case of non-compliance with the professed standards. The declaration of sustainable objectives is regarded as necessary in the face of political pressure whereas monitoring and ensuring long-term viability of the standards remains optional all too often. Therefore, special attention should be paid to enabling efficient monitoring processes within the individual corporations and the industry itself.

5.4 Green Bonds Market

Corporate self-regulation which effectively and credibly contributes to society as an addition to traditional government regulation will only be possible if the corporations find ways to deal with the business-restricting nature of responsible corporate behavior. The research indicated that focusing on corporate financial self-interest might hold new insights into the emergence of credible self-regulation. As Smith (1776, 2008: 25) was quoted in the theoretical framework, “it is not from the benevolence of the butcher, the brewer, or the baker, that we can expect our dinner, but from their regard to their own interest”. The essential role of financial pressure in the emergence of corporate self-regulation was visible in the confrontation between the executive board of Shell and more than 90 percent of its shareholders who opposed the setting of emission targets which were not in line with the Paris Climate Agreement (The Independent, 2017). An even more insightful example of self-regulation in the petroleum industry is the issuance of green bonds observed in the empirical analysis of the investing corporation ENGIE (2018b). Green bonds are bonds earmarked for environmentally friendly projects within the corporate structure of international corporations and states (Climate Bonds, 2018). The invested sum is backed by the issuer’s entire balance sheet and credit rating like any other bond, but can only be invested into specific green projects (ibid.). The visibility of the green bonds market has been steadily increasing with Oslo Børs becoming the first stock exchange to list them separately from traditional bonds (Oslo Børs, 2018).

The process of identifying and prioritizing such green commitments is exemplarily described in the *Oslo Børs guidance on reporting of corporate responsibility* (Oslo Børs, 2016): The Norwegian stock exchange recommends a materiality analysis which includes the definition of the corporation’s most important stakeholders and mapping their interests. In combination with the corporation’s policies and strategies, the corporation’s economic, environmental, and social impacts, as well as internationally agreed standards, the corporation will then prioritize the significance of each possible commitment. Concerning the implementation, the guide points out the importance of selecting indicators for each commitment in order to be able to ensure the systematic monitoring of the self-regulative measures. The final presentation of the voluntary

commitments should then be accurate, transparent, and reliable. The recommendations of Oslo Børs represent best practice of voluntary self-regulation. The approach is comprehensive, considers the interests of stakeholders while balancing them with the interests of the corporation, and is informed by an understanding of the corporation as a responsible actor in society. Materiality assessment are widely used corporate tools in identifying sustainability issues and can be effectively used to uncover profitable sustainability opportunities within existing corporate structures (cf. appendices 2, 3, and 6).

ENGIE has been one of the first movers in the petroleum industry to adopt the issuance of green bonds in 2014 (ENGIE, 2018b). The corporation has issued green bonds worth €5.25 billion until mid-2018 and has been using the invested sum to finance operational growth in renewable energy and energy efficiency projects (ENGIE, 2017c). The stakeholder and corporate responsibility analysis has been conducted internally and examined externally by Vigeo Eiris, a global provider of environmental, social and governance (ESG) analysis (Vigeo Eiris, 2018). Although ENGIE's share of renewable energy generation remains low compared to the sector average, the green hybrid bonds are deemed to contribute positively to the sustainable development of the corporation's portfolio (ibid.: 1-3). ENGIE's approach illustrates the corporation's move from a business model solely focused on petroleum sourcing to an environmentally friendlier strategy while, at the same time, not losing perspective of the corporate need for profit maximization (cf. appendix 5). The financing of corporate projects contributes to the declared self-regulation objectives of "providing access to sustainably generated energy, combating climate change, reducing its effect and making responsible use of natural resources" (ENGIE, 2018b). Thus, the corporation reacts to both political and economic pressure and focuses on the holistic funding of its self-regulation commitments. Since the global energy transition is deemed most material by the investing corporations (cf. Shell, 2018a: 8-9), this approach to sustainability secures necessary funding to ensure the mid- and long-term viability of the corporation's core business and voluntary commitments.

The green bonds approach has the additional benefit of providing a firm framework for self-regulation. With the financial commitment to ESG investors, the

corporation will be limited to investing the funds in ESG projects (ENGIE, 2017c). Additionally, psychological research suggests that the process of individual self-regulation only leads to a loss in energy when the commitment requires sustained and continuous effort (vanDellen, Hoyle, and Miller, 2012: 901). ENGIE's strategy of issuing green bonds with a 5-year and 5-month, 11-year and 5-month, or 20-year maturity is therefore more promising in sustaining the corporation's voluntary commitments in the long-term than having to react to short-term pressure within the petroleum industry (ibid.). The problem of collective action, which heavily hampers the long-term commitment to voluntary objectives of self-regulation (Williams, 2004), will thus be countered by the financial commitment of the green bonds.

Due to the increasing governmental focus on the energy transition (cf. Energistyrelsen, 2018; Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit, 2005; United Nations, 2015), institutional investors might not be interested in investing in corporations with a portfolio strongly relying on petroleum sources any longer. The interest of institutional stakeholders will likely increasingly include objectives such as environmental protection and renewable energy. A prominent example for this change in institutional investment is the state-owned Norwegian petroleum corporation Statoil which has gradually shifted its investment away from fossil resources to more renewable energy sources in step with the changing priorities in the Norwegian government (Bundeszentrale für politische Bildung, 2013). As mentioned in the case selection, Statoil has even decided to change its name to Equinor which indicates the strong move away from petroleum sources in the corporation's portfolio. Although none of the examined corporations are currently at the same financially secure stage as Statoil to make similar financial and reputational investments (Statoil, 2018b), the self-regulative behavior of committing to green bonds may be an advantageous strategy for the corporation to maintain and showcase its strong reputation and ethical standards (Grasmick and Appleton, 1977).

Besides providing ENGIE with a self-regulation opportunity rich in reputational benefit and associated with a lower financial default risk, the approach gives greater credibility to ENGIE's overall corporate self-regulation. Because there is little financial

incentive to commit to sanctions and measurability, the discussed problem of credibility remains in all self-regulation measures. Williams (2004) suggests that collective industry action can help to address this specific issue, but the strategy has its own inherent problems associated with collective action. In contrast, green bonds provide a market-based ESG solution which is accessible across industries and objectively comparable since the label *green bonds* is attached to quantifiable and objective measurements and is subject to external monitoring (Vigeo Eiris, 2018: 4). The stronger focus on monitoring ensures that the self-regulatory commitment to the energy transition and environmental protection will be translated into tangible project and will not merely remain a marketing statement. Relying on the green bond market as an instrument of social control alone will not have the regulatory effect comparable to traditional state regulation (Marcus, 1989), but it might be one valuable step contributing towards improved corporate self-regulation in the petroleum industry. To put it in the words of Paul Polman, CEO of Unilever: “The good thing is that, next to our moral obligations to address the global challenges, it is also an enormous business opportunity” (Forbes, 2017).

5.5 Limitations and Further Research

The research has certain limitations which will be pointed out before concluding the discussion with further research suggestions: A definite point of critique regarding the theoretical model is the macroeconomic assumption of self-regulation that regulated and regulating entity set their initial levels of acceptable regulation independent of each other. The research assumed that the political environment forms in a two-stage game without continuous contact between the players. However, established informal practices between private and public sector, as, for example, lobbying or the revolving door between ministerial and board member positions, skew this model in the practical setting. Regarding the Nord Stream 2 project, members of the German parliament have voiced their criticism of the employment of former German chancellor Gerhard Schröder by the corporations Nord Stream AG and Nord Stream 2 AG (Deutscher Bundestag, 2017). Schröder’s close connections to the political elite in Russia have both fostered mistrust in the German public society and most likely positively facilitated the progress of the Nord

Stream 2 project in the German political environment. The obscure nature of these informal practices affects the idealized market of regulation even before the actors will set their individual demands and contributes to an environment of asymmetric information impenetrably to objective decision-making and academic research (Downs, 1957).

Aside from these important limitations, the research of self-regulation in the Nord Stream 2 project and its investing corporations underlined the importance of analyzing the tension between political and economic interests when seeking to understand corporate self-regulation and added the insight that green bonds might be a valuable option to add credibility to the self-regulation of petroleum corporations outside of state-mandated regulation. While reviewing and discussing the theoretical framework and the empirical findings, additional research ideas arose which hold the potential for further examining self-regulation and building on this particular research:

Green bonds and ESG investment in different industries

The prominence of self-regulation and specific self-regulatory issues varies from industry to industry and the de facto commitment to voluntary self-regulation from corporation to corporation. The practical examination of self-regulation will therefore always be hampered by variations and incoherence. This research has contributed to understanding self-regulation in petroleum sector more in-depth and uncovered the importance of the green bonds initiative to energy transition and environmental commitments. Further research could possibly focus on analyzing green bonds, ESG investment and the UN principles for responsible investing (PRI, 2017) in different industries and how the approaches connect to the proposed self-regulation of the individual corporations. Another possibility would be to focus on a specific issue of the increasing popularity of ESG investment in the petroleum industry following research approaches comparable to Manacorda, Centonze, and Forti (2014) and provide more specific insight into the petroleum sector.

Self-regulation from a constructivist point of view

The third and last idea derives from the chosen positivist approach of this research. The assumption of economic rationality in analyzing empirical findings seems to exclude a constructivist point of view at first sight. However, the chosen approach does not negate that the economic reality of supply and demand as well as the marketplace in itself is constructed based on shared symbols, traditions, and reinforced beliefs. The research in this thesis could provide the foundation for examining the identity of a corporation in its constructed environment more in-depth and analyzing which social and cultural factors hamper or encourage self-regulation and, possibly, good citizenships behavior in international corporations.

In constructivist psychology, self-regulation is viewed as being recursive, meaning that the process of decision-making in the context of self-regulation will lead to “a deep phenomenological sense of (...) personal identity” and vice versa (Mahoney and Marquis, 2002: 800). More simplified spoken, when individuals self-regulate their behavior to match their ideal standards, the behavior confirms their own understanding of themselves. In turn, the validated ideal condition induces and validates further self-regulation. According to constructivist psychological research, however, this identity is predominantly shaped by the individual’s environment. Mahoney and Marquis (2002: 800) are two of the most famous advocates of constructivist psychology which views self-regulation as an activity “(...) mediated by language and symbol systems”. Constructivist researchers in this field view the individual’s relationships and traditions as the factors which will ultimately create meaning and organization for the individual’s “thought, feeling, and action” in self-regulation (Mahoney, 1991: 100-101; Mahoney, 2007: 249-250). The identity to be validated by self-regulation is thus a construct of the individual’s environment. This is a highly relevant point in the understanding of self-regulation and could be possibly elaborated further on the foundation of the methodology of this research.

6 CONCLUSION

The research set out to study corporate self-regulation in the case of the gas pipeline project Nord Stream 2 with help of the theoretical framework of psychological self-regulation. The motivation to study this particular subject derived from the question why corporations choose to publicly commit to voluntary standards limiting their corporate behavior when traditional command-and-control state regulation is absent. The petroleum industry was chosen as the object of study because of the industry's importance to society and its image as a notorious polluter of the environment. The case study selected within the industry focused on the gas pipeline project Nord Stream 2 and examining the voluntary self-regulation of the project-responsible corporation Nord Stream 2 AG and the investing corporations Uniper, OMV, Wintershall, ENGIE, and Shell.

The first hypothesis of the research stated that *corporate self-regulation in form of standards and monitoring will be motivated by political opposition and hampered by financial pressure*. The assumption was based on the psychological concept of self-regulation which separated the factors influencing self-regulation decisions into four categories: *standards*, *monitoring*, *willpower*, and *motivation*. Each category was defined based on psychological literature and adapted from human behavior to corporate behavior based on macroeconomic and microeconomic theory. The framework structured the ideal behavior the corporations seek to accomplish (*standards*) and their internal policing structures ensuring the long-term viability of their commitment (*monitoring*) as the two dependent variables of corporate self-regulation. According to the model, the self-regulative behavior of the corporations would be affected by two independent variables: availability of financial resources to engage in self-regulation (*willpower*) and the political pressure within the immediate corporate environment (*motivation*). Corporations

would choose to self-regulate in order to preempt political action from regulating entities. If the regulated corporate entity decided to voluntarily commit to self-regulation measures, the costs of the regulating institution to enter the market of regulation and implement and monitor a similar regulation would increase. Thus, corporate self-regulation would reduce the government's incentive to regulate the market in the first place.

The qualitative empirical analysis found that corporate self-regulation was indeed affected by the individual corporation's financial liquidity and the political interests within the immediate environment. The findings indicated that the financial pressure of the recovering oil and gas prices had hampered the corporations' willpower to engage in self-regulation and only limited their behavior in policy areas relevant to the profitability of their operations and addressed by political stakeholders. The findings also confirmed the research's second hypothesis that *the examined downstream petroleum corporations will self-regulate with strong focus on the energy transition and environmental protection*. The executing corporation Nord Stream 2 AG focused on specific issues concerning the environment and workplace safety in its corporate self-regulation and published stakeholder engagement plans for the EU member states whose EEZ will be affected by the project. In comparison, the self-regulation observed in the investing corporations were more broadly formulated and extended to a wide array of issues, as, for example, diversity and anti-corruption measures. Still, their voluntary commitments focused extensively on issues concerning the environment and the energy transition as well. All of the investing corporations employed international frameworks to guide their non-mandatory reporting and attributed governance responsibility within their internal structure. However, appropriate quantitative measurements and sanctions concerning non-compliance with their voluntary commitments remained comparatively unclear. Although the findings indicated that the maturity of the corporation might play a part in the extent of addressed issues, the literature review had anticipated these difficulties in voluntary commitments. The academic literature had pointed out corporate social responsibility measures and reactionary commitments as the main forms of corporate self-regulation, but the overall concern focused on the credibility issue of these commitments.

The commitments remain fragile with corporations having absolute authority over their own self-regulation governance and little incentive to improve their transparency.

The subsequent discussion of the empirical findings centered on explaining the differences in form and content of the individual self-regulation commitments, the lack of monitoring in all examined corporations, and illustrating the value of green bonds for the self-regulation approach of the petroleum industry. The specific political environment of the executing corporation Nord Stream 2 AG incentivized the focus on highly specific environmental issues which were necessary for the permitting process of the gas pipeline project. In contrast, the investing corporations were more broadly affected by the changing stance on climate change and petroleum sourcing in the international community of states. The corporations have been under increased pressure to acknowledge and limit the polluting character of their operations and acknowledge their role in international frameworks such as the 2015 Paris Agreement. Hence, the investing corporations refer to international environmental frameworks and Nord Stream 2 AG predominantly to national regulation and trends. Regarding the lack of long-term monitoring and sanctioning, the research uncovered that most of the voluntary commitments remain in the realm of green-washing efforts without ensured long-term enforcement. Since the corporations avoid most of the reputational risk associated with irresponsible corporate behavior by the sole means of declaring their commitment to voluntary standards, the corporations lack clear financial incentives for engaging in long-term self-regulation measures.

The light at the end of the tunnel of this rather somber picture of corporate self-regulation was an unanticipated finding within the self-regulation commitments of ENGIE: The investing corporation funds its environmental and energy transition projects through the issuance of green bonds to investors. Green bonds constitute an opportunity to address the much-discussed credibility problem of self-regulation in the petroleum industry by serving the economic and political needs of the corporations at the same time. The issuance of green bonds backed by the corporate balance sheet and embedded in the general corporate structure creates a win-win situation: The corporation is enabled and legally required within the green bonds market to slowly shift its business model to

meeting the new demands of the energy transition and the general society benefits from more extensive protection of their natural public goods, even in absence of government-mandated regulation. The research concluded that the petroleum industry can potentially benefit from adopting green bonds as a means to credibly commit to their environmental standards and raise the necessary funding for its transition to a more environmentally friendly product portfolio. Based on acknowledging the self-interested nature of corporate self-regulation, ESG market opportunities provide the opportunity for international corporations both to react to the political interest within their immediate environment and to meet investor demands for profit-maximization.

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8 Appendix

Appendix 1 - Nord Stream 2 AG (executing corporation)

Own assessment

Gas corporation with a single purpose and no intention to pursue further business outside the Nord Stream 2 pipelines; exclusive focus on communicating compliance and self-regulation in the policy areas of environment/sustainability and workplace safety, but little communication on monitoring or long-term metrics

Basic information¹

Headquarters	Zug, Switzerland
Stock market	not listed (wholly-owned subsidiary of Gazprom)
Year of establishment	2015

Main sources

Mission statement²

Permitting Overview³

Permitting and Consultation (in local languages)⁴

Standards

Environment / Sustainability

Nord Stream 2 is committed to meeting the highest environmental and social standards⁵;

A biodiversity conservation strategy for the Kurgalsky nature reserve in Russia, in line with international best practice, is put in place⁶;

Environmental Impact Assessment includes information on the project's implementation alternatives and their impacts and the corporation received a “Good Environmental Impact

¹ Bloomberg (2018).

² Nord Stream 2 (2018b).

³ Nord Stream 2 (2018e).

⁴ Nord Stream 2 (2018g).

⁵ Nord Stream 2 (2018c).

⁶ Nord Stream 2 (2018h).

Assessment” Award for the prepared EIA report in Finland⁷ - assessment required by national legislation of affected EU member states⁸;

Best practice from Nord Stream 2 benchmarks for environmental protection

Human rights / Labor rights

n/a

Finances / Taxation

n/a

Workplace safety

Commitment to meet the highest international [HSE] safety standards during the construction and operation of [the] pipeline⁹

Anti-corruption and anti-bribery

n/a

Diversity

n/a

Other standards

Energy security - advancing and promoting the reliability and security of gas supply to the EU¹⁰

Monitoring

Best practice from Nord Stream pipeline project¹¹;

Chief Commercial Officer with task to deal with permitting and legal affairs¹²;

⁷ Nord Stream 2 (2018d).

⁸ Nord Stream 2 (2018b).

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Nord Stream 2 (2018i).

Objective of Environmental Impact Assessment to develop plans for environmental management and monitoring¹³

Willpower (economic environment)¹⁴

Shareholder structure: 100% Gazprom; Fully-owned subsidiary of Russian energy corporation Gazprom with European energy corporations Uniper, OMV, Wintershall, ENGIE, and Shell funding sixty percent of the capital expenditure (fully privately funded investment of €9.5 billion in total);

Each investing corporation will fund up to €950 million; proposed investment structure: 70 percent bank loans, 30 percent private loans), leaving €4.75 billion of investment to Gazprom (Uniper: €285 million withdrawn by Nord Stream 2 AG as of December 31, 2017¹⁵; Wintershall: €324 million withdrawn¹⁶)

Motivation (political environment)

Construction and operation in the exclusive economic zones of Denmark, Sweden, Finland, Russia, and Germany; international consultations with Poland, Lithuania, Latvia, and Estonia under Espoo convention¹⁷;

Environmental Impact Assessments as a prerequisite for national permits (full set of permits received from Finland¹⁸ and Germany¹⁹);

Law proposal L43 of the Danish parliament²⁰ led to a change in Danish national law requiring permission from the energy, security, and environment ministry to build “certain pipelines” (“visse rørledningsanlæg”) in the national territorial waters of Denmark²¹;

¹³ Nord Stream 2 (2018j).

¹⁴ Nord Stream 2 (2017a).

¹⁵ Uniper SE (2018a), p. 34.

¹⁶ Wintershall (2018a), p. 10.

¹⁷ Nord Stream 2 (2018e).

¹⁸ Nord Stream 2 (2018k).

¹⁹ Nord Stream 2 (2018a).

²⁰ Folketinget (2017).

²¹ Energi-, Forsynings- og Klimaministeriet (2017).

Opposition from the U.S. and the Polish governments²² and EU Commission seeking to influence decision-making²³; Polish Office of Competition and Consumer Protection getting involved in anti-monopoly proceedings on request from Polish government²⁴

Last update: 19 May 2018

²² Reuters (2018b).

²³ European Commission (2017b).

²⁴ UOKiK (2018).

Appendix 2 - Uniper SE (investing corporation)

Own assessment

Young energy corporation focused on downstream activities of conventional energy generation and trade seeking to establish a corporate culture and reputation under financial pressure from hostile takeover attempt; self-regulation extensive and included in annual report; approach up to international standards with internal monitoring system and established from its year of establishment on

Basic information

Headquarters	Düsseldorf, Germany ¹
Stock market	Frankfurt Stock Exchange ²
Year of establishment	2016 (spin-off of German electricity company E.ON) ³

Main sources of public information

Annual report 2017⁴

Sustainability report 2016⁵

Code of conduct⁶

¹ Uniper SE (2017c)..

² Uniper SE (2018a), p. 16.

³ E.ON SE (2016).

⁴ Uniper SE (2018a), p. 14.











⁵ Uniper SE (2017b).

⁶ Uniper SE (2017e).

Standards

“We act responsibly in everything we do.”⁷; Intention to apply for UN Global Compact membership⁸; UN Sustainable Development Goals (SDG) as reference for each aspect pursuant to Section 289c and 315c of the German Commercial Code⁹

Uniper Sustainability Commitments

Aspects pursuant to Section 289c and 315c of the German Commercial Code	Uniper-specific issues	Relevant SDGs	Uniper commitments
Environmental matters	• Climate change	  	<ul style="list-style-type: none"> Promote lower carbon fuels like gas and LNG worldwide Develop CO₂ utilization business models to reduce overall CO₂ emissions Promote less carbon intensive power generation technology Monitor and optimise CO₂ intensity of European Generation portfolio Promote waste reduction, soil-pollution prevention and responsible mining
Employee matters	• Diversity • Health and safety Both issues covered by the material topic Our people	 	<ul style="list-style-type: none"> Have zero tolerance of discrimination on the basis of gender, ethnic background or any other diversity-related factors. Foster and deliver equal opportunity, enhancing diversity promotion in leadership positions Protect labour rights and ensure safe and secure work environments for all employees and contractors; promote the same standards in our partnerships and business ventures
Social matters	• Secure and reliable supply	  	<ul style="list-style-type: none"> Enter markets in developing and emerging countries responsibly. Foster established and new flexible generation solutions to enable a safe transition toward renewables worldwide
Human rights			<ul style="list-style-type: none"> Have zero tolerance of forced labour, child labour, modern slavery, human trafficking
Anti-corruption and anti-bribery	Both aspects covered by the material topic Business integrity	 	<ul style="list-style-type: none"> Continue to strengthen the Group's compliance culture and protect the business from corruption risks Foster the development of effective, accountable and transparent institutions at all levels

Environment / Sustainability

SDG: goals 7,9, and 13 - climate change as main focus;

Sustainability goals according to German CSR Directive Implementation Act and German Commercial Code (paragraph 289b section 3 and 315b section 3)¹⁰;

ISO certified environmental management systems in 88% of industrial facilities ¹¹;

⁷ Uniper SE (2017f).

⁸ Uniper SE (2018b).

⁹ Uniper SE (2018a), p. 100.

¹⁰ Uniper SE (2018a), p. 97-109.

¹¹ Uniper SE (2018a), p. 101-102.

Environment and climate change as main topics in sustainability report¹²; commitment to energy transition and expansion of renewable energy sourcing (14); metrics communicated, but only broad strategy for future engagement with topics (22-26);

Corporate CO2 footprint deterring institutional investment but hasty coal exit not viable; stricter climate-protection policies in main markets (Germany, France, Netherlands, UK) regarded as high financial and reputational risk;¹³

Reputational risk associated with climate change policies; no intention to invest in any new coal-fired power plants, but phasing out of coal investments stopped in the Netherlands because the potential phase-out is too unclear - clear policies and government direction needed¹⁴

Human rights / Labor rights

Universal Declaration of Human Rights as generally guiding document¹⁵;

More general awareness with focus on modern slavery, unlawful forced displacements, and forced and child labor in sourcing and trading of coal and gas¹⁶

Finances / Taxation

Taxation strategy only published for the UK where transparency regarding this issue is legally required; tax planning complies with the national law¹⁷

Workplace safety

Employee-related risks: uncertainty due to restructuring process, aging workforce, more extensive safety regulation in plants to be implemented¹⁸;

International Health and Safety management standards and systems and safety measured in Total Recordable Incidents Frequency¹⁹

Anti-corruption / Anti-bribery

¹² Uniper SE (2017d).

¹³ Uniper SE (2018a), p. 97.

¹⁴ Uniper SE (2018a), p. 102-103.

¹⁵ Uniper SE (2017e), p. 36-37.

¹⁶ Uniper SE (2018a), p. 98-99.

¹⁷ Uniper SE (2017g).

¹⁸ Uniper SE (2018a), p. 98.

¹⁹ Uniper SE (2018a), p. 105.

SDG: goals 8 and 16 (business integrity);

Corruption and bribery associated with serious reputational, legal and financial risks and compliance with all national legal and regulatory requirements is required at all times²⁰;

New Code of Conduct with more detailed examples of corruption and bribery to address the issues since it came up as a risk area in the group-wide compliance risk assessment in 2016²¹; specific attention being paid to intermediaries and bribes²²

Diversity

SDG: goals 5 and 8 (diversity, health and safety);

German Law for the Equal Participation of Women and Men in Leadership Positions in the Private Sector and the Public Sector demanding at least 30 percent women and 30 percent men in the supervisory board;

Signed Corporate Diversity Charter Germany in 2016²³;

Diversity improvement plan and employee survey in place²⁴

Other standards

Development of communities (donations, sponsorships, taxes)²⁵

Secure and reliable energy supply as contribution to society²⁶; SDG: goals 7, 9, and 12 interpreted towards energy security

Monitoring

Currently, Chief Operating Officer assumes the role of Chief Sustainability Officer (3)²⁷; Management Board responsible for implementation of sustainability goals; appointment of one member as Chief Sustainability Officer reporting to the Supervisory Board; annual materiality analysis of carbon footprint and impact assessment²⁸;

Sustainability information checked externally by pwc²⁹

²⁰ Uniper SE (2018a), p. 99.

²¹ Uniper SE (2018a), p. 109.

²² Uniper SE (2017e), p. 20.

²³ Charta der Vielfalt e.V. (2018).

²⁴ Uniper SE (2018a), p. 75-78.

²⁵ Uniper SE (2017e), p. 40-41.

²⁶ Uniper SE (2018a), p. 106.

²⁷ Uniper SE (2017d).

²⁸ Uniper SE (2018a), p. 99.

²⁹ pwc (2017).

German Corporate Governance Code (voluntary long-term commitment)³⁰; implementation of protected whistleblowing system to third parties in accordance with code since November 2017; GRI Framework was used to prepare the non-financial reporting (GRI Standard 103 and guidance set for the Standards 103-1 and 103-2); aligned with the Enterprise Risk Management and published in Risks & Chances Report of the Combined Management Report on a quarterly basis (p. 97)³¹

Development of ESG and country checks related to human rights risk in progress (based on UN Guiding Principles on Business and Human Rights and OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas³²

Willpower (economic environment)³³

	Revenue	Profit
2017	€72,238 million	-€538 million
2016	€67,285 million	-€3,234 million

Shareholder structure: 52.88% free float, 47.12% Fortum (hostile takeover attempt)

Hostile takeover bid resulted in the transferral of 47.12 percent of shares from E.ON and other shareholders to Finnish competitor Fortum³⁴

Uniper's Management Board and Supervisory Board recommended shareholders to not sell their shares to Fortum in November 2017³⁵ and promised dividend increases by an average of 25% per year through 2020 compared to the base year 2016 (-€0.55 per share)³⁶

³⁰ Regierungskommission Deutscher Corporate Governance Kodex (2018).

³¹ Uniper SE (2018a), p. 96.

³² Uniper SE (2018a), p. 108.

³³ Uniper SE (2018a), p. 2.

³⁴ Uniper SE (2017h).

³⁵ Uniper SE (2017i).

³⁶ Uniper SE (2018a), p. 3.

Motivation (political environment)

Core markets in Germany, Sweden, UK, Benelux countries, France, and Russia with a trading business in North America³⁷;

Strong focus on decarbonization and stricter climate protection regulations in European core markets³⁸; regulatory risks/chances considered moderate (impact €20-100 million) to low (€5.1-20 million)³⁹

Default risk for receivables from Nord Stream 2, “particularly in the event the project is terminated”, perceived as lower than comparable corporate assets; extensive monitoring regarding U.S. Sanction Act on Russian energy export pipelines in place⁴⁰

Last update: 17 May 2018

³⁷ Uniper SE (2017c).

³⁸ Uniper SE (2018a), p. 14.

³⁹ Uniper SE (2018a), p. 56-63.

⁴⁰ Uniper SE (2018a), p. 59.

Appendix 3 - OMV (investing corporation)

Own assessment

Established integrated energy corporation with stable institutional investors extending its activities in Russia and the Middle East; self-regulation extensive, up to international standards, and well-defined objectives and monitoring with extensive involvement in external sustainability groups to protect operating license and gain social recognition

Basic information

Headquarters	Vienna, Austria ¹
Stock market	Vienna Stock Market ²
Year of establishment	1956 ³

Main sources of public information

Group presentation⁴

Annual report 2017⁵

Sustainability report 2017⁶

Code of conduct⁷

¹ OMV Aktiengesellschaft (2017c).

² Wiener Börse (2018).

³ OMV Aktiengesellschaft (2017c), p.17.

⁴ Ibid.

⁵ OMV Aktiengesellschaft (2018b).

⁶ OMV Aktiengesellschaft (2017a).

⁷ OMV Aktiengesellschaft (2018c).

Standards

Comprehensive materiality analysis and process “to define measurable external commitments” according to GRI standards and Austrian law; five focus areas: (1) Health, Safety, Security, and Environment, (2) Carbon Efficiency, (3) Innovation, (4) Employees, (5) Business Principles and Social Responsibility⁸;

Guided by UN Sustainable Development Goals⁹;

Incentives: “maintain [the company’s] license to operate and secure the social acceptance of [the company’s] operations”¹⁰;

Responsible business behavior to “(1) gain access to new resources, (2) create a win-win situation for society, the environment and the Company, (3) secure social acceptance of the business operations, (4) attract best employees, contractors, and investors”

Environment / Sustainability

Climate change as one of the most important challenges with Paris Agreement 2015 and part of carbon strategy endorsing “Zero routine flaring by 2030” initiative¹¹;

Reducing carbon and water intensity of operations portfolio;

Extensive environmental management¹²;

Individual biodiversity-related projects in New Zealand, Norway, and Romania¹³

Human rights / Labor rights

Approach guided by UN Guiding Principles on Business and Human Rights and UN Global Compact¹⁴ and revised in 2017 in accordance with external stakeholders and UK Modern Slavery Act 2015¹⁵;

Strongly opposed to forced labor, slavery, child labor and human trafficking¹⁶

Finances / Taxation

⁸ OMV Aktiengesellschaft (2018c), p. 56-57.

⁹ OMV Aktiengesellschaft (2017c), p. 10.

¹⁰ Ibid., p. 3.

¹¹ Ibid., p. 7.

¹² Ibid., p. 23-29.

¹³ OMV Aktiengesellschaft (2018d), p. 27.

¹⁴ OMV Aktiengesellschaft (2017a), p. 19.

¹⁵ OMV Aktiengesellschaft (2018d), p. 47.

¹⁶ OMV Aktiengesellschaft (2017a), p. 20.

Preparation of financial statements according to International Financial Reporting Standards¹⁷
(mandatory in certain state¹⁸)

Workplace safety

Internal corporate regulation to identify hazards and prevent accidents and emergency and crisis management system according to ISO certification¹⁹; two death cases led to an increased focus on safety in 2017²⁰

Anti-corruption / Anti-bribery

Zero tolerance policy towards bribery, fraud, theft, and other forms of corruption²¹; reference to OECD Anti-Bribery Convention and UK Bribery Act²²

Diversity

Focus on gender and internationality; 97.8% of employees are being paid minimum wages fixed by law or agreed upon in collective bargaining agreements; 30% women in Senior Vice President positions by 2020 (2016: 23%)²³

Other standards

OMV focuses on natural gas, the fossil fuel with the lowest carbon intensity as well as on new energy sources and technologies (innovation contributing to society)²⁴;
Stakeholder engagement details issued²⁵

High level of involvement in Environmental, Social and Governance agencies (e.g. FTSE4Good Global Index Series, Euronext-Vigeo Eurozone 120 index, and the Ethibel Sustainability Index Excellence Europe; partly external assessment of supply chain²⁶

¹⁷ OMV Aktiengesellschaft (2017a), p. 28.

¹⁸ Deloitte (2018).

¹⁹ OMV Aktiengesellschaft (2017a), p. 15.

²⁰ Ibid., p. 3.

²¹ Ibid., p. 28.

²² Ibid., p. 44.

²³ Ibid., p. 31.

²⁴ Ibid., p. 17.

²⁵ OMV Aktiengesellschaft (2018d), p. 52.

²⁶ Ibid., p. 14.

Monitoring

The Chief Compliance Officer directly reports to the Executive Board and to the Supervisory Board²⁷; ultimate accountability for the sustainability strategy and targets lies with the Executive Board.²⁸

Assurance statement by external review organization ERNST & YOUNG²⁹

Committed to Austrian Code of corporate governance issues by Austrian Working Group for Corporate Governance (evaluated by independent advisors)³⁰;

Annual sustainability report since 2009; prepared in accordance with the GRI G4 Oil and Gas sector supplements³¹ and IPIECA oil and gas industry guidance on voluntary sustainability reporting³²;

Prioritization of material issues based on internal “power interest matrix”; used to be easy to compare project progress by status ‘achieved’, ‘ongoing’, and ‘not achieved’ in sustainability report 2016, but dropped from sustainability report 2017³³;

Included in various ESG indexes, such as FTSE4Good and Euronext Vigeo index - Eurozone 120³⁴; reporting to CDP Climate Change to ensure transparency of carbon efficiency efforts³⁵

²⁷ OMV Aktiengesellschaft (2017a), p. 28.

²⁸ OMV Aktiengesellschaft (2018d), p. 12.

²⁹ OMV Aktiengesellschaft (2017a), p. 57.

³⁰ Ibid., p. 27.

³¹ Global Reporting Initiative (2013).

³² OMV Aktiengesellschaft (2017a), p. 1.

³³ OMV Aktiengesellschaft (2018d), p. 15.

³⁴ Ibid., p. 14.

³⁵ Ibid., p. 30.

Willpower (economic environment)³⁶

	Revenue	Profit
2017	€20,222 million	€19,260 million
2016	€853 million*	€183 million

*lower depreciation amortization and lower exploration expenses

Shareholders structure: 43.3% free float, 31.5% ÖBIB (Austrian State and Industrial Holding Ltd), 24.9% IPIC (International Petroleum Investment Company), 0.2% other investors³⁷; relatively stable investor structure with IPIC and ÖBIB agreement for coordinated action and restricted transfer of shares³⁸

Adjusted strategy to manage the consequences of the lower oil price which translated into strong positive cash flow³⁹; Investment in Nord Stream 2 pipelines as keystone in downstream gas strategy⁴⁰

Motivation (political environment)

Downstream gas activities focused on central Europe (Austria, Germany, Hungary, the Netherlands), Croatia, and Turkey; long-term plans to expand into Russia and the Middle East; Nord Stream 2 as linkage⁴¹

Uncertain elections in France and the Netherlands turned out in favor of corporate strategy; tax reforms in Austria and economic upswing in Germany led to a favorable economic environment⁴²

Last update: 19 May 2018

³⁶ OMV Aktiengesellschaft (2017c).

³⁷ OMV Aktiengesellschaft (2018b), p. 46.

³⁸ Ibid., p. 47.

³⁹ OMV Aktiengesellschaft (2017a), p. 4.

⁴⁰ OMV Aktiengesellschaft (2018b), p. 51.

⁴¹ OMV Aktiengesellschaft (2017c).

⁴² OMV Aktiengesellschaft (2018b), p. 63.

Appendix 4 - Wintershall (investing corporation)

Own assessment

Established energy corporation under complete control of parent company BASF with the strong intention to grow and trade shares publicly in the medium to long-term after proposed merger with DEA; self-regulation commitments comparatively broad and with little own established objectives aside from the BASF Code of Conduct and environmental and safety issues

Basic information¹

Headquarters	Kassel, Germany
Stock market	not listed (wholly-owned subsidiary of BASF)
Year of establishment	1894 (BASF since 1969)

Main sources of public information

Press releases

Corporate Responsibility Report²

BASF Code of Conduct³

Standards

“Economic considerations do not take priority over safety, health and environmental protection”⁴;

Refers to OECD Guidelines for Multinational Enterprises, the ILO’s core labor standards, the Universal Declaration of Human Rights, the UN Global Compact, and the World Bank “Zero Routine Flaring by 2030” Initiative as binding reference framework⁵;

¹ Wintershall (2018b).

² Wintershall (2017c).

³ BASF (2017).

⁴ Ibid.

⁵ Wintershall (2017c), p. 24.

Wintershall is included in the BASF Group's risk management system and use the corporation's integrated sustainability approach for the Exploration & Production management system⁶,

BASF defines globally applicable standards of conduct which also apply at subsidiary Wintershall; legal violations "can seriously harm [the] company's reputation and inflict considerable damage, including financial damage"; anonymous compliance hotlines available

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Environment / Sustainability

Contribution to Paris Agreement of 2015 requirements through products⁸; Eco-efficiency analysis established by BASF in 1996 and employed in Nord Stream 1 project⁹;

active partnerships to share knowledge about extensions of oil field lifetime and environmental protection (enhanced oil recovery)¹⁰, focus on improvement of energy efficiency in sourcing process and use of water and heating resources¹¹; ISO certification of environmental and energy management and reduction of CO2 exhaustion¹²;

Biodiversity risk assessment worldwide and individual projects in Germany and Norway¹³

Human rights / Labor rights

Universal Declaration of Human Rights, the OECD Guidelines for Multinational Enterprises and the International Labor Organisation (ILO) Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy; especially focused on the abolition of child and forced labor, the principle of non-discrimination, fair compensation, and entitlement to adequate working hours and paid leave¹⁴

Finances / Taxation

n/a

⁶ Ibid., p. 29.

⁷ BASF (2017).

⁸ Wintershall (2017c), p. 14-21.

⁹ Ibid., p. 21.

¹⁰ Ibid., p. 23-24.

¹¹ Ibid., p. 35.

¹² Ibid., p. 34.

¹³ Ibid., p. 38.

¹⁴ BASF (2017).

Workplace safety

Extensive internal H&S standards and fully harmonized and standardized across all sites; further development of management strategy¹⁵; introduction of HSE questionnaire for managers to raise awareness¹⁶

Anti-corruption / Anti-bribery

BASF is strictly committed to fighting any kind of corruption and prohibits its employees, agents, and other third parties acting on BASF's behalf from engaging in any form of bribery; "facilitation" or "grease" payments are not allowed.¹⁷

Diversity

BASF self-defined goals of 22-24 percent of women in management positions (2016: 19 percent)¹⁸

Other standards

Natural gas as prime energy source to fight climate change¹⁹: "We create value for the company's long-term development and the society. We provide sustainable solutions."²⁰; Various social engagements, such as Young Vision Award, traditional Christmas donation, Stavanger Symphony Orchestra, global "Take it to heart" health campaign, etc.²¹

Monitoring

Chief Compliance Officer managing implementation of BASF Compliance Management System²² and reporting to Chairman of the Board of Executive Directors; Strategic Division develops, implements and coordinates compliance standards together with community of experts; BASF compliance team at hand²³;

¹⁵ Wintershall (2017c), p. 44-45.

¹⁶ Ibid., p. 49.

¹⁷ BASF (2017).

¹⁸ Wintershall (2017c), p. 32.

¹⁹ Ibid., p. 42-43.

²⁰ Ibid., p. 19.

²¹ Ibid., p. 56-59.

²² BASF (2017).

²³ Wintershall (2017c), p. 25-27.

Publication of sustainability report since 2007, renamed as corporate responsibility report in 2015, no indication of self-regulation commitments in the annual report statement²⁴

Willpower (Economic environment)^{25,26}

	Revenue	Profit
2017	€3,244 million	€2,768 million
2016	€719 million	€362 million
2015	€12,998 million*	€1,072 million*

*activities divested to Gazprom in 2016 contributed 10.1 billion euros in sales and 260 million euros in EBIT before special items²⁷

Shareholder structure: 100% BASF

Investment of approximately €3.5 billion in low-production-cost fields and strengthening partnerships abroad by 2022²⁸; focus on natural gas production in Yuzhno Russkoye natural gas field²⁹ which will likely be transported through Nord Stream 2 pipelines to be sold in the European Union

BASF intends to merge Wintershall with LetterOne's DEA, retaining 67% of shares initially and listing the company on the stock exchange in the medium term³⁰

Motivation (political environment)

Main market in Europe (Germany, UK, Denmark, the Netherlands, and Norway) and established/expanding into Libya, Argentina, Russia, and UAE³¹

²⁴ Wintershall (2018a).

²⁵ Ibid.

²⁶ Wintershall (2018c).

²⁷ Wintershall (2017d).

²⁸ Ibid.

²⁹ Wintershall (2018a).

³⁰ Wintershall (2017e)

³¹ Wintershall (2018d).

Last update: 19 May 2018

Appendix 5 - ENGIE (investing corporation)

Own assessment

Financially-solid energy corporation with international operations set on contributing to and meeting the demands of the energy transition; self-regulation extensively focused on environment and sustainability in the energy transition; issuance of green bonds as extraordinary self-regulation feature to raise funds for sustainability targets

Basic information

Headquarters	La Défense, France ¹
Stock market	NYSE Euronext Paris ²
Year of establishment	1834 (GDF SUEZ renamed ENGIE in 2015) ³

Main sources of public information

2017 Integrated Report⁴

Code of Conduct^{5,6}

Corporate Social Responsibility Policy⁷

Standards

Objective: “to contribute to a more harmonious world and to secure [the corporation’s role as a leading stakeholder of the energy transition and associated services beyond energy]”⁸; reference to UN Sustainable Development Goals (SDG) throughout its sustainable policies⁹
Internal brochure “Rely on CSR to gain customers and markets” to show how “CSR can be both a differentiating factor as well as a factor for performance”¹⁰

¹ Paris La Defense (n/a).

² Euronext (2018).

³ ENGIE (2015).

⁴ ENGIE (2018).

⁵ GDF Suez (2013).

⁶ Likely not updated since publication in 2013 as the document still refers to the corporation as GDF Suez.

⁷ ENGIE (2017d).

⁸ Ibid.

⁹ Ibid., p. 6.

¹⁰ ENGIE (2018a), p. 11.

Environment / Sustainability

Focus on energy transition and stable supply: “ENGIE is committed to responsible growth of its businesses (power, natural gas and energy services) in response to the central challenges of the energy transition towards a low-carbon economy: providing access to sustainably generated energy, combating climate change, reducing its effect and making responsible use of natural resources¹¹;

Referral to COP22 Marrakech for implementation of the Paris Agreement 2015¹²;

Specific targets: share of renewable energy in 2020 at 25% (SDG goal 7) and reduction in ratio of CO2 emissions by 20% (SDG goal 13)¹³

Focus on environment and sustainability as market opportunity¹⁴;

Development and dedication to Green Bonds Market to finance energy transition projects, mainly wind, solar and hydroelectricity¹⁵;

“As a promoter of green finance, the Group is committed to financing its sustainable investments with green bonds, thus demonstrating the responsible nature of these projects and their positive impact on environment.”¹⁶

Human rights / Labor rights

Protection of human rights according to UN Global Compact, the French section of Transparency International, and the Extractive Industries Transparency Initiative (involvement of external stakeholders)¹⁷

Finances / Taxation

n/a

Workplace safety

¹¹ ENGIE (2018c).

¹² ENGIE (2018b), p.6.

¹³ ENGIE (2017a), p. 6.

¹⁴ ENGIE (2018b), p. 8-16 + 29.

¹⁵ Ibid.

¹⁶ ENGIE (2017a), p. 4.

¹⁷ Ibid., p. 46.

Pledge to eliminate fatal and the most serious accidents and to provide everyone with a high degree of health, safety and security¹⁸; target to reduce internal occupational accident frequency rate¹⁹

Anti-corruption / Anti-bribery

Reputational risk linked to ethical and responsible behavior²⁰; human rights and corruption risks considered for all investment projects; ISO 37001 Anti-Bribery Management Systems²¹

Diversity

Internal commitment to employ 25% women by 2020 (21.9% in 2016)²²

Other standards

Public best practice for lobbying²³; Whistleblowing hotline in place²⁴;

Promotion of universal access to energy²⁵

Monitoring

Responsibility for sustainability monitoring lies with Board of Directors with one Director representing the French state, Ethics and Compliance Department reporting to the General Secretariat under the supervision of the CEO (more than 250 ethics officers and representatives)²⁶; special Green Bond Committee for approving projects that may be financed by green bonds issued by the Group²⁷;

Information generated according to GRI Reporting Standards from annual compliance procedure with fifteen indicators, internal and external audits, internal alert system, annual

¹⁸ Ibid., p. 5.

¹⁹ Ibid., p.6.

²⁰ ENGIE (2018d), p. 39.

²¹ ENGIE (2017a), p. 7.

²² ENGIE (2018d), p. 25-27.

²³ ENGIE (2017e).

²⁴ Engie (2018d).

²⁵ ENGIE (2017a), p. 5.

²⁶ ENGIE (2018d), p. 40-42.

²⁷ ENGIE (2017a).

assessment²⁸; external rating to facilitate interactive dialog between company and stakeholders (such as socially responsible investors (SRI))²⁹

Willpower (economic environment)³⁰

	Revenue	Profit
2017	€65,029 million	€2,238 million *
2016	€64,840 million	€163 million

*lower impairment losses, disposal of thermal merchant power plant assets, reduction in the cost of debt³¹

Shareholder structure: 67.6% free float, 24.10% French state, 2.69% employee shareholders, 5.61% other investors³²

“Good financial health of the Group is a gauge of the sustainability of its commitments to the energy transition towards low-carbon generation activities” (p. 28) int

Political environment (*motivation*)

Activities worldwide, with focus on Europe (France, Benelux states, UK), Asia, and North America³³; major capital expenditure in Latin America, France, and European infrastructure³⁴

Regulatory risk mainly seen in European CO2 market and country-specific risks³⁵

Last update: 18 May 2018

²⁸ Ibid., p. 47.

²⁹ ENGIE (2018e).

³⁰ ENGIE (2018f), p. 28.

³¹ Ibid., p. 7.

³² ENGIE (2017f).

³³ Engie (2016).

³⁴ ENGIE (2018f).

³⁵ ENGIE (2018a), p. 37.



Appendix 6 - Royal Dutch Shell (investing corporation)

Own assessment

One of the largest and most established petroleum corporations in the world with currently recovering revenue and profit streams from slumping oil prices in 2015 and 2016; self-regulative behavior focused on energy transition and transparency, but heavily hampered by non-compliance and lack of credibility (especially Nigeria)¹

Basic information

Headquarters	The Hague, the Netherlands and London, UK ²
Stock market	London Stock Exchange ³
Year of establishment	1907 ⁴

Main sources of public information

Sustainability Report 2017⁵

Shell Energy Transition Report⁶

Shell General Business Principles⁷

Standards

“Our reputation will be upheld if we act in accordance with the law and the Business Principles”⁸; “Anything less than 100% compliance undermines our performance and risks high costs that would hurt our bottom line as well as our hard-earned reputation”⁹:

¹ The Guardian (2015).

² Shell Global (2018b).

³ London Stock Exchange (2018).

⁴ Shell Global (2018b).

⁵ Shell (2018a).

⁶ Shell (2017c).

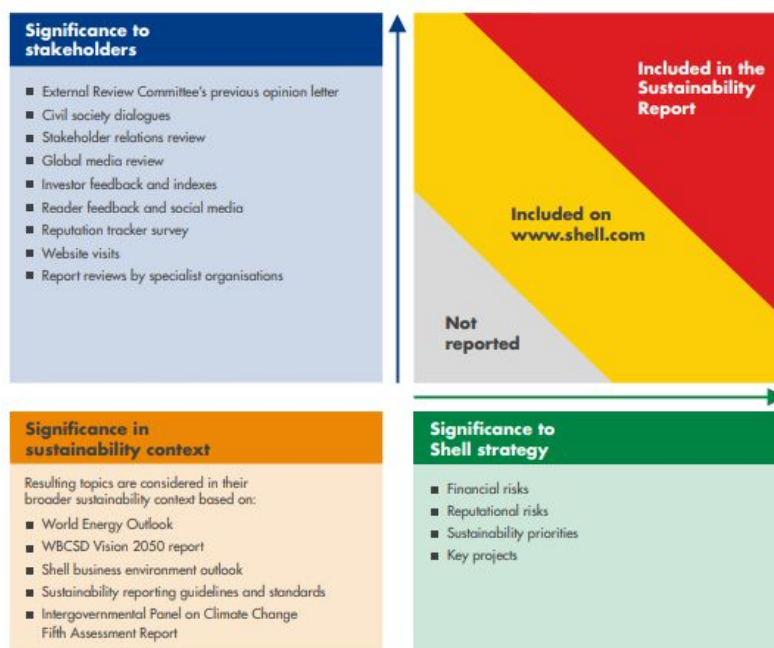
⁷ Shell International Limited (2014).

⁸ Shell (2018a), p.1.

⁹ Shell International Limited (2015).



UN Sustainable Development Goals guiding self-regulative standards at Shell (access to energy, protection of human rights, support of biofuels, and action against climate change)¹⁰



Topic selection map for Shell's sustainability commitments¹¹

Environment / Sustainability

Business strategy to meet change in market demand with a changed portfolio: “ambition to reduce the Net Carbon Footprint of [the company's] energy products by around half by the middle of the century”¹²; World Bank Initiative “Zero Routine Flaring by 2030”¹³; biodiversity projects in its geographical areas of activity, e.g. bird survey in Oman¹⁴ Natural gas and energy-efficient products at the center of providing cleaner energy¹⁵

Human rights / Labor rights

Reference to Universal Declaration of Human Rights, ILO conventions, UN Guiding Principles on Business and Human Rights, collaboration with the Danish Institute for Human

¹⁰ Shell (2018a), p. 36-38.

¹¹ Shell (2018a), p. 5.

¹² Shell (2017c), p.5.

¹³ World Bank (2015).

¹⁴ Shell (2018a), p. 48 and 51-52.

¹⁵ Ibid., p. 20 and 26.



Rights to improve corporate human rights approach (focus areas communities, labour rights, security, and supply chains)¹⁶

Finances / Taxation

Shell “compl[ies] with applicable tax laws wherever we operate”¹⁷;

OECD Guidelines for Multinational Enterprises¹⁸ and taxation guidelines “A New Bar for Responsible Tax” by the not-for-profit The B Team which are focused on transparency¹⁹

Workplace safety

‘Goal Zero’ to have no harm or leaks across operations at any given time; focused on personal, process, and transport high-risk activities and raising industry safety standards with, e.g. the American Petroleum Institute²⁰

Anti-corruption / Anti-bribery

Current litigation into allegations of bribery and corruption in Shell’s investment in Nigerian oil block OPL 254 at the center of compliance issues, but standard to be in accordance with UN Global Compact and the OECD Guidelines for Multinational Enterprises²¹

Diversity

Primary focus to fill senior roles with people from the respective countries and develop women to assume senior roles; recently extended to LGBT²²; little data except for increase of women in senior leadership position from 7.2% in 2000 to 15.3% in 2010

Other standards

¹⁶ The Danish Institute for Human Rights (2018).

¹⁷ Shell (2018a), p. 38.

¹⁸ Shell (2018b).

¹⁹ The B Team (n/a).

²⁰ Shell Global (n/a).

²¹ Shell (2018a), p. 30.

²² Shell International BV (2016).



Shell Foundation to coordinate efforts in social projects, such as supporting social entrepreneurs in low-income communities²³ (\$111 million was spent on voluntary social investment worldwide)²⁴;

Shell Global Helpline to raise ethics and compliance concerns²⁵

Monitoring

Responsibility lies with Board of Directors, Executive Board, Corporate and Social Responsibility committee and internal tracking via global metrics²⁶

Membership in various ESG indices²⁷, such as CDP²⁸, Dow Jones Sustainability Index (since 2016 following exclusion due to Shell operations in Nigeria), FTSE4Good Index, etc.

Reporting in line with the Global Reporting Initiative G4 core guidelines IPIECA - oil and gas industry association for environmental and social issues; API - American Petroleum Institute; IOGP - International Association of Oil & Gas Producers²⁹;

Support for United National Global Compact, but information subject to Report Review Panel of independent experts instead of assurance³⁰

Independent statement of Report Review Panel criticizes the sustainability report: particular comprehensive on energy transition (most material to its business), depth of the discussed issues could be improved, focus on successes rather than risks, metrics and processes not apparent, integration of SDGs needed, and gender diversity and inclusion should be a material issue³¹

Willpower (economic environment)^{32,33}

²³ Shell (2018a), p. 43.

²⁴ Ibid., p. 4.

²⁵ Shell (2018c).

²⁶ Shell (2018a), p. 13-15.

²⁷ Shell Global (2018c), p. 9.

²⁸ CDP (2018).

²⁹ Shell Global (2018a).

³⁰ Shell (2018a), p. 6.

³¹ Ibid., p. 8-9.

³² Shell (2018d).

³³ * \$/€ exchange rate (1 January 2018): 0.83243.



	Revenue	Profit
2017	€254,040 million* (\$305,179 million)	€11,184 million* (\$13,435 million)
2016	€194,448 million (\$233,591 million)	€3,977 million (\$4,777 million)

*recovering numbers from exceptionally bad trading years in 2015 and 2016³⁴

Shareholder structure: 43% free float, 3% The Vanguard Group, investment groups, 54% other investment groups and investors³⁵

“Without profits and a strong financial foundation, it would not be possible to fulfil our responsibilities” - general business principles (p.4).

Motivation (political environment)

Major projects all over the world³⁶;

Major reputational risks and high public scrutiny: Shell heavily involved in the pollution of the Ogoniland in southern Nigeria; even after adopting a new remediation management system in 2010, Shell’s operations do neither “meet the local regulatory requirements [n]or international best practices”.³⁷; “I have little doubt that in the minds of the Shell executives there is one law for Africa and another law for the rest of the world.” Martyn Day, lawyer at Leigh Day & Co, representing Nigerian claimants in legal action against Shell³⁸

Last update: 19 May 2018

³⁴ Reuters (2017d).

³⁵ Surperformance (2018).

³⁶ Shell Global (2018d).

³⁷ UNEP (2011).

³⁸ Leigh Day (2012).

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