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Case Study Series:

The Changing Role of
National Oil Companies in
International Energy Markets



STATOIL: A STUDY IN POLITICAL ENTREPRENEURSHIP

Richard Gordon, Thomas Stenvoll



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ABOUT THE POLICY REPORT

THE CHANGING ROLE OF NATIONAL OIL COMPANIES IN INTERNATIONAL ENERGY MARKETS

Of world proven oil reserves of 1,148 billion barrels, approximately 77% of these resources are under the control of national oil companies (NOCs) with no equity participation by foreign, international oil companies. The Western international oil companies now control less than 10% of the world's oil and gas resource base. In terms of current world oil production, NOCs also dominate. Of the top 20 oil producing companies in the world, 14 are NOCs or newly privatized NOCs. However, many of the Western major oil companies continue to achieve a dramatically higher return on capital than NOCs of similar size and operations.

Many NOCs are in the process of reevaluating and adjusting business strategies, with substantial consequences for international oil and gas markets. Several NOCs have increasingly been jockeying for strategic resources in the Middle East, Eurasia, and Africa, in some cases knocking the Western majors out of important resource development plays. Often these emerging NOCs have close and interlocking relationships with their national governments, with geopolitical and strategic aims factored into foreign investments rather than purely commercial considerations. At home, these emerging NOCs fulfill important social and economic functions that compete for capital budgets that might otherwise be spent on more commercial reserve replacement and production activities.

The Baker Institute Policy Report on NOCs focuses on the changing strategies and behavior of NOCs and the impact NOC activities will have on the future supply, security, and pricing of oil. The goals, strategies, and behaviors of NOCs have changed over time. Understanding this transformation is important to understanding the future organization and operation of the international energy industry.

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ABOUT THE ENERGY FORUM AT THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY

The **Baker Institute Energy Forum** is a multifaceted center that promotes original, forward-looking discussion and research on the energy-related challenges facing our society in the 21st century. The mission of the Energy Forum is to promote the development of informed and realistic public policy choices in the energy area by educating policy makers and the public about important trends—both regional and global—that shape the nature of global energy markets and influence the quantity and security of vital supplies needed to fuel world economic growth and prosperity.

The forum is one of several major foreign policy programs at the James A. Baker III Institute for Public Policy at Rice University. The mission of the Baker Institute is to help bridge the gap between the theory and practice of public policy by drawing together experts from academia, government, the media, business, and non-governmental organizations. By involving both policy makers and scholars, the Institute seeks to improve the debate on selected public policy issues and make a difference in the formulation, implementation, and evaluation of public policy.

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JPEC's international collaborations cover joint research and exchange of researchers and information with oil producing countries and international institutions and support for infrastructure improvement and solving environmental problems of the petroleum industries in oil producing countries.

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STATOIL:

A STUDY OF POLITICAL ENTREPRENEURSHIP

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INTRODUCTION

In retrospect, the first three decades of exploring and producing oil and gas in Norway stand out as a potent example of the successful development of a petroleum sector and surrounding industry. Many factors have contributed to this success, but it is the mixture of strategies that seems to have worked. This mixture is what we characterize as political entrepreneurship.

Norwegian policy successfully combined the development of a state-owned oil company and extensive participation by the international oil companies (IOCs) as it sought to create an industry and transform the economy. Statoil is today a highly effective Norwegian producer in its own right and, just as importantly, is a leading international competitor. As such, Statoil is an important case study to understand how a professionally run national oil company (NOC) can

serve the producing country through economic development and as a force in international politics.¹ In addition, Norwegian petroleum policy as a whole and the role of Statoil therein serves as an important lesson in how one can structure the petroleum policy in a manner that serves the economy as a whole rather than the interests of a limited number of individuals² in the economy.

This essay will argue that Norwegian petroleum policy was quick to harness the knowledge base learned from the IOCs from the very start of developing the Norwegian Continental Shelf (NCS). This knowledge base was, in turn, used to develop a domestic policy framework and a strong national oil company.

Public policy facilitated the early development of Statoil through the use of extensive preferential terms that removed exploration and discovery risk. Preferential treatment in accessing the resource base was important to ensure the survivability of Statoil in the early years and is a common feature of national energy policies in many countries around the world. While this policy approach is generally necessary as a means to starting a NOC, over time the emerging development of the NOC's position raises two key issues for public policymakers. First, how are the potential adverse effects of preferential treatment on NOC performance avoided in the long-term? Second, how does one wean the NOC of these protections once their original rationale is perhaps no longer valid?

In Norway, the existence of domestic competition with both other Norwegian companies and international companies operating on the NCS was an essential efficiency tool that helped address these concerns. A public policy commitment to efficiency in the sense of competitive commercial performance brings clarity to the role of the NOC from both a strategic and a tactical

¹ Albeit in a different manner than other NOCs such as Saudi Aramco

² As can be seen in some case studies such as Nigeria and Iran

perspective. It also provides objective goals and performance standards that can potentially bridge the gap in public policy towards the NOC and IOCs. Efficiency played a major goal of Norwegian oil and gas industrial policy from the beginning. The emphasis on efficiency in Norwegian policy does not mean that Statoil has not performed other functions. Also, we do not mean to imply that the general tendency for NOCs elsewhere to perform multiple functional goals is somehow wrong in all cases. However, an important conclusion of this paper is that a successful NOC needs to evolve in an efficient manner as the country's oil and gas sector matures.

As will be shown, competition is a powerful tool to promote a desirable evolution in the NOC's behavior. Indeed, the importance of competition as an efficiency driver and, the real value of efficiency as a fundamental goal of the NOC, is easiest to see in considering those cases where such competition has been absent such as Mexico.

An NOC can be affected by domestic politics and it can itself have an impact in the domestic political environment. Statoil has played this dual role, affected by and, in turn, affecting Norwegian domestic politics and foreign policy. As Statoil grew, it became increasingly a source of alternative power in domestic politics. The creation of State's Direct Financial Interest (Statens Direkte Økonomiske Engagement or SDFI) in 1985 meant that Statoil as a company no longer had the right to 50% of any field developed, nor did it allow for the upward scaling of the ownership rights. The creation of SDFI, which later became Petoro when Statoil was privatized, shows the need felt by domestic politicians in the 1980s to lessen the power that rested in the company through its vast network of links to communities where it was the largest employer. Today Statoil plays a more important role in foreign affairs, rather than

domestic politics,³ as Statoil and the newly merged Norsk Hydro have had to look outside of Norway for investment opportunities.

The evolving interaction of Statoil with the Norwegian body politic also illustrates how the domestic resource base of a country is a defining factor in the evolution of the NOC. Indeed, the logic of the pending merger of the two largest Norwegian oil and gas companies becomes clearer when two key facts are noted. First, as discussed above, domestic competition was necessary to achieve efficient development of the NCS. However, competition becomes complicated and even counter-productive when two companies largely owned by the Norwegian government compete for the same acreage in an increasingly competitive environment. Second, it will be argued in this study that as the domestic resource base matures, the critical issues confronting regulatory and strategic policy and the NOC change. These changes are often radical in nature. Specifically, as the oil sector matures, it may cease to be a growth industry and may, in fact, evolve into a declining industry. In the process, costs are likely to escalate and the character of new investment opportunities may radically change. For example, small incremental or add-on projects become dominant rather than new large world class discoveries. Also, future projects may be much more difficult.

The maturation of the host country petroleum sector poses a very real challenge to both policy makers and the NOC. Is the NOC to be confined to the role of presiding over a declining industry or is the NOC a tool to continue to generate wealth by moving internationally? For a number of NOCs, including Statoil, it is concluded that there is a very real imperative to expand the international program if the NOC is to continue growing despite the circumstances of a declining national petroleum industry. But, Statoil and Norsk Hydro have encountered very real

³ Such as seen in the role played by senior government officials in lobbying for Statoil and Hydro in playing a part in the development of the Stockman development

resource constraints affecting their international efforts. The severity of these resource constraints has been aggravated by increasingly restricted access to new investment opportunities and related rises in the costs of foreign exploration. A combination of the two companies and the coordination of their business development programs will eliminate redundant efforts. The elimination of these redundant efforts will have the effect of extending the combined resources, with the Norwegian state a key beneficiary as a shareholder in both companies. A similar benefit was realized by Statoil once before in its international program: in 1990, it entered an international alliance with BP.

INITIAL OBSERVATIONS ABOUT NOCs AND DRIVERS OF NOC STRATEGY

The evolution of the NOC as an organization, the role it plays within its host country and the factors driving its strategies will tend to reflect and parallel the maturation of the host country's oil and gas sector. At the same time, the NOC and its host country government must function in a global industry and marketplace. Shifts in global oil and gas cycles periodically redefine what is and is not possible.

There are two key drivers to change. First, a NOC's ability to grow and to create wealth will be substantially constrained as the national hydrocarbon sector matures. The dilemma is intensified by the fact that the NOC will generally be large relative to the indigenous hydrocarbon sector. This effect will be greatest in those cases where, through back-in rights or as a result of licensing policy or requirements, the NOC holds an interest in most, if not all licenses, projects and producing fields. Second, financial performance will be heavily influenced by the "average" performance of the country's hydrocarbon sector and current market cycles in the global oil and gas economy.

This dependency on the stage of development of the host country's hydrocarbon sector means that change is often forced on the NOC. Some examples may best illustrate this point:

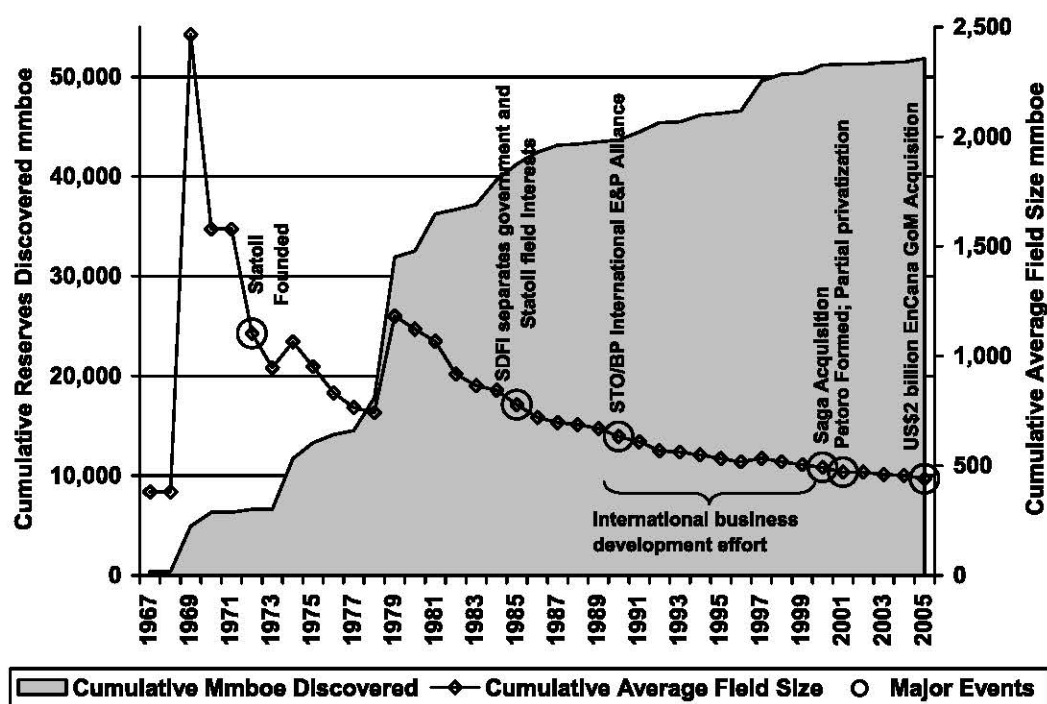
- The decision to move into international E&P will often be the result of internal barriers to future growth in a maturing resource base. CNOOC, Petronas and Statoil are examples.
- It is often true that initial development of a country's oil and gas sector is dominated by oil with gas playing a relatively minor role even when volumes of gas resources are substantial. Nigeria, Trinidad, Egypt, and Malaysia are key examples. As the oil sector matures or if oil production is constrained for other policy reasons, gas can become a significant alternative vehicle for investment as a means of substituting gas for oil in host country consumption or for gas exports as a new source of growth and wealth creation.
- As a NOC grows, the host government may begin to perceive the NOC's monopoly or near monopoly power as a threat. In such cases dilution of this perceived threat may often result in increased investment opportunities for the IOCs, reduced protections for the NOC or reduced scope of powers to award and administer licenses. In this latter case, the NOC's regulatory powers are diminished in favor of separate ministries.

The history of Statoil illustrates the impact of a maturing hydrocarbon sector on a NOC's challenges and choices. Cumulative total resources discovered in Norway and the average size of discoveries is shown in Figure 1, with a notation for key events in Statoil's evolution. As the diagram shows, Statoil was formed early in the history of the Norwegian industry while cumulative reserves rose dramatically following Statoil's formation.

The average annual rate of growth of reserves rose until approximately 1980 and, during this same period, oil prices increased dramatically. With high prices and a demonstrated capacity to yield significant new reserve discoveries, Norway was the focus of considerable competition among IOCs. After 1980, reserve growth continued but at a declining rate. Except for 1979, the average discovery size in Norway has declined more or less continuously over the last 25 years.

FIGURE 1:

CUMULATIVE RESERVE DISCOVERY HISTORY IN NORWAY



Source: Norwegian Petroleum Directorate.⁴

⁴ The international alliance with BP in 1990 was the beginning of a program of international business development that has continued and intensified through the present. The multiple events and initiatives that describe this international program are not all included in the graphic for obvious space reasons.

The history of Statoil's reserves cannot be tracked since its formation. However, they can be expected to roughly parallel the pattern of the country totals. Data are available for Statoil's proved reserve additions and output over the past seven years. These are shown in Figure 2 and highlight the company's challenge in its Norwegian operations: production is relatively flat and reserve additions have fallen short of replacing production in every year but one. In short, because Norwegian operations are unable to replace production on a consistent basis, future production will fall unless Statoil either: (1) improves reserve additions performance or (2) acquires other companies' Norwegian reserves. Figure 1 suggests that the first alternative is unlikely on any sustained basis unless some major previously unknown resource base emerges in Norway.

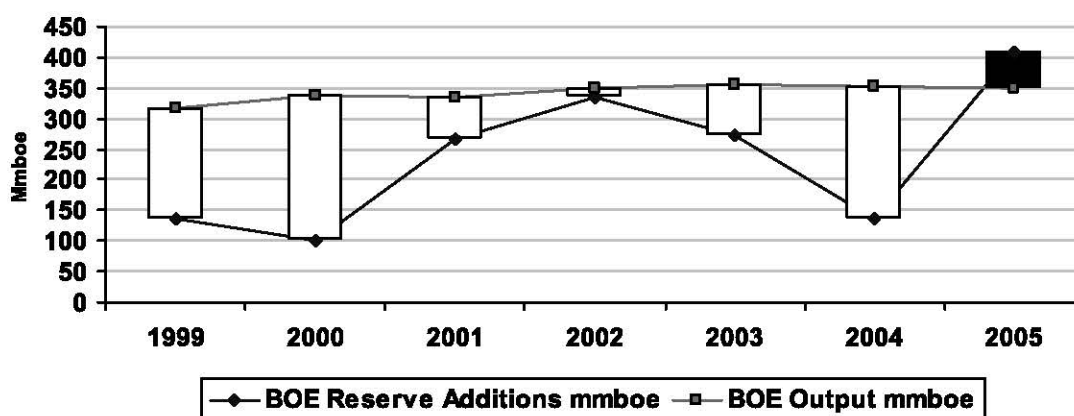
The declining rate of growth in discovered reserves in Norway has multiple implications for the drivers of success. Before, exploration success, measured in terms of multiple world-class discoveries, and the development of these major discoveries were key elements of success in achieving production growth and in superior cost and profitability. As additions have fallen, success has become more linked to: (1) commercial development of reserves discovered but not yet in production (often by utilizing spare capacity on existing infrastructure), (2) exploration for satellite fields around existing infrastructure and (3) application of advanced technology to increase recovery rates and sustain production volumes from existing producing fields. In this new business environment, application of these three strategic elements yields strong profitability performance. However, the potential for growth is severely limited.

It is to be expected that, confronted with these realities, companies will turn to international programs to sustain growth potential. Statoil's strategy (as well as the strategies of many of the IOCs active in Norway) in the late 1980's and the 1990's incorporated a

commitment to go abroad as well as development of existing fields, satellite fields and application of enhanced recovery technologies.

FIGURE 2:

**STATOIL'S NORWEGIAN INTERNAL RESERVE
ADDITIONS AND OUTPUT
(MMBOE)**



Source: Statoil 20F, various years.⁵

A PROFILE OF STATOIL AND

THE ROLE OF THE PETROLEUM SECTOR IN NORWAY

In 2005, the petroleum sector represented 25% of Norway's gross domestic product and 52% of total exports. The industry employed 30,000 people in 2005, only slightly more than 1% of total employment. In 2005, Statoil reported that it employed slightly more than 12,000 people in Norway. Of the 30,000 people employed in the industry, nearly 12,000 were in the service and retail industries.

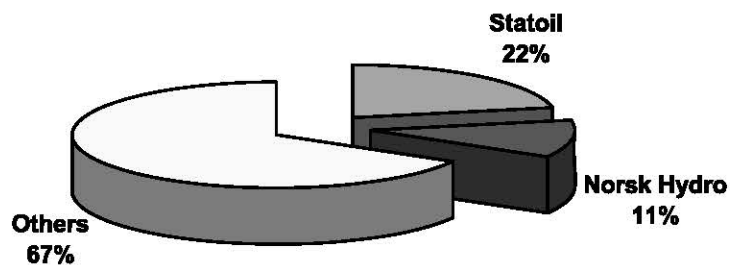
⁵ Note: internally generated reserve additions do not include the effects of purchases or sales of proved reserves.

While output has varied slightly in recent years on a year-to-year basis, total oil equivalent Norwegian production reached a plateau of roughly 260 million standard cubic meters (or 4.5 million boe/d) in 2002. Recent declines in Norwegian oil output have been offset by rising gas production and increased NGL output.

As shown in Figure 3, Statoil and Norsk Hydro account for 33% of Norway's output. The share in the oil sector is less while, in the gas segment, the two companies account for nearly 40% of Norway's output.

FIGURE 3:

**COMPARATIVE COMPANY SHARES IN NORWAY
2005 OIL AND GAS OUTPUT**



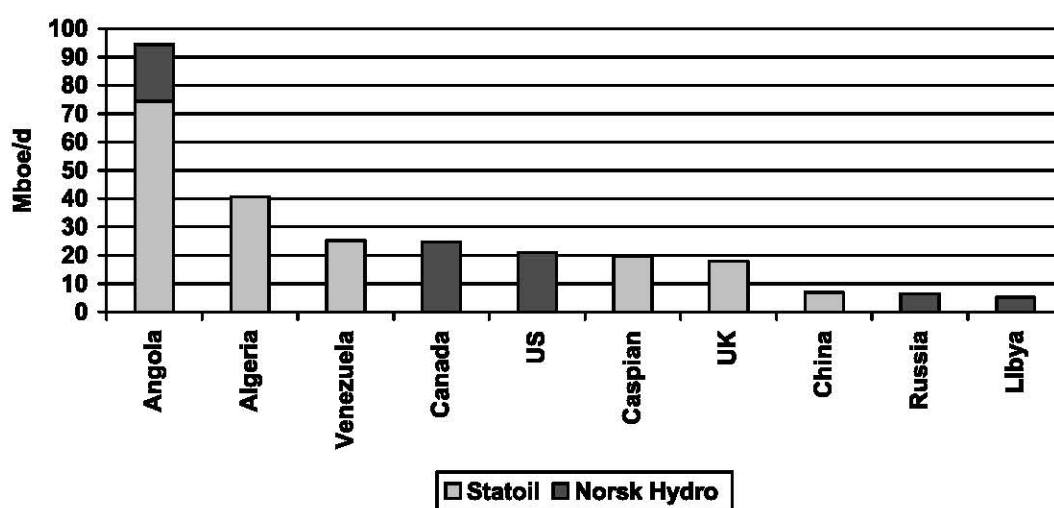
Source: Statoil and Norsk Hydro 20F reports and the Ministry of Petroleum and Energy, Facts, The Norwegian Petroleum Sector 2006

Statoil participates in a majority of the 50 producing oil and gas fields in the Norwegian Continental Shelf and was operator for 24 fields in 2005. Key fields in Statoil's portfolio include Sleipner East and West, Troll, Asgard, Statfjord, and Gullfaks. Figure 4 shows international oil and gas output by country for both Statoil and Norsk Hydro. Angola and Azerbaijan are key

success stories for Statoil's international operations that can be traced back to its alliance with BP.

FIGURE 4:⁶

**2005 INTERNATIONAL OIL EQUIVALENT PRODUCTION
STATOIL AND NORSK HYDRO**



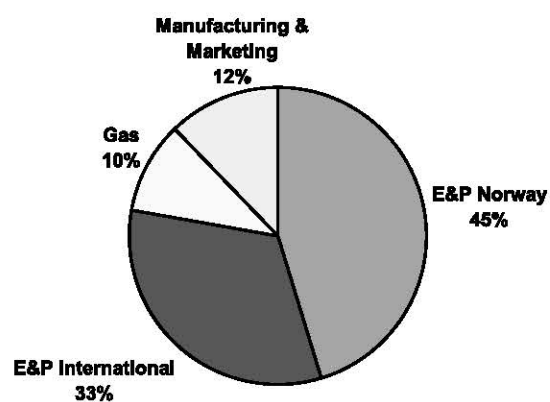
⁶ Note: Norsk Hydro acquired Spinnaker in December 2005. As a result, Norsk Hydro only reported output in the US of less than 1 mboe/d. The US production data shown here is based on annualized output as estimated by the authors.

Independently, Statoil and Norsk Hydro are ranked 28th and 38th in 2005 oil production by *Petroleum Intelligence Weekly* in a ranking of world oil companies. Combined, Statoil and Norsk Hydro rival ENI in oil production, which ranked 22nd. Based on gas output, Statoil and Norsk Hydro ranked 20th and 45th, respectively. Combined, the company will rival RepsolYPF which ranked 14th.

Statoil's operations are split into exploration and production, natural gas, and manufacturing and marketing. The natural gas segment transports, processes and sells natural gas from Statoil's operations in Norway and some international operations. Manufacturing and marketing encompasses downstream activities including sales and trading, refining, methanol production, and retail and industrial marketing of oil. The company has a 79% interest in the Mongstad refinery in Norway (179,000 b/d capacity) and a 100% interest in the Kalundborg refinery in Denmark (118,000 b/d capacity). Exploration and production dominates the company's long-term asset base as shown in Figure 5.

FIGURE 5:

**COMPARATIVE ROLE OF OPERATING SEGMENTS:
PERCENTAGE OF STATOIL'S LONG-TERM ASSETS
DECEMBER 31, 2005**

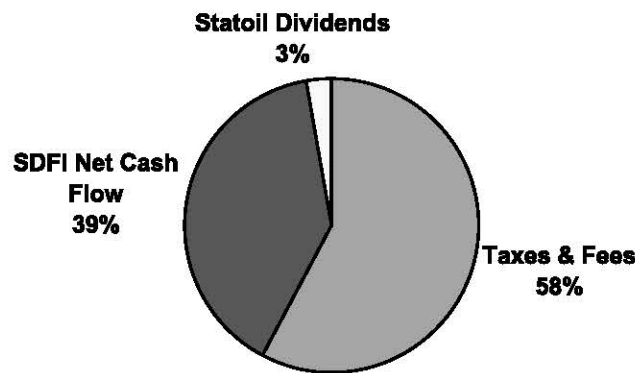


Source: Statoil 2005 20F

The Norwegian government derives revenues from the petroleum industry from three major sources: taxes and fees paid by oil companies producing in Norway, the government's share in the net cash flow from Norwegian production through its SDFI holdings, and dividends from Statoil. Figure 6 shows the distribution of government revenues from these sources.

FIGURE 6:

**NORWEGIAN SOURCES OF REVENUE
FROM THE PETROLEUM SECTOR, 2005**



Source: Ministry of Petroleum and Energy, Facts,
The Norwegian Petroleum Sector 2006

The sale of Statoil shares in 2001 and subsequent trading on public exchanges as American Depositary Shares (ADS) establishes a clear, external valuation of the government's shareholdings in Statoil. Changes in this valuation are also useful in evaluating the performance of the company.

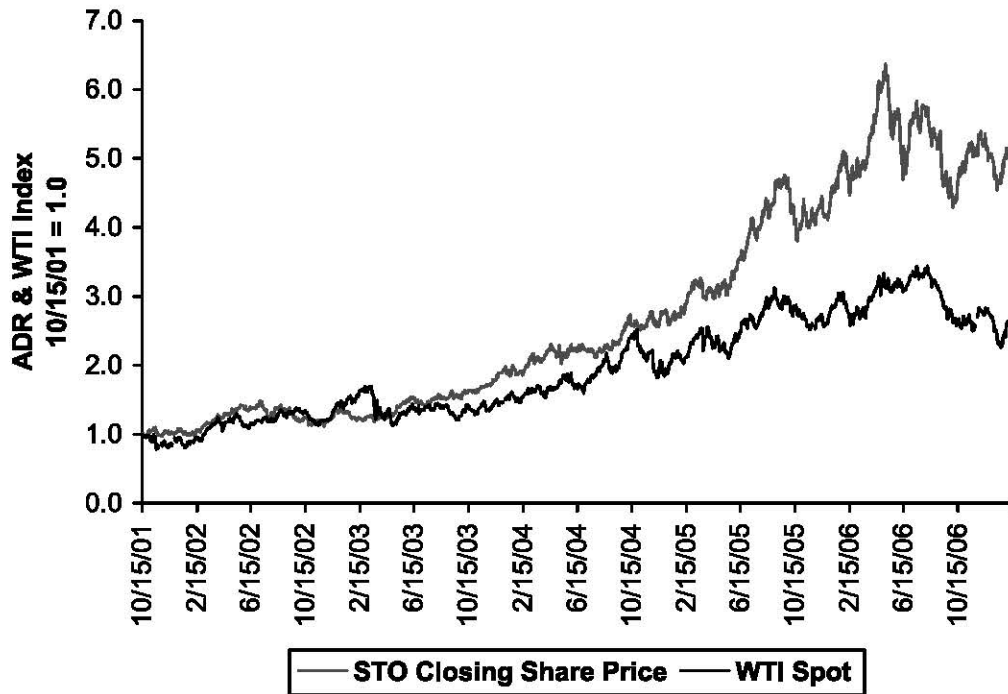
Between October 15, 2001 and its peak on May 5, 2006, Statoil's ADS on the New York Stock Exchange increased in value by a factor of almost 6.4 times. While ADS prices have fallen significantly since that peak, they remain relatively high compared to their starting point by a factor that has averaged nearly 5 times.

Statoil

This surge in Statoil's value is related in part to oil price inflation since 2001. Figure 7 compares the daily West Texas Intermediate (WTI) spot price of crude with the daily close of Statoil's ADS since October 15, 2001. Both series are expressed as indices with the value on October 15, 2001 set to 1.0 as the base. This facilitates comparisons. The very large and understandable role of oil prices in the strong value performance by Statoil is clear from the chart. In fact, the two series are very highly correlated. However, it is also apparent that Statoil's ADS price performance has been even better than one would have expected based solely on the price of oil. There are, of course, multiple reasons why this might be the case and not all of them have to do with Statoil's performance in creating wealth. Nevertheless, this much is clear: Statoil has succeeded in increasing the value of the state's shares since the initial public offering (IPO) and some significant portion of this increase is not linked to higher oil prices.

FIGURE 7:

**COMPARATIVE INDICES OF THE VALUE OF STATOIL'S SHARES
AND SPOT CRUDE OIL PRICES
OCTOBER 15, 2001 = 1.0**



Source: US Department of Energy, New York Stock Exchange

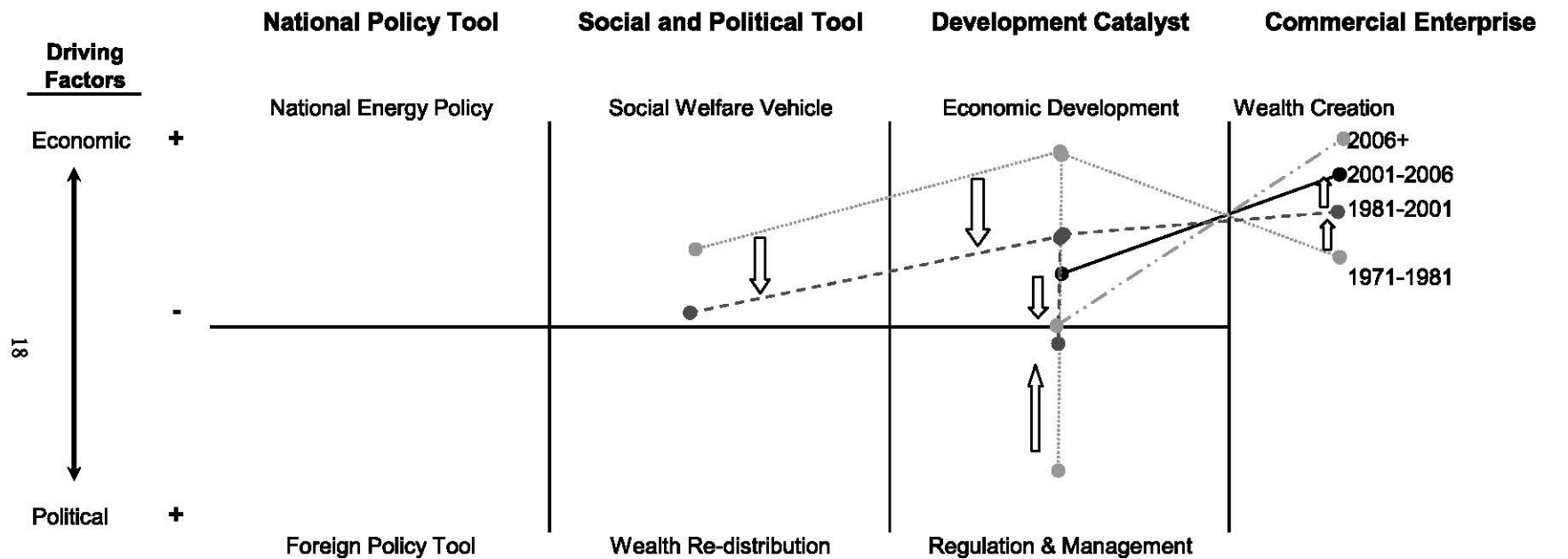
THE EVOLUTION OF STATOIL:

THE FIVE PHASES OF STATOIL'S DEVELOPMENT

This study identifies five key phases of Statoil's development. These stages are separated by fundamental changes in capabilities, business realities confronting the company and the government, and goals or functions performed by the company. The five stages in Statoil's development are: (1) Norwegian oil before Statoil (2) Startup and Evolution, 1972-81, (3) Post Adolescence, Functional Competitor, 1981-2001, (4) Privatization, 2001-06, and (5) Statoil Post Hydro Merger, Drive to become a Global Competitor, 2007+. The date separating stages 1 and 2 are only approximate. These five stages are described in detail below.

The evolution of Statoil's functional priorities and roles coincide with these five stages. Figure 8 provides a graphical depiction of how these priorities and roles evolved with each stage. The figure shows the non-commercial priorities for the company at its start and its progression over the years to transition to a wealth creation role.

Figure 8: Key Functional Roles of the NOC



- 1) Wealth Re-distribution: collect and distribute rents via fuel subsidies and other paybacks to the broader populace such as pensions, jobs, etc.
- 2) Social welfare: job creation, education, scholarships, schools, infrastructure
- 3) National energy policy: "guarantee supply to domestic economy"; subsidize other energy projects
- 4) Foreign policy: oil diplomacy, alliance formation, developing regional or super power ties
- 5) Economic development: technology transfer, industrialization, foreign investment, economic diversification (local content requirements & service industry)
- 6) Regulation & management; participation in direct government share of discoveries; licensing awards; regulatory functions
- 7) Wealth creation: financial return & profitability; return to shareholders i.e., government and private investors

An important point to note from Figure 8 is that, compared to many NOCs, the non-commercial functions of Statoil have been relatively limited. This will be discussed in more detail later in this case study. One implication of this difference is that Statoil's operations have been less likely to be serving conflicting goals. Also, over time there has been a progressive decline in the importance of the less commercial functions such as social welfare or regulation and management. From the perspective of the number of functions it is expected to fulfill, demands on Statoil have become more focused and simplified. However, as the demands on the company have become increasingly focused on its role as a source of wealth creation through commercial operations, the practical challenges that must be met in order to achieve wealth creation has become more difficult due to the maturation of the Norwegian sector and competition internationally.

Norwegian Oil prior to Statoil—why have a state owned company?

The prospect of expanding the exploration of the North Sea to include the Norwegian Continental Shelf presented some key issues: 1) How to develop a regulatory framework, 2) How to ensure the development of a wider petroleum industry and avoid the 'Dutch disease' where high revenue flow from the oil industry creates inflationary pressures that stifle economic development in other sectors of the economy, 3) How to ensure national participation in a sector without sufficient human or financial capital, and 4) How to organize direct participation of the Norwegian government.

The first step in outlining a legal and regulatory framework for the Norwegian industry took place with a declaration of national sovereignty and ownership over the Norwegian Continental Shelf (NCS) in 1963 – one year after the first application to conduct exploration was filed. This illustrates the patience that was shown in the initial years of developing the NCS.

Until the right policy and regulatory framework was established, no development took place. This also underlines the privilege of Norwegian petroleum policy where immediate development goals could be put on hold while the desired regulatory structure was developed. While the initial “reconnaissance licenses” were already given that same year, it was not until 1965 after regulatory framework developed and after the border delineation between the UK, Denmark and Norway was settled that the first licensing round was awarded. The next year the first exploration for oil and gas took place.

The initial licensing round was dominated by IOCs, although two Norwegian companies also took part. These were Norsk Hydro (the largest industrial conglomerate) and Norwegian Oil Company (a consortium of shipping and heavy industry companies). Allowing IOCs in the initial development phase later proved to be important as it allowed for the initial transfer of human capital to take place. In addition, the greater initial role played by IOCs lowered the financial and exploration costs for the Norwegian participants and for the Norwegian government.

After some initial doubt, with the discovery of the Cod gas field in 1968 and Ekofisk in 1969, the NCS finally became viewed as a viable petroleum province. In the meantime and particularly after the discovery of Ekofisk, domestic policy ambitions increased considerably. While the second licensing round was issued under similar terms to the first, it became apparent that the state could and would increase its share of the revenues. Steps were taken to introduce a *carried interest* or direct participation by the Norwegian state in the fields to be explored. The era of more active participation by the Norwegian state in the commercial operations had begun.

Increasing domestic participation, expertise and control of commercial operations in Norwegian petroleum industry was at this stage a desire across the Norwegian political spectrum, although full nationalization was never seriously considered. The Norwegian government entry

was well timed, allowing the government to avoid assuming much of the geological risk. In pursuing a strategy of increased resource control and participation, Norwegian policy makers followed a strategy that has been followed since the early 20th century in industries such as hydro electric power, mining, fisheries and agriculture.⁷ Still, initially, the decision about the form of direct national participation was still unclear and there was debate about whether a corporate structure was the most appropriate tool. To further complicate matters, it was unclear in any case which company would be better suited: a private or state owned company. In choosing the form of national participation, the debate centered on three options: a) to promote the creation of a large private company; b) to allow Norsk Hydro to develop the sector; or c) to create a state owned company.

While domestic capital, as shown by the Noco group (essentially made up by shipping companies) was willing to play a major part in the development of the petroleum sector, there were significant objections against a purely private consortium. Dominant among these was the fear that a private company would eventually be dominated by international capital. Furthermore, as a political policy tool, a fully private company was considered an inferior solution by Labour politicians.

Norsk Hydro saw the political debate on the future structure of the state's interest as an opportunity to become the principal Norwegian company in the petroleum sector. In part due to its size and in part due to its petrochemical business, the move into the upstream industry was seen as a natural evolution and supported by some right of center political groups. In a country with limited diversity of private capital, Hydro was seen as the one of the few viable private alternatives with international expertise to enter a global market; furthermore, the stake owned by the government could make it a significant policy tool. In 1970, although initial steps were

⁷ We thank our reviewer for pointing this out

taken to secure a majority government stake in Norsk Hydro, this option fell by the wayside with the resignation of the center-right government in 1971.

In the summer of 1971, the main policy guidelines that dominated the NCS for the next 30 years were laid out in the “10 Oil Commandments.” The 10 points were developed as part of the policy agenda of the Labour party. The plan included sound macro-economic policy with export of hydrocarbons via mainland Norway and the establishment of a fully state-owned company to develop domestic industry. By succeeding with these goals, the first managing director of the newly formed state entity Arve Johnsen and the Minister of Industry, Mr. Finn Lied, were confident that the development of the NCS would lead to the evolution of large scale Norwegian industrial development. Thus, industrial development in Norway was established as a key policy objective for the new national oil company.

One year later in 1972, the parallel creation of Statoil to take care of the state’s commercial interests and the Norwegian Petroleum Directorate to take care of the regulatory framework became official. Hence, in addition to the 10 commandments, a trinity was created between the ministry, the directorate and Statoil. The tripartite was responsible for the policy, regulation and commercial interests of the government. The Parliament maintained the power to determine which areas should be opened for exploration while the government (and later the ministry) was given the power to award licenses. This separation of power is an important and successful feature of Norwegian petroleum policy that has remained until today.

Still, the presence of domestic private players was a critical difference between Norway and other countries. The presence of indigenous competition for assets in Norway’s oil and gas sector through Norsk Hydro and another Norwegian firm Saga meant that, from the start, Statoil

faced much more competitive pressure to perform financially than has been typical for other national oil companies.

Startup and Evolution

Dating from the company's formation in 1972 until it first exercised the role of operator in a major Norwegian development in 1981, the company's fundamental functions were: (1) To manage the state's equity interest in oil and gas licenses and pipelines, and (2) To serve as a conduit for technology transfer and economic development.

While there was still a lot of ground yet to be covered when Statoil's first managing director Arne Johnsen moved into the first Statoil offices in Stavanger, Norway, it is clear that the government policy gave the firm a good starting foundation. The stipulation of 50% ownership by Statoil in all developed fields ensured that the company had equity participation from an early stage. Furthermore, as the state's ownership was only added after the well was discovered, the company did not have to take on any risk of exploration. Hence, the transfer of knowledge and technological expertise was less of a concern in the initial phase. As a non-operating partner, the company had access to the exploration expertise of the major participants without the need for a large exploratory budget or staff. In size this meant that the company by 1980 was investing 2.5bn in nominal Norwegian Kroner (US \$0.5 billion) annually in exploration, with a staff of around 1,000 people.

Still, this "success at no cost" scenario still required Statoil to be able to administrate assets. To enable Statoil to serve as a focal point for economic development, several key policy choices were made. Infrastructure investment was a major element of the program to achieve growth. It was considered important for Statoil to secure ownership of gas pipelines, allowing it to control access to export this export infrastructure and thereby control the volume and price

charged for natural gas sales to end-users.⁸ From a policy perspective, this allowed Statoil to act as a direct policy tool through the administration of these pipelines. The 50% ownership of the Norpipe system to the UK and Germany were the first results of this infrastructure policy.

Another government led investment that started the vertical integration of Statoil was the construction and expansion of the petrochemical facilities that then existed in Bamle, Telemark. The investment was in large part a direct result of government policy that also involved Norsk Hydro and Saga. Still, it allowed the company to take its first steps towards vertical integration.

In addition to physical infrastructure, important challenges remained for the company in developing human resources. In part, the development of human capital was done over time as the operation of licenses was transferred to Statoil. Still, the company had to train many of its own staff internally.

Having secured its foundations, the company was ready to develop into the next stage. While oil from Statfjord started flowing in 1979, Statoil was still only a “passive” owner on the NCS. In 1981 this changed. As the operator of the Gullfaks field, the company took a giant leap toward adolescence. After Gullfaks, Statoil led the agenda to develop the sector at a fast pace. As net unspent profits had to be transferred to the Norwegian treasury, the company had strong incentives to increase its activity levels and make investments. By maintaining a rapid growth, the company could prevent capital from leaving the company.⁹ The purchase of Esso’s distribution network in Sweden and Denmark in 1985 and 1986 illustrates the combination of

⁸ While crude oil exports with the exception of Norpipe that pumps Ekofisk to the UK (Teeside), Norwegian gas exports until Snohvit has been exclusively through pipelines to the UK and Continental Europe. Controlling the pipeline infrastructure allowed Statoil and the other members of the Gas Negotiating Committee to set the price at which the gas of all producers was sold. This ended with the entry of Norway to the EEA in 1994.

⁹ Richardson, 1981:43 (ARENA Working Papers WP 02/34 Statoil—between Nationalisation, Globalisation and Europeanization Dag Harald Claes)

ambition and a desire to invest that dominated Statoil in the 1980s as it sought to be a fully integrated company.¹⁰

For the company, the first operation of a field was considered a great victory and proof of its successful establishment. It also was the first step of transition towards a new stage in Statoil's relation to the body politic. Statoil had suddenly become very important and powerful, as the firm built allegiances in the communities where it operated. This allowed the company to build constituencies among both regional and national politicians, giving Arne Johnsen and his Labour party a major say in the political process.

Another goal of the Labour Parties' "oil commandments" highlighted above was to construct a domestic industry including oil service, engineering, and contract construction around the market emerging with the development of the NCS. Besides Statoil, the principal mechanism to ensure this development was the requirement for operators to use domestic firms in the development and production phase. With Statoil assuming a larger amount of operational responsibility, the company became an extremely powerful unit determining what goods should be used and what communities should be favored.

The political power¹¹ that resided in the senior management of Statoil was an important reason why Statoil's first stage of development came to an end. While the policy of developing a company and an industry around it was a success, the organization became increasingly influential in local and national decision making. In particular, Arne Johnsen and other members of the senior management commanded at times more loyalty in aspects of regional and local

¹⁰ The entry into the distribution and retail segment was driven by the strategic goal of Statoil to be a fully integrated company. This was a principal feature of Statoil under Arne Johnsen whose management approach can be described as a "guerilla warrior" in Statoil should participate in every aspect of the industry.

¹¹ By political power the authors refer to the influence Statoil had on regional politics due to its importance as an employer and its ability to influence decisions in national politics due to the senior management's ties to national politics as described above.

policy than national politicians. In addition, due to its fiscal importance the relative power of company versus the state meant that the company commanded substantial amounts of autonomy—much more so than originally envisioned. This kind of “invincibility” featured in Statoil’s political role during the 1980s.

The latter half of the 1980s was, for Statoil, increasingly dominated by the pressures in domestic politics that saw the company as accumulating too much power, inviting more scrutiny to its operations. In tandem with this, it is clear that a culture had emerged where the first 10 years of tremendous success led the company to take on tremendous risks and projects. In addition, during the last half of the 1980’s, the impact of decelerating reserve additions was becoming apparent.

The development of the Norwegian petroleum industry during Statoil’s startup phase was complicated by the worldwide cyclical expansion of the petroleum industry in the 1970’s and early 1980’s. Costs rose very dramatically in response to the very heavy industry investment associated with high oil prices and project lead times were extended. Also, the government continued to adjust petroleum taxation in response to the radical shifts in the underlying value of a barrel of oil.

However, a very substantial portion of these problems were externally driven, affected all companies, and Statoil’s responsibility was limited. In its next phase of development, the responsibility for performance shortfalls was placed more squarely on Statoil’s shoulders.

Expansion and Growth

Dating from the Gullfaks field, the company’s functions were expanding to include its role as a clear competitor (and potential alternative to) IOCs operating in Norway. The company’s previous functions were continued but, as operator, Statoil clearly became

“responsible” to the state for its own performance in finding, developing and producing Norway’s oil and gas resources. The process continued through the late 1980’s and into the 1990’s. In many respects, this was a period of functional de-coupling and internationalization.

An example of how the Statoil was increasingly viewed in domestic politics has been pinpointed by Einar Stensnæs:¹² “In general, there were concerns that Statoil would become too strong within the Norwegian economy and also politically. There was thus a wish to reduce Statoil's power and size.”¹³ The desire to reduce the power of Statoil, also coincided with a return of the conservative party in power. The creation of Statoil, at the cost of Norsk Hydro was for many conservatives seen as a big mistake as it increased the economic power of the state at the cost of private industry.¹⁴ Although the success of Statoil could not be denied, it quickly became apparent that the conservative and later center-right coalition wanted to change power relations. While doing so, the coalition also hoped to readdressing policies that had been put in place by the Labour party, during its post war dominance.

The first large readjustment was to remove some of the key privileges that Statoil had enjoyed during the 1970s and early 80s. The most significant of these was the separation of resources and production between the state and Statoil. The creation of Statens Direkte Økonomiske Engagement (SDFI) in 1985 meant that Statoil as a company no longer had the right to 50% of any field developed, nor did it allow for the upward scaling of the ownership rights. Although the company maintained the role as manager and marketer of the State’s resources, it could no longer book these as company owned reserves. Rather the company’s field

¹² Stensnæs served as energy minister between 2001-04

¹³ <http://odin.dep.no/odinarkiv/norsk/oed/2003/p30007989/026031-090082/dok-bn.html>

¹⁴ The ideology of the Norwegian conservative party follows that of the center-right in many European governments with a traditional stance in favour of private industry. Nevertheless the Norwegian conservatives have never challenged national resource control, rather it has preferred for Hydro to play a larger role as a partially privatized company.

ownership was reduced to 12%. Not only did this mean that the company lost the bulk of its reserves, it also meant that Statoil had to take risks much like the other equity holders on the NCS.

This separation of the state's equity interests between what was held through Statoil and what was held directly through the SDFI more clearly distinguished between the pro-active investment functions of the state (via Statoil's interest and the government's shareholdings in Statoil) and the passive investment function of the state (via the SDFI). Statoil continued to manage the sale of oil and gas associated with the SDFI. In many respects, the creation of SDFI was the step toward the decision, 15 years later, to partially privatize Statoil shares. The nurturing of Statoil as a company was over. The baby had become too powerful and as a result a new dynamic had to be created.

Meanwhile, another event that was to serve as a catalyst for change had begun to go awfully wrong: the purchase and expansion of the Mongstad refinery and oil terminal. The decision to enter the downstream segment of the oil industry was early a priority for Statoil. The company believed vertical integration would add value from its equity production and diversify and protect its revenue flows. Still, the strategy for vertical integration was not addressed until early 1980, when Arne Johnsen publicly announced his plans. Norsk Hydro at the time was a 30% owner of the Mongstad refinery and Johnsen's plans for the downstream were seen as hostile from Hydro. While Statoil ploughed ahead with the plans to expand Mongstad, Hydro withdrew from the expansion plans which were seen as too expensive and lacking sufficient commercial returns. In the end, Statoil got its way – and after prolonged negotiations, Statoil also took over Hydro's share in the refinery.

Wresting the refinery from Norsk Hydro was only part of Statoil's problems, however. In moving past the planning stage and into the expansion of the refinery, it became increasingly clear that the then expensive project had gone radically wrong. In 1987 with the project 2 years away from completion, the project costs had escalated by nearly 60%. As the cost overruns were exposed in the press, the refinery project reached a commercial and political tipping point and, after losing support from the key ministers, Arne Johnsen was forced to resign, ending his legacy for the company's political and commercial expansion. Taken together, the loss of the SDFI and the loss of the management were instrumental in forcing change on Statoil. In the coming years, the links between the company and the state would be reassessed.

Statoil, at the end of the 1980s, was a company of considerable size. Nevertheless, in the aftermath of the Mongstad scandal, the company had to radically readdress its policies. This was addressed by the new CEO Harald Norvik in several ways. First, Norvik tried to readjust the company to its new more mature role and, meanwhile, create an understanding in its management for the power that it held.

In addition, since the company had "lost" many of its reserves through the restructuring of the SDFI, it was important to find alternative sources of hydrocarbons at a time when the NCS was becoming a less and less fertile source of new resources. This meant that Statoil had to re-evaluate its portfolio of business development opportunities within Norway and to compare the prospects internationally. Two key choices emerged. The company increased its focus on natural gas at home and, at the same time, began for a second time the process of moving internationally. Statoil's international program has followed two tracks: an alliance with BP and efforts undertaken solely on Statoil's own account.

The company's alliance with BP in 1990 was a critically important step for Statoil. From an operational perspective, new business development efforts of the two companies were coordinated in the areas of mutual interest. As a result, the start-up costs were less demanding, particularly with respect to human resource demands. The alliance resulted in multiple major discoveries in Angola, a significant presence in the Azeri/Chirag/Guneshli (ACG) project, and Vietnam. Production from assets acquired or discovered during this alliance are a major part of the Statoil's current international output. Although the alliance had ended, the relationship recently yielded additional international positions when Statoil acquired from BP partial interests in the In-Salah and In-Amenas gas projects in Algeria. However, Statoil holds relatively small interests in the assets generated by this alliance. International efforts outside the BP alliance have included a costly mix of acquisitions and grass roots efforts in Ireland, the US (twice), Iran and Venezuela. In tandem with the international expansion, the development of the Troll gas field and sales contracts illustrate the first steps taken by the company in rebalancing its asset base from oil to natural gas.

The readjustment to the company's portfolio also included rationalizing the company's earlier investments in vertically integrated and diversified assets made throughout the 1980s. The Mongstad refinery was only part of the puzzle, which also included participation in the retail sectors of Scandinavia, the Baltic Sea region and Ireland. In the mid 1990s, the company spun off its petrochemical business, creating the company Borealis, which combined the assets of Statoil and Neste.¹⁵

By the 1990s, therefore, Statoil was a different, more mature organization that no longer could solely rely on its core business model of producing crude oil from the NCS. In addition, the changes reflected a new dynamic between policy makers and Statoil. Gone was Arne Johnsen

who had followed the development of the NCS and Statoil from the beginning and who leveraged a considerable influence over domestic politics. The new management did not have the same privileged role nor did it want to replicate the political baggage with which Statoil was perceived in the 1980s.¹⁵

The changing nature of Statoil raised questions about whether the company should remain a national oil company. From a policy perspective, was it defensible for the Norwegian state to own upstream assets in Azerbaijan or retail stations in Dublin? While the company continued to be owned and protected by the state, the organization of the Norwegian oil industry and policy had changed, and Statoil began to look more and more like an independent oil company.

The development of this new company was further solidified through the development of the Troll¹⁷ natural gas field and the resulting importance and renewed flexibility the company achieved for its European natural gas business. The new management under Mr. Norvik was successful in reconfiguring Statoil, but this reorganization moved the company away from its original goals.

The development in 1997 of the Lufeng field off China and the Azeri-Chirag field in Azerbaijan demonstrated that the company had moved strongly away from its role as a purely domestic player. But the company was still active in the NCS which is also where the next catalyst for change was found. While parts of the senior management had started contemplating the idea of privatizing the company, there were still few signs that this option would be seriously considered by important politicians—at least until the next mismanaged development, the Aasgard field.

¹⁵ And in which Statoil held 50% stake until it sold it in 2005

¹⁶ As highlighted by H. Norvik in conversation with the authors

The Aasgard field, developed during 1998 and 1999, was a technological leap forwards.¹⁸ The whole field was developed with tie-backs in a completely new sector of the NCS. In addition, the development also involved the construction of multiple pipelines and export infrastructure. The Aasgard development was ambitious, especially as it happened in tandem with the price slump of the late 1990s. With crude oil at \$10 per barrel, the level investment required to develop the field was extremely costly for both the company and the state which also was suffering from the depressed prices of their principal export.

Much like the mismanaged Mongstad refinery expansion ten years earlier, the Aasgaard development highlighted a lack of budgetary controls and project mismanagement. While Mongstad at the time of construction set a domestic record in missing its budgetary targets, Aasgard was 18bn NOK (US \$2.6 billion) above the original budgets at the time of completion. The state, with dual direct ownership, was particularly hard hit. Once the then oil minister, Marit Arnstad, voiced her criticism, the end of Norvik's leadership was imminent.

As the resignation became only a matter of time, it is clear that Mr. Norvik saw it as an opportune time to leave a lasting legacy. During a speech in Sandefjord in January 1999, he raised the issue of Statoil's ownership structure. This was the first time that the senior management of Statoil suggested that a state-owned company might not be the only way to organize the Norwegian petroleum industry. In April of 1999, the board of Statoil was removed by the Minister of Petroleum. Mr. Norvik offered his resignation after the board was dismissed by the Minister. As this could not take effect before a new board was elected, his resignation did not take effect until October 1999, which enough time to find the next generation of

¹⁷ Troll is by some denoted as Norway's Groningen, allowing for increased flexibility of the natural gas sales

¹⁸ Producing in 2006

management. However, with or without Mr. Norvik, the ball towards privatization had started rolling.

Privatization: 2001—2005

Starting in 2000, there was a period of major international initiatives and a complete rethink of how the Norwegian oil sector was run. Following privatization, Statoil embarked on a wide ranging international program. In this respect the company's operations were not fundamentally different from those of a wide array of "mid-size" IOCs or large NOCs looking to diversify outward from their home countries as a means to grow. Late in the period, the company's capacity to meet its international goals was increasingly challenged as rising oil and natural gas prices fuelled both more intense competition for new business opportunities and triggered a more negative attitude of key producing country governments to IOC operations. Following the first suggestions from Statoil and the mismanagement of the Aasgard fields, the first political interest was voiced for the development of an alternative ownership structure that included private capital. While the centrist¹⁹ coalition did not expect Statoil's ownership to be political topic during its tenure in office, it was the conservative party which explored the role of private capital in a future ownership structure.

Late in the summer of 1999, Statoil presented its formal proposal for reorganizing its ownership. It entailed the rather self-serving goal of transferring ownership from SDFI to Statoil, as well as, the partial privatization of the company. While the integration of the state's reserves would have been to the company's tremendous advantage, it is also clear that the privatization was seen by the Statoil management as way to maintain competitiveness.

¹⁹ Consisting of the Christian-Democrats, Centre party (agricultural party) and Left party (confusingly a centrist party). These were close to the center right conservative party during the 1980s but never had the same ideological stance on the role of private business. The issue of privatizing part of Statoil therefore developed principally as a reaction to the Aasgaard development.

On the back of Mongstad and Aasgard, there was renewed interest from a policy perspective to change the incentive structure of the company to ensure that the management of the firm would focus increasingly on improving the return to capital. This gradual change in policy also conflated with a gradual change in domestic politics throughout the 1990s. Norway was gradually moving towards a more liberal economy. This transformation created an opportunity for the Labour party, the founder of the idea of a state-owned national oil company. After considerable internal dissidence, as the party entered government in the spring of 2000, it presented a new model for Norwegian oil policy. Statoil was to be partially privatized and acquire 15% of SDFI's. Norsk Hydro and other Norwegian companies would be entitled to buy an additional 6.5% of SDFI. SDFI was to be transformed Petoro and be responsible for the commercial operation of the state's resources. Furthermore, Statoil was to lose ownership in the pipeline infrastructure, which was opened for all participants on equal terms.

The political compromise was made in April and on June 18, 2001 Statoil was listed in Oslo and New York. Olav Fjell became the new CEO and correctly noted, "The listing is a milestone for the group. We are now entering a new era." However, it is not just the listing that signifies the new era. No longer could Statoil be thought of as the government's tool in domestic oil policy. Instead, Petoro took its place in the trinity that originally was created between Statoil, the Ministry and the Directorate. Important changes also took place for the wider petroleum and domestic policy makers who no longer had exclusive control for the first time. As Norway entered into the EEA agreement with the European Union, the state no longer required operators to use Norwegian firms. In sum, the environment in which the Norwegian policy of industrial development had been created was no longer there – nor did Statoil need to play the same role.

In the years after the partial privatization, the company furthered processes started under Mr. Norvik in the 1990s. Statoil's strategic response to the maturing state of the Norwegian hydrocarbon sector continued to be four-fold: (a) consolidation and rationalization of Norwegian holdings, (b) international diversification, (c) intensified shift to natural gas within its Norwegian operations, including the Snohvit LNG and Ormen Lange export projects, and (d) increased investments in the downstream.

Building a Global Norwegian Competitor

While the international program was ongoing from 1990, events in 2005 and 2006 mark a fundamental shift in the character of the international program and a new stage in the company's development. The company has pursued a series of acquisitions in the U.S. Gulf of Mexico. It has also announced plans to merge Norsk Hydro's upstream operations with Statoil's. Both in terms of scale and the prospective range of international operations Statoil is now aspiring to operate as a peer of the global competitors such as Shell, BP, Total, Chevron, ExxonMobil, or ConocoPhillips.

The announced plan to merge Norsk Hydro's upstream operations into Statoil marks the beginning of a new stage in corporate development. It also reflects a further evolution in the government's attitudes towards the company's functional roles as well as the best means by which to sustain and increase the value of its holdings. The government held shares in both companies prior to the deal. After the merger, the Norwegian government's share of the combined company will be 62.5%. This is down from the government's 70.1% position at year-end 2005 and 80.8% held at year-end 2001 following partial privatization.

In the joint Statoil/Hydro presentation announcing the merger, Eivind Reiten, Hydro's CEO, asserted that the companies are a perfect match and that the deal will:

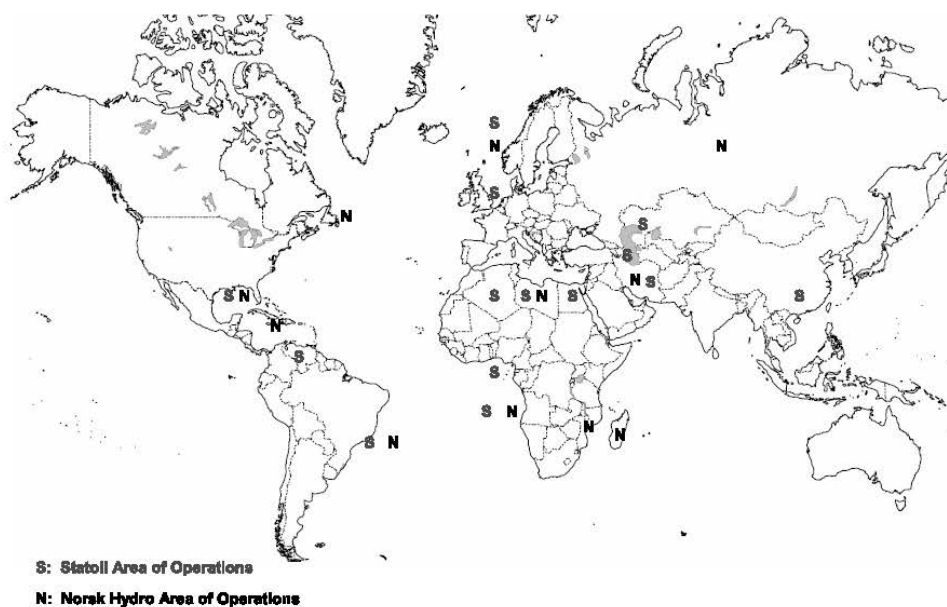
- 1) Provide a "stronger basis for value creation on the Norwegian Continental Shelf"
- 2) Result in a "forceful, international competitor"
- 3) Achieve "Scale, portfolio and capabilities to accelerate growth"
- 4) Create a "Strong platform to enhance shareholder value" and
- 5) Provide a necessary response "to a changing competitive landscape"

In addition, Helge Lund emphasized that "...this is a merger driven very much by growth and growth initiatives."

Figure 9 compares the areas of upstream operations for Statoil and Norsk Hydro. The extensive overlap in several international areas of operation is clear. A less obvious but important characteristic of these overlapping areas of operation is that Statoil and Norsk Hydro are rarely partners. Some elements of competition by two companies whose shares are held by the Norwegian government are not entirely inconsistent with maximizing shareholder wealth. However, the companies have been competing with each other in multiple countries. Working interests in Angola, particularly three key deepwater blocks, are shown on the next page to highlight the role that the BP alliance played in positioning Statoil in Angola and to illustrate the overlap in the two companies' operations. Four areas of important international operations merit particular attention: Russia, Venezuela, West Africa and the Gulf of Mexico.

FIGURE 9:

COMPARATIVE STATOIL AND NORSK HYDRO AREAS OF OPERATION



Angolan Block	Upstream Project ID	BP	ENI	ExxonMobil	Marathon	Norsk Hydro	Sonangol	StatOil	Total
Block 15	Kizomba A, B, C, D, Marimba	26.67%	20.00%	40.00%				13.33%	
	Dalia, Girassol, Lirio-Cravo, Pazflor (Perpetua,								
Block 17	Zinha, Acacia), Rosa	16.67%		20.00%		10.00%		13.33%	40.00%
Block 31	Block 31 NE (Plutao, Saturno), Block 31 SE	26.67%		25.00%	10.00%		20.00%	13.33%	5.00%

- The companies' operations in Russia and Venezuela recently experienced major setbacks. In Russia, Gazprom opted to exclude IOCs from the Shtokman gas project. Over the past few years, Venezuelan policy changes have eroded the value of Statoil's Orinoco assets and, just recently, the government announced similar plans for the gas exploration acreage and the Orinoco upgrader assets.
- West African deepwater operations have been a major success for Statoil and, to a lesser extent, Norsk Hydro. In 2005, Angola contributed 40% of Statoil's international oil and gas production. The company's position in Angola was developed as part of the BP alliance. Relinquishments of Angolan acreage after the exploration terms had expired were followed by extremely high bids in subsequent licensing rounds. Specifically, Statoil bid a fourth place total of US\$793 million (including signature bonus, social program contributions and work program expenditures) for the relinquished area of Block 15 but lost out to ENI which bid US\$1,229 million.
- The Gulf of Mexico is a core business development area for both companies and has involved the commitment of very large amounts of capital as the companies have used acquisitions to position themselves. The Gulf is also one of the most intensely competitive sectors in the world. The Statoil and Norsk Hydro positions differ in at least one respect. Statoil's assets are future development projects and exploration prospects with nearly all of these assets in ultra-deepwater areas of the Gulf. Norsk Hydro's assets are more diverse, ranging from shallow water to ultra-deepwater and include both prospective assets and producing assets. The resulting combination is potentially more balanced and, again, has more depth.

In mergers of this sort, analysts and shareholders invariably look to “cost savings” from the elimination of redundancies as a critically important source of benefit. The consolidation of overlapping areas of operation and elimination of duplication in corporate overhead costs are typically a central element of management’s presentation to the financial community.

The analyst presentation following the announcement of the Statoil/Hydro merger is notable for the fact that cost savings were never specifically mentioned. In this case, the conventional view of “cost savings” misses the point. The issue of cost as a motive for the deal has a different meaning, one that was mentioned by Helge Lund when he commented that: “The competition is extremely tough, and both companies are in a process where we work more and more outside Norway [...] there has proven to be little point to compete for the same opportunities.” Resource constraints are a driving factor in the government’s decision to merge these two companies:

- rising barriers to entry into new investment opportunities,
- limited availability of experienced human resources, and
- scarcity of key physical, oil-related capital services
 - such as deepwater drilling rigs.

By combining the two companies, these constraints are likely to be relaxed in a potentially significantly manner in one or more of the categories. One critical area of benefit is likely to be human capital. Following the merger there is likely to be a program to rationalize the combined assets. Often mergers of this sort enable more effective deal-making. Norway and the Gulf of Mexico are the locations most likely to benefit from this effect.

Moreover, while the two companies have overlapping operations in multiple regions of the world, the merger will increase the depth of the combined company's asset base. This is particularly clear in Norway and in the Gulf of Mexico but is also true in West Africa and North Africa. With depth comes a greater resiliency to project-specific or country-specific risks. Depth also offers the company an increased capacity to undertake additional, smaller deals involving acquisition and divestitures of selected assets. This could lead to significant rationalization of benefits in the near to medium-term.

While Statoil enjoyed the benefits of preferential access to acreage and exploration prospects within Norway in its early years of development, no such treatment is available in its efforts to build internationally. Figure 10 shows how both companies have experienced significant inflation of production costs in Norway while reserve additions have fallen short of production.

Figure 10 also illustrates the very high costs that must often be borne by a company building an international program. Costs of adding reserves are very high for both Statoil and Norsk Hydro. Also, with limited established production positions in the early phases of an international program, results are likely to be volatile from year to year. However, Statoil has posted very strong production replacement rates from its international ventures.

Can Statoil achieve its goal of adding to the wealth of its shareholders through an international program? Can it, in other words, achieve rates of return at least equal to the cost of capital on its international investment program? The profile results shown earlier suggest that, thus far, the market valuation of Statoil shares has increased very

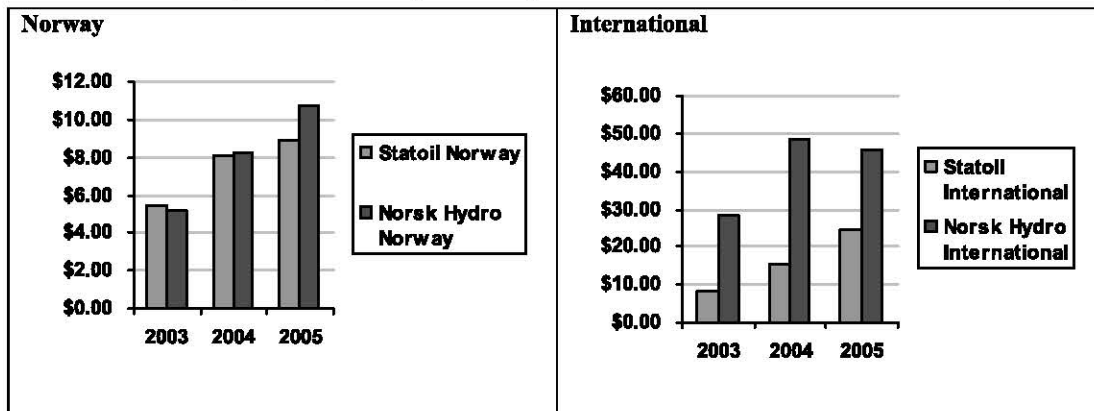
Statoil

substantially and not all of this can be attributed to rising oil prices. Nevertheless, the longer-term outcome remains to be seen and obviously can and will be affected by multiple factors. However, the results of this study suggest that, among the NOCs pursuing a significant international investment strategy, Statoil may be uniquely prepared to make this next transition.

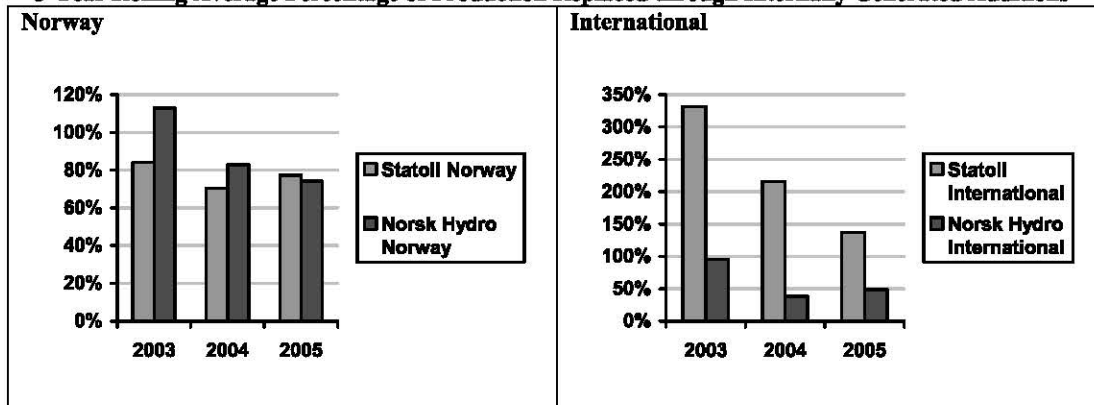
FIGURE 10:

COMPARATIVE PERFORMANCE MEASURES OF STATOIL AND NORSK HYDRO

3-Year Rolling Average Finding & Development Costs Incurred, \$/BOE Added Internally



3-Year Rolling Average Percentage of Production Replaced through Internally Generated Additions



Source: Various Statoil 20-F reports.²⁰

²⁰ Statoil's 2005 results exclude US\$2 billion acquisition of EnCana Gulf of Mexico assets. Norsk Hydro's 2005 results exclude US\$2.3 billion acquisition costs associated with the Spinnaker deal in the Gulf of Mexico.

WHAT HAVE BEEN THE DRIVERS OF CHANGE?

Although the circumstances surrounding changes in petroleum policy and the changing role of Statoil varied in each of the major periods of change, there are two factors that played important roles at every stage of development: domestic politics and a changing resource base.

Domestic politics

The first driver for change which was important from the very beginning is the role of domestic politics and the role of Statoil within. This was important on three principal levels. First, the changing power between the left and right in Norwegian politics has impacted the relative power and role of Statoil. From the very beginning, the conservatives were in favor of limited government participation and the active role of Norsk Hydro. The Labour party, on the other hand, was primarily in favor of active government participation and a strong Statoil as a policy tool. Changes in relative power have ever since followed the contrasting visions of these main camps.

Tied to these political trends has been the general move in sentiment of the Norwegian populous away from the deeply entrenched social democratic model that was developed after the Second World War. Although the state continues to play an active and at times interventionist role in industrial policy, the sentiment towards private participation has changed radically. Most significantly has been the movement inside the Labour party which during the 1990s shifted strongly to the centre of the political spectrum, opening the door for a privatized Statoil.

Finally, the interaction between Statoil and the body politic determined the role of the company. While it was the intention to create a strong company that could serve as

the primary force behind the industrial development, it was not the intention to create a company that would dominate policy makers. The challenge of accommodating a strong state run company began already in the 1970s as the power of senior management at times challenged the authority of the national government. As Statoil became instrumental for fiscal policy, the owners and the rest of industry became uncomfortably dependent on the company. This increased further in the 1980s and together with the costly development of Mongstad became a principal reason for the eventual change of Statoil management. Similarly the creation of SFDI has to be seen in this light.

Maturity, Resource Base and Price Levels

The other key component that led Statoil and domestic policy through its major steps of development was the maturity of the company and the resource base on which it was founded. While Statoil in the initial years had sufficient resources in the NCS, it is apparent that if the company wanted to grow, it would have to go outside upstream production and development on the NCS. From a company perspective, resource constraints, therefore, have to be seen as a principal driving force behind every change. The growth into international E&P and the increased focus on the natural gas chain are powerful indicators of this resource constraint.

The combination between domestic policy developments and a changing resource base highlight the interesting fact that the changing nature of Statoil was mostly organic. Although the changes happened through abrupt and, at times, catastrophic management failures, these were also an expression that a crossroad that had been reached. Through its tremendous success, Statoil inevitably forced decisions and problems that were not originally envisioned. Similarly, the development of the Norwegian society that followed

from the development of the hydrocarbon industry had played a key role in the changing interactions between the right and left sides of the political spectrum. The increased wealth shifted the political spectrum towards more liberal politics, as shown by the rise of the right-populist Progress party. This has in turn facilitated Statoil's changing and more independent role.

THE INTERACTION WITH INTERNATIONAL POLITICS

The changing role of Statoil has also meant a changing relation of the company in relation to foreign policy. As Norway's largest company, Statoil has been in the center of the interactions between Norway (as a member of the OECD) and OPEC, Norway's changing relation to the European Union, and the juxtaposition between the interests of the company and the state's foreign policy.

At the center of Norwegian foreign policy lies the a fundamental contradiction between Norway as a member of the OECD and Norway as a large oil exporting country, with interests aligned with other oil exporting countries and, in particular, with the OPEC countries. This dual alignment of interests is particularly strong in periods of weak prices, such as 1986 and the late 1990s when Norway cut production to increase prices. Statoil was particularly involved in this policy juxtaposition when the company produced and marketed the state's share of production. It also affected the company and its credibility as a supplier because markets were affected by these changes in government policy.

In its relations with the EU, there is a particularly severe division between producer interests and rent maximization and access and privileges of the open market. This was made worse after Norway joined the European Economic Area (EEA), in which Norway gets access to the common market but has to follow common competition

directives of the market.²¹ Before EEA entered into force, Norwegian oil and gas companies made up a monopolist sales organization, the GFU, which regulated market and sales of Norwegian gas into the continent. This meant that Statoil, as the controlling party of the GFU, was able to act as a monopolist and set natural gas prices and customers for all long-term sales of gas from the NCS. With entry into the EEA, this changed as Norway had to mirror the European commission in the “fields of competition, state aid and public procurement.”²² This affected Norwegian oil policy in two important respects. First it meant that the state lost its ability to direct companies’ investments and expenditures.²³ Second, as this occurred in tandem with the first steps to liberalize European natural gas markets, it meant that Statoil had to give up its monopoly power of gas sales to the European Union. This influence of multilateral trade agreements in curbing the monopoly power of Statoil is a significant part of the lesson of this case study for consuming country strategies.

Finally, through its development stages as outlined above has created a contradiction in Norwegian foreign policy. On one hand, Norway, through foreign policy, stands for a new international idealist approach to foreign policy. Through this policy, the country has taken a proactive stand in the involvement of ethics in foreign policy, a forbearer aid and contribution to international organizations and peace processes. On the other hand, as the primary owner of Statoil, the Norwegian government is involved in the extraction of resource wealth and the implicit subsidy of regimes that go against the very

²¹ Membership in the EU has on two occasions led to radical changes in domestic politics. The debate around the EEA however was much more subdued, in part because a referendum was never called and in part because it was recognized that some form of economic cooperation treaty was required.

²² European Surveillance Authority (2003) *EEA co-operation cases under EC/EEA antitrust rules* (online) available from <http://www.efasurv.int/fieldsofwork/fieldcompetition/activities/coopwithec> accessed 23. April 2003

²³ And hence removed an important reason to preserve Statoil as a policy tool

principles that Norwegian foreign policy is trying to work against. An example of this is the active participation of Statoil in Azerbaijan and Angola—countries where Norway is actively trying to pursue the goals of democracy and development while extracting and, in part, exporting resource wealth or in the Iranian corruption scandal in 2003.

KEY LESSONS FROM THE NORWEGIAN POLICY EXPERIENCE AND STATOIL'S DEVELOPMENT AS A NOC

Norwegian culture, at least as it affects the oil and gas sector, is an unusual blend of pragmatic socialism and entrepreneurial spirit. The role of this cultural factor in Statoil's success (and in the broader success of Norwegian oil and gas policy over the last 40 years) cannot be quantified. It is, nevertheless, real. One of the central lessons from the Statoil case study is that a goal of the NOC and of host country energy policy properly managed ought to be able to achieve this same blending of apparently contradictory characteristics.

If the Norwegian success at this mix of socialism and competitive performance was purely cultural, then there would be little for others to gain from the country's experience. However, this study finds that multiple policy choices by the Norwegian government have contributed to Statoil's success. The policy elements can, with suitable adaptation to specific needs, be applied in a broad cross-section of companies with NOCs.

Lesson One: The benefit of an explicit and generally consistent policy focus on long-term wealth management.

Wealth management is an ambiguous term and one easily manipulated by governments. Wealth need not be narrowly defined but, in the Norwegian case, it has

tended to be closely linked to maximizing economic welfare and economic efficiency. As such, while the specific “wealth” issues varied over time, the cost of capital is an emergent benchmark as policy evolves.

Wealth management concerns in the early phases of the Norwegian industry tended to focus on the “Dutch disease” and, specifically, on the fear that the wealth generated by the oil industry would erode the rest of the Norwegian economy rather than provide a basis for broader economic growth and wealth creation. Multiple policies discussed in this study, including the creation of an offshore supply and maintenance industry, were implemented to limit the potentially adverse effects of a rising current account surplus on the rest of the economy.

As the tax system evolved as a major tool for capturing wealth generated by the industry for the benefit of the broader community, cost consciousness emerged as a major tax policy issue. With high marginal tax rates under the corporate and special tax system, the government effectively bore a large marginal share in any cost escalation associated with developing the resources. In fact, the marginal share was so high that there were major concerns that, in the best case, it may have encouraged “experimentation” on the NCS with unproven technologies or, in the worst case, provided an efficiency disincentive to the companies. Cost consciousness has, of course, re-emerged in petroleum policy debates with the recent Russian policy complaints concerning the Sakhalin production sharing contracts (PSCs). While Norway had a high marginal tax rate it was, nevertheless, less than 100%. The Sakhalin PSCs include a rate of return provision in the calculation of government and company shares. As such, higher costs are “over-compensated” from the government’s perspective.

As a final example of the wealth management focus, monetization of gas resources and integration into the European market was achieved from the beginning with the Ekofisk development. This focus on the total resource stands in sharp contrast to the more general policy in which petroleum licensing and taxation may actually fail to address the issue of gas. Arguably, the Snohvit LNG development marks a critically important strategic step towards creating wealth by building an even broader international gas export business.

Lesson Two: Limited non-commercial policy interference in Statoil's operations

As highlighted above, the main reasons for the creation of Statoil was to increase the Norwegian activities on the NCS, while at the same time have government policy tool in the commercial realm. Combined these two goals were seen as the best way to ensure that the development of oil and gas benefited the economy as a whole.

Despite these ambitious political policy goals, a remarkable feature in the development of Statoil is the distance between the company as a government entity and revenue generator, and changing political goals. Statoil has been free from pressures faced by many other NOCs, both in terms of the non-commercial activities that the company has to directly engage in and a continual adjustment of the company's strategy to confirm with shorter term domestic policy goals.

Statoil always has and will continue to follow policy guidelines that are drawn up by the government in their operations. Statoil was indeed in the beginning a central tool in a grander development plan. In some cases, such as the development of Snohvit, the company still, in part, is a tool to develop petroleum in a new sector of the NCS while contributing to the industrial development of a local region. While this policy is not

official, it appears that the company continues to some extent to contribute to the development of new resource frontier. Still the non-commercial role of Statoil is very limited as shown in Figure 1. This stands in sharp contrast to other NOCs such as Sonangol in Angola that runs an airline, a bank and a telecom company, or Nigeria where NNPC essentially run social programs in addition to their core activities. In the Norwegian case, in part because the government infrastructure was developed before the development of oil and gas resources, the government instead relied on government institutions to achieve these non-commercial goals.

Second, an important feature for Norwegian petroleum policy was the ability of the government to avoid becoming politically involved with the day-to-day operations of the company. The only role of the government in the company's ownership structure is as the main (and previously, the only) member of the AGM. Although nominated by the government, the board has maintained a professional role separate from the government or ministry from the very beginning. Similarly the management, again appointed by the government and following the party in power, has not been forced to follow day-to-day politics and, instead, has been allowed to run a professional organization.

The distancing between the various roles of government, from regulator to owner to commercial operator is a defining feature of the Norwegian model of running public companies. Indeed, it is an important reason for their success as companies irrelevant of their public ownership structure. This tradition of 'corporate independence' of public enterprises descends from the Kings Bay scandal that disrupted Norwegian politics in the early 1960s and led to the resignation of the Labour government, which had governed since the Second World War. Kings Bay refers to the mining company that operated the

mine where one of the worst mining accidents in modern Norwegian history took place in 1962. The investigation into the deaths of 21 miners discovered a lack of important security procedures in the company. In fact, this had been highlighted by the regulator in the previous year. However, due to the then dual role of the ministry as regulator, owner and board member, few of the security issues were addressed in a timely manner. The end of the Labour government resulted in a radical review of the ownership structure of the public enterprises.

For Statoil, the resulting independence has been critical in its development and ability to take on challenges that at times may not have been desirable for the government in power. As highlighted below, the challenge remains for the government to control the company when the independence leads to mismanaged projects.

Lesson Three: Competition is a value-adding force in oil and gas policy.

This element of Norwegian policy was described in the 2001 Storting Proposition number 36, Ownership of Statoil and Future Management of the SDFI. This document noted that

[...] A principal feature of the Norwegian oil policy which has proved effective so far is that active competition between several competent companies helps to ensure the best possible use of resources. In this way, we ensure that they sharpen themselves against each other [...]²⁴

The positive view of competition and of the value resulting from allowing IOCs to participate in the oil and gas sector was shared, to a greater or lesser extent, by all the North Sea producing countries in the critical period from the mid-1960s to the present. One may argue that it was a reflection of the weakness of the country's NOCs. However, in point of fact, the focus on competition intensified over time in the UK (where the NOC

was eventually sold), initial Danish policy which concentrated acreage in a single consortium's hands gave way to more open, competitive licensing and remained steady in Norway even as Statoil's capabilities grew. This policy also stood in sharp contrast to the more widely held beliefs and the common policy during most of this period in which IOCs were replaced by the NOC and competition was progressively reduced.

The 1990s were a period of growing acceptance of the value of competition in a number of key producing countries. The beneficial effects on production and investment in countries such as Algeria, Russia and Venezuela were unambiguous and quantifiable. The recent policy reversal in so many countries is due fundamentally to two key factors: (1) radically higher oil prices have changed the perceived value of resources and estimated capabilities of the NOCs and (2) unlike Norway, many producing countries continue to labor under a relatively one-dimensional, politicized view of the role of a NOC.

Lesson Four: Statoil, as a NOC, was and is part of a multi-dimensional package of policy tools in order to develop the oil industry.

This view that multiple policy tools will better serve Norway's interests is reflected in a number of policy features. Other policy tools included tax policy and licensing strategy.

²⁴ Storting Proposition no 36, Ownership of Statoil and Future Management of the SDFI (English translation), Page 10.

Tax policy has always focused on profit-based forms of take with progressive tax rate mechanisms. The key elements of taxation and their evolution over time reflected sensitivity to maintaining the competitiveness of Norwegian assets in a global environment. Throughout the critical period of development of Norwegian oil and gas policy, the government was keenly sensitive to what other North Sea producing countries were doing with respect to taxation and licensing. The tax concessions granted to the Ekofisk waterflood project in the mid-1980's are a key example of this attention to competitiveness in the fiscal system.

In addition, Norway employed a generally stable tax policy. This is true even though tax rates tended to vary somewhat as oil prices fluctuated. Another way to understand this lesson is to note that while tax rates may have varied over time, the commercial security of assets was generally not at issue. The contrast with the behavior of a number of countries in recent years is stark.

Another policy tool used effectively in Norway is the licensing strategy employed in successive rounds and the role of IOCs. The drive to stimulate competition and to avoid undesirable effects on other sectors of the Norwegian economy extended into the government's licensing strategy in at least two ways. First, acreage was made available to the industry over an extended period of time rather than in large area-wide blocks. The result was that levels of activity on the Norwegian Continental Shelf tended to be relatively steady rather than experiencing an explosive but unsustainable boom. Second, companies with large, already established reserve and production positions complained in the past that they were not receiving new license awards. In part, this was likely due to preferential awards to Statoil as the company matured. However, the government's

licensing strategy also had the very significant effect of preventing any one IOC or consortium from dominating the country's hydrocarbon industry. In short, this is another example of how policy explicitly encouraged competition.

Lesson Five: The government applied an evolutionary attitude toward the role of Statoil and other Norwegian companies operating in the E&P sector.

This evolutionary attitude is reflected in: (1) preferential treatment of Statoil in establishing the company, (2) recognition of the changing nature of the Norwegian oil and gas economy and (3) early acceptance of Statoil's international programs as consistent with national goals.

Throughout the evolution of both the Norwegian oil industry and Statoil, the government has been conscious of their changing nature. The first major policy success of the government was to realize the protective steps necessary to give the company the resource basis needed in order to establish a successful company. These steps, tightly linked to the development of an infant industry were critical in developing a successful company.

Four factors were critical in ensuring the successful establishment: preferential access to resources, access to capital, access to human resources, and ensuring that expenditures trickled down to Norwegian industry. The first was ensured though the carried interest and right to 50% of discovered fields. The second was ensured through the creation of Statoil as a state-owned enterprise in which the state ensured the financing of projects. This was particularly true for cases where a lack of budgetary controls required additional public financing. Third, the lack of domestic human capital and knowledge was mitigated by government demands on international companies operating

on the NCS, particularly, in the initial years.²⁵ Finally, the key steps to ensure the creation of a greater industry was ensured through legislative requirements of on all companies to use Norwegian industry and services in cases where there was no technological divide between domestic and international industry.

Statoil administrators, policy makers, and domestic policy have been remarkably adept in recognizing the evolving nature of the domestic resource base even when the dynamic relationship made it difficult to identify who was actually driving the evolution. This has allowed the oil and gas economy to develop prospects as they evolve in new and old development provinces. In addition, the industry has developed natural gas reserves as a new hydrocarbon bas to replace depleting of oil reserves.

Tied to the changing resource base, domestic policy makers have from an early stage been willing to accept the need for Statoil to develop resources outside the NCS to promote evolution of the company. While the initial attempts at international expansion under Arne Johnsen were criticized, developments since 1990 have allowed the company to develop an international resource base to replace declining production in the NCS.

²⁵ A powerful example of this can be seen in the fight for transfer of operating license on the Statfjord field from Mobil to Statoil in 1987

LOOKING AHEAD

The development of Statoil into a major oil and gas company over 35 years is impressive. The Nordic model of strong political involvement in industrial developments worked well in an industry where a primary source of comparative advantage was the government's ability to protect resources. At the end of the 1990s, however, privatization of Statoil was eagerly sought by several parties. It will be important in future years to analyze whether privatization results in Statoil evolving into a "better company."

Statoil's costs of adding reserves have been relatively high during this period. However, Statoil's costs are neither extraordinarily high either in absolute terms, or relative to other companies. The large increase in unit finding and development cost outside Norway in 2004 and again in 2005 merits comment. From the outlay perspective, the rise in cost is due to relatively high exploration spending and a very large increase in project development spending in 2004. In addition, reserve additions have been limited. The relatively large role of exploration spending and acquisitions of unproved property highlight the risks associated with a move to a larger international program.

However, the move toward privatization can not be considered a one-way street to success. Some of the problems of the old Statoil have remained in place. First and foremost, the problems of project management that ended the first two phases of Statoil's development have continued. The failure to develop the Snohvit LNG project on time and within budget is striking, especially when considered against the better results of the Hydro managed Ormen Lange development

Another problem to be addressed is the challenge of Statoil' status as a government owned entity and its operations abroad. This delicate balance came to the

Statoil

fore in 2003 as Statoil was trying to develop relations with Iran. While eventually successful, the company discovered that corrupt practices were part of the entry ticket. Although these practices are seen by some participants as a part of oil and gas developments, this could not be accepted in Norway where corruption is seen as unacceptable, especially if tied to a government entity. The scandal that subsequently followed meant the end of Mr. Fjell's leadership at Statoil—again highlighting the potential mismanagement as a political issue between state and company.

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