

NORWAY'S OIL AND GAS SECTOR: HOW DID THE COUNTRY AVOID THE RESOURCE CURSE?

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This essay is an effort to understand the dynamics behind a successful model of wealth distribution in one of the top oil producers in the world: Norway. The first part explains the concept of "resource curse" to describe the challenges that resource rich nations face in their economies. The next section describes the conditions in Norway since the late 1950s to make the point that efficient wealth management, savings, and distribution systems of a given country are usually based on three major initial aspects: comparatively low oil and gas production prospects in its initial phase of exploration, high level of economic and political development, and a political system that does not pressure the government to directly use the revenues obtained from natural resources to alleviate social, political, and economic problems. The third section explains the "Norwegian model," as well as the future challenges to keep its good performance. Finally, after a few conclusions on the particularities of the Norwegian model, the essay provides a brief comparison with Mexico's oil and gas sector to assess which general policies could be replicated in the North American country in the context of the energy reform approved in December 2013.

Keywords: Norway; oil; hydrocarbons; resource curse; natural resources; lessons; developing countries; economic development; energy sector; EITI; Mexico's energy reform.

GÁS E PETRÓLEO NA NORUEGA: COMO O PAÍS DRIBLOU A MALDIÇÃO DOS RECURSOS?

Este artigo consiste em um esforço para compreender a dinâmica por detrás de um modelo de sucesso de distribuição da riqueza em um dos maiores produtores de petróleo do mundo: a Noruega. Primeiramente, é explicado o conceito de "maldição dos recursos" para descrever os desafios enfrentados pelas economias ricas em recursos naturais. A seção seguinte descreve o cenário norueguês a partir do final da década de 1950, com vistas a fundamentar a noção de que gestão eficiente dos recursos, poupança e sistemas de distribuição estão geralmente baseados em três aspectos principais: perspectivas de produção de petróleo e gás comparativamente baixas na fase inicial de exploração, elevado nível de desenvolvimento econômico e político, e um sistema político que não pressiona o governo a usar diretamente as receitas obtidas a partir de recursos naturais para alívio imediato de problemas sociais, políticos e econômicos. A terceira seção explica o "modelo norueguês", bem como os futuros desafios para a manutenção de seu bom desempenho. Finalmente, após apresentar algumas conclusões sobre as particularidades do modelo norueguês, o artigo apresenta uma breve comparação com o setor de petróleo e gás mexicano, com vistas a avaliar quais políticas poderiam ser replicadas no país norte-americano no contexto da reforma energética aprovada em dezembro de 2013.

Palavras-chave: Noruega; petróleo; hidrocarbonetos; maldição dos recursos; recursos naturais; lições; países em desenvolvimento; desenvolvimento econômico; setor energético; EITI; reforma energética do México.

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SECTORES DE GAS Y PETRÓLEO EN NORUEGA: ¿CÓMO EL PAÍS EVITÓ LA MALDICIÓN DE LOS RECURSOS?

El artículo es un esfuerzo por entender la dinámica detrás del exitoso modelo de distribución de la riqueza en uno de los países productores de petróleo más importantes del mundo: Noruega. La primera parte explica el concepto de la "maldición de los recursos" para describir los desafíos que los países ricos enfrentan en sus economías. La siguiente sección describe las condiciones en Noruega desde finales de 1950 dejando claro que la gestión eficiente de la riqueza, el ahorro y los sistemas de distribución de un país se dan generalmente en base a tres aspectos iniciales principales: perspectivas de producción de petróleo y gas comparativamente bajas en el inicio de la exploración, alto nivel de desarrollo económico y político, y un sistema político que no presiona al gobierno para que utilice directamente los ingresos obtenidos a partir de recursos naturales para aliviar los problemas sociales, políticos y económicos. La tercera sección explica el "modelo noruego", así como los desafíos futuros para mantener su buen desempeño. Finalmente, después de algunas conclusiones sobre las particularidades del modelo noruego, el ensayo proporciona una breve comparación con el sector de petróleo y gas de México para evaluar qué políticas en general podrían ser replicadas en el país de América del Norte, en el contexto de la reforma energética aprobada en diciembre 2013.

Palabras-clave: Noruega; petróleo; hidrocarburos; la maldición de los recursos; recursos naturales; lecciones; países en desarrollo; desarrollo económico; sector de energía; EITE; la reforma energética de México.

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1 INTRODUCTION

It seems there is a consensus about the best governance practices of a country's natural resources in order to maximize and distribute the benefits for its own population. Most international organizations, producing countries, rating firms, and resource governance institutions identify transparency in fiscal systems, government accountability, oversight of the market operations, competitiveness regulations, pricing policies, and the clear establishment of an institutional framework to be the best antidotes to combat vested interests and market distortions. However, according to the Revenue Watch Institute² 43 countries out of 53, which have been evaluated on its 2013 report, have not been able to successfully implement proper legal and institutional conditions for optimal exploitation of their natural resources. So the natural questions are: why are these recommended policies not easy to implement? Why have countries not been able to overcome their regulatory and transparency issues? Is it because of their incompetence, inability or unwillingness to improve their wealth distribution systems? Or is it because there are some other neglected aspects that partly explain their failure to overcome the so-called resource curse?

This essay is an effort to understand the dynamics behind a successful model of wealth distribution in one of the top oil producers in the world: Norway.

2. Revenue Watch Institute. "Countries: Resource Governance Index." 2013. Available at: <<http://www.revenuwatch.org/rji/countries>>.

The first part explains the concept of “resource curse” to describe the challenges that resource rich nations face in their economies. The next section describes the conditions in Norway since the late 1950s to make the point that efficient wealth management, savings, and distribution systems of a given country are usually based on three major initial aspects: comparatively low oil and gas production prospects in its initial phase of exploration, high level of economic and political development, and a political system that does not pressure the government to directly use the revenues obtained from natural resources to alleviate social, political, and economic problems. The third section explains the “Norwegian model,” as well as the future challenges to keep its good performance. Finally, after a few conclusions on the particularities of the Norwegian model, the essay provides a brief comparison with Mexico's oil and gas sector to assess which general policies could be replicated in the North American country in the context of the energy reform approved in December 2013.

2 THE RESOURCE CURSE – WHAT DID NORWAY AVOID?

When referring to the development of natural resources in any country, one of the first issues that pops up is that of the “resource curse,” the notion that the more natural resources a country has, the slower economic growth it will experience. This concept was born in the 1970s based on a number of research studies about the “Dutch disease,” which illustrates how the flow of money from oil exports resulted in an inflated currency that harmed exports, provoked inflation, and led to a decade of unemployment and inequality in the Netherlands.³

Jeffrey Sachs and Andrew Warner pioneered on the statistical research of the correlation between high natural resources endowment and slow growth rates, finding that countries that exported raw materials, minerals, agricultural products and fuels tended to grow less than more industrialized countries.⁴ Nonetheless, other researchers found that most of these countries had authoritarian and corrupt leaders that used the resource rent for their own political and economic agendas, thus destabilizing the macroeconomic performance of the country.⁵ In this vein, scholars like Daron Acemoglu and James A. Robinson have put emphasis on the institutional framework of countries, as stated in their book *Why Nations Fail?* Their argument tends to blame leaders for the perils of development, without considering more complex issues like levels of economic development

3. Sanders, Doug. “How Oil-Rich Norway Avoids the Resource Curse.” Spaceperson, Available at: <<http://dougsaunders.tumblr.com/post/28552419189/how-oil-rich-norway-avoids-the-resource-curse>>.

4. Sachs, Jeffrey and Warner, Andrew. “Natural Resource Abundance and Economic Growth.” National Bureau of Economic Research, Cambridge, Mass; 1995.

5. Kenny, Charles. “What Resource Curse?: Is It Really True that Underground Riches Lead to Aboveground Woes? No, Not Really.” Foreign Policy, December 6, 2010. Available at: <http://www.foreignpolicy.com/articles/2010/12/06/what_resource_curse>.

and socio-political structures. For instance, according to Charles Kenny, scholars like Christina Brunnenschweiler found no evidence that resource wealth is actually associated with more fragile institutions.

Furthermore, researchers like Stephen Haber and Victor Menaldo have studied the relationship between oil wealth and democratic governance, finding that in some cases democracies were strengthened by the presence of wealth associated to the production of hydrocarbons. What is more important, they found that there are as many cases of oil revenues being used by autocracies in detriment of the population, as oil revenues used in favor of democratic societies.⁶ This whole academic debate about the causality of the success and failure of the usage and distribution of wealth from natural resources illustrates how difficult it is to assess the conditions by which an efficient model of resources exploitation can be implemented. In fact, countries like Canada, the Netherlands, UK, and territories like Alberta and Alaska, have not been as efficient as Norway in maximizing the value of their oil savings, not to speak about developing or poorer countries like Nigeria, Mexico, Venezuela, among many others.⁷

3 POLITICAL CONDITIONS AND OIL EXPLORATION IN NORWAY IN THE 1960S AND 1970S

In order to evaluate whether the “Norwegian model” can indeed be a replicable reference for other countries, it is important to understand the initial conditions by which the oil sector boomed in the country. Basically, the early years of the hydrocarbon sector in Norway were characterized by comparatively low oil production prospects, and a stable social, political, and economic system. Oil in the North Sea was struck in commercial quantities in the Groningen field of the Netherlands in 1959, followed by the first exploration request to the Norwegian government in 1962, and in the next year the government claimed sovereignty over the Norwegian Continental Shelf (NCS). The first licensing round started in 1965, but did not yield good results until Ekofisk was discovered in 1969.⁸ At least during these ten years there was no direct involvement of the government in the sector and the country did not have independent technical knowledge about oil extraction. Consequently, the government granted tax breaks and a 10% royalty rate to private investors.⁹

6. Haber, Stephen and Menaldo, Victor. “Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse.” Yale University Press, 2007. Available at: <http://www.yale-university.org/leitner/resources/papers/HaberandMenaldo_May409.pdf>.

7. Persily, Larry. “Norway’s different approach to oil and gas development.” Alaska Natural Gas Transportation Project. September 7, 2011. Available at: <<http://www.arcticgas.gov/norway-s-different-approach-to-oil-and-gas-development>>.

8. Ministry of Petroleum and Energy. “Norway’s Oil History in 5 Minutes.” September 10, 2013. Available at: <<http://www.regjeringen.no/en/dep/oed/Subject/oil-and-gas/norways-oil-history-in-5-minutes.html?id=440538>>.

9. Denning, Francis. “A comprehensive resource development strategy: Norway’s path to inclusive development.” Natural Resources Charter, 2008, p. 2.

Production really began in 1974, after the oil crisis of 1973 when nominal prices increased threefold, allowing for profits to exceed production costs.¹⁰ Due to the sudden and rapid increase of oil production, the government established the Norwegian Petroleum Directorate and the oil and gas production company Statoil to regulate and participate in the sector in 1972. Government participation gradually grew through Statoil, which currently controls over 80% of the oil operations. During the early years of oil production, Norway was able to design guidelines similar to the 12 Precepts of the Natural Resource Charter, which are clustered into six themes that include: domestic governance, extraction decisions, tax regimes, revenue management, development investments, and international competitiveness. According to Francis Denning from Oxford University, one of the most important precepts that explain Norway's success was investing in complementary industries and the upstream sector, under a competitive environment, allowing the country to reduce its dependence on hydrocarbons. These policies paid off until the 1990s, when high production and prices allowed the government to establish a sovereign fund to save surplus revenues.¹¹

Moreover, according to the Iraqi oil engineer Farouk al-Kasim, another important aspect of the political conditions in the 1960s and 1970s was the fact that Norwegian politicians agreed not to mention oil resources in elections, shielding the natural resources from politics. In addition, he explains that the government was well aware of the "Dutch Disease," which without proper planning could cause serious damages to the economy. The relevant issue is that politicians were able to omit talking about oil revenues because they did not need to address any serious poverty-related issues that would cost them being elected.¹² When compared to countries like Mexico, where oil expropriation was undertaken under a buoyant oil industry, a highly politicized and nationalistic environment, as well as severe problems of inequality and poverty, Norway had the conditions during the 1960s and 1970s to establish a solid institutional framework that evolved through time in accordance to its own degree of development.

4 THE NORWEGIAN MODEL

The political environment in the pre-1973 decade in Norway enabled the country to set a particular institutional framework that shielded wealth from being used in discretionary spending. This institutional, legal, technical, financial, and fiscal scheme is what the essay will describe as the Norwegian Model in

10. Likvern, Rune. "Norwegian Crude Oil Reserves and Production as of 2011." *The Oil Drum*, May 9, 2012. Available at: <<http://www.theoil drum.com/node/9166>>.

11. Denning, Francis. *Op. Cit.*, p. 3.

12. Chipman, John. "Iraqi Farouk al-Kasim behind Norway oil fund that is envy of the world." *CBC News Canada*, April 13, 2014. Available at: <<http://www.cbc.ca/news/canada/iraqi-farouk-al-kasim-behind-norway-oil-fund-that-is-envy-of-world-1.2604105>>.

the following pages, as well as its pros and future challenges. Today, despite a decline in oil production since 2001, when it peaked at 3.4 million barrels per day to an average of 1.9 million barrels in 2012, the country stands still as the 14th most important producer in the world right after Venezuela (2.5 million bb/d).¹³ The country obtains money for the fund from taxes in the oil and gas sector, ownership of petroleum fields, and dividends from its 67% ownership of Statoil ASA (STL), a publicly traded oil and gas company with headquarters in Stavanger, the country's hydrocarbons center. The government deposits 100% of its oil and gas revenues into its sovereign fund, and then withdraws an average of 4% to pay for public services. The state company Statoil competes for the licenses just as any other company and operates over 80% of the country's hydrocarbon production. In addition, it operates in 33 countries all over the world. Its market capitalization as of April 18th, 2014, was \$92.85 billion.¹⁴

Norway taxes 78% of the profits of the exploring companies, which are channeled to the fund, however at the end of the financial year the government refunds companies' tax loss related to oil exploration.¹⁵ This tax has two components, a regular 28% tax on profits, which is the same income tax levied on every company in the country, and a special 50% tax on profits earned from off shore oil and gas production. Within this structure gas stations and refineries in Norway are only supposed to pay regular income tax.

In terms of the licensing rounds in the NCS, the government established in 2003 the Awards Predefined Areas (APA) system, replacing the traditional annual North Sea Awards.¹⁶ The bidding process is very rigorous, and unlike many other licensing processes around the world, Norway does not grant exploration rights to the highest bidder, but to the best company based on its experience, expertise and work plan to develop any particular field.¹⁷

Furthermore, despite the participation of the state in oil extraction, a significant share of the earnings is obtained from the state-owned company Petoro, which is in charge of managing the State Direct Financial Interest (SDFI). Petoro does not operate oil fields; it just takes an equity stake in any lease the government deems worthwhile to exploit. Petoro pays its full share of development costs, operations and maintenance just as any other business partner would. The share that the company takes on a particular project is based on the conditions for the leases of

13. EIA. "Top Oil Producers in 2012." 2012. Available at: <<http://www.eia.gov/countries/>>.

14. Bloomberg. "Statoil ASA. STL: NO" April 18, 2014. Available at: <<http://www.bloomberg.com/quote/STL:NO>>.

15. Chazan, Guy. "UK oil tax rise drives drillers to Norway, bank says." *The Wall Street Journal*, June 29, 2011. Available at: <<http://online.wsj.com/news/articles/SB10001424052702303627104576413914044170834>>.

16. Norwegian Petroleum Directorate. "Licensing rounds in the Norwegian Continental Shelf." March 4, 2014. Available at: <<http://www.npd.no/en/Topics/Production-licences/Theme-articles/Licensing-rounds/>>.

17. Persily, Larry. Op Cit.

the fields. The government deposits all the revenues of the company into a savings account in the oil fund and then decides how much to invest in new projects.¹⁸

Norway's sovereign fund was initially created in 1990 as the Petroleum Fund of Norway, aiming at supporting savings for future government spending and propping up the country's oil revenues. The government only uses 4% of the money from the fund to pay for universal health care, free education through college, and a generous pension system. The mandate of the fund is established under the Government Pension Fund Act, and as dictated by law, the Ministry of Finance is in charge of the management of the fund through the Norges Bank Investment Management (NBIM), led by its CEO Yngve Slyngstad. In 2006 the fund changed its name to the Government Pension Fund - Global, in order to acknowledge its role as a mechanism for long-term savings. The fund is instructed by law to hold over 60% of its investment asset allocation in equity, 35% to 40% fixed income, and up to 5% in real estate.¹⁹

The savings of the fund are highly protected and the management is based on the so-called Ten Commandments, an act of self-discipline that among other things establishes that nothing can be withdrawn from the fund until the oil runs out, the government cannot use more than 4% for current expenses, and none of the investments from the fund can be placed in Norway. According to the general manager of the fund, Mr. Slyngstad, the result of these guidelines is that the fund acts like a shock absorber for the economy, avoiding inflation and forcing domestic competitiveness. As of March 2014, the total worth of the fund was close to a trillion dollars (\$920 billion) and rapidly growing. In fact, during 2013 the government earned a record of \$115 billion in a year, even exceeding by 0.1% the benchmark established by the Ministry of Finance. In this regard, Oeysten Olsen, Chief of the Norwegian Central Bank, acknowledged that during 2013 the average return rate of the fund's investments was 15.9%, and that the fund has never earned so much money in one single year.²⁰ Mr. Slyngstad also mentioned that the excellent performance was explained by the high returns of the stock market investment.²¹

According to the most recent report issued by the Norges Bank, by the end of 2013 the \$840 billion stocks (equity) of the fund returned 26.3%, the bond investment (fixed-income) returned 0.1%, and real estate (properties) investments returned 11.8%. In order to maintain the investment allocation mandated by law, the fund follows a strategy of buying assets whose price is rising and selling those that

18. *Ibid.*

19. Norges Bank Investment Management. "2013 Government Pension Fund – Global Annual Report." Deloitte, Oslo, Norway. February 12, 2014. p. 21.

20. Norges Bank Investment Management. *Op. Cit.*, p. 4-8.

21. Clean Technica. *Op. Cit.*

fall, which is also known as the rebalancing of equity allocation.²² In fact, by the end of the third quarter of 2013, the fund's benchmark equity allocation surpassed 64%, initiating for the first time in the history of the fund the rebalancing system that required the selling of stocks in order to adjust its investment portfolio and maintain the 60% share holdings.²³ After the good results in 2013, the fund's management decided to look for new investment opportunities in Asia (14.3%) and Latin America (2.6%), as these regions play a more dynamic role in the world economy.²⁴

Regarding the fund's government bond holdings, the investments resulted in negative return rates due to increases in interest rates in developed markets. On the contrary, returns on bonds by the private sector yielded positive results, especially securitized debt, with an average return of 7.7%. Corporate bonds returned 2.1% and the weakest investments were placed on inflation-linked bonds, returning a negative 3.0%. Last year the fund reduced its share of fixed-income investments in developed markets from 81.4% to 78.8%, increasing the participation of emerging currencies especially from Colombia, the Philippines, and Hungary from 10.1% to 12.3%. Overall fixed income investments (government, private, and inflation-linked bonds) returned a meager 0.1%.²⁵ Nonetheless, to correct these results the Central Bank governor recently stated that the fund should consider lowering the bond portion to a figure between 20% and 25%, in order to increase the returns in other areas. In addition, the Norwegian Prime Minister Erna Solberg plans to increase the exposure of the pension fund to renewable energy, investing as much as 5% in renewable energy infrastructure, an equivalent to \$40 billion.²⁶

In terms of real estate, the sector accounted for only 1.0% of the total investments, however with a return rate of 11.8%. In 2013, the fund entered the US market mainly in Boston, New York, and Washington DC, and added new properties in Europe.²⁷

Another element that has contributed to the sustained growth of revenues is the establishment of a strict policy of market and risk assessments for any investment of the fund (stocks, bonds, and real estate). This strategy is based on the individual evaluations of all the countries, markets and companies in environmental, social and governance (ESG) issues, as a mean to reduce risk

22. Holter, Mikael. "Biggest wealth fund forced to sell stocks as limit breached." Bloomberg, February 28, 2014. Available at: <<http://www.bloomberg.com/news/2014-02-28/biggest-sovereign-fund-gains-115-billion-in-2013-as-stocks-rise.html>>.

23. *Ibid.*

24. Norges Bank Investment Management. *Op Cit.*, p. 22.

25. *Ibid.*, p. 30.

26. Clean Technica. "Norway may use oil fund to provide renewable with \$40 billion boost." March 18, 2014. Available at: <<http://cleantechnica.com/2014/03/18/norway-may-use-oil-fund-provide-renewables-40bn-boost/>>.

27. Norges Bank Investment Management. *Op. Cit.*, p. 34.

through diversification.²⁸ In addition, the government of Norway also established a pricing policy that discourages the use of hydrocarbons in daily consumption. In that sense, the Petroleum Price Council meets with oil producers before setting the taxable price each quarter. The gasoline tax in the country is one of the highest in the world, where a liter is priced at \$2.30.²⁹ Nonetheless, Norwegians do not complain much about the high tax burden they have to pay for energy and the rest of the economy, because they have one of the highest disposable incomes in the world, a low unemployment rate, good quality public services, and one of the highest living standards in the world as measured by the Human Development Index of the United Nations Development Program (UNDP).³⁰

Furthermore, according to the Revenue Watch Institute and the Natural Resource Charter, Norway is rated the best performing country in the management of revenues from the hydrocarbon sector. According to the Resource Governance Index from the Revenue Watch Institute, Norway is the country that best manages its wealth fund in the world in the areas of: institutional and legal setting (100/100), reporting practices (97/100), safeguards and quality controls (98/100), state-owned companies (99/100), natural resource funds (100/100), and enabling environment (98/100).³¹

In terms of cash-flow transparency, the Scandinavian country was first accepted as a candidate for the Extractive Industries Transparency Initiative (EITI) in 2009, and after two years the country established an adequate organizational structure for the reporting and reconciliation of revenue streams in line with the EITI guidelines. Since then, the country has been among the top performers of transparency in the reporting of oil revenues.³²

In conclusion, the Norwegian model is based on a clear and relatively simple legal and institutional framework that allows the country to maximize the value of its oil revenues. However, these rules have gradually evolved since their inception in the early 1970s, after a period of relatively low exploration prospects in the North Sea. Currently, Norway stands out as an example of transparency, good governance, and planning, but is not exempt from challenges, as presented in the next section.

28. *Ibid.*, p. 40.

29. Persily, Larry. *Op Cit.*

30. UNDP. "Human Development Report 2013." United Nations, 2013. Available at: <http://hdr.undp.org/sites/default/files/reports/14/hdr2013_en_complete.pdf>.

31. Revenue Watch Institute. "Resource Governance Index - Norway Country Profile." Available at: <<http://www.revenuwatch.org/countries/europe/norway/overview>>.

32. Deloitte. "Extractive Industries Transparency Initiative: Reconciliation of cash flows from the petroleum industry in Norway 2009." Deloitte November 9, 2010.

4.1 Issues and challenges

Despite the fact that the government has tried to become more independent from the hydrocarbon sector by investing the fund's resources in non-energy related areas, scaling up production is still a major concern. Oil production in the country has declined from a peak of 3.4 million barrels of oil per day in 2001 to 1.8 million in 2012.³³ To address this problem, the government has started to offer new fields in the Norwegian Sea, but especially in the Barents Sea and Jan Mayen.³⁴ The NPD forecasts that the Barents Sea holds up to 1.9 billion barrels of oil,³⁵ and that the resources on the Russian side of Barents are even greater. The government initially offered 61 blocks in the APA bidding system in the beginning of 2014, but in April it added 6 blocks in the Norwegian Sea, and 3 blocks in the Barents Sea.

Besides production concerns, domestic Arctic politics have hindered further exploration in the Barents Sea. There are tensions between the government and the opposition because environmentalists believe that with the reduction of ice formations, exposure of more reserves will attract more exploration in the area, increasing the risks for oil spills. In fact, as the Norwegian government is trying to increase its production figures, it has allowed the drilling companies to get closer than ever to the polar ice cap, igniting the debate of whether the oil and gas reserves of the arctic can be safely exploited.³⁶ According to the US Geological Survey, arctic reserves account for up to 20% of the undiscovered oil and gas in the world. The NPD estimates that oil reserves in the Barents Sea have more than 40% of the country's undiscovered resources.³⁷ Nonetheless, if the conservative-led government allows companies into the area, it would violate one of the political conditions assumed to gain the support of the Liberals and Christian Democrats, in Congress, in passing laws regarding budgets and social legislation. Last year a bill banned drilling closer than 50 km to the ice cap, however the opposition argues that this distance should be extended, and that the Ministry of Petroleum and Energy should withdraw as many as 15 blocks from the Barents Sea, basing their claims on the opinion of the Norwegian Polar Institute, and the Norwegian Environmental Agency.³⁸

33. Norsk olje & gass. "Vigorous activity and bright prospects. The oil and gas year 2012." January 2013, p. 4.

34. Nilsen, Thomas. "Smiles for big Arctic Oil." Barents Observer. February 27, 2013.

35. Norwegian Petroleum Directorate. "New resources figures for the southeastern Barents Sea and Jean Mayen". February 27, 2013. Available at: <<http://www.npd.no/en/news/News/2013/New-resource-figures-for-the-southeastern-Barents-Sea-and-Jan-Mayen/>>.

36. Holter, Mikael. "Polar politics threaten Norway's deepest drive in Arctic." Bloomberg. April 10, 2014. Available at: <<http://fuelfix.com/blog/2014/04/10/polar-politics-threaten-norways-deepest-drive-in-arctic/>>.

37. *Ibid.*

38. *Ibid.*

At the international level, according to the Minister of Environment Bard Vegard Solhjell the country's border with Russia is a potential source of problems.³⁹ Resources in the area are currently divided after the ratification of the Barents Sea delimitation, in 2011, between both countries. As soon as the agreement was announced, Norway sent vessels to explore the area and evaluate the recoverability of resources. In fact, as drilling in the Barents Sea has started, Statoil has ventured with Rosfnet, ENI and CNPC to begin production. However, tensions with Russia are expected over transportation routes, environmental issues, and most importantly, reserves.

Financially, despite the record revenues in 2013 of \$115 billion and the high average returns of 15.9%, there are some concerns about investment decisions. According to the Norwegian Broadcasting, the fund has made some controversial investments in palm oil companies and in the gambling business (Las Vegas Sands operates casinos in the US). Environmentalists claim that the country has invested in coal companies, calling the investments immoral and hypocritical, as the country aims at reducing emissions.⁴⁰ Currently, investments from the fund in oil, gas, and coal account for up to 10%, a high percentage for a country that expects to become carbon neutral by 2050. One of the positive aspects is that Norway has avoided investing in tobacco and nuclear weapons.

Finally, according to Jerome Vitenberg some of the new investments of the fund have been made in instable countries like the BRICS, where growth rates are expected to fall in the following years. Moreover, the strategy of investment diversification is becoming a strategy of increasing exposure in unreliable markets and industries.⁴¹

Therefore, the most important challenges for the Norwegian government to continue maximizing the value of its fund are related to production concerns, domestic environmental opposition, potential international disputes, and risky investment strategies.

5 CLOSING REMARKS

Norway has avoided becoming economically and politically dependent on oil revenues by excluding oil wealth from the political system, avoiding market distortions that allowed its industry to gradually develop. This was partly

39. Staalesen, Atle. "For Norway, Barents oil is big politics." *Barents Observer*. April 04, 2013. Available at: <<http://barentsobserver.com/en/energy/2013/04/norway-barents-oil-big-politics-04-04>>.

40. Berglund, Nina. "Oil fund profits still spark critics." *News in English*, February 28, 2014. Available at: <<http://www.newsinenglish.no/2014/02/28/oil-fund-profits-still-spark-critics/>>.

41. Vitenberg, Jerome. "Norway's shame: How a nation squandered its oil riches." *The Washington Times*. December 25, 2013. Available at: <<http://www.washingtontimes.com/news/2013/dec/25/vitenberg-norways-mythical-oil-wealth/>>.

achieved by relatively stable economic, social and political conditions in the country during the 1960s and 1970s. In contrast with other countries, Norway did not require oil revenues to alleviate poverty-related issues or to fuel any particular political regime. Oil prospects were very few in the early years, so they did not pose any temptation for Norwegian politicians.

Furthermore, besides good governance practices, the Norwegian sovereign fund has been successful considering that, during the 1990s, growing oil production (from 1.7 million bb/d in 1990 to 3.2 million bb/d in 1997 according to EIA data) in the country allowed the government to obtain large revenues. These economic resources were further capitalized by a relatively simple, yet sophisticated, financial strategy to invest in equity, debt, and real estate all over the world. Transparency has played a key role in the management of the cash flows, because it gives citizens and foreign companies certainty regarding the competitive environment in the country. Finally, regular taxes on income, in addition to the 4% from the fund destined to the payment of public services, have resulted in tangible benefits for Norwegian citizens.

6 LESSONS FOR MEXICO

In the text of the recently approved energy reform of Mexico there are a number of references to the Norwegian model as an example of good practices that allowed the Scandinavian government to maximize the value of the country's energy resources. According to the document, the most appealing element of the Norwegian management is the Government Pension Fund – Global, which acts as a mechanism for inter-generational equity and wealth distribution. However, as described in the essay, the implementation of the policies required for the establishment of an efficient oil fund depends on two factors that at this moment have traditionally been lacking in Mexico: a political structure relatively independent from oil revenues, and high levels of poverty and inequality that pressure government to use those resources in the alleviation of those problems. This is not to say that an efficient fund is beyond the reach of the Mexican government, but that major structural changes are still pending, in particular a second fiscal reform (after the one approved in 2014) that addresses the increase in local tax collection, and aims at reducing the informal sector in the country.

According to OECD Tax Policy Data, Mexico currently collects as low as 18.9% of the GDP in taxes, slightly higher levels than Honduras (17.5%) and way below Brazil (36.3%). Carlos Elizondo Mayer Serra explains that this is the result of a long dependence on oil revenues in Mexico, which allowed the government not to raise taxes on citizens, and thus govern with

relative independence. The other reason is that the capabilities of the state to effectively tax citizens and punish tax evaders have been very weak. In fact, even though there are no exact figures about the size of the informal sector in the country, direct and indirect tax evasion remains high.⁴² If the government is supposed to allow Pemex to become a “productive state enterprise”, as mandated in the energy reform, and use its own resources for its own needs instead of sending them to Congress as an element of the federal budget, the fiscal structure of the production royalties, export taxes, and the oil fund must be synchronized into a coherent policy, as that of Norway.

In addition, it is not possible to expect that the Mexican oil fund will receive comparable proportions of resources as the Norwegian pension fund.⁴³ This is because local governments are still highly dependent on the resources that Pemex generates. Consequently, the royalties and the revenues obtained from the production sharing agreements and profit sharing agreements will be devoted to the budget of some state and municipal governments for a period of 10 years. After that, the government should gradually lift the support to local governments, who must increase and improve their tax collection capabilities. Moreover, Transitory Article 14 of the energy reform established as a condition for the fund to receive resources that revenues should be higher than those obtained in year 2013. This means that the country has to maintain high production and charge high prices to start the cash flowing into the fund. At times of price volatility and uncertain production, the fund might find it difficult to receive decent earnings to operate as an efficient mechanism of wealth distribution.

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