STATES' STRATEGIES IN ESCAPING THE OIL CURSE: A COMPARATIVE STUDY OF NORWAY AND VENEZUELA'S POLITICAL ECONOMIES

BY

MR. THANPISIT TADSRI

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE MASTER OF POLITICAL SCIENCE IN POLITICS AND INTERNATIOAL RELATIONS

FACULTY OF POLITICAL SCIENCE

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ENTITLED

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ABSTRACT

The intention of this master thesis is to establish a set of policy guidelines in order to combat the oil curse's negative impact on oil exporting countries' economic growth. Norway, an oil exporter since 1980s, has become one of the notable successful countries in the oil industry with sustaining GDP per capita growth rates through efficient management in sovereign wealth funds. Whereas Venezuela, a traditional oil exporter since the 1920s, has been struggling through Dutch Disease for the third time, facing with both political and economic crises in 2017. Although, many literatures have found that there are three major resource curse mechanisms, presenting different key problems and actors within state's policy management. These can be categorized into the Dutch Disease, Rent-seeking and Institutional quality models. After analyzing the quantitative data through OLS regression model based on compiled indicators according to different mechanisms, results indicate that the Dutch Disease mechanism hinder economic growth of oil exporting countries the most, through the real effective exchange rate that yield negative relationship, while FDI yields positive relationship.

Norway shows that the regulated mechanism in oil revenue management through the Government Pension's Fund has allowed the country to avoid severe consequences from the financial economic crisis in 2008 and declined oil prices in 2015. As Norway's oil wealth has been transformed into holdings in equities, thereby

diversifying the risk from oil price's volatility. In combine with Norway's strong institutional management that despite state's intervention in the oil sector, incentives from refundable taxation still attracts competitive investment into the Norwegian Continental Sea Shelf. Venezuela, on the other hand has pursued in policies that further accelerate the Dutch Disease mechanism and deteriorate its own private sector, including domestic and foreign investment. These include expropriation, nationalization, price subsidization, fixed exchange rate without proper reserve regulation and politicization of its own institutions. Venezuela's hyperinflation problem was addressed by a recommendation to either float exchange rate or adopt other currency.

Keywords: Oil, Norway, Venezuela, Resource Curse, Economic Growth, Dutch Disease, Rent-seeking, Institution, Policy, Sovereign Wealth Fund

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LIST OF ABBREVIATIONS

Symbols/Abbreviations	Terms
ALBA	Alianza Bolivariana para los Pueblos de Nuestra América (Bolivarian Alliance for the Peoples of Our America)
Bandes	Banco de Desarrollo Económico y Social de Venezuela (Venezuelan Economic and Social Development Bank)
EEA	European Economic Area
FEM	Fondo de Estabilizacion Macroeconomico (Macroeconomic Stabilization Fund)
Fonden	Fondo Nacional de Desarrollo (National Development Fund)
EEA	European Economic Area
GDP	Gross Domestic Product
GPFG	Government Pension Fund Global
IMF	International Monetary Fund
EEA	European Economic Area
KrF	Kristelig Folkeparti (Christian Democratic Party)
MVR	Movimiento V República (Fifth Republic Movement)
NRGI	Natural Resource Governance Institute
NOK	Norwegian Kroner
Norad	Norwegian Agency for Development Cooperation
OECD	Organization for Economic Co-operation and Development of Oil for Development
OPEC	Organization of Petroleum Exporting Countries
PDVSA	Petróleos de Venezuela (Petroleum of Venezuela)
PPP	Purchasing Power Parity

USD	United States Dollar
VEB	Venezuelan Bolivar
VEF	Venezuelan Bolivar Fuerte
WGI	Worldwide Governance Indicators

CHAPTER 1
INTRODUCTION

1.1 Oil, a “blessing” or a “curse”?

Crude oil has long been a vital source of economic development and strategic component in energy security. It is traded globally and becomes a major energy commodity in many forms of businesses’ operations such as transportation, logistics, and electricity generation. Many countries around the world rely on oil imports to maintain their national security through military capabilities and economic activities, while some countries are fortunate enough to have abundance supplies of crude oil on their territories. But are these oil riches really a blessing to those countries possessing it? Figures of economic growth and many literatures show us that oil-abundance has not always been a ‘blessing’ to the countries possessing it, although there are several successful examples, most notable one is the case of Norway’s oil revenues management through the Government Pension Fund Global, as a long-term investment for public welfare's needs. In reality, many developing countries with greater oil-rich have been experiencing it as a ‘curse’ to the economy and in most cases led by the misuse of bonus benefits that come from the great amount of oil supplies themselves.

According to Natural Resource Governance Institute (NRGI) (2015), the resource curse (paradox of plenty) refers to the failure of many resource-rich countries to benefit fully from their natural resource wealth and for governments in these countries to respond effectively to public welfare needs. When compare to non-resource–rich countries, those with resource rich tend to have a higher rate of conflict and authoritarianism with lower rates of economic stability and economic growth. In this research, the resource curse will be term as ‘oil curse’, due to primary focus of the study that rests upon the oil-exporting sector. Like many natural resources, wealth from crude oil is distinct in its own due to large upfront costs, long production timeline, site-specific nature, incentives involvement, non-renewable nature and volatility in price

and production. All of which contributes to additional challenge for exporting countries' long-term efficient oil management.

Venezuela is a country with the world largest proven crude oil reserves. However, the combined development of social inequality stemming from capitalism and implementation of neo-liberal policies, have brought Venezuela into the socialist regimes of Hugo Chavez and later Nicolas Maduro. Both of who adhere and have been implementing socialist principles into their institutional design and policies. Thus far, it has resulted in a catastrophic outcome on both political and economic scale for Venezuela. As the boom in oil prices since 2004 have begun to rapidly decline in 2015, decreased in oil revenues dragged Venezuela into hyperinflation during its political transition after Chavez's death from cancer in 2013. Venezuela has been facing major economic crisis along with political oppression, series of political protests against Maduro have been ongoing since 2014 with higher casualties in each year.

Norway, on the other hand is already an industrialized country with strong democratic institutions that discovered crude oil much later than Venezuela. This allows the Norwegian people to acknowledge and become aware of the previous mistakes that oil exporting states made in the past. Norwegian-way of managing the oil wealth has led them to achieve the world's largest sovereign wealth fund by value in 2017. These two countries do not share historical similarity or political system, but they do have one thing in common, both economies have certain amount of crude oil and rely on its export, which is the source of both national security and wealth. Crude oil has long been the source of bargaining power that is crucial in geopolitics since the 20th century.

While the OPEC led by Saudi Arabia still maintains strong influences in the global oil market through production quotas agenda, the United States has become a key active player in supplying crude oil from the new unconventional method, known as '*hydraulic fracturing'*. With a shifting power in the global oil economy and the rising trends in implementing alternatives for environmental concern. International oil market faced difficult time in 2014 and 2015, yet many countries' economy still heavily relies on exporting it and will continue to do so in the future. What will certainly changes is the stakes of key player in the oil industry through technological advancement that transfers market share and shapes the bargaining power of global politics.

By looking at these facts in brief, we can already notice that the richness of natural resource does not always ensure sustainable economic progress, as there are many ways to manage the long processes and chains of the oil business. Therefore, this thesis aims to compare the most different cases of Norway and Venezuela's strategies and policies to formulate efficient policy recommendation, management's rules of thumb and long-term solutions in combating the oil curse for oil-exporting states in the future.

1.2 Research questions

Norway has shown that a proper management of oil wealth could leads to sustaining economic growth despite the high volatility of prices and reliance on oil exports. However, many developing countries are still relying on oil export for their economic growth, some of them like Venezuela is already facing harsh consequences from the resource curse. Therefore, it is vital to know how to achieve a long-term prosperity from the benefits of oil riches. As we could no longer ignore that oil abundance could contribute to currency appreciation, harmful rent-incentives and institutional deteriorations, all of which yield in negative implications on economic growth. Hence, this master thesis seeks to answer the research questions of:

"What factors promote and hinder economic growth in oil exporting countries?"

Relevant research sub-questions that will need to be clarified prior to formulating policy recommendations are:

- Which resource curse mechanism implies the most significant negative relationship on oil exporting countries' economic growth?
- What are the elements of sustainable oil management that prevents exporting countries from falling into resource curse mechanisms?
- What are the key aspects of management strategies from Norway and Venezuela's experiences during 2000 to 2018?
- What is the trend of international oil market in the 21st century and OPEC's roles in oil exporting countries' economic growth?

1.3 Structure of the research

Pursuing in a mixed method, the research begins with a collection of both qualitative and quantitative literatures concerning, the resource curse's mechanisms along with Norway and Venezuela's experiences with their oil industries.

Chapter 1 provides introductory contents of the overall research design, facts and empirical evidences on economic performance of Norway and Venezuela, including their National Oil Companies. This part aims to introduce the readers into the author's aims and purposes in conducting the research, including the roles of OPEC in the international oil market. The chapter intends to highlight and introduce readers to the updated contrary economic outcomes between two similar oil economies, Norway and Venezuela as of 2018.

Chapter 2 presents the gathered information from review of literatures that has been compiled to describe readers about the three major mechanisms of the oil curse. It explains different causes and effects of the curse on economic growth from previous studies, each mechanism emphasizes on different key problems and actors that involve within the state's oil management. This part also includes specific literatures review on previous studies regarding the oil management of Norway and Venezuela. It identifies the varied patterns of oil curse' symptoms from both primary and secondary data sources to establish theoretical basis for the study.

Chapter 3 presents the regression model and its methodology for quantitative analyses to measure and compare the significances of different impacts from three major oil curse's mechanisms. Combined interpretation from regression results and time-series plot analyses are covered within this chapter, along with the empirical findings and discussions according to different mechanisms.

Chapter 4 presents the main overview contents and qualitative analyses of Norway and Venezuela's policies that had been undertaken by different governments from the year 2000 to 2018. The chapter also covers comparison of political regimes, foreign policy, oil statistics, macroeconomic indicators and sovereign wealth funds of Norway and Venezuela.

Lastly, Chapter 5 covers the policy recommendation and the concluding remark by summarizing the relevant findings from the studies combining with resource

management's precepts from the Natural Resource Governance Institute. This part aims to provide qualitative solutions for oil management in national and macroeconomic levels from the lessons of Norway and Venezuela's experiences. From the regression result, it will identify which oil curse's mechanism is the most crucial aspect that oil-exporting states must not neglect and what are the strategies in tackling oil curse problems.

1.4 Important definitions

Studies surrounding the oil industries and resource curse theories are broad and significant in their own nature due to the distinction of oil wealth and its impact at global level for different countries. The mechanisms are still heavily debated amongst scholars. Thus, some important definitions shall be briefly discussed before moving into the oil curse.

1.4.1 Oil abundance

The term oil abundance is originated from natural resources abundance, which is often used in many literatures surrounding resource curse mechanisms. Sach and Warner have concluded from their study in 1995 on resource abundance countries and their negative relationship upon economic growth. Ross (2001) suggests the First Law of Petropolitics that oil abundance hinders democratization. It is important to note that ‘abundance’ does not refers to the amount of crude oil possessed within the country, rather it refers to the reliance on wealth from natural resources measured through primary export as the share of GDP, in this case the share of oil exports in terms of value gained. In this research, the oil abundance is measured through ‘Fuel exports in percentage of total merchandise exports’ data, retrieved from the World Bank. The data has been taken as the major criteria for the selection of thirty oil-exporting countries; see *Chapter 3.4* for further details on the selection method.

1.4.2 Oil rent

According to the World Bank, oil rents are the difference between the value of crude oil production at world prices and total costs of production. It refers to the profit before taxation from the exploration and production activities. The term is originated from the Law of Rent, also known as Ricardian rent, formulated by David Ricardo around 1810s. The law states that the rent of land defines the economic advantage through its most productive uses in land site. Thus, rent in this context does not refer to the payment for the use of others' properties; rather it defines the economic return from lands through usage in production. Simply put, it becomes the difference between land's productive capacity and the cost of production. Oil rent is essential for the study on oil curse mechanisms as it shows us the incentives and possible returns that entrepreneur could make in 1.4different countries. The oil rent data being used in this study is measured as a percentage of total countries' GDP.

1.4.3 Proven oil reserve

According to the Organization of Petroleum Exporting Countries (OPEC), proven oil reserve defines the statistically estimated quantity of crude oil, which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reserves under existing economic and operating conditions. Reserves are considered proven if it is economically profitable and supported by either actual production or conclusive 90% probability testing. Thus, having high amount of proven oil reserves does not always define greater oil abundance. This is because from its definition, to conduct actual operation in the reserve, states or companies require three components. These are access to current technology, profitable operational cost, regulatory and contractual approval, without either one of these features; oil reserve could not be extracted and exported. However, figures submitted by OPEC also have a reputation in secrecy and being influenced from its production quota system. It implies that oil reserve should not be held reliable as oil exporting capacity but rather an estimated amount of extractable crude oil beneath the ground.

1.4.4 Simple Linear Regression (OLS)

Simple linear regression is the basic statistical approach to model the relationship between dependent variables and explanatory (independent) variables. Ordinary least squares (OLS) is the method for estimating unknown parameters in the regression model, with the goal of minimizing the sum of the squares of the difference between observed values in the given dataset. This quantitative method will be employed to measure the relationship between economic growth of oil exporting countries as dependent variable and different explanatory variables according to the oil curse mechanisms. The formula of simple linear regression model is

$$yt = \beta 1 + \beta 2Xt + et \quad t = 1, 2, \ldots, T$$

Where *yt* is the dependent variable, *Xt* is the explanatory variable, *et* is the random error, *t* is the different mechanisms of oil curse and $\beta 1 + \beta 2$ are the parameters being estimated. *See Chapter III.I Methodology for further details on the model.*

1.5 Economy of Norway and Venezuela

Both Norway and Venezuela rely on oil export as their major economic growth driver. The two figures reveal that besides the oil curse mechanisms that were mentioned earlier, the volatility in crude oil price directly shows direct impact on economic growth for both countries. However, Norway has shown a stabilized growth rate and was able to sustain its expansion amidst the heavy fall in oil prices in 2015, while Venezuela's growth rate has shown greater volatility and decline in GDP since 2014 from the fluctuation in oil prices.

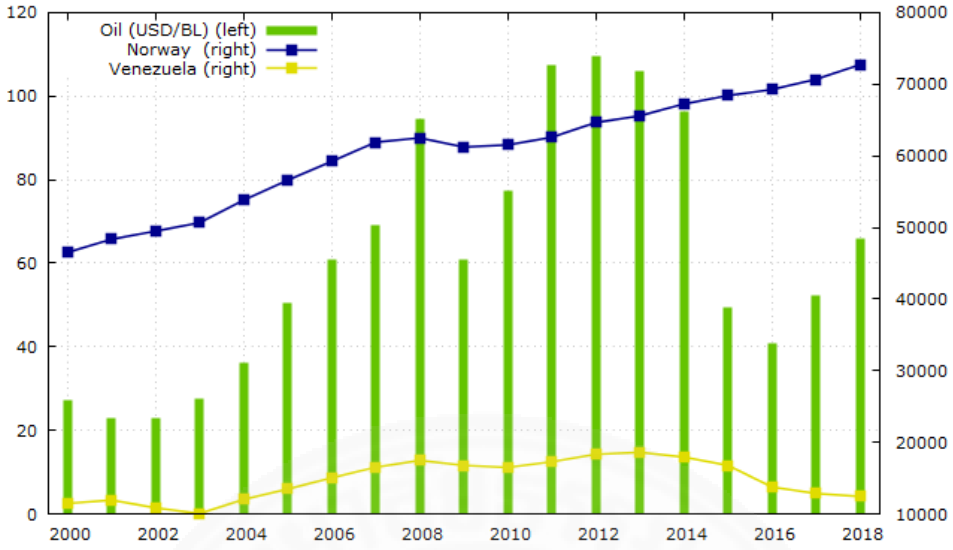


Figure 1.1 *Real GDP per capita of Norway and Venezuela from year 2000 to 2018 against crude oil prices*. Reprinted from IMF World Economic Outlook and OPEC Reference Basket, by IMF and OPEC, year.

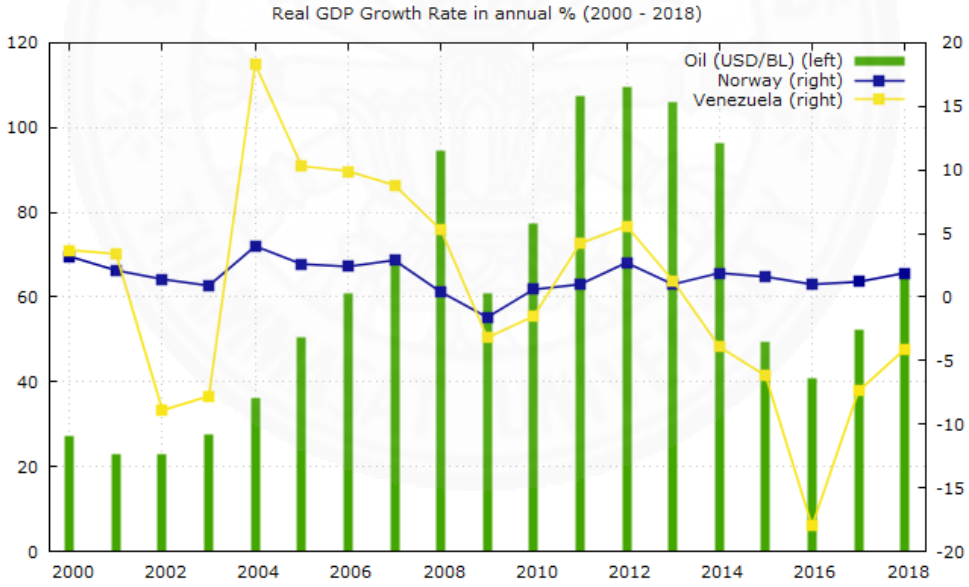


Figure 1.2 *Real GDP Growth Rate of Norway and Venezuela from year 2000 to 2018 against crude oil prices.* Reprinted from IMF World Economic Outlook and OPEC Reference Basket, by IMF and OPEC, year.

1.6 National oil companies of Norway and Venezuela

This part aims to introduce reader to the importance and implication of national oil companies (NOCs). The NOC is an oil and gas company that is fully or majority owned by the government. NOCs have been increasing their global dominance over crude oil reserves through various governments' nationalization policy and investing beyond their national borders, thus their importance are relative to international oil companies (IOCs) such as ExxonMobil, BP or Royal Dutch Shell. According to the World Bank in 2010, NOCs are accounted for 75% of global oil production and controlled 90% of proven oil reserves (Tordo, Tracy & Arfaa, 2011).

Nationalization of oil supplies is a long gradual process that involves the confiscation of oil producing operations and private property. Governments in oil-producing state pursue in the nationalization of oil supplies and production due to many reasons, generally to obtain more revenues. This is because originally in the 1950s, private-owned IOCs from the United States and Europe, notably known as *the Seven Sisters* had dominated the global oil production and supplies through contracts with governments around the world, especially in the Middle East region. In the early time, governments without proper knowledge of the industry signed a long-term contract with IOCs that resulted in unfair deals, as some of them could not be altered or ended in advance of the true end date, covered huge expanses of land and lasted for long durations. Furthermore, the IOCs used to pursue in the concept of shaving profit margins through setting lower posted prices than the market in order to avoid increasing taxes from the government. On the contrary, oil-producing states would gain higher bargaining power when the oil price is high.

When the IOCs' exploitation of oil-producing states began to reveal, it has contributed to the rising nationalism in developing countries from 1950s to 1960s. This resulted in the formation of a shared group consciousness among the oil-exporting countries that was expressed through the establishment of OPEC, which led to increased contact and communication between countries and attempts of common action among oil exporters during the 1960s. Since then the structure of the oil industry has been affected through increased nationalistic mentality. Although nationalization of oil can come with various costs due to its gradual process, the concept is still relevant to many

governments as it allows them to retain strategic control over supply and demand of natural resources and increase the countries' bargaining capabilities.

1.6.1 Norwegian Statoil ASA

Statoil ASA is a Norwegian multinational company (MNC) that was originally founded as a privatized limited company on July 14, 1972. It was fully owned by the government of Norway since 1972 until its partial privatization in 2001. The political motivation behind the creation of Statoil was to encourage Norwegian participation in the oil industry by building up competency and foundation for the domestic oil industry. As a company fully owned by the government, Statoil was required to consult important issues with the Ministry of Industry, later Ministry of Petroleum and Energy. In addition, it was also obliged to submit annual report to the Storting, the Norwegian parliament.

In 1973, Statoil began its business operation in the petrochemical industry, resulting in a partnership with Norsk Hydro, a Norwegian aluminum company that has refinery plant in the Mongstad industrial site in 1980. Statoil began to generate profit in the 1980s and become the guarantor for public welfare in the mind of Norwegians, as its revenue transfer to the government treasury exceeded income tax at the time. Its cash flow was also very large in comparison to Norway’s Gross National Product. This led to the creation of the State’s Direct Financial Interest (SDFI) on January 1, 1985 as a separate juridical entity managed by Statoil. Its original balance sheet was therefore separated into two entities. While Statoil retained 20% of itself that covered the commercial aspect, the rest of 80% covering production and exploration licenses in the Norwegian Continental Shelf (NCS) were given to the SDFI.

However, during the years 1987 and 1988, Statoil was involved in a major scandal crisis in Mongstad, as the company had exceeded its original budget of 8 billion NOK to upgrade the oil refinery in Mongstad by 6 billion NOK. This scandal that resulted in resignations for most of Statoil's Board of Directors had enormously attracted media attention. Arve Johnsen, former Statoil's CEO and politician of the Labour Party who controlled the company even during the conservative government became the first CEO in the company's history to resign at that time. During the 1990s, Statoil continued its pursuit in the internationalization strategy by forming a joint

venture with BP. The alliance that lasted from 1990 to 1999 allowed Statoil to establish significant international operations, especially in Algeria and Azerbaijan.

In the late-2000, the Norwegian government under the first cabinet of Jens Stoltenberg from the Labour Party presented its White Paper on the partial privatization of Statoil and redistribution of SDFI, a government portfolio of oil and natural gas exploration and production licenses on the NCS. Under Stoltenberg's proposal, 18.3% of Statoil's shares were to be floated as an initial public offering (IPO) on both Oslo Stock Exchange and the New York Stock Exchange, while the government retained the rest of 81.7%. In addition, the Norwegian government sold off 21.5% of the SDFI's assets while preserving outstanding ownership of 78.5%. Statoil acquired a significant portion of 15% through 13 billion NOK proceeding loan from the state, while another 6.5% were sold to Norsk Hydro, a Norwegian conglomerate. In regard to the SDFI's privatization, Petoro a newly government owned company was specifically established to manage the rest of the SDFI's assets.

Olav Akselsen, Ministry of Petroleum and Energy at the time stated in December 2000, regarding the privatization effort that, while expansion of the ownership will supply new expertise, new partners, and new capital, its proposal was aimed to make sure a partly privatized Statoil would continue to be a Norwegian-based company (Piepul, 2000). The IPO received widely positive responses with more than 62,000 individuals applied, accounting for 6% of shares sold, while the major proportion of 78% went to institutional investors abroad ("Offshore Europe," 2011). Akselsen further revealed in 2001 that he has not ruled out the possibility of selling off more shares in the future ("Offshore Europe," 2001). Statoil's shares were launched at 7.50 USD per share and held their value at the early days of trading. The total market capitalization upon the completion of the privatization in 2001 was equivalent to 595 million USD ("Offshore Europe," 2011). Through the next decade, Statoil would rise to become one of the most competence international oil companies despite the shareholding structure that allows certain amounts of state's intervention and political influence. The latter development of Statoil ASA and Norwegian oil policy from 2001 to 2018 will be further emphasized in chronological order according to different administrations, see *Chapter 4.1 Oil, a Blessing for Norway*.

1.6.2 Petroleum of Venezuela (PDVSA)

Petróleos de Venezuela, S.A. (PDVSA), in English as Petroleum of Venezuela is a state-owned oil and gas company of Venezuela that was founded on January 1, 1976. Five years prior to its founding, Venezuela under the administration of Rafael Caldera passed the law that stated all the assets, plant and equipment belonging to concessionaires within or outside the concession areas were to be reverted to Venezuelan government without compensation upon the expiration of the concession. This law in combination with the latter nationalism movement under the Decree 832, stipulating that all exploration, production, refining and sales contracts of the oil companies had to be approved in advance by the Ministry of Mines and Hydrocarbons resulted in the nationalization of its oil through Venezuelan companies replacements of all foreign oil companies that formerly engaged oil business in Venezuela. Although Venezuela nationalized its oil and reshaped the structure of ownership to be under the state control, the strategic interests were still based on the foreign MNCs' preferences as the Venezuelans' leading positions of those MNCs took over the leading roles in new Venezuelan companies owned by the state.

In the 1980s, the PDVSA pursued in an aggressive internationalization plan by acquiring 50% of an American refining company called Citgo from Southland Corporation in 1986 and later bought the remaining shares in 1990. This international expansion of the PDVSA allowed it to gain access to the refineries in both the United States and Europe, turning it to become the world's third largest oil companies at the time. Back in the 1990s, the PDVSA was a large NOC with 3.4 million barrels of oil production per day and employed about 40,000 people in 1998. There was also the law that managed the oil revenue structure of the PDVSA, stating that it had to deposit oil revenues into the sovereign wealth fund account under the Central Bank, the fund was known as the Macroeconomic Stabilization Fund (FEM). Through the next decade, the PDVSA would face a huge reverse in this revenue management under the presidency Hugo Chavez, as he aimed to extract this wealth to fund his own political programs, technically as part of his populist policy. The accountability of the PDVSA to transfer Venezuelan oil wealth to the Central Bank would be interfered and politicized, which will be latter emphasized in *Chapter 4.2 Oil, a 'Curse' for Venezuela.*

1.7 The roles of OPEC

As we have observed that crude oil prices directly impact the economic growth of oil exporting countries, it is noteworthy to mention about the roles of Organization of Petroleum Exporting Countries (OPEC) in the global oil market and how it might affect the outcome of economic growth.

Figure 1.3

Seven factors that influence the oil market

Note: From "What drives crude oil prices?" by U.S. Energy Information Administration, n.d. (https://www.eia.gov/finance/markets/crudeoil/). In the public domain.

The figure shows us that OPEC is responsible as the major supplier of crude oil into the market. OPEC is an intergovernmental organization that as of 2018 consists of 14 countries. Five-member countries, namely Iran, Iraq, Kuwait, Saudi Arabia and Venezuela, founded the organization in 1960. The objectives and aims of OPEC are defined within Article 2 of OPEC Statue in three manners. Firstly, is to coordinate and unify oil policies of member countries in determination to safeguard their interests. Secondly, is to devise the means to ensure the stabilization of international oil prices and eliminate harmful fluctuations. Lastly, is to maintain the interests of the producing nations and to the necessity of securing a steady income to the producing countries. These include an efficient economic and regular supply of crude to consuming nations and a fair return on their capital to those investing in the oil industry (OPEC Statute). The aims that resemble maximization of profits for oil exporting countries mean that its goal is to be able to control and influence the oil market, in order to increase the prices for members' benefits in general. Its formation has marked a significant change

towards national sovereignty over natural resources, as OPEC's decisions have come to played important role. Many economists have cited OPEC as a type of international cartel (Hochman & Zilberman, 2011). Since its formation, OPEC's actions have had major impact to series of political and economic events that relate to the international oil market. The first time it flexed its capabilities in the oil sector was due to the Yom Kippur War in 1973. By placing an oil embargo on the United States and Israeli allies, the world experienced the oil crisis from shortage of supply for the first time. Since then OPEC has successfully established itself from a group of developing nation states that unified their energy capabilities in order to enhance their own economy and political agendas. In addition, it has also cooperated together to produce and improve quality and quantity of information available in the market.

However, staying in OPEC does not always mean a better economic outcome for oil exporting states. This is because it costs a specific sum amount of money from the annual membership fees. The annual fees during 1990s ranged from around $1.8 to $2 million USD. OPEC has faced a disunity period in the 1990s, resulting in Ecuador withdrawal from the organization in 1992 but rejoined in 2007. Gabon withdrew in 1995 but rejoined in 2016.

Ecuador stated to the New York Times in 1992 that they were unwilling to pay the high fees and felt they needed to produce more than the quota limits. Gabon's protest during its withdrawal was also a similar case, stating that "*All OPEC members are required to pay a fee of 19.6 million Austrian schillings ($1.8 million)/year, regardless of oil income*" ("Gabon Protests," 1995). This means that whether a member state produce more or less oil revenues, it still has to contribute the same level of fees to the organization. Thus, its monopolization of global oil market does not always come from the consensus of member states but rather from the pressure of big player, Saudi Arabia. Smaller producing states that wish to be updated with the market trend and organization would have to pay a high amount of fees, comparing with big producers.

The production quota has become a well-known economic instrument that OPEC been using since its early time to influence the crude oil prices. It simply sets limit for a certain time period on how much oil supply each member should be producing and flow into the market. However, not all member states tend to strictly follow the production quotas, especially when the prices were high because they can

exploit more profits during the oil boom. To combat falling oil prices in 1982, Saudi Arabia pressured OPEC to audit members' national production quota and comply within the limits. Saudi Arabia first cut its own production of 10 million barrels through the 1970s but when member states failed to comply so, Saudi Arabia decided to reverse course and punish them by flooding cheap oil, causing prices to fall and higher-cost producers become unprofitable.

The disunity period of OPEC revealed to us that, although the organization acts in the manner of international cartel, national sovereignty still plays a crucial role when it comes to deciding whether to produce or not as national benefits directly lie within its core structure. In fear of another oil crisis and to maintain global energy security, the U.S. Energy Information Agency (EIA) keeps track of production quota trend from the indicator known as 'OPEC Spare Capacity'. It defines the volume of production that can be brought on within 30 days and sustained for at least 90 days. According to the U.S. EIA, oil markets are influenced by geopolitical events within and between OPEC countries because they have, historically, resulted in reductions in oil production. Given OPEC's market significance, events that entail an actual or future potential loss of oil supplies can produce strong reactions in oil prices.

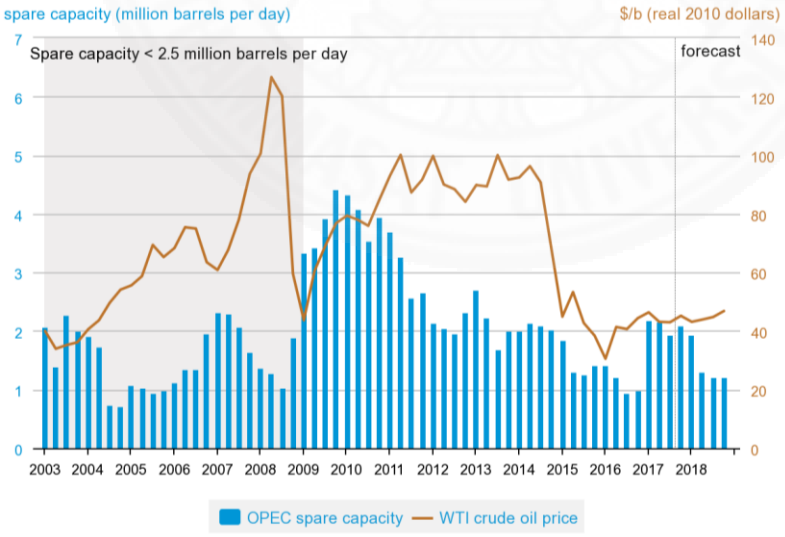


Figure 1.4 *OPEC's spare capacity and crude oil price* From "OPEC spare production capacity and WTI crude oil prices," by U.S. Energy Information Administration, 2018 (https://www.eia.gov/finance/markets/crudeoil/supply-opec.php). In the public domain. This chart shows us that crude oil prices tend to drop when spare capacity is low, signifying market response in accordance with fear of another oil shortage.

1.8 Aims of the research

This thesis aims to compare policies, strategies, macroeconomic evidences and institutional settings between Norway and Venezuela from the year 2000 to 2018. This is because the significant during this period that oversaw the beginning of the oil boom in 2005 and its decline in 2015. Average oil prices from this period ranged from 50 USD to 100 USD per barrel (OPEC), which resulted in highly fluctuated revenues, resulting in an unstable national budget's expenditure for many oil-exporting states. The indicator that will be used to represent the economic growth is Gross Domestic Products per capita with Purchasing Power Parities in current international dollars. Although GDP per capita captures countries' economic well-being of living standards in terms of equal share in the economy, many researchers have also widely accepted its correlation with democracy (Ross, 2001). Therefore, the research does not aim to forecast the growth of GDP but rather, observing the relationship that allows oil-exporting states to achieve certain level of GDP per capita through time, policies and different variables from the selected samples.

The analysis on the factors that promote, or hinder oil-exporting countries' economic growth will be done through a cross-sectional regression data analysis of 30 selected oil-exporting states, based on oil-export reliance and availability of the data. While also emphasizing into the qualitative interpretation of fiscal rules, policies, institutional designs and outcomes between Norway and Venezuela, in order to formulate pattern of causes and effects for the misuse of oil resources in particular countries. The significance of these selected time periods could not be neglected, as Venezuela has experienced a pattern of political transformations since Hugo Chavez came into power in 1999 and died from cancer in 2013. From being once a regional democratic and economic star into a socialist state with abundance of oil but lacking foods and medicine supplies, combines with hyperinflation. On the other hand, Norwegian success in oil management has led its Government Pension Fund into the top of funds ranking in assets, worth of $1 trillion USD in 2017. Hopefully, this thesis will contribute into the decision-making processes of policymakers in terms of what prescriptions of political and economic policies, should oil-producing states pursue through different conditions and uncertainties of the oil market.

1.9 Hypotheses

H_1: Dutch Disease mechanism hinders economic growth the most in oil exporting country.

H_2: Institution mechanism hinders economic growth the most in oil exporting.

H_3: Rent-seeking mechanism hinders economic growth the most in oil exporting.

H_4: There is a positive relationship between being in OPEC and economic growth in oil exporting countries.

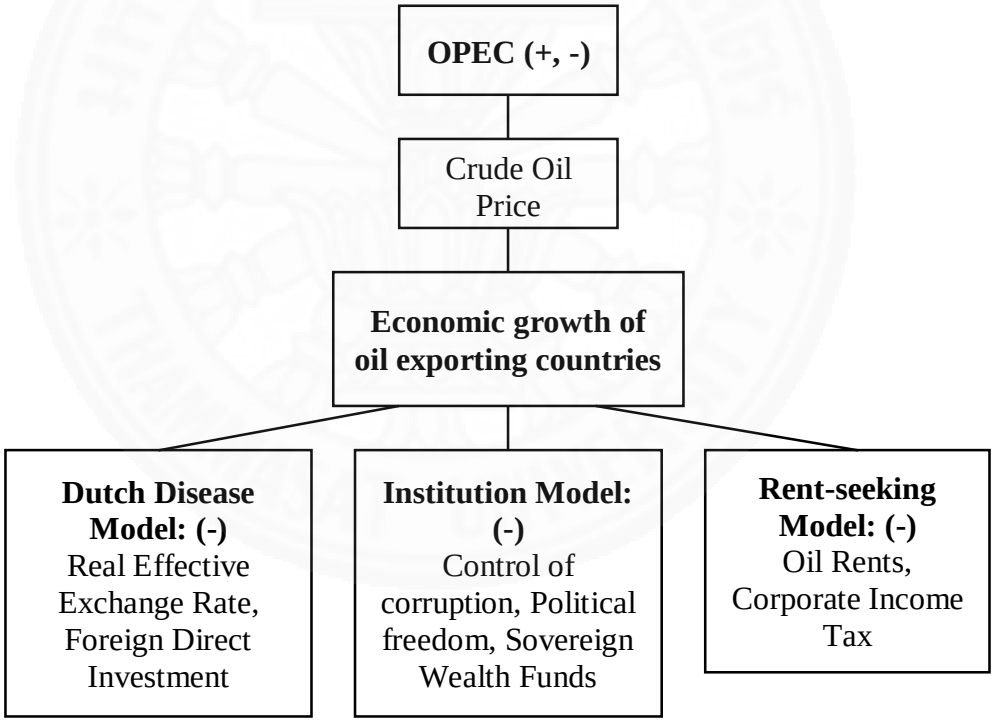


Figure 1.5 *Observation framework and explanatory variables according to the oil curse mechanisms.* Inside brackets denote the sign of relationship according to hypotheses.

CHAPTER 2
REVIEW OF LITERATURE

By 2018, there have been many literatures regarding Norway, Venezuela and the resource curse theories. Michael L. Ross, a political scientist from University of California categorized these distinctions into those who either suggest oil hinder democracy or oil causes the state to perform poorly in economic growth and development. For this research, the author is determined to work with the latter case, as there are wide varieties of different approaches that still require further tests and interpretation for a long-term solution. Nonetheless, political regimes and system of government will still be analyzed in accordance with quantitative results as previous studies have shown their correlating relationships. Qualitative literatures concerning the cases of Norway and Venezuela exist quite largely as both cases provide the best and worst economic development examples for oil exporting countries in the 21st century. However, none of them had combine the quantitative analysis with the qualitative literatures to compare between their institutional designs and the roles of international institutions before, especially the role of OPEC as an international cartel in influencing the oil market at global level. This is the academic gap that the author intends to fill into with the prospects of international political economy and institutional analysis at both domestic and external levels.

2.1 Empirical evidences on Norway

Literatures surrounding the case of Norway exist largely as the leading successful case for many countries' development plans. Norway has also been known to officially export the bureaucrat system itself. Thurber and Istad have concluded from their studies in 2010 on exporting Norwegian model of separated government functions and its effect on different countries' oil sector performance. Studies revealed that separation of functions is not a prerequisite to successful oil sector development. Countries where separation of functions has succeeded are characterized by the combination of high institutional capacity and robust political competition. This

suggests that while some countries might be lacking institutional capacity, better performance outcome may also result from consolidating commercial, policy, and regulatory functions until such capacity has further developed (Thurber & Istad, 2010).

Tommy Elsgard comparatively reviewed in his study in 2014 on lessons from Norway, Botswana, Ghana and Venezuela in avoiding the resource curse. He concluded that all countries have aimed to diversify their economies but only Norway succeeded and able to build high levels of human capital. On the other hand Venezuela's policies has scared off foreign companies through heavy state's intervention. Fiscal policies in successful resource rich countries are found to be countercyclical against the boom in oil sector, while Venezuela's fiscal management of pro-cyclical expenditure leads to unsustainable public consumption, debt overhang, and thereby high vulnerability to falling petroleum prices (Elsgard, 2014). To avoid the resource curse, Elsgard suggests a Norway-model solution in general by diversifying economy, increased taxation and transparent distribution within sovereign wealth funds. The objectives of monetary policy should balances between price stability, economic growth and employment creation (Elsgard, 2014). A short paper by Kumar, Toshnival and Gupta in 2016 has also provided a resource curse analysis between Norway and Venezuela, however the literature is largely restricted within the scope of economic factors through varied indicators, leaving out many grounds on the institutional designs and political issues. Study concludes that Venezuela should lay emphasis on a more stable inflow of oil wealth through similar mechanism like Norway's Pension Fund with a transparent apparatus (Kumar, 2016).

2.2 Empirical evidences on Venezuela

On the other hand, literatures surrounding the case of Venezuela are many, in most cases they concern with the rise of socialism and disappointing economic performance. Most studies laid their basis on the fact that Venezuela holds the world largest proven oil reserves, thus expected to gain a better economic results, yet Venezuela has been failing heavily into both political and economic crisis since 2014; Francisco E. Paris provides in his study, a strong references underlying the processes of institutional adjustments in Chavez's early term. The work covers specific range of

information regarding oil policies and institutions, especially the PDVSA, interviewed from Venezuela's top officials such as former President or Minister (Paris, 2006, p. 286). His study reveals the pattern of Venezuela's politicization of its oil industry, which has been limiting the real potential of benefits that Venezuela could gain. Paris concluded that as long as the involvement of oil management can be induced from broader features of Venezuelan political economy, the same lessons could be related to wider issues such as development or democratic process (Paris, 2006, p. 287). However, due to the qualitative manner of the work, the analysis only limits within the framework of institutional structure but not the analysis on international politics' factor and economic growth, leaving academic gap for this thesis to fill in.

Kathryn E. Corridan studied into the rise to power of Hugo Chavez and the implication of the Bolivarian Revolution. Her work covers history and information concerning the political transformation of Venezuela from democratic to socialist state, summarizing that the actions of Hugo Chávez are patterns of behavior that emphasize in establishing dictatorial power and the Bolivarian Revolution was the core of this transformation (Corridan, 2009, p. 15). Similarly, to the first cited literature, this work only contains collection of qualitative information but lacking strong consensus and empirical evidence, filling with wide range of facts and information, regarding to Chavez's political career, social programs and oil politics. Wang and Li studied the oil politics between China and Venezuela that Chavez had pursued since his early term. They revealed information regarding the oil-for-loan deal between China and Venezuela, providing that China has become the highest creditor of Venezuela in the 21st century. While addressing major economic issues that make this deal a strategic gamble for China, it concluded with a remark policy recommendation for Venezuela to reverse course back to the IMF assistance and privatization measure (Wang & Li, 2016, p. 281). This clearly shows the lack of sufficient political knowledge, concerning Chavez's identity and interests, as Chavez maintained support and popularity by steering into socialist policies since the beginning, combining with the fact that Maduro was his best candidate to take the reign after Chavez, reversing to the IMF assistance would translate as a reverse in socialist agenda, which is unlikely to happen under Maduro. Nonetheless, the article provides in-depth details and analysis concerning the Venezuela's cooperation with China, which would be useful for this study.

Foreign Affairs' article by Viscidi in 2016 also criticized the mismanagement of Venezuela's oil industry during Maduro administration. In the work, the author provided analysis and brief background on Chavez's crude oil management combining with policy recommendations for Maduro. The concluding remarks ended with suggestion for Venezuela to create an independent figure or institution to oversee the oil industry. In addition, the author suggested separating the oil ministry and PDVSA since the chief of PDVSA has consulted directly with foreign companies rather than structuring official competitive bid rounds run by an oil regulator as of 2016, which is industry-standard practice to guarantees transparency and stability for investors. While also noting that the government could maintain oil revenues for expenditure in social programs but should rather focus solely on oil business (Viscidi, 2016, p. 140). Although, it is a short article, the work provides interesting views and claims, regarding the solution to Venezuela's economic crisis, in which would be useful for referencing the analyses concerning the issues.

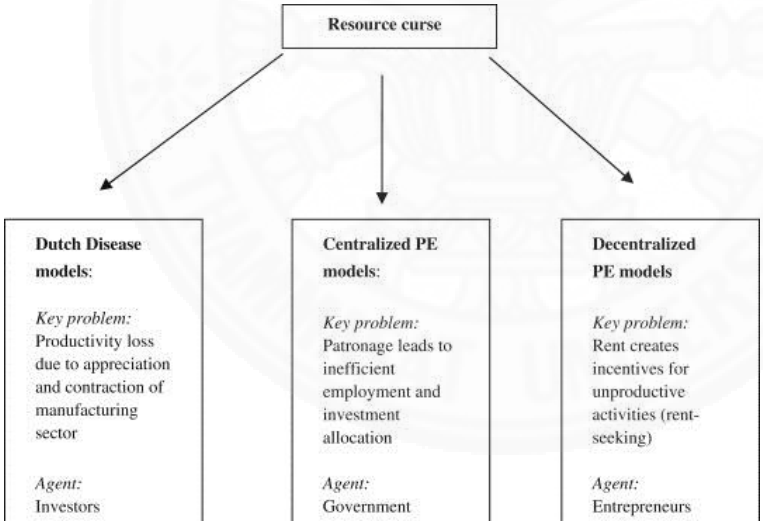


Figure 2.1 *Resource curse mechanisms* From "It's the rents, stupid! The political economy of the resource curse," by I. Kolstad and A. Wiig. 2009, *Energy Policy, 37*(12), p. 5319.

Among these different resource curse approaches, the mechanisms according to the literatures can be summed up into three main categories to explain the oil curse. These are the Dutch Disease, the Rent-Seeking and the Institution models.

2.3 Dutch disease mechanism

The term Dutch Disease was first coined in the 1970s to describe the decline of manufacturing sector in the Netherlands after the large discovery of natural gas fields in 1959. According to Investopedia, Dutch Disease has become the economic term referring to the negative consequences arising from large increases in the value of a country's currency. It is primarily associated with a natural resource discovery but can result from any large influx of foreign currency into a country, including foreign direct investment, foreign aid or a substantial increase in natural resource prices. There are two main symptoms describing the effect of Dutch Disease. Firstly, is the lost in competitiveness in the manufacturing sector due to appreciation of currency that leads to higher cost for domestic inputs. Following by increase in imports, which in long run would contribute to higher unemployment as manufacturing jobs are being moved to lower-cost countries. Thus, the Dutch Disease refers to the relationship and coexistence between the booming sector (natural resources) and the lagging sector (manufacturing). The idea of booming sector pulling resources from one another is known as *the crowding-out* logic.

Sach and Warner took this logic as a basis in their study on resource abundance in 1995. Evidences found that there is negative relationship between growth and natural resource intensity (Sach & Warner, 1995, p. 22). According to their model, when there is an increase in natural resource sector, it tends to crowd out the growth of manufacturing sector due to lost in competition from the rises in price of non-traded sector (Sachs & Warner, 1997, p. 6). Hence, their study contains the idea that industrial structure matters to economic growth to substantial level. The Dutch Disease model in the case of oil-exporting countries studied by Ismail in 2010 has also confirmed this crowd-out logic from the oil booms. Ismail also added that, the outflow of investment in manufacturing is due to expansion of labor-intensive and appreciation of capital intensity. However, manufacturing sectors with higher capital intensity are less affected by oil windfall. The Dutch Disease mechanism therefore sees the investor as the primary agent carrying the processes of crowding out when there is boom in the oil sector (Kolstad & Wigg, 2009). However, its negative correlation from oil abundance

could not explain cases such as Norway or Australia etc. Hence, it is noteworthy that the topic is still open for debate and other pre-conditions might exist and relates to the growth of oil exporting countries.

2.4 Institution mechanism

The Institution model asserts the importance in institutional qualities. Most literatures on resource curse that concern on institution are varied within their own models. Study on institution and resource curse done by Mehlum, Moene and Torvik in 2006 has combined the aspect from resource abundance and institutions. Main findings were that countries rich in natural resource yield both growth loser and growth winner. They have shown through regression analysis that the qualities of institution determine whether states with oil abundance avoid the curse or not (Mehlum, Moene & Torvik, 2006). However, states vary with different form of institutions. A combination of grabber friendly institution with resource abundance leads to low economic growth, while producer friendly institution helps countries take full advantage of the natural resources. Their concluding remarks also reject the Dutch Disease model of Sach and Warner as the decisive factor of the resource curse and favor for rule of law as the measurement of institution (Mehlum et al., 2006, p. 16). Thus, oil curse would only appear in countries with weak institutions, as resource abundance puts them into some kind of test (Mehlum et al., 2006).

Study by Robinson, Torvik and Verdier in 2006 also looked into the institution and resource curse, emphasizing into the political foundations. Their models combine rent-seeking aspect as the political incentives with mismanagement of wealth redistribution due to political biases in preserving their power. The results concluded that resources tended to be over extracted by those whom in control because they discount the future according to their probability in power, thus when resources sector boom, these incentives contribute to inefficiency as politicians spend them on influencing elections. Countries with institutional qualities that can limit clientelism could raise national income (Robinson et al., 2006, p. 466).

The literatures reveal that, there are still many conditions and different scenarios within the institutional model itself and debate on resource curse is full of

alternative approaches and dividing consensuses. Michael L. Ross also suggested in his First Law of Petropolitics that the boom in oil prices hinder democratization, thus the author also aims to identify the causal relationship of political freedom on whether it affects the oil exporting countries' economic growth or not. Hence, in this study, we will be testing the institutional qualities within three areas. These are control of corruption, political freedom and transparency of the sovereign wealth funds. See *Chapter 3.4* for further details on the *Selection of Variables*.

2.5 Rent-seeking mechanism

The Rent-seeking model asserts that the amounts of government revenue could change drastically from time to time due to the changes in commodities price and production. Studies from Natural Resource Governance Institute (NRGI) claim that it is difficult to effectively spend fluctuating and unpredictable revenues (NRGI, 2015). When oil revenues rise, government often gets trapped in boom-bust cycles, also known as pro-cyclical spending and has to make painful cuts when revenues decline. When the oil boom, states with rich natural resources often over-borrow because they have improved credit-rating when revenues are high, this led to debt crises when revenues declined in Mexico, Nigeria and Venezuela in the 1980s (NRGI, 2015, p. 3). The case is similar with private sector for it could over-invest during oil boom and experience bankruptcy during the fall.

Lane and Tornell provided notable literature surrounding the rent seeking and impact of oil rents in 1999 through their study of the *Voracity Effect*. Their results proved that an economy in which there are powerful groups grows more slowly than one in which groups are powerless or act in a coordinated manner (Lane & Tornell, 1999, p. 42). They suggested that growth is lower when power is concentrated among only a few groups than diffused among many groups. The *Voracity Effect* states that with the powerful group, an increase in income redistribution (rent) generates negative relationship between improvements in economic growth (Lane & Tornell, 1999, p. 42). Thus, the mechanism marks state as a convenient recipient of oil revenues and budget processes for powerful groups to appropriate their share from the oil wealth.

Dunning also analyzed the concept of rent seeking with Venezuela and Mexico cases in his study on endogenous rent and concluded that there is strong plausibility that rent maximization or minimization lies behind the pattern in political incentives (Dunning, 2007, p. 27). Study by Arezki and Bruckner as part of IMF paper in 2009 observed the effects of oil rent from panel-data regression. Their results has confirmed the common held belief that oil rents are associated with corruption and a worsening of political rights, they reject the hypothesis that oil rents are a direct threat to state stability (Arezki & Bruckner, 2009, p. 17). Thus, investors do not necessarily have to fear that excess oil rents are threat to their investment from civil conflict. However, policymakers should be concerned that oil rents could significantly increase corruption that results in substantial welfare loss due to the misallocation of resources and the costs associated with secrecy (Murphy, Shleifer & Vishny, 1991).

2.6 Remark on oil price

As most literatures have confirmed that oil exporting countries are prone to the oil curse due to boom-bust cycles that lead to mismanagement. It is therefore noteworthy to remark that crude oil price plays a significant role in the economic growth for these concerned countries. Many oil exporting countries have joined a common front and been acting as an international cartel in order to influence the oil price. An Organization of Petroleum Exporting Countries (OPEC) is *de facto* led by Saudi Arabia in setting the production quota rate in order to push the price as supply tightens. Thus, this study will also put strong emphasis on the oil price through time-series graph plot analysis and observe into the relationship between the OPEC's member countries as of 2008 and economic performance of Norway and Venezuela.

CHAPTER 3
METHODOLOGY OF RESEARCH

3.1 Design of the cross-sectional model

The thesis will pursue in the combined uses of qualitative method for interpretation of political events, policies and strategies that states have experienced and employed during the year 2000 to 2018, while using quantitative method through OLS regression analysis to compare and analyze the descriptive statistics from cross-sectional model, regarding the dependent and independent variables that relate to the oil curse. The quantitative method will be using Ordinary Least Squared (OLS) regression model with average growth rate of GDP per capita as dependent variable from 30 selected samples of net oil exporting states. Although, emphasizing on the cases of Norway and Venezuela, the primary data from 30 oil exporting countries are employed to establish empirical findings for oil dependent countries in overall. The data collection is done online through websites and databases of major institution. These are the World Bank, IMF, EIA, OPEC and Sovereign Wealth Fund Institute. Afterward, the data is compiled through Microsoft Office Excel in a cross-sectional manner. In order to run the model that cover data from the year 2000 to 2017, the available data between this timeframe have been calculated in average through Excel's formula. Although some data such namely, oil rent, FDI and WGI are not available up to 2017, the latest figures available would still be compiled in average term. The regression model will then be tested through Gretl with the OLS method to observe the sign of relationships from the coefficient and indicate their significance with p-value. The OLS formulas for this study can be written as

Model I: $GDP = \beta 0 + \beta 1\ LGDP + \beta 2\ RENT + \beta 3\ REER + \beta 4\ FDI + \beta 5\ LMTI + \beta 6\ OPEC + et$

Model II: $GDP = \beta 0 + \beta 1\ LGDP + \beta 2\ RENT + \beta 3\ REER + \beta 4\ FDI + \beta 5\ LMTI + \beta 6\ OPEC + \beta 7\ CIT + et$

Model III: GDP = β0 + β1 LGDP + β2 RENT + β3 REER + β4 FDI + β5 LMTI + β6 OPEC + β7 CIT + β8 CC + et

Model IV: GDP = β0 + β1 LGDP + β2 RENT + β3 REER + β4 FDI + β5 LMTI + β6 OPEC + β7 CIT + β8 VA + et

Where GDP is the average real GDP growth rate as dependent variable, LGDP is initial income level, RENT for Oil Rent, REER is real effective exchange rate, FDI for foreign direct investment, LMTI for Linaburg-Maduell Transparency Index, OPEC for OPEC's membership up to 2008, CIT for corporate income tax, CC for control of corruption, VA for voice & accountibility and et is the random error.

Afterward, the results will be analyzed along with the empirical evidences from exploratory research design and time-series data plots. As the aims of this thesis are not only identifying the key factors for oil exporting countries' economic problems but also seeks to formulate the policy recommendations as a set of universal guideline for states to apply. Thus, an exploratory research would allow us to understand the connections between different political agendas of Norway and Venezuela, including their macroeconomic data analyses. In order to compare the political economies and development of oil industry in Norway and Venezuela during this timeframe, qualitative literatures are essential to reveal the actual events that occurred in relation to the OLS regression results. Qualitative data collections are retrieved from both primary data and secondary data such as public statement, journals, articles and literatures on resource curses and specific case study for Norway and Venezuela. In addition, the author also sent out survey questions to Norad in order to gain more in-sight from the Norwegian oil development agency.

3.1.1 VIF collinearity test

The Variance Inflation Factor (VIF) collinearity test is employed as the first basis for qualifying the selection of variables, as it is designed to detect multicollinearity, which refers to predictors that are correlated with other predictors. Multicollinearity increases the standard errors of the coefficients, which means that coefficients for some independent variables may be found not to be significantly different from 0. If the VIF is equal to 1 there is no multicollinearity among factors, but

if the VIF is greater than 1, the predictors may be moderately correlated. The result below shows that the VIF for the oil curses' mechanism predictors compiled by author are between 1 to 2.5, which indicates some correlation, but not too much to be overly concerned about. A VIF between 5 and 10 indicates high correlation that may be problematic, thus the CC and initial income level in Model III are still being selected as they do not exceed the minimum problematic correlation at 5. The full definitions for each predictor's abbreviation can be found in *Chapter 3.4 Selection of Variables*.

Table 3.1

Variance inflation factor test from gretl

Model Independent Variables	I	II	III	IV
Initial Income Level	1.30	1.33	3.64	1.43
Oil Rent	1.59	1.64	1.96	2.24
REER	1.17	1.20	1.25	1.22
FDI	1.49	1.49	1.51	1.55
LMTI	1.36	1.37	1.44	1.40
OPEC	1.90	1.96	2.15	1.93
CIT		1.12	1.22	-
CC			4.57	-
VA				2.21

Note: VIF(j) = 1/(1 - R(j)^2), where R(j) is the multiple correlation coefficient between variable j and the other independent variables

3.2 Selection of samples

The selected samples are based on two main criteria. First, is that the selected samples would include oil exporting countries from all regions around the world to minimize the research within the scope of countries that rely on oil for their economies. As this research does not intend to analyze how ordinary states generate economic growth but rather focuses on management issues of states that have similar trait in access to crude oil reserves yet implying different economic performance outcomes. Indonesia was highlighted as a member of OPEC due to its membership in

2016, as of 2018 it has left the OPEC and becomes net oil importer. The proportions of selected oil exporting countries from different regions and continents are as following:

Middle East: 9 countries

Asia-Pacific: 6 countries

Europe: 3 countries

Africa: 5 countries

North America: 2 countries

South America: 5 countries

Total: 30 oil-exporting countries

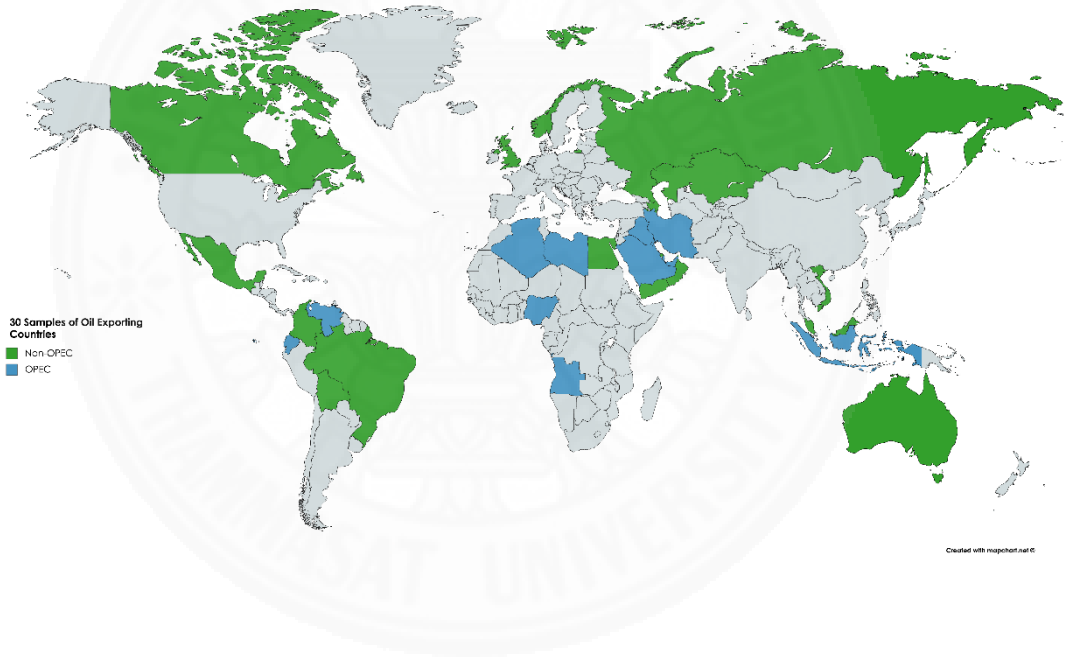


Figure 3.1 *Selected oil exporting samples from both OPEC and non-OPEC member countries*

Second criteria are the extent to how much oil abundance countries rely on the value of oil exports. These are indicated and ranked through observation of average Fuel Export in percentage of total merchandise export from the year 2000 to 2016 provided by the World Bank's database. Norway and Venezuela's average oil exports are highlighted in bold at 64.01% and 87.92%, respectively. These figures indicate that both countries' export economy have a high level of reliance from the oil industry,

which is why the two countries are being critically compared in this study. The ranking of oil export reliance from all 30 selected samples are as following:

Table 3.2

Index of selected oil-exporting countries (2000-2016)

Countries	Regions	Average Oil Exports (% of Merchandise Export)
1. Iraq	Middle East	97.94
2. Libya	Africa	97.24
3. Algeria	Africa	97.01
4. Angola	Africa	96.31
5. Kuwait	Middle East	94.05
6. Nigeria	Africa	92.62
7. Azerbaijan	Asia-Pacific	88.85
8. Qatar	Middle East	88.68
9. Saudi Arabia	Middle East	88.60
10. Venezuela	**South America**	**87.92**
11. Yemen	Middle East	84.30
12. Oman	Middle East	81.62
13. Iran	Middle East	78.67
14. Kazakhstan	Asia-Pacific	66.90
15. United Arab Emirates	Middle East	65.14
16. Bahrain	Middle East	64.99
17. Norway	**Europe**	**64.01**
18. Russia	Europe	61.88
19. Ecuador	South America	52.07
20. Colombia	South America	49.87
21. Bolivia	South America	42.74
22. Egypt	Africa	37.37
23. Indonesia	Asia-Pacific	27.88
24. Australia	Asia-Pacific	26.54
25. Canada	North America	21.94
26. Vietnam	Asia-Pacific	17.80
27. Malaysia	Asia-Pacific	14.93
28. Mexico	North America	12.15
29. United Kingdom	Europe	10.17
30. Brazil	South America	7.19

Note: Adapted from "Fuel exports (% of merchandise exports), by World Bank, October 2017.

3.3 Selection of variables

The selected variables are intended to represent the measurement of oil-exporting countries' economic growth and the three mechanisms of oil curse that have been previously presented in the *Chapter 2 Review of Literature*. In order to observe the casual relationships from different macroeconomic and institutional settings with economic growth, the dependent variable is therefore measured similarly to the model done by Mehlum et al., where average growth rate of real GDP per capita between 1965 and 1990 was used. In this study, we also use the average growth rate of real GDP per capita but within the period from 2000 to 2017.

The explanatory or independent variables begin with the basis of macroeconomic settings in term of Initial income level, which is the natural log of GDP per head of the economically active population in 2000. Oil rent, which indicates the profit before taxation from the exploration and production activities and Corporate Income Tax (CIT) are used to measure the level of rent-seeking activities, in the sense that they represent business incentives from conducting oil-related activities amongst different countries. Inflation is measured by average real effective exchange rate, which is employed to observe one of major symptoms of the Dutch Disease. Similarly with the Foreign Direct Investment in percentage of total GDP (FDI), this is used to indicate Dutch Disease symptom in the sense that it indicates relationship from large capital inflows into the countries.

For the institutional model, variables are focus within two major areas. These are the level of transparency and political freedom. The levels of transparency are measured through two variables. The Linaburg-Maduell Transparency Index (LMTI) developed at the *Sovereign Wealth Fund Institute* by Carl Linaburg and Michael Maduell is used to measure the transparency ratings of sovereign wealth funds.

The Control of Corruption (CC), developed by the World Bank as part of Worldwide Governance Indicators also captures transparency through perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. The Voice and Accountability (VA), developed by the World Bank as part of Worldwide Governance Indicators captures perceptions of the extent to which a

country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. Lastly, the OPEC is author-created *dummy variable* that indicates OPEC membership countries with value of "0" for non-OPEC and "1" for OPEC members.

CHAPTER 4
QUANTITATIVE ANALYSES

4.1 Regression Results

Table 4.1

OLS regression results from gretl

Dependent Variable: Average Growth Rate of GDP per capita, PPP (2000-2017)				
Model	I	II	III	IV
Independent Variables				
Initial Income Level	−2.21894	−2.37325	−2.31697	−2.06419
	(4.34e-05)***	(5.94e-06)***	(0.0026)***	(0.0002)***
RENT (-)	−0.0430782	−0.0572670	−0.0587782	−0.0680164
	-0.2316	(0.0873)*	-0.1157	(0.1142)
REER (-)	−0.0444701	−0.0376959	−0.0380681	−0.0484598
	(0.0244)**	(0.0352)**	(0.0418)**	(0.0166)**
FDI (+)	1.00668	0.987173	0.985215	0.954612
	(6.08e-06)***	(2.15e-06)***	(4.16e-06)***	(9.01e-06)***
LMTI (+)	0.19635	0.219795	0.222813	0.170492
	-0.1545	(0.0811)*	(0.0925)*	−0.2077
OPEC (+)	2.51426	2.99822	2.96186	2.35039
	(0.0470)**	(0.0119)**	(0.0196)**	(0.0629)*
CIT (-)		−0.104052	−0.102751	-
		(0.0185)**	(0.0285)**	
CC (-)			−0.0852527	-
			-0.918	
VA (-)			-	−0.767746
				(0.2739)
Observations (120)	30	30	30	30
Adjusted R-Squared	0.76	0.81	0.80	0.82

Note: Value above is the coefficient; numbers inside the bracket is the p-value. Stars (*, **, ***) indicate significance level of p-value at 10, 5 and 1 percent level, respectively. Signs inside the left brackets define the relationship from coefficient results.

4.2 Empirical findings and discussion

From the regression results we can firstly observe in the bottom of the table that all models yield a substantial value of adjusted R-square, which indicates the reliability of each model. All four models are above 75% level. The initial income level serves as the extent to which oil-exporting countries could potentially expand their economic growth. The negative coefficients and significant level of p-values from all four models imply that the higher income level of the country is, the less potential the country would be able to grow economically. This was however, not the case for Norway and Venezuela as Norway, a higher initial income country has shown that it could sustain its economic growth more efficiently when comparing to Venezuela.

The results from the model show that H_1 and H_4 are correct, as two of the Dutch Disease's predictors have the strongest significant level above 5 percent level in all four models, which was also mentioned by Norad's official. The OPEC's membership has also shows positive relationship with significant level from all four models, which revealed to us that OPEC's oil exporting countries has performed better economic growth than non-member in the last decade.

4.2.1 Dutch disease mechanism

Manifested in an exchange rate as oil revenue grows, so does the appreciation of the national currency. Therefore, the testing of Dutch Disease mechanism was employed through two predictors according to the theoretical symptoms. These are the inflation level measured through real effective exchange rate (REER) and large inflow of funds through foreign direct investment (FDI).

From the observation of the Dutch Disease mechanism, the results from the OLS regression have highlighted strong p-value significance from the real effective exchange rate with economic growth at 5% level in all four models. It is noteworthy for oil exporting countries to acknowledge the grave importance in stabilizing the appreciation of real effective exchange rates, as it would results in other exports becoming more expensive, in turn leading other export sector besides oil to become less competitive. The Foreign Direct Investment displays the major growth driver in all four models with high significant level of 1% in p-values. This is also not

as surprising since countries with crude oil usually require capitals to initiate the investments in oil exploration and maintain operating budget for the production activities.

However, the Dutch Disease's symptom also emphasizes on the decline in the manufacturing sector. In this regard, the author also specifically employed a time-series plot to observe the latest available data of Norway and Venezuela on the growth of manufacturing sector against the oil prices. According to the World Bank, the manufacturing data retrieved for Figure 10 is the value added in the net output of the manufacturing sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources.

According to the plotted graph in Figure 10, both Norway and Venezuela have shown that their manufacturing sector have been consistently decline since the early of the 21st century. Against the boom in oil prices since 2004, Venezuela had shown a stronger decline in its manufacturing against oil boom when comparing to Norway. Venezuela's manufacturing displayed an inverse in relationship from 2003 to 2014. For Norway, the pattern is similar but with less volatility, as shown in the figure. Norway's manufacturing hits the lowest point in the year 2012, which is the same year international oil price according to OPEC's reference, has peaked in the decade.

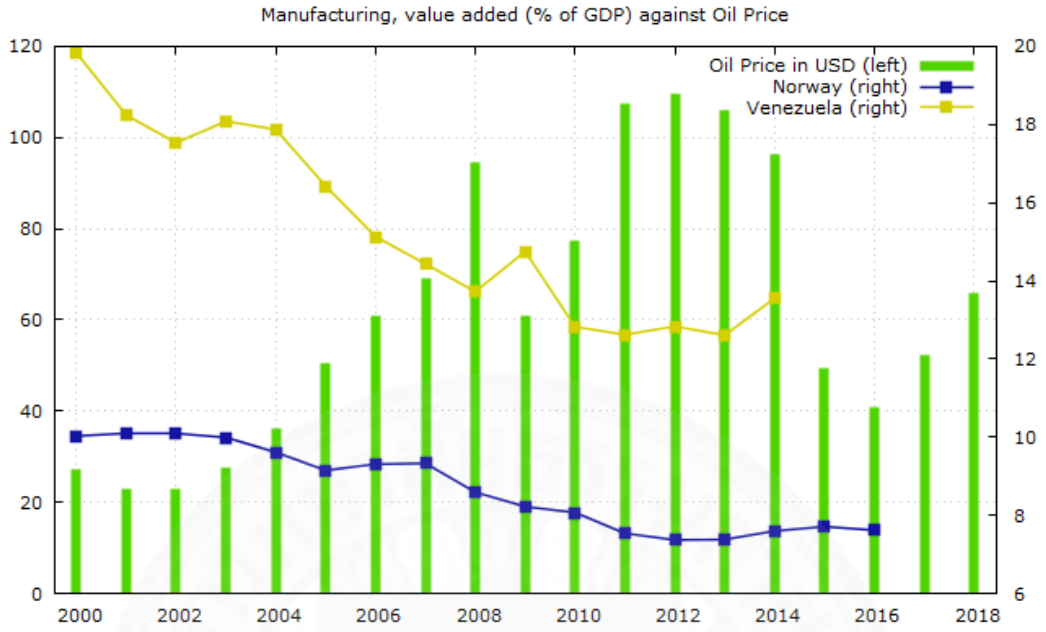


Figure 4.1 *Comparison of the manufacturing sector against oil price* From World Bank Open Data and OPEC Reference, 2018.

Online interview questions have also been sent to the Norwegian Agency for Development Cooperation (Norad) through email, one of the questions was that "What is your opinion regarding the roles of Norwegian oil industry to the country's economic growth in the past decade?" Vegard Pedersen who works as Oil for Development's secretariat replied that huge income from oil export not only has been the vital source of economic growth but also important to protect the competitiveness of other export sectors so that the gain in the petroleum sector is not lost through "crowding out" of other sectors, he referred to the Dutch Disease. The OLS results combine with this insight lead us to concur with H_1, as Dutch Disease's predictors show the most significant level in all four models. Simply put, oil-exporting countries would perform better economic growth with lower inflation rate and a high level of foreign direct investment, while maintaining strong competition in other sectors to avoid the Dutch Disease, the major cause of the oil curse.

4.2.2 Institution mechanism

There are three predictors that were employed to test the institution mechanism. These are the score of institutional qualities in two areas, transparency and political freedom. Transparency is presented using WGI: Control of Corruption (CC) and sovereign wealth fund's transparency index by Linaburg-Maduell (LMTI). The political freedom was measured through WGI: Voice & Accountability (VA).

After observing the data from the OLS model, various results have appeared in different areas. The transparency of sovereign wealth funds (LMTI) has shown positive relationship but only with 10% p-value significant from model II and III, implying that there are 90% chances for oil-exporting countries with high transparent practice in wealth fund to perform better economic performance. This is quite practical, especially for a resource-based sovereign wealth fund because by having a transparent management, the public and civil society can assess and contribute new ideas and strategy to the national oil revenue's portfolio. The maintenance and revealing of official statistics for the uses of oil money are what attracts trust and foreign investors into the country, in turn these funding will directly contribute to the economic growth.

However, the other two predictors, Control of Corruption (CC) and Voice & Accountability (VA) have shown disappointed results by not reaching any significant level of the p-value, while showing negative coefficients to the GDP growth. In this regard, we therefore have to reject H_3, which assumed that "Institution mechanism hinders economic growth the most in oil exporting". This result implies that oil-exporting countries does not always require high level of transparency in order to attain high level of economic growth, as we can also observe from the below Figure 11. The scatter plot shows that out of 30 oil-exporting countries that were tested, countries with lesser corruption control appeared to perform higher economic growth in average from 2000 to 2017. This contradicts with the common knowledge and beliefs against the threats from corruption and findings from other literatures such as Mehlum et al. that insist institutional setting as the primary factors that influence economic growth.

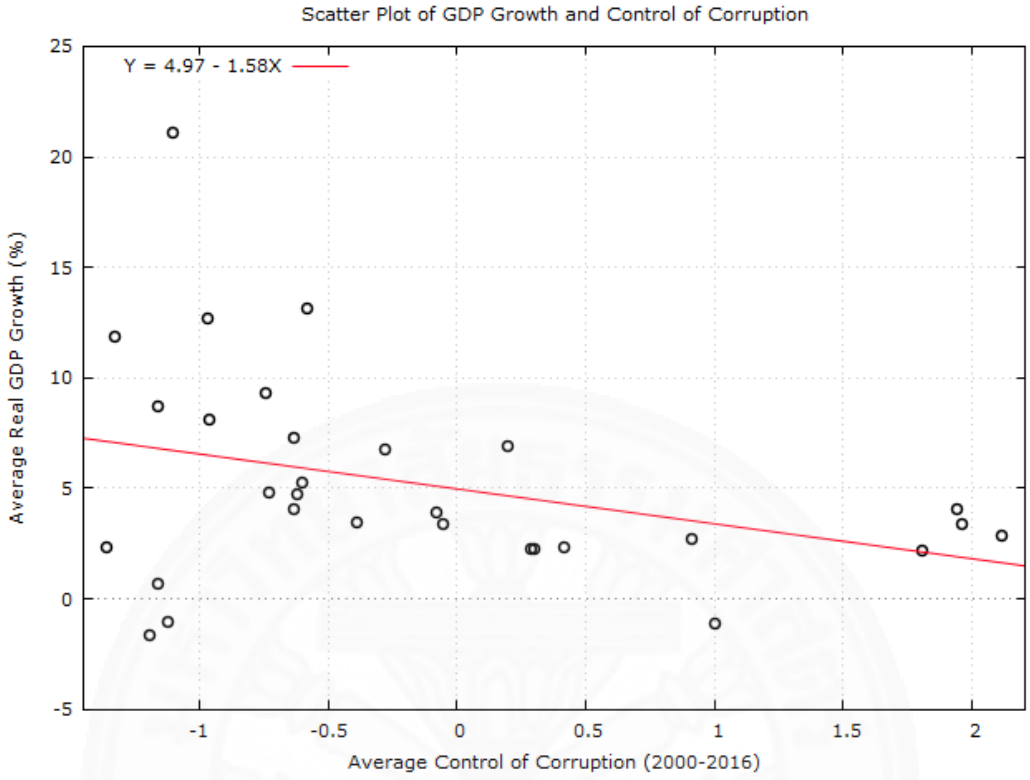


Figure 4.2 *Plots of average GDP growth rate (2000-2017) and average control of corruption (2000-2016) with linear trend line*

Nevertheless, the sovereign wealth fund's transparency has shown some amount of significant level, thus it is noteworthy for policymaker to keep in mind that the importance of revealing the spending of oil revenue through wealth fund could determine the outcome of GDP's growth.

4.2.3 Rent-seeking mechanism

After the observation of rent-seeking mechanism's results from the OLS model, oil rent (RENT) indicates significance at 10% p-value confidence level only in model I. The oil rent's coefficients from all four models show a negative relationship upon the economic growth, this imply that one out of four model shows that there are 90% chance that oil exporting countries with high level of oil rent. Interestingly, the Corporate Income Tax (CIT) shows 5% significant level from model II and III, implying similarly a negative relationship on economic growth from increase

in taxation level. According to the study on the relationship between corporate taxation and economic growth by Sergio Rebelo, he concluded that cutting the corporate tax rate could increase economic growth, only if the current rate is exceptionally high.

Norway's corporate tax was at 28% during 2003 to 2013, but the rate has been gradually decreased down to 23% as of 2018 ("Corporate tax," 2018). Venezuela's corporate tax has been consistent at 34%, which is comparatively higher than Norway ("Corporate tax," 2018). Likewise, the model suggests that oil-exporting countries with lower corporate taxation tends to perform better economic growth. This implies that corporate taxation reflects the level of potential incentive, which attracts investment in oil exporting states. However, the insufficient significant level of oil rent from other three models lead us to concur with H_1, which favor for the Dutch Disease mechanism. Thus, we reject H_2, which assumed that rent-seeking mechanism affects economic growth the most.

4.2.4 OPEC and other remarks

Surprisingly, OPEC member countries have shown better economic growth level in comparison to non-OPEC countries, which were not the case for Venezuela but as the primary data suggests. Significant levels are substantial at 5% level, although this value might not be able to justify as incentives from joining the OPEC, this is because the variables are only simulated with two different values. However, results still revealed that OPEC's member countries had perform better economic growth in average when compare with non-OPEC despite several issues in unjust membership fees and compliance with the production quota. Thus, we accept H_4, which stated that there is a positive relationship between being in OPEC and economic growth.

4.2.5 Conclusion

The results from the regression model revealed that factors indicating Dutch Disease symptoms have appeared to be the most related in hindering economic growth. The real effective exchange rate confirmed a sign of negative relationship with GDP growth rate in all four models, which is another way of saying that inflation harms economic growth, especially for oil exporting country. However, the source of inflation

for the Dutch Disease symptom is originated from the temporary rise in oil price and the lost in price competitiveness in the manufacturing sector, as shown in form of inverse relationship with the oil prices in Figure 4.1.

The positive relationship in FDI variable indicates that majority of oil exporting country samples rely on large inflow of foreign investment for their GDP growth, which is also part of Dutch Disease symptom that generates currency appreciation as revenues increase in the growing sector. The result suggests that if the government mainly relies on the increased revenues from the rise in oil price then when oil prices slump, contrasting outcome would yield in form of inflation, which strongly harms the economic growth.

The rent-seeking and institution mechanism has been rejected as the regression results show insignificant level of p-value. Although, it is noteworthy to mention the relationship from rent-seeking mechanism's coefficients, which show negative relationship with economic growth, measured by oil rent and corporate income tax. The institution mechanism, on the other hand showed insignificant p-value for level of freedom and transparency. Although, two models showed some significant from the LMTI and

4.3 Comparison of worldwide governance indicator

The Worldwide Governance Indicator (WGI) is the World Bank's compilation of aggregate indicators that combine the views of a large number of enterprise, citizen and expert survey respondents from over 200 industrial and developing countries. The data are based on 30 individual data sources produced by various research institutes, think tanks, non-governmental organizations, international organizations and private sector firms. Listings below are the six different dimensions of governance and their definitions according to the World Bank.

1.) **Voice and Accountability** captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

2.) **Political Stability and Absence of Violence** measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.

3.) **Government Effectiveness** captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

4.) **Regulatory Quality** captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

5.) **Rule of Law** captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

6.) **Control of Corruption** captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

After observing the WGI scores compiled by the World Bank, we can see that Norway has been leading Venezuela in all areas since the beginning of the 21st century, which is not so surprising as Norway have had longer experiences with democracy, parliamentary system and industrialization. Norway's institutional qualities in Voice and Accountability, Government Effectiveness, Political Stability and Absence of Violence, and Rule of Law have been stabilized above 1 for Political Stability and above 1.5 for the rest of indicators. We can see from Figure 16 that the area that Norway has been improving in the last decade is the Regulatory Quality, which reached its decade-high in the year 2016.

Venezuela on the other hand, shows downward trends in almost all areas since 2002, except Political Stability and Absence of Violence, which showed improvement in the year 2015 and 2016. Although, this may not hold much reliable as

from year 2017 onward, the country has oversaw increasing political protests that led to confrontations with the authorities. More than 160 people are dead, about 15,000 injuries and 4,800 were arrested. Thus, the data as of 2016 may not hold sufficient updated information regarding the issue. Nonetheless, the Regulatory Quality has shown the most declining rate for Venezuela reaching its all-time-low in 2016, whereas Norway reached its all-time-high in the same year. This allows us to clearly see the different efforts that the two countries have put into regulations. For Venezuela to escape the oil curse, it must firstly emphasize on improving these scores, but the emphasis can firstly be on the Regulatory Quality, as the implementation of efficient and reliable regulations are what permit and promote private sector development, which has been in a deteriorated state from expropriation.

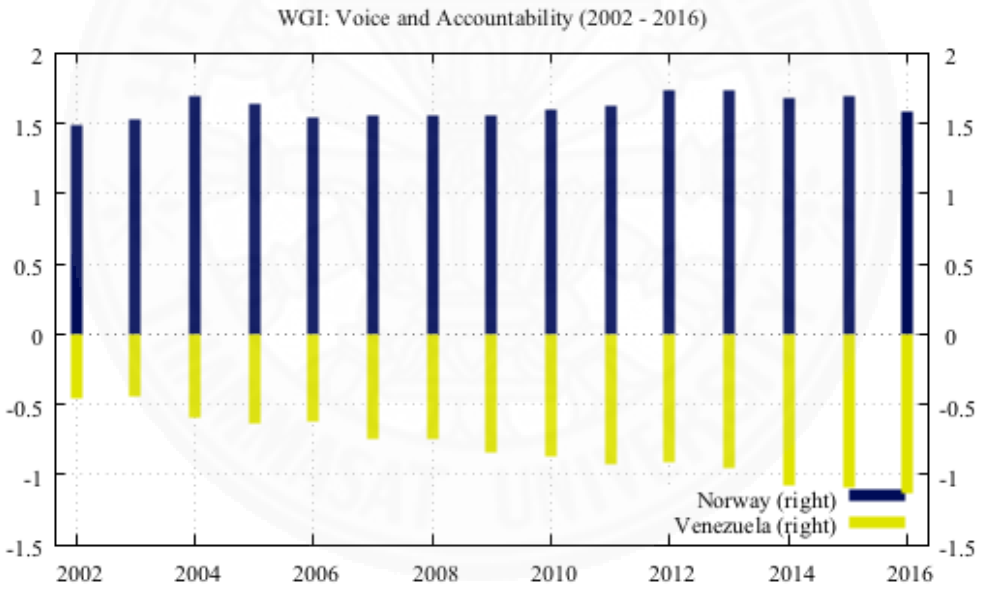


Figure 4.3 *Voice and Accountability*

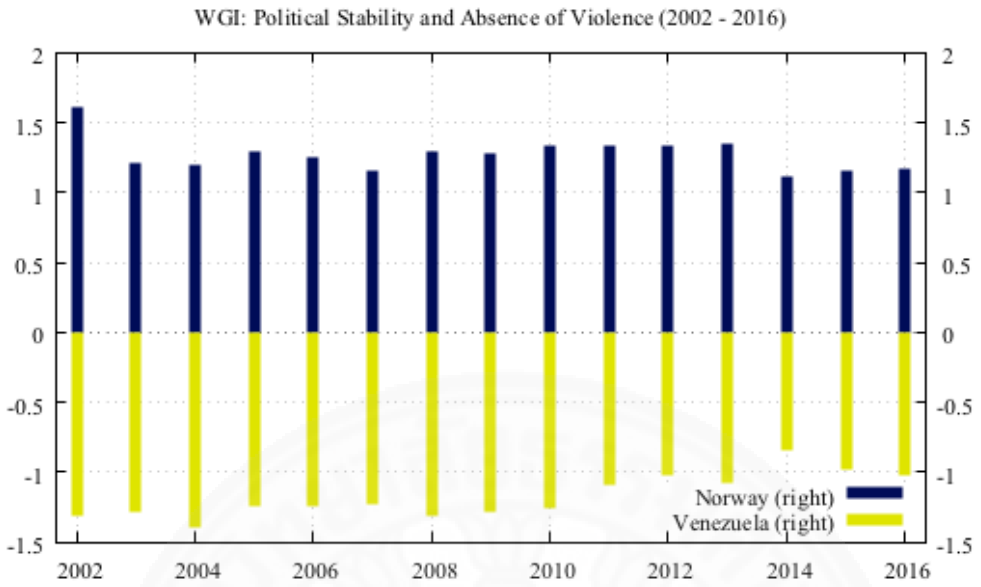


Figure 4.4 *Political stability and absence of violence*

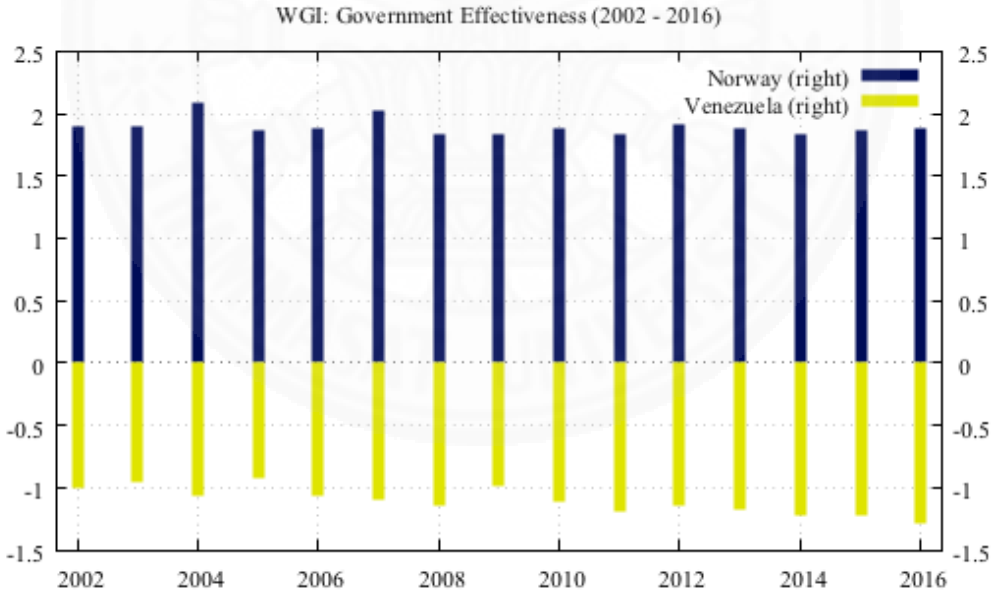


Figure 4.5 *Government effectiveness*

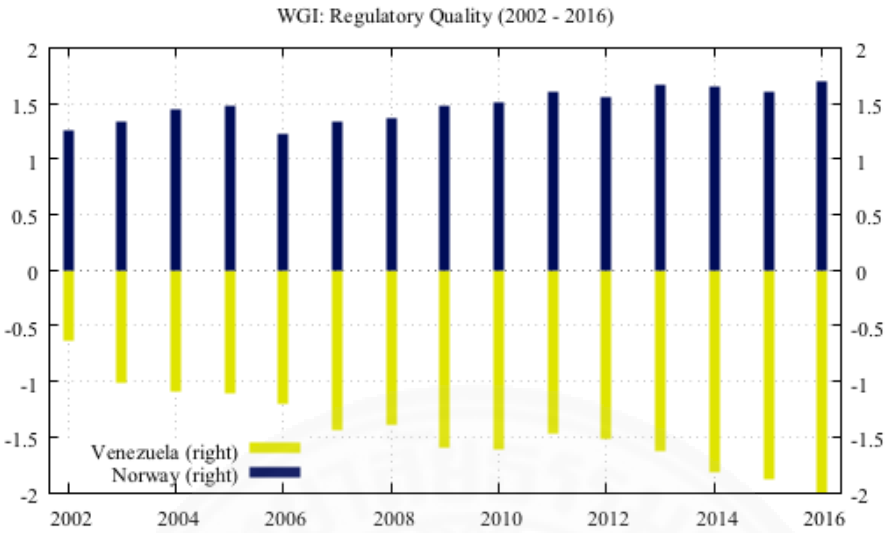


Figure 4.6 *Regulatory quality*

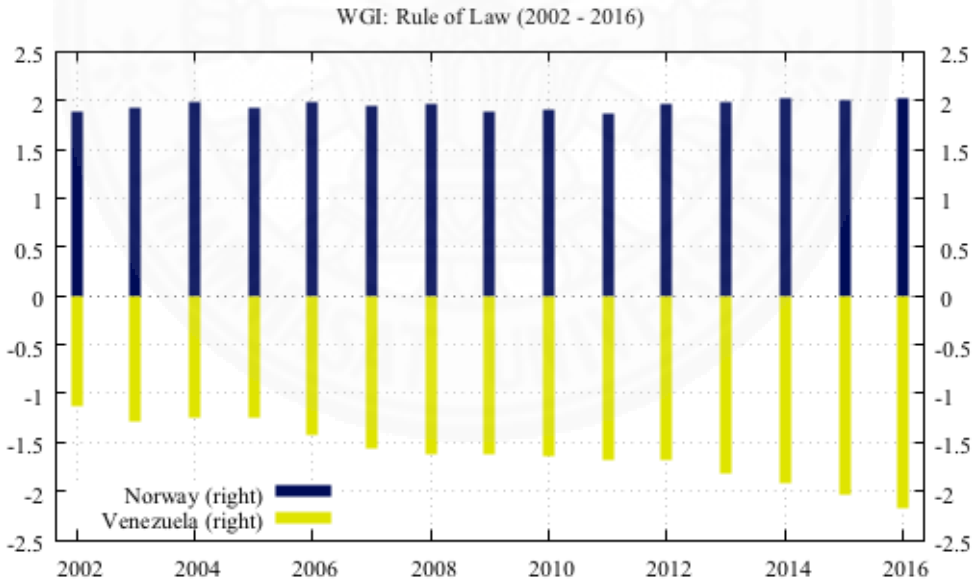


Figure 4.7 *Rule of law*

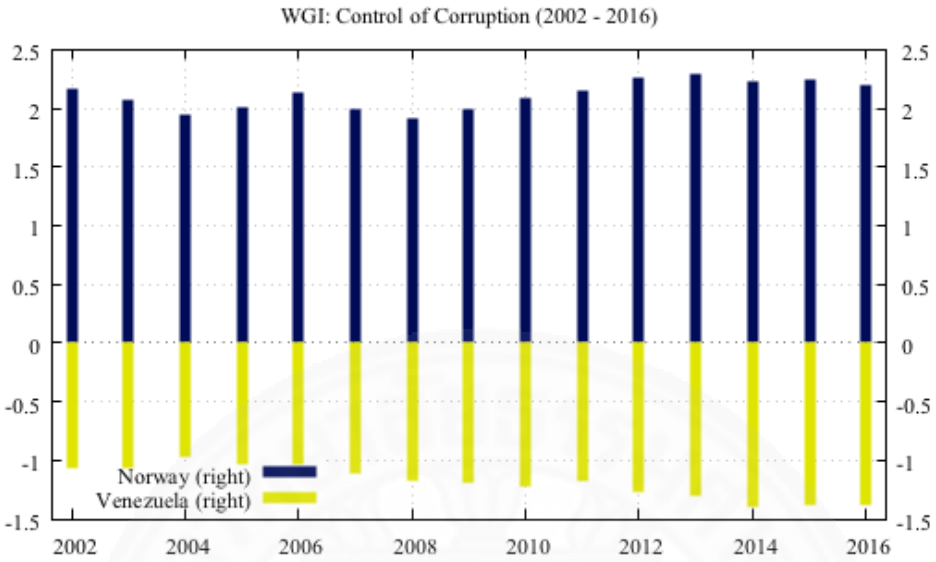


Figure 4.8 *Control of corruption*

4.3.1 Conclusion

A comparison of WGI indicators retrieved from the World Bank shows us that although, the Dutch Disease was tested through the regression model as the most significant mechanism that hinders economic growth for oil exporting country, the indifference in qualities of institution mechanism could also contribute to the economic failure for Venezuela. The trends for most of Venezuela's institutional qualities from year 2002 to 2016 have been in downward direction. Only the Political Stability and Absence of Violence has increased. However, Venezuela after 2016 is going through a much more severe political and economic crises, which indicates that its updated trend could become downward, similarly to the other four indicators. Despite, lacking the significant level of p-value for the institution mechanism, this time-series comparison has shown us that institutional qualities are still important as the core element that will reflect in government's policies. We can see that Norway has been performing brilliantly in these scores, which resulted in a well-regulated oil wealth spending mechanism that constantly accumulate and reinvest its oil revenues in the global financial market annually. On the other hand, we can also see that the declining

trends of Venezuela's institutions have resulted in the mismanagement of its oil wealth in terms of unproductive and unattractive investment policies.

4.4 Comparison of oil statistics

Oil statistics play an important role for both investors and oil market watchers to forecast the price and assess potential incentives. There are three important factors that are considered essential for investors to understand the health and economic power of oil exporting countries in the market. These are

1.) Size of proven reserves

2.) Efficiency of recovery (reflected in production)

3.) Long term stability of the industry (qualitatively analyzed from literatures)

OPEC, as an oil intergovernmental organization regularly reports these statistics, although it does not specify how data were collected and measured. Therefore, in the below figures, we only sourced OPEC's data for the reference oil prices while relying reserves and production data from the U.S. Energy Information Agency (EIA).

4.4.1 Comparison of crude reserve

Proven crude reserve is estimated according to three main components, these are current viable technology, profitable operational cost, regulatory and contractual approval. This leads to long held skepticism of Venezuela's proven reserves statistic in the Orinoco Belt area. As observed from the figure, Venezuela's reserve slowly grew in 2005 but after huge increase in oil prices, this figure exponentially rose sharply in 2011 and 2013, even exceeding the reserve of Saudi Arabia. These sharp increases were not the result of new discoveries but the change in oil prices and the definition of reserve. Therefore, after reassessing the reserve of Venezuela according to the 2018 oil price at around 60 USD per barrel and worsening economic crisis, the high figure of Venezuela's reserve may not hold reliable due to its current situation.

Rystad Energy, a Norwegian energy consultancy estimated in 2017 that Venezuela's total recoverable oil resources stand at 75 billion barrels, only about a quarter of official figure at over 300 billion barrels. Analyst from Rystad stated that the main reason that Venezuela's oil reserve has been revised down is due to lower oil price outlooks. This is because the heavy thick crude of Venezuela becomes costlier to profitably produce. Norway's reserve figure on the other hand holds only a small fraction when compare to Venezuela, yet the country is still able to manage its petroleum revenue more successfully, which in turn contributes to its economic growth.

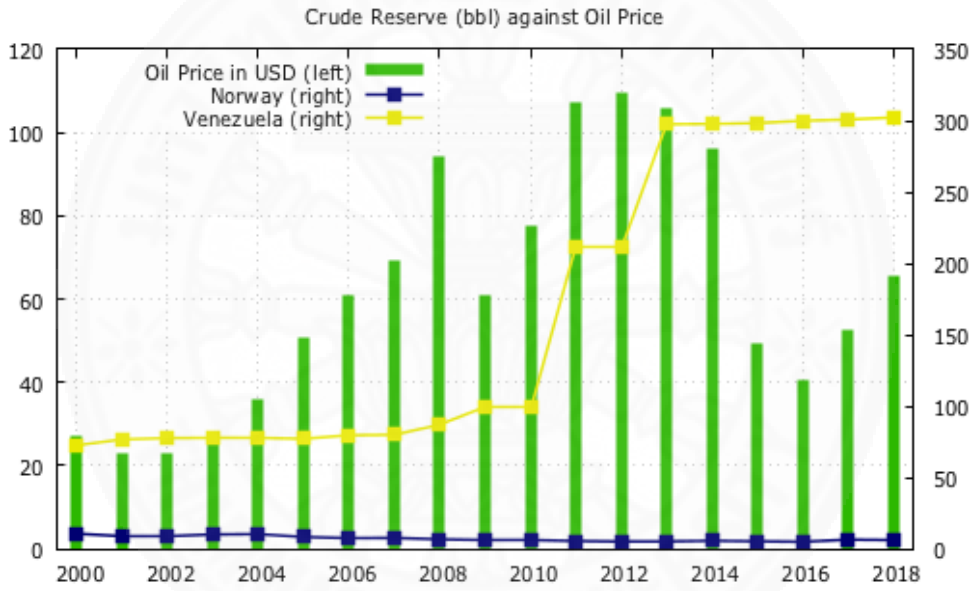


Figure 4.9 *Crude reserves of Norway and Venezuela against oil prices (2000 – 2018).* Adapted from U.S. Energy Information Administration, March 2018 and OPEC Reference Basket, 2018.

Due to the constant changing of oil prices and skepticism in the flaws of oil statistics, proven reserve may hold reliable for a year then it may not in the next years. Oil exporting countries, therefore should focus their strength in the efficiency of production, as it directly associated with the current supply and demand of the oil market. Norway's oil production has been reported to have reached its peak period in 2001 and been constantly in decline since, as observed in Figure 19. However, the

Barents Sea still holds estimate up to 12.4 billion barrels of undiscovered oil reserves but remains largely subjected to public scrutiny.

Venezuela on the other hand, saw decline in production according to political events. A sharp drop in production occurred in 2002 and 2003 when Chavez fired more than 10,000 of PDVSA employees who favor neo liberal policy. Another drops in production on both Norway and Venezuela occurred in 2010 due to the financial economic crisis. When Maduro administration resumed office after Chavez combine with huge drops in price in 2014, Venezuela's oil production has sharply declined to 1.6 million barrels per day as the PDVSA was reported to lack enough funding and chemicals require processing its oil production from the heavy thick crude. As of 2018, the result of implementing socialist policies upon the economy has lowered Venezuela's oil production to only about half of what it can produce back in the 2000.

4.5.2 Comparison of oil production

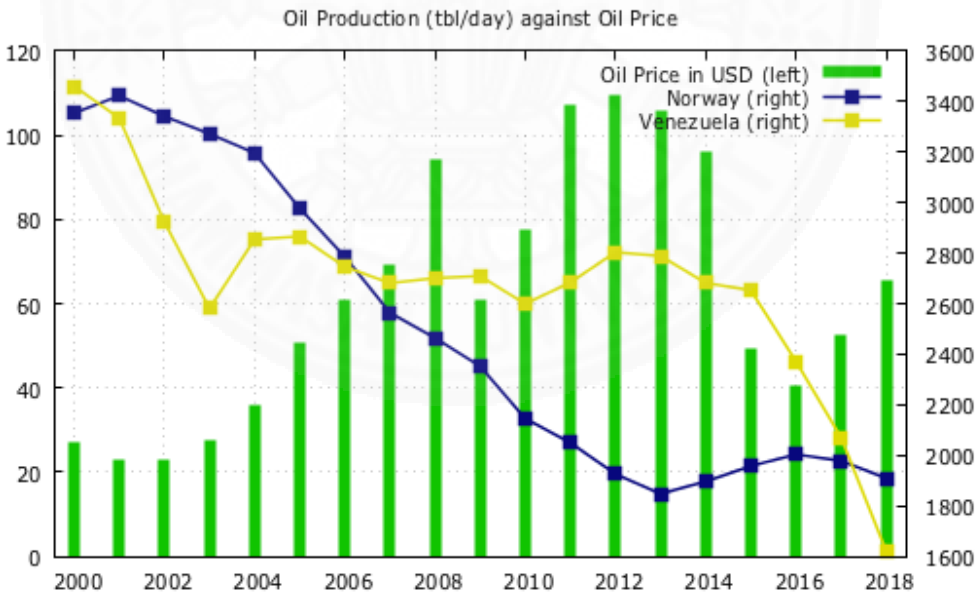


Figure 4.10 *Oil production of Norway and Venezuela against oil prices (2000 – 2018).* Adapted from U.S. Energy Information Administration, March 2018 and OPEC Reference Basket, 2018.

4.5.3 Conclusion

According to the definition of proven crude reserves, the figures should be revised annually in accordance with operational profitability from the oil market and technological capacity. Venezuela's highest level of crude reserve in the world showed that its figure has not been revised in accordance with the oil price. Ideally, when the oil price dropped in 2015, the level of profitability from oil activities should be lowered and level of oil reserves should be declined. This was not the case for the general estimates of oil reserves. Figure 19 and 20 shows us that despite huge difference in level of crude reserve between Norway and Venezuela, the production level does not differ so far off. Norway was even producing more oil than Venezuela between the year 2001 to 2006. Thus, the figure of proven crude reserve cannot always be held reliable as the capacity level of oil exporting country. Technology, profitability and approval process are the key factors that define the true capacity of oil exporting country, as they are the elements that provide credibility to the figure of proven crude reserves.

CHAPTER 5
QUALITATIVE ANALYSES

5.1 Oil, a 'blessing' for Norway

This part aims to introduce reader into the brief political economy and success in oil development of Norway. It will provide important fact-findings of Norway's institutional settings, bureaucracy and policies that it has been implemented since the discovery of crude oil in the Northern Continental Sea Shelf in 1969.

Norway is a country situated in northern Europe in the western part of Scandinavia. As of 2017, Norway holds an estimated amount of 6 billion barrels in proven crude reserves, ranking at the 21st in the world. It is a member state of the Organization for Economic Cooperation and Development (OECD), European Economic Area (EEA) and International Energy Agency (IEA). The first official licensed oil production began in 1971 in Ekofisk, which turned out to be one of the largest offshore field ever discovered ("Norway's petroleum," 2018). Many offshore discoveries were made the following years and still crucial for its oil development until today. In early time, foreign companies led the role in exploration activities but during the 1970s Norway gradually increased its participation. In 1971, Norwegian Parliament introduced the 10 Oil Commandments, which established principles for its oil policy. The main context is to ensure that its natural resources benefit the whole community ("10 commanding," 2010). A year later in 1972, Norway established Statoil with state as the sole owner and its private sector established Saga Petroleum. Another policy was also established that the state was to have a 50 percent ownership interest in every production license ("Norway's petroleum," 2018).

From the year 1985, the participating system was reorganized into two bodies. One is the interest in concern with Statoil and another is State's Direct Financial Interest (SDFI) in the oil industry. The new system means that state would hold a certain proportion of oil fields, as one of several owners. While the state covers the burden of cost and investment, it would also gain income from the share of production licenses.

Statoil then become responsible for handling commercial aspect of SDFI on behalf of Norway ("Norway's petroleum," 2018).

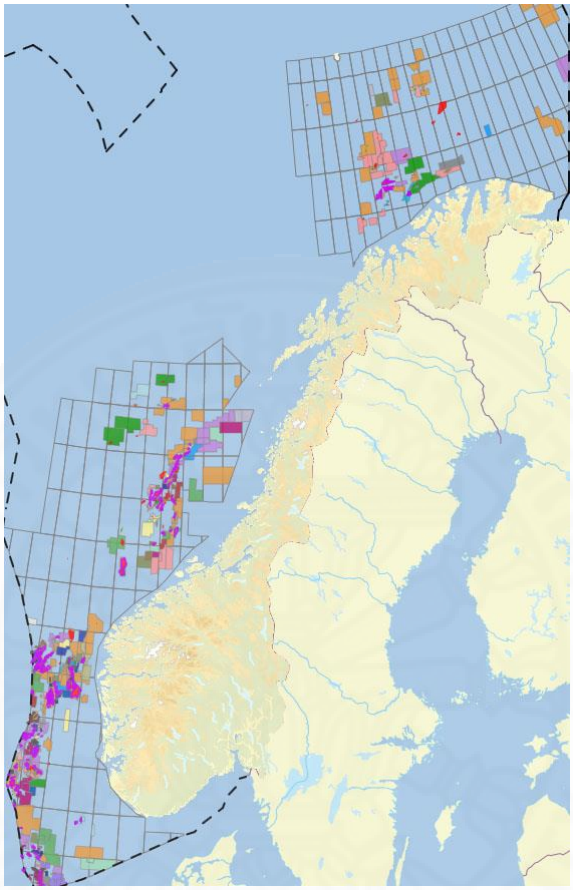


Figure 5.1 *Oil fields in the Norwegian Continental Sea Shelf* Reprinted from Norsk Petroleum's interactive map, 2018.

Since the beginning of 21st century, Norwegian Continental Sea Shelf saw the increases in diversity and competition of oil companies. As of 2017, about 50 Norwegian and foreign companies are active in these water ("Norway's petroleum," 2018). In 2001, Norway decided to sell 21 percent of SDFI portfolio, 15 percent went to Statoil and another 6.5 went to other licensees ("Norway's petroleum," 2018). Statoil is then privatized and listed on the stock exchange in Norway and New York. Another state-owned enterprise, Petoro was then established to manage the SDFI on behalf of the state instead. Oil sector has played a key role in the development of Norway into a welfare state yet, the emphasis on its political system and related institution could not be neglected, as they are the envisioned bodies that drive its oil policies.

As of 2018, Norway has become leading contributor in the field of international development. It has been giving policy advises and forms of aid to other countries with natural resource wealth. It was not considered a rich country by OECD standard when oil was first discovered but over the past three decades, its GDP per capita has increased from 90 percent of the OECD average (Havro & Santiso, 2008), while also able to sustain the growth despite huge downturn in crude oil market in 2015.

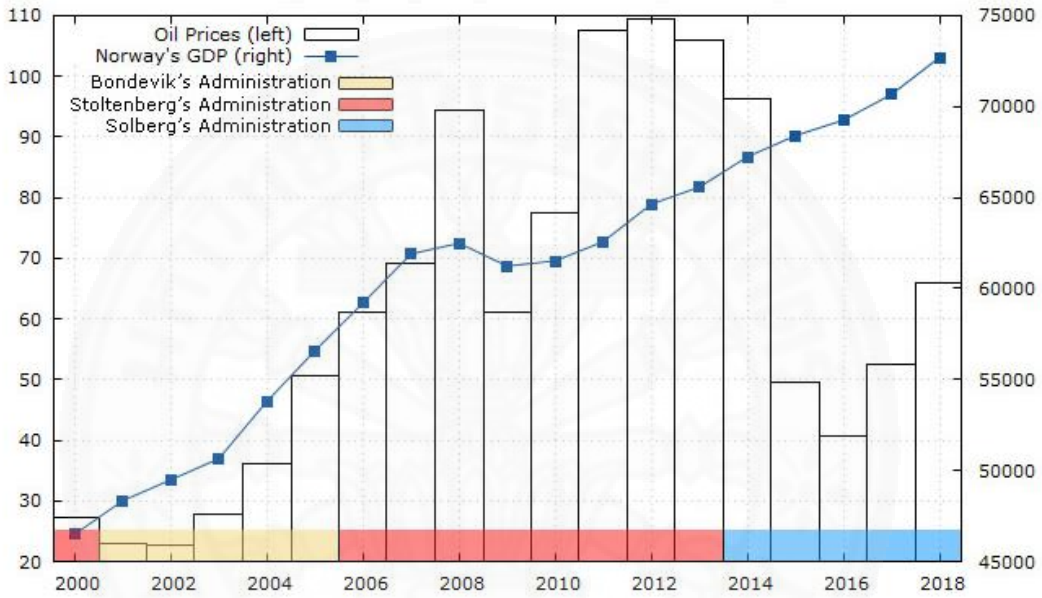


Figure 5.2 *Norway's GDP, PPP per capita in different administrations* Adapted from IMF World Economic Outlook and OPEC Reference Basket, 2018.

5.1.1 Kjell Magne Bondevik's administration (2001 – 2005)

Kjell Magne Bondevik is a Lutheran pastor who became a politician in Christian Democratic Party (KrF); he served as Norwegian prime minister from 1997 to 2000 and from 2001 to 2005. According to the Encyclopedia of World Biography, Christian Democrats are social conservatives and believe the government should refrain from interference with economic matters.

During his first term as the prime minister, the Oil Fund (GPFG) just recently began investing in the global stock market, thus Bondevik's government declared in autumn 1997 their intention to develop ethical guidelines for the fund. This

declaration established a signal to the Norwegian civil society that they will be engaging in the management of the GPFG from the early stage.

Bondevik made a surprising announcement in 1998 that revealed his mental illness from depressive episode. After his return from the recovery, Bondevik enjoyed nearly a year and a half without a major domestic crisis. Although this revelation had led him to received thousands of supportive letters and made mental illness more publicly acceptable. It had also contributed to his defeat in a motion of no confidence vote over the dispute of the construction of two gas-fired power plants. Bondevik and his coalition wanted to hold off construction until new technology, such as carbon sequestration, allowed building more environmentally friendly plants. They argued that the European Union's regulations and Norwegian pollution laws supported their position (Quiviger & Herzog, 2000).

On the other hand, the opposition led by the Labour Party insisted on changing the regulations to allow for the construction, they argued that the gas-fired plants would slow Norway's dependence on imported electricity from Denmark, which is generated from even more carbon-intensive coal-fired plants. Over Bondevik objections, the parliament voted 81-71 in favor of building Norway's first natural gas-fired power plant (Quiviger & Herzog, 2000). As a result, Bondevik's government, in office since 1997, became the first government to fall in a debate over how to address global warming concerns. Bondevik's first cabinet as prime minister ended in March 2000, when he held his ground and was forced to resign from votes of no confidence.

His temporarily successor was the new chief of the Labour Party, Jens Stoltenberg. Elections were held on September 10, 2001, and though the Labour Party won, it could not gather and maintain enough political allies to form a coalition government with another party; instead a center-right coalition made up of the KrF, the Liberal Party, and the Conservative Party formed a government, resulting in a second term in office as the prime minister for Bondevik. He named several women to cabinet positions and with the Norwegian economic still on the upswing, Bondevik pledged to increase social welfare spending, particularly in the realm of health care and education.

Major issue of Norwegian foreign policy occurred during this period, when the United States was attacked by terrorists on September 11, 2001. Bondevik initially spoke out against an American-led invasion of Iraq in early 2003. However,

Norway like many other American allies pledged humanitarian aid for Iraq. About two years later, when the situation became more complex and American troops suffering multiple casualties Bondevik gave a rare interview to UPI Perspectives. He clarified the question regarding his anti-war stance to a journalist, Gareth Harding that the Norwegian contribution towards stabilizing situation in Iraq was still the right decision, although he felt that more should have been done to find the peaceful outcome. The humanitarian aids are what he saw as the future, thus Norway have had their forces stationed there ("Kjell Mage Bondevik," n.d.).

Regarding Bondevik's declaration in 1997 to maintain responsible investments in the GPFG, the Storting adopted ethical guidelines for the fund in November 2004. The bases of the GPFG's ethical guidelines are outlined on two premises. These are

1.) To ensure that the reasonable portion of oil wealth benefits the future generations in the long-term. Financial interests shall be used to promote sustainable economic development with environmental and social sense.
2.) To omit the GPFG's investment from unacceptable risk that may contributes to unethical acts such as the violation of human rights, corruption or environmental damages.

To achieve this end, several mechanisms shall be promoted in the GPFG. The GPFG's exercise of ownership right is based on the UN Global Compact and the OECD's guidelines for Corporate Governance and for Multinational Enterprises. The fund also has to work on negative screening and exclusion of companies that pursue in businesses that may violate humanitarian principles such as arms dealing, deprivation of liberty or damaging the environment. The Council on Ethics under the Ministry of Finance shall be the body that oversees the recommendations on whether the investments may violate Norway's obligation under the international law or not. The GPFG's main objective under the Norges Bank (NBIM) is to safeguard the financial interests of the fund through long-term and diversified investments. By this time, Norway's oil management structure has already

established diverse functions that separate different roles and responsibilities to each organ.

In the public sector, the Ministry of Petroleum and Energy has the principal responsibility to achieve a coordinated and integrated energy policy, the primary objective is to ensure high value creation through efficient and environment-friendly management of Norway's energy resources. For the Ministry to gain better decision-making and expertise in these areas, the Norwegian Petroleum Directorate (NPD), established since 1972 acts as the main administrative body in this area to advise the ministry through its professional integrity and interdisciplinary expertise. As the NPD is also responsible for the collection of data concerning the NCS, including overview and analyses that constitute a vital factual basis on which the activities are to be founded. The NPD is the main driving force for realizing Norway's resource potential by emphasizing long-term solutions, upside opportunities, economies of scale and joint operations, as well as ensuring that time-critical resources are not lost to ensure comprehensive follow-up of the petroleum activities.

In January 1, 2004, Bondevik's administration formed the Petroleum Safety Authority Norway (PSA) as a governmental supervisory authority, formerly part of the NPD. The newly established authority now works under the Ministry of Labour and Social Inclusion. The PSA's roles and responsibilities include supervising and ensuring through cooperation with other authorities regarding issues of health, safety and environment in the oil activities, including carry out information and advice to the players in the industry. Its regulatory responsibility covers all phases of both on-shore and off-shore activities in Norway from planning, engineering, construction, use and removal to maintain safety, emergency preparedness and working environment.

In a more unified and international fronts of governmental institutions, Norway's export of its oil management falls under the Oil for Development Programme (OfD), established in 2005 under Norwegian Agency for Development Cooperation (Norad). The program represents a wide range of unified skills and competencies from major institutions. Its secretariat is based in Norad and the steering committee includes the Ministry of Foreign Affairs as the chair committee, the Ministry of Petroleum and Energy, the Ministry of Finance, Ministry of Transport and Communications and the Ministry of Climate and Environment. The committee is

responsible for the formulation of strategic directions, guidelines and priorities for the Secretariat and the implementing agencies, including decision-making power on major project proposals. With the intention to help other resource-rich countries avoid resource curse, the OfD's model includes long-term collaboration between the major ministries in Norway and its partner countries. The ministries then normally assign the tasks to their subordinate agencies according to different roles and expertise.

After reviewing Bondevik's administration as the prime minister, we can observe that his political stances and policies reflected great concerns on humanitarian development, human rights, oil regulations and environmental protection issues. Bondevik has not directly emphasized on the interference of economic matters besides engaging in the ethical guidelines for the GPFG and administrative reforms of government structure, especially those that concerned with oil activities. Overall, Bondevik's administration has contributed largely to form the basis of oil industry's guidelines and regulating bodies for Norway. Nevertheless, these two primary works under Bondevik's government combining with the improving oil prices that began in 2003 have left the Norwegian economy booming even after his second term was completed. According to the IMF figures, Norway's GDP, PPP per capita in 2001 was at 48,339.96 USD. By the end of 2005 this figure had risen to 56,578.67 USD, a 17.04% increase since Bondevik began his second term in late-2001.

5.1.2 Jens Stoltenberg’s administration (2005 – 2013)

Jens Stoltenberg served his first term as prime minister after Bondevik's government resigned in March of 2000. The Labour Party under his leadership had tried to push for a vote on building new natural-gas fired power stations to solve the electricity import dependency from Danish coal-fired power plant. Bondevik and his coalition government had opposed the vote and responded with a proposal to further restrict greenhouse gas emissions. The Storting voted with the Labour Party, which had argued for the country's electricity demand and saw it necessary to build the new natural gas-fired power stations.

When Stoltenberg first took over the government from Bondevik, Norway was already engaged in many significant reforms and implementation was underway. These included the controversial privatization of several industries,

especially the oil industry under Statoil as Norway's NOC. Despite Stoltenberg's initial successful effort to partially privatize the Statoil in 2001, his administration had struggled to maintain the public's confidence. This is because there were concerned voices for a reduction in the traditionally high taxes that Norway and other Scandinavian countries are obliged to cover for their extensive social welfare programs. These are mainly the universal health care and free university education. Norway's management of oil wealth went into the country's oil fund (GPFG), and its accumulation had become enlarged in recent years. Stoltenberg advised a cautious route when he presented his government's first budget to the Storting in the late 2000. He warned that it would be imprudent to spend the majority of oil riches for short-term gains. Journalists Valeria Criscione and Quentin Peel from Financial Times quoted Stoltenberg's expression towards oil revenue management that "Spain destroyed its economy when it discovered gold in Latin America; You had the Dutch disease when Holland spent all its income from gas in the 1970s, and the same in Norway in the 1980s when we spent too much. We have learned our lesson." (Financial Times, 2000, p. 9).

Despite Stoltenberg's cautionary perception towards Norway's oil wealth, the Labour Party still lost heavily in the parliamentary elections held on September 10, 2001 to Bondevik's coalition. The result that took only just 24 percent of the vote was the worse outcome since 1924 election ("Jen Stoltenberg," n.d.). Bondevik returned as prime minister to head a center-right government and Stoltenberg returned to continue his work on realigning the Labour Party to help it return to power. In a competitive battle against Jag-land for the Labour Party's leadership in 2002, Stoltenberg thrived and prepared for the 2005 election. Alas in the 2005 election, the Labour Party was able to gain the majority votes but the Socialist Left Party and the Centre Party also did well in the election, thus Stoltenberg was able to lead the center-left government but only with the formation of a coalition with the other two parties, known at the time as the Red-Green Coalition, which included the Labour Party, the Socialist Left Party and the Centre Party.

5.1.2.1 The declaration of Soria Moria (2005 – 2007)

Jens Stoltenberg became the prime minister for the second time in October 17, 2005. Norway at the time had continued to prosper in economic performance since his first term on the job. The country achieved a four-percent annual

growth rate and had one of the lowest rates of unemployment in the world. It was usually listed at the top of many world rankings namely the United Nations' Human Development Index, Worldwide Governance Indicator, Resource Governance Indicator and many others that related to freedom and transparency. Due to the structure of Stoltenberg's coalition government that consist of three parties, they had to negotiate together in order to form the common political basis. This process was done from September 26, 2005 and ended with a press conference on November 13, 2005 where the official government policy was presented. The official policy released, known as the First Declaration of Soria Moria covered broad range of areas including public health organization, same sex marriage, oil exploration in the Barents Sea and military participation in Afghanistan and Iraq. In this study, the author intends to emphasize issues that directly related to Norwegian oil industry and its foreign policy.

A more problematic debate is likely to loom over the question of European Union (EU) membership—Norway is one of the last European countries choosing to remain out of the EU, a status supported by most of the leftist parties, but Stoltenberg has backed the pro-EU side (“Jens Stoltenberg,” 2018). Nonetheless, Norway itself has also constantly engaged in bilateral relation and during this time, it had begun to increase cooperation with Russia in the petroleum sector. The NCS was becoming more mature in terms of investment but there were still large unexplored areas for a more vibrant offshore market, including the territorial dispute water in the Barents Sea with Russia that needed to be solved. The high north is still widely left for exploration and considered as a frontier area. According to the news article published by Thomas Nilsen from BarentsObserver in February 2013, Stoltenberg's government adopted its management plan for the Barents Sea and the Lofoten waters in 2006. The plan opened up for exploration in several parts of the Barents Sea, but banned drilling activities in the vulnerable and oil-rich Lofoten area due to environmental concern. Norwegian petroleum sector at this time has already become much more mature and Stoltenberg set out his agenda to further strengthen Norway's NOC as its national champion on the international competition.

This was clearly reflected through the privatization of the oil sector, Norway under Stoltenberg emphasized in transforming Statoil into a larger national conglomerate in order to compete with other IOCs on the international market.

Firstly, this effort was initiated under Stoltenberg first cabinet's contribution to partially privatize the formerly state-owned enterprises in 2001, while the state retained its shareholding at 81.7%. The privatization task was further emphasized in 2004 and 2005 when the state reduced its shareholding in Statoil to 70.9% through public share offerings.

In December 2006, Statoil proposed to merge with Norsk Hydro, a conglomerate private company founded since 1901 that laid the basis for industrial growth in Norway through hydro-electric development and the production of nitrogen fertilizer. Norsk Hydro engaged in the petroleum industry in 1963 and participated in the NCS' discovery of oil in 1969. Reuter news article in 2007 by Marianne Fronsdal and Terjie Solsvik quoted Stoltenberg statement regarding the process that "The merger is an excellent foundation for meeting the challenges facing the oil and gas industry" and "Norway’s oil and gas industry should thrive internationally and not live or die on the NCS."

Although there were debates and skepticism over the merger that it could lead to less competition, less creativity and fewer good solutions, the process took less than a year for the two giants to eventually merge into one in October 2007. Despite having to give up a portion of state's control according to the agreed deal, Stoltenberg's administration was persuaded to further reduce the state's ownership in Statoil's shares to 62.5%. But in accordance with the original deal in 2001, the state has to maintain at least two-thirds shareholding within Statoil, thus Stoltenberg's government announced its intention to reacquire the shareholding of Statoil back to 67% in time. The merging process is deemed a success and received strong support when realized as it resulted in a Norway's national company with bigger human capital, technological capabilities and operators' expertise for both domestic and international frontiers' competitions.

In relative to the original intention contributed from the view point that it would be pointless and a waste of resources to have two Norwegian operators from public and private sector competing against one another in international competition for the same projects. Things could have turned out differently for Norwegian oil development in the NCS if Norsk Hydro was acquired by a foreign company instead of Statoil. Stoltenberg's effort is proven to be the right step for

Norway's oil industry development as following the merger, Statoil has made important discoveries, developed new projects and able to create and add higher value from the existing fields beyond most expectations. In addition, due to the combined technologies of two Norwegian giants, Statoil has become much more technology driven and able to gradually grow its portfolio in renewable energy projects. According to Statoil's official website, since the merger in 2007, the company has been able to contribute a tremendous amount of taxes' accumulation to Norway's public sector in the amount of 1,000 billion NOK or an equivalent of 122.76 billion USD as of 2017.

5.1.2.2 Escaping the global economic crisis (2007 – 2013)

After the successful merging of Statoil and Norsk Hydro, Norway's NOC has become an energy behemoth with a temporary name of StatoilHydro. It has been noted within the analyst community that StatoilHydro merger had been an attempt to compete with IOCs' rivals in the European region and increase Norway's capacity to make strategic acquisition aboard, especially in the Gulf of Mexico. Its main competitors in the region include BP, Total and Royal Dutch Shell. During the year 2008, Stoltenberg's government pursued according to its previous commitment to retain Statoil's shares back to 67% for the state, this was done through the purchase of interests from the market. The state's share buying was successfully increased up to 67% ownership when the government made an announcement on March 5, 2009. It was not until the year 2009 that the company officially changed its name back to Statoil ASA, which stands for *Allmennaksjeselska*, a Norwegian term for Public Company Limited. Statoil's share structure, reputation, namesake and capabilities are then ready for Norway to take on its international expansion and competition against other large MNCs and oil-exporting states in the global market.

However, in this period, the global financial sector had been facing economic crisis that was caused by many reasons and affected many countries globally. The commonly known in the United States as subprime mortgage crisis was a market correction event that spanned a long process in forming housing and commodities' bubbles. The trend of financial deregulations since the 1990s had paved ways for banks and financial institutions to engage in higher risks derivatives trading. This was largely contributed from the new laws that were passed in the United States almost a decade earlier namely, the Gramm-Leach-Bliley Act in 1999 that allowed

banks to use deposits to invest in derivatives and the Commodity Futures Modernization Act in 2000 that exempted credit default swaps and other derivatives from regulations, especially in energy derivatives trading. Oil prices in 2008 topped at around 95 USD per barrel, a significant increase from previous three-year in 2005 at 50 USD per barrel. But with the crisis in 2009, oil prices tumbled back down to about 60 USD per barrel, causing a high volatility in both international oil and financial market. According to the World Bank's projection, global production in 2009 fell by 2.9%, which was the first decline since World War II. Lower production usually means lower global demand for oil consumption, which is the major source of export's revenue for Norwegian economy.

Nevertheless, the impact from crisis on the slowdown of economic growth in Norway was considered less damaging than most advanced and Nordic neighboring countries. In January 2009, Stoltenberg announced a stimulus package totaling to 20 billion NOK (0.84% of GDP in 2009) to help easing the economy against the crisis. This sum was sourced from the GPFG, which at the time accumulated a total of 370 billion USD from oil revenues, ranking only second in the world's largest sovereign wealth fund after Abu Dhabi's. The GPFG's mechanism saves oil revenue for future generation while reinvest this sum in long-term international equities and real estates all over the world. Its maximum withdrawal ratio for central government budget, known as the non-oil budget deficit back then was at 4% of the estimated annual return of the fund. But because the government had been using less than the permitted 4% in recent years, this means that it is now free to exceed this fiscal rule, while ensuring not to spend more than the estimated long-term average. Out of the 20 billion NOK package, Stoltenberg's government distributed 16 billion NOK for public expenditure, primarily in purchasing goods and services from the private sector, particularly from the construction industry, while 6.4 billion NOK out of this increased expenditure was transferred to the municipalities. Majority of the expenditure was allocated into jobs creation through building of public works, schools and infrastructures. Only a smaller portion amount of 3.3 billion NOK was used for tax cuts and relief measure.

Reuters reported in March 2009 that although Norway's unemployment was still on the rise, it was still comparatively low by international standards at around 3% and the Norges Bank had slashed its key rate to 2.0% since

October 2008 to help fuel the economy during the crisis. According to Stoltenberg's speech to the financial industry quoted by Reuters in March 2009, his primary concern for the economy was still the rising unemployment rate. Although, Norway's GDP grew by 2.2% during the height of financial crisis in 2008.

According to an interview by Newsweek's journalist, Jerry Guo with Jens Stoltenberg in April 2010, Norway's GDP did fall during early 2009 but was able to begin recovering its growth by the end of the same year. Stoltenberg revealed that the strategic key task for his government was to keep the unemployment at low level, while conducting countercyclical fiscal policy against the declining demand. This was achieved through reducing interest rates from 5.75% to 1.25%, combining with a fiscal stimulus package. He further added that Norway was able to achieve this due to its flexibility in the labor market and having responsible trade unions that were able to agree on big pension reform to decrease pension's expenditure by 3% of its GDP in the long term. Broad and efficient regulations were also emphasized as a prerequisite to Norway's success. He noted that Norway has regulations that cover the whole financial sector to prevent a loophole.

By the year 2010, the GPFG had gained its valuation at 450 billion USD, Under Stoltenberg's government, the GPFG bought even more equities and assets from the international market totaling of 175 billion USD during the crisis. This is due to government's decision back in 2007 to increase the proportion invested in equities from 40% to 60%. The sovereign wealth fund, which has become the single largest investor in European stock market, gained 25% return by the end of 2009. This amount is almost what Norway lost during the financial crisis in 2008. Stoltenberg emphasized that it was crucial for Norway to buy more stocks when the market fall. This is because the GPFG engages in a long-term investment perspective, while having the most transparent and most predictable investment fund in the world. Therefore, Norway can afford to remain in the market during bad times, the GPFG do not sell when the stocks' prices are low, and on the contrary, they are able to buy even more stocks at cheaper prices. From the Newsweek's interview, Stoltenberg lastly left an important remark regarding the existence of the GPFG, that its roles are to save oil revenue rather than spending it on tax cut. By replacing the source of national income from oil wealth in ground, Norway has transformed the non-renewable oil resource into

equities and bonds in the international market. The constructive methods of saving, reinvesting and not spending too much have been crucial factors for Norway to avoid the Dutch Disease.

By proving his efficiency and ability to save the Norwegian economy from the financial crisis, Stoltenberg was able to win the reelection in the 2009 parliamentary election held in Norway on September 13 to 14, 2009. Stoltenberg's campaign for his reelection's policies concerned with several topics namely, tightening national immigration and environmental effort to cut the global emission. The debate on whether the Lofoten area, known for its distinctive scenery and rich wild life filled with plenty of cods should be opened for oil activities has been ample topic from this time onward. After being reelected, Stoltenberg's government presented the Second Declaration of Soria Moria, which particularly covered the issue of reducing 25% to 40% carbon emission by the year 2020. Although, opposition has raised skepticism over the announcement for containing too many big words and lacking radical new policy to critically tackle the global emission issue, nonetheless Stoltenberg's previous performance in dealing with economic crisis gave him another four years in power. From 2010 onward, Statoil has by then acquired and sold many assets abroad for profits, including constantly making efforts to transit the NOC to become a world-class international operator. The national oil company also made further oil and gas discoveries in the Fossekall prospect, which was estimated to contain between 37 and 63 million barrels of proven recoverable oil resource.

The northern part of the country in the Arctic Sea is still viable for oil and gas exploration. To further crystalize this opportunity for Norway's oil development, Stoltenberg was able to settle a dispute with Russia through negotiation with President Dmitri Medvedev. As a result, the disputed areas of both claimed water in the Arctic Sea was settled through a treaty signed in Murmansk on September 15, 2010 and the ratifications were exchanged in Oslo on June 7, 2011 (Moe et al., 2011). The treaty divides the disputed areas of overlapping claims between the two countries. According to the study done by A. Moe et. al. regarding why the dispute was resolved in 2010 combining with the author's finding of increased Norway-Russia cooperation since 2007, the issue can be concluded that the maturing negotiations from Stoltenberg's intention to support Statoil's international expansion and Russian desire to be seen as a

construction and rule-abiding international actor have contributed to the success of the dispute settlement, despite Norway being a member in the NATO.

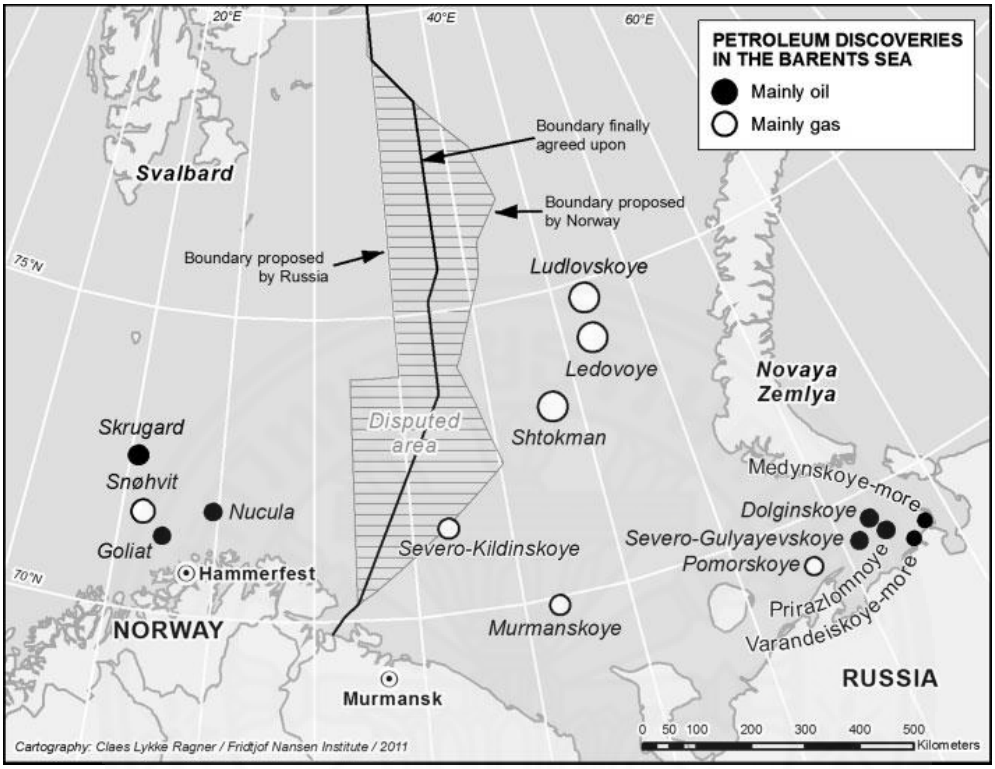


Figure 5.3 *Map of the previously disputed area and petroleum discoveries in the Barents Sea.* Reprinted from Space and timing: Why was the Barents Sea delimitation dispute resolved in 2010, by A. Moe. et. al., 2011, *Polar Geography, 34*(2), 146.

Despite Stoltenberg's announcement of the government intention to ban oil activities in the Lofoten water back in 2006, BarentsObserver independent news article in 2013 reported that the Labour Party's program committee made a turnaround and announced support to carry out an impact assessment study of the vulnerable waters outside Lofoten, Vesterålen and Senja areas for potential oil activities, which are some of the last waters along the Norwegian coastlines that have not yet been opened for drilling. BarentsObserver had previously reported the collection of seismic data in the areas, that these waters are estimated to contain as much as 1.3 billion barrels of oil equivalent with net value estimated at about 500 billion NOK. This announcement by Stoltenberg triggered strong resisting reactions from the Fisherman Association and environmental activist groups. Norwegian Fisherman Association

stated that they are against an impact assessment study because history shows that every time such a study is done, oil activities follow automatically. The proposal has raised public skepticism on whether Stoltenberg truly care about the environment and sincere in his effort to cut the global emission as have stated in his previous declaration.

After critically reviewing Stoltenberg's administration, we can observe that he is a strong supporter of privatization measures and the petroleum industry as evidences show that major government's efforts were contributed in strengthening Statoil's dominant role in both domestic areas and international expansion. Nonetheless, Stoltenberg has also proven to be a capable leader when it comes to state's intervention of the economy during the financial crisis. His solution to the financial crisis revealed to us that his government's coalition strongly adheres to the new Keynesian economic-model, particularly in the realm of unemployment, saving and investment, where macroeconomic stabilization by the government through fiscal policy can lead to a more efficient outcome. According to the IMF Database, Norway's GDP, PPP per capita at the start of Stoltenberg's second cabinet in 2005 was at 56,578.67 USD. By the end of his administration in 2013, this figure reached 65,572.08 USD, a 15.9% increase during his 8-year term as the prime minister, despite facing a financial crisis and Norway's wealth fund mechanism that increasingly rely on both the global financial market and cash flow from the petroleum industry. Stoltenberg attempted for the third reelection but lost the governmental power to Erna Solberg from the Conservative Party. He has exited from Norway's politic and since 2014 was appointed as the Secretary General of NATO and Chairman of the council. Stoltenberg is the first Norwegian to serve as the Secretary General.

5.1.3 Erna Solberg’s administration (2013 – 2018)

Erna Solberg became the leader of the Conservative Party since 2004. She had been leading as the major opposition since early 2003. Solberg eventually won the general election in 2013 and was appointed as the prime minister on October 16, 2013. She is Norway’s second female prime minister after Gro Harlem Brundtland. Solberg’s previous image was dubbed by the media as “Iron Erna” due to her strong stances on tightening rules on immigration as a Minister of Local Government and Regional Development a decade earlier. The Conservative Party had tried to soften this

image branding of Solberg during 2013 election with heart and smiles instead. Her campaign involved securing more jobs, healthcare, improving education and infrastructure improvement, particularly on road. Solberg also campaigned for tax cut and deregulation issues, which involve abolishing the inheritance tax, means testing for welfare recipients, tax incentives for private savings, simplifying procurement rules to make it easier for smaller businesses to offer for government tenders and the deregulation of alcohol sales ("Norway's iron lady," 2013).

5.1.3.1 Surviving the oil crash (2013 – 2016)

At the onset of Solberg's administration in late-2013, the international oil price according to OPEC's Reference Basket was significantly high at around 105 USD per barrel. The oil market started to signal its turnaround in 2014 as the United States began to widely implement the hydraulic fracturing technology to drill and produce petroleum from its domestic oil sands, in combination with OPEC's members overproducing its own production quota. All of these factors contribute to the oversupply of crude oil in the market, despite the rising global demand of crude oil led by the rise of China's economic growth. In the year 2015, the international oil market continued to oversee the heavy turndown in price, falling to around 50 USD per barrel. This was about half the price of what oil exporters could sell two-year earlier, as a result many oil exporting countries witnessed a major budget deficit, including Norway and Venezuela.

As a result, net revenue of Norway from the petroleum sector have been declining in a recent year, while more oil revenues have been spent into the central government budget in line with the fiscal rule. As indicated in Figure 24, the spending of petroleum revenue in blue, also known as budget deficit have been increasing since 2011, while net cash flow from petroleum activities have been declining since 2012. Due to the nature of crude oil as a non-renewable resource, it is expected that these revenues will further decline in the future. However, Norway's design of its fiscal management through the GPFG has allowed it to survive the oil crash in 2015. This is because the GPFG's mechanism of estimated real return at the fixed rate of 4% could be used to finance the non-oil fiscal deficit when petroleum revenues are no longer enough to finance the fiscal deficit. As shown in the red circles inside Figure 24, since the beginning of 2016, the GPFG has been transferring some of

its return to fill up the overestimated spending of petroleum revenue to be spent over the central government budget.

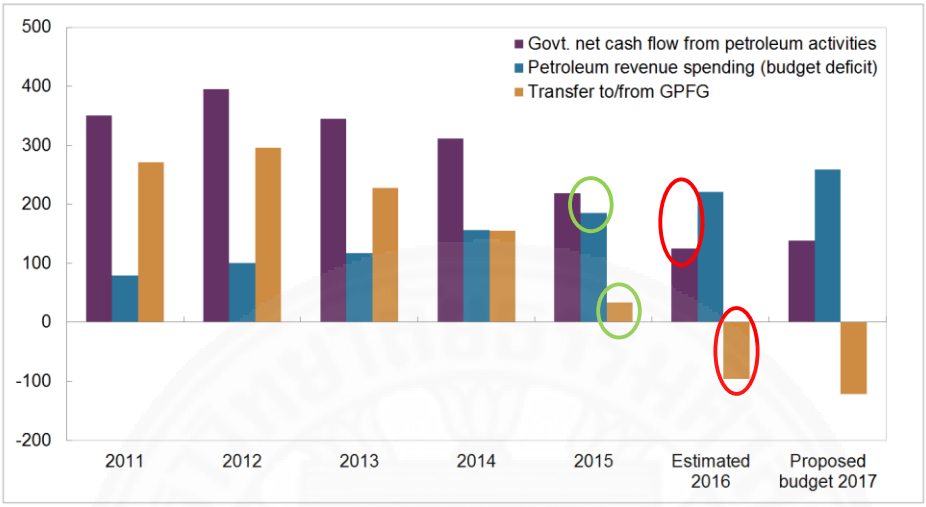


Figure 5.4 *Norway's central government account from 2011 to 2017 in billions of NOK.* Reprinted from Norges Bank's Foreign Exchange Transactions with the Government Pension Fund Global, by Norges Bank, 2018.

In response to the fall in oil price, Solberg pursues in the policy of "omstilling", which is the Norwegian term for "readjustment or rearrangement". Solberg emphasizes on transiting Norway's economy away from the oil reliance. According to news article in 2015 by Nina Berglund, an editor from Views and News from Norway, Solberg stated that Norway might have already peaked out in oil and gas activity and must have new businesses to stand on. She affirmed that the oil industry would not continue to be the major economic growth driver for Norway. Despite this statement, new offshore areas have continued to be opened up for oil exploration activity. Solberg noted in 2015 that her government's budget set the framework for business through taxes, fees, public sector investments and infrastructure funding. She maintained that Norway is still not in crisis despite, huge declined in oil price and revenue, as there are still bright spots in the Norwegian economy.

5.1.3.2 Dilemma of economy and environment (2016 – 2018)

Despite engaging in the economic readjustment policy, Solberg in 2016 announced that her government would like to further open oil

exploration in the scenic controversial areas of Lofoten and Vesteralen for oil and gas activities. Stoltenberg, the previous prime minister once proposed an impact assessment study of the Lofoten areas but met with strong reactions from the environmental groups and fisherman association, which potentially contributed to his defeat for the third reelection. This time Solberg's decision met with the same amount of resistance as she has previously stated policy to readjust the structure of oil reliance's economy, now her announcement seemed like a turnaround of words. However, Solberg insisted and claimed that the importance of oil industry will keep rising, despite talks of restructuring and changes. She firmly believes that the oil industry could develop in a sustainable manner alongside other industry in the areas.

Solberg won another term in Norway's parliamentary election in September 2017 through her promises of steady management of the oil economy, as the GPFG hits 7.4 trillion USD in value in the same year, thus becoming the world's largest sovereign wealth fund. She stressed that the challenge ahead is still the declining oil revenue and how to spend less of it. In a panel debate at One Planet Summit in Paris, Solberg commented in December 2017 on integrating the climate change to economic growth and financial sector that her government's aim to comply with the Paris Agreement is to identify good returns on investments from environmental, social and governance practices. This approach includes assessing companies in high climate-risk sectors with emission levels as the key element on annual-basis, which would be integrated into the GPFG's investment strategy.

As of 2018, Solberg's government has been working to comply with climate commitments under COP21. She stated in 2018 that Norway will continue to be a major oil and gas producer but will also continue to be a strong global advocate for climate change mitigation. By continuing its effort to transit its oil-dependent economy, Norway's service and supplier industry is now its second largest, with 35 % of its revenue coming from international markets. Statoil in 2017 began to engage its business model with the newly introduced technology with a goal to create a secure, real-time blockchain-based digital platform to manage physical energy transactions from trade entry to final settlement. This effort is being performed through co-development with other two major energy companies, BP and Royal Dutch Shell. The intention is to reduce administrative cost and create a more secure platform for

energy supply chain trading. As of May 15, 2018, Statoil ASA has officially changed its name into Equinor ASA to attract young talents for new energy solution. The company does not want its image to be perceived as an oil firm but also to emphasize in the rising prominence of renewable energy that has been reducing its cost recently.

After reviewing Solberg's administration as the prime minister, we can observe that further development of Norway's petroleum sector is still the key element in stabilizing its economy. Despite her initial campaign to avoid further oil activities and shifting focus to the transition Norway's economy, Solberg appears to strongly back the oil activities of Norway as a measure to buy more time while attempting to integrate climate change issue into the GPFG's investment strategy. According to the IMF Database, Norway's GDP, PPP per capita at the start of Solberg's administration in late-2013 was at 65,572.08 USD. At the latest figure of her administration in 2017, this figure reached 70,665.96 USD, a 7.7% increase during her 4-year term as the prime minister of Norway so far. In the below Figure 25 is the author's compilation from the study of how Norway-model of oil revenue management works together amongst various institutions of the government.

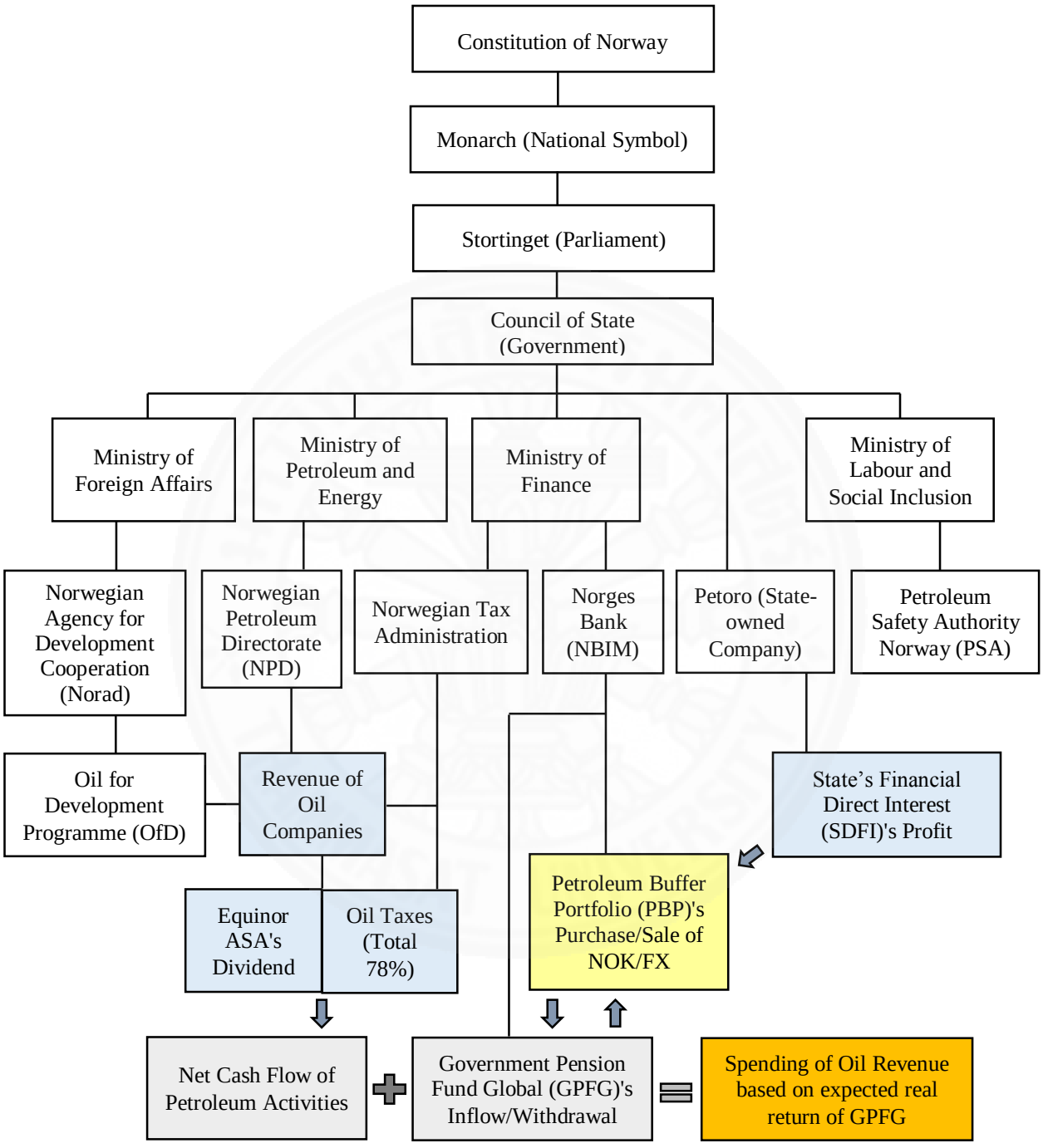


Figure 5.5 *Norway's structure of oil management as of 2018*

5.1.4 Conclusion

Although the Norwegian has discovered its oil in the Continental Sea Shelf in the 1960s, actual production began in the 1970s as it was previously not economically viable. By becoming an oil exporting country much later than most countries, Norway was keen to learn on others' experiences and mistakes from the past. As Norwegian oil is located offshore in the sea, to begin a project would require higher cost, more advanced technology and intelligent workers. All of which are well-aware and reflected in the partial privatization of Statoil at the onset of the 21st century.

They are also well-aware of the Dutch Disease, which is being solved by the mechanism of the GPFG. By annually accumulate the sum of oil revenue and reinvest this money into the global financial market, Norway has diversified and transferred the risk from economic impact upon the fall in oil prices to the global economy instead. The deficit amount for GPFG spending is allowed only up to 4% from its annual return, which means that Norway has mostly been saving and investing the oil wealth it earned. When hard time or crises came by, the government has more choices to help stimulate the economy.

Stoltenberg emphasized on combating the unemployment rate upon facing the financial crisis in 2009. His stimulus package was drawn from the GPFG to help with job creations and because of its long-term investment strategy, the GPFG also bought assets even when the financial markets were falling. It turned out to be the right decision as the global economy began to recover and Norway was able to generate profits to cover the loss from previous year of crisis.

The ideas of considering oil wealth as the pension and funds for future generations have led Norway to design a sustainable, transparent and organized oil spending mechanism that allowed government to efficiently combat all kinds of economic situation. Even in the event of heavy fall in oil prices in 2015, the GPFG made a transfer to cover the overestimated oil spending and so government can continue with its agendas. Norway as of 2018 is moving toward the path of transition away from oil economy and further risk diversification. Renewable energy is being promoted, which resulted in the changing of Statoil name into Equinor to attract young talents.

5.2 Oil, a 'curse' for Venezuela

This part will introduce the reader into the political and economic significances behind the selection of Venezuela case as the focus of the thesis. It will provide important facts underlying Venezuela's oil economy, history, institutions and the uses of its oil as a political leverage during Chavez and Maduro's administrations.

Venezuela is a country situated in the north of South America with immense amount of crude oil reserves, ranking at the top for the world's largest proven oil reserves. Venezuela is also one of the founding members of OPEC. Its history of indigenous people dated back for centuries and its contemporary history dated since the Spanish colonization in Latin America during the late 15th century. It was not until the early 1910s that the first oil wells in Venezuela were drilled. Venezuela began its position as a major oil producer to the world in 1922 when it discovered 'Barroso No. II' well in Cabimas (Salas 2009). By 1928 it had become the world leading oil exporter, which made it a significant actor in global policymaking role of international oil market and industry. Its oil exports significantly increased through the decade, becoming the third-leading oil producer in the world, behind the United States and the Soviet Union, as well as the leading exporter by the end of the 1930s (Painter 2012). It was around this period that Venezuela introduced the Hydrocarbons Law of 1943, which provided 50% of oil profits to the state (Coronel 1983), marking the early development of Venezuela's reliance on oil economy.

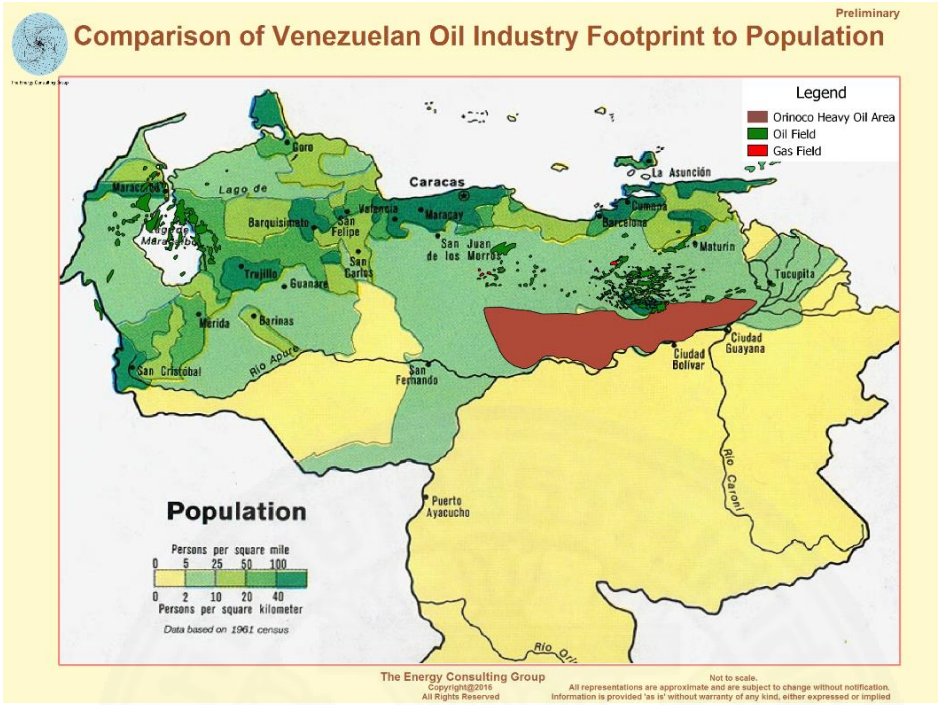


Figure 5.6 *Venezuela's oil fields and population density* Reprinted from "Comparison of Venezuelan oil industry footprint to population," by the Energy Consulting Group, 2016.

Between the years of 1958 to 1998, Venezuela was seen as an exceptional Latin American country with strong democratic institution, stability and immense oil-riches. Due to the oil crisis in 1973, oil prices had quadrupled during 1972 to 1974 leading to huge increases in government's revenue from oil wealth (Alvarez & Fiorita, 2005). The optimism during the high oil price period was clear, which was translated into the support for capitalist system and the rejection of radical movements such as the left-wing and communism (Corridan, 2009). In 1976, Perez officially nationalized the oil industry, leading to the creation of Petróleos de Venezuela (PDVSA), Venezuela's state-owned oil company (Paris, 2006). This led to the replacement of all foreign oil companies in the country. Former concessionaires were then substituted by the PDVSA, which maintained the structures and functions of its former multinational corporations (MNCs) (Bye, 1979). Around a decade afterward, the oil market faced an oversupply and prices were falling, which is commonly known as the 1980s oil glut. It was during this period that Venezuela experienced the first lesson from the Dutch Disease. It faced inflation and increased in debts, affecting the average income of the country. The early period of high oil prices led the government to increase in spending,

resulting in further economy reliance from the international oil market. By the 1990s, Venezuela accepted the IMF reform package, which caused an immediate increase in the cost of petroleum products to consumer and fare rose in public transport due to the liberalization measures that had to be taken (Paris, 2006). As the result of low oil prices combining with the fact that Chavez had attempted two failed coups to overthrow the previous ruling coalition of Perez administration. Thus, the previous administration of Perez under the Punto Fiji Pact has suffered a major loss of its public influence from the initial phase of oil liberalization (Paris, 2006). The pact resembles former social inequality and corruption under neo-liberal government before Chavez administration, which was a coalition of agreement between the major political parties in Venezuela for guaranteed access to jobs, contracts, and ministerial positions (Corridan, 2009). Therefore, it is vital to keep in mind that the economic crisis is not something new to modern Venezuela in the 21st century but rather an accumulation of mismanagement in economic policies, especially in its management of the oil industry. Nonetheless, Venezuela back then was not totally relying on its oil wealth, as there were still economic activities among other private sectors.

All of which would change when Hugo Chavez was elected in the year 1998. Despite, Chavez being known in affiliating with socialist ideas and had established personal deep ties with Cuban leader, Fidel Castro, the unsound situation of previous failed neo liberal policies had undermined its democratic institution, which resulted in the downfall of liberal principles and the rise of populist democracy in Venezuela (Corridan, 2009). His achievement in early political successes was then contributed by targeting the poor and working class, which make up the majority of the country due to high social inequality.

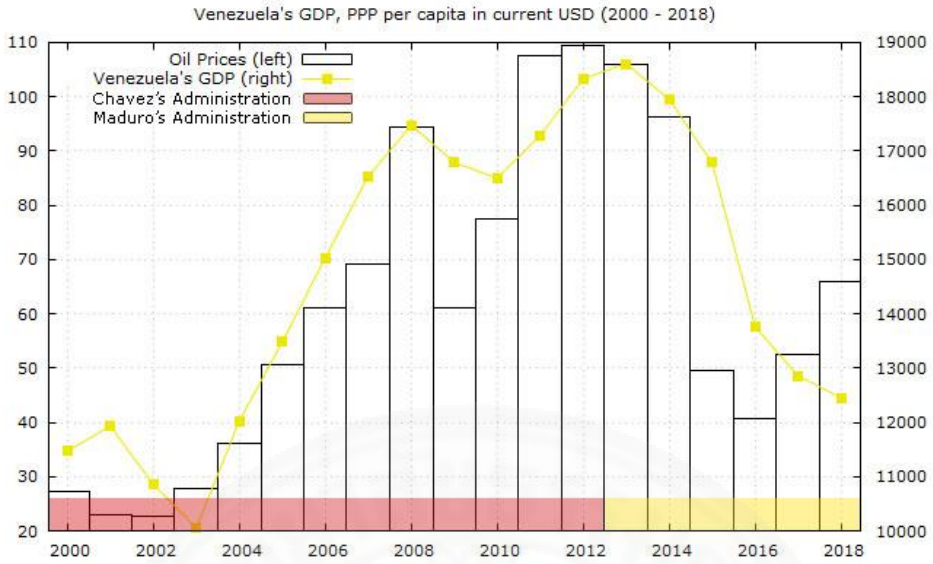


Figure 5.7 *Venezuela's GDP, PPP per capita in different administrations* Reprinted from "Venezuela's GDP, PPP per capita in current USD (2000 – 2018)," by IMF World Economic Outlook and OPEC Reference Basket, 2018.

5.2.1 Hugo Chavez's administration (1999 – 2013)

Hugo Chavez's path to the left-wing political ideology was firstly influenced during the time of his military education and career. At the age of seventeen, Chavez studied at the Venezuelan Academy of Military Sciences in Caracas, the capital of Venezuela. There he saw the endemic poverty faced by working class of Venezuelans, which led him to commit in achieving social justice (Jones, 2007). Chavez loved playing baseball, painting, writing poetry, fiction and drama (Marcano & Tyszka, 2007). He soon became interested in researching the life and political ideas of Latin American revolutionary figures, most notably are Simon Bolivar and Che Guevara (Jones, 2007). It was during this time at the military academy that Chavez was influenced and inspired by the military intervention idea from the Peruvian leftist president, Juan Velasco. Velasco's idea was that the military should act in the interests of the working classes when the ruling classes were perceived as corrupt, Chavez stated that he "drank up the books (Velasco had written), even memorizing some speeches almost completely (Jones, 2007, pp. 40-47)."

At one point during his career as a military communication officer for counter insurgency unit, Chavez discovered stash of Marxist literatures and went on to

read them. These books titled by Karl Marx, Vladimir Lenin and Mao Zedong convinced Chavez the need for a leftist government in Venezuela (Jones, 2007). He later founded the Revolutionary Bolivarian Movement-200 (MBR-200) as a political and social movement within the Venezuelan Army, in the hope that he could one day introduce a leftist government to Venezuela (Jones, 2007). This group would eventually participate the leading role twice in Chavez's failed coups attempt in 1992 and evolved into Chavez's political party, known as the Fifth Republic Movement (MVR) in 1997.

5.2.1.1 Consolidation of political power (1999 – 2003)

After Hugo Chavez's failures in two coups attempted, he decided to change course in strategy after his release from prison. The decision was to officially engage into Venezuelan politics to achieve his power through democratic presidential election in 1998. He formed the Fifth Republic Movement (known as MVR) as his political party. His spearhead campaign of the so called "Bolivarian Revolution" emphasized in targeting the poor and the working class, which are the majority of Venezuelans voting blocs. Influenced by the writings of Marxist ideology, Chavez also pledged to end the Punto Fiji pact that had previously dominated Venezuelan politics through the parliamentary benefit-sharing deal. Through the campaign of Bolivarian Revolution, which the term derived from Simon Bolivar, a colonial-era military leader who idolized and inspired Chavez, he promised to tackle corruption and eradicate poverty. With a powerful persuasive speaking abilities and charismatic personalities, Chavez won the election in 1998 with 56.2% of the vote (Ellner, 2002).

Right after Chavez was elected, he called a referendum for the new constitution of 1999 in order to increase his presidential power and allow him to facilitate socialist agendas (Corridan, 2009). Initially in his first three-year in office, Chavez emphasized his oil policy on the external-oriented rather than directed domestic control of the PDVSA (Paris 2006). The government focused in international agenda and aimed to revive OPEC's vitality in the international oil market. Nonetheless, efforts to consolidate his political control and exerting influence in the PDVSA had already begun in both the government and the PDVSA. Top positions in the Ministry of Energy had been filled with the members from the left-wing parties and under his presidential prerogative power, Chavez named a new PDVSA board even when the term of the

existing board had not been expired. Some of these new board members are affiliated with the military (Paris, 2006).

At the onset of Chavez's administration in 1999, international oil prices were at a century low around $17 per barrel, thus his top priority was to promote the recovery of oil prices through OPEC. Chavez wanted to use the oil revenues to support his campaign and policies, but the PDVSA back then was an autonomous actor that supported the previous neo liberal policy of 'La Apertura' (oil opening), believing that privatization would open the oil sector to more foreign participation to increase Venezuela's oil production capacity (Paris, 2006). In addition, the previous laws under the Investment Fund for Macroeconomic Stabilization (FIEM) established in 1998 were perceived by Chavez's economic team as a potential fiscal restriction rules upon rewards from the improving oil prices (Paris, 2006). This is because the FIEM's rules were under the governance of the Central Bank. According to the FIEM Laws' Article 1 and 2, The board of the Central Bank was the governing body of the Fund with authority to: establish the fund's budget, report annually to Congress, dictate norms of operation, establish investment policies and approve withdraws (Paris, 2006). The fund collected excess oil revenues from three sources: the Central Government, the State & Municipality and the PDVSA. The term 'excess' is referred to the amount above the average oil income in the previous five years.

Funds' deposits were calculated after taxes were collected. Withdrawals were based on estimates of oil revenues. All withdrawals needed the previous opinion from both the lower chamber (Deputies) of Congress and the Finance Permanent Committee of the upper chamber (Senate). Both bodies were requested to give their opinion in the following 20 days after the Executive submit a withdraw proposal. According to Article 12, the proposal would be assumed favorable if no opinion was given in that period. This means that the original mechanism of the fund was already weak and inadequate for transparency check because 'opinion' does not always translate as 'approval' in Venezuela (Paris, 2006). This is because even though there are negative opinions for withdrawal, the Central Bank still had to automatically approve withdrawals as the estimated revenue are done by the executive branch (Paris, 2006).

Chavez determined to end the PDVSA independence and autonomous status by bringing its revenue under the state control. Against the privatization, Chavez argued instead to comply with OPEC's production quotas; to raise international prices in order to increase oil revenues (Paris, 2006). He embarked Venezuela; a once protracted democratic country towards the socialist transformation and began to strongly undermine the United States influence after there was a coup attempted on his government in 2002 (Corridan, 2009). From December 2002 to February 2003, the PDVSA conducted a worker strike, resulting in a decrease in monthly oil production and a halt in PDVSA system on a large scale (Organization of Petroleum Exporting Countries (OPEC), 2004). The impact from the PDVSA strike has caused tremendous loss from the differentials of import cost, damages to installations and equipment (Paris, 2006). Ironically, the PDVSA's strike effort to paralyze Chavez administration caused severe damages to the PDVSA itself, losing its credibility and lowering its production capacity. In addition, the PDVSA faced strong retaliation from Chavez. After the strike, he terminated more than 40% of PDVS officials of approximately 18,000 officials, focusing on the top end personnel of PDVSA structure (Paris, 2006). After the purge, Chavez's political control over PDVSA was total. All of which would lead to major changes in the PDVSA structure.

After the end of strike in 2002 and 2003, the internal roles' adjustment in the PDVSA occurred in its subsidiary, the Palmaven. Originally the Palmaven was designed to assist Venezuela's agricultural sector from damages occurred from oil activities during the time when foreign companies used to operate in Venezuela. The social development subsidiary received compensation from foreign companies and was charged with mitigating environmental impact and ensuring technical assistance was provided to the agricultural sector. Its new roles have been completely transformed to promote national social development through educational, health and job creating initiatives, directed to the poorest sectors of Venezuelan society. Its previous activities in 14 agricultural joint-ventures were either sold or transferred to other operating affiliates.

5.2.1.2 Politicization through opposition Tactic (2003 – 2007)

While becoming a savior to the poor masses, his intolerance against criticism to those who resist a socialist revolution is well known. The resistance

mainly amounts from the middle class, the media, professionals who inclined towards privatization and anyone affiliated with capitalist ideas. They would suffer from restrictive socialist measures under the new constitution (Corridan, 2009). Chavez often uses the method of expropriation when he publicly seized private property by force as part of the Bolivarian Revolution (Paris 2006). He retained his popularity and supports by using opposition tactics, creating dichotomy and shifting blames on other countries (Corridan, 2009). This was used to divert public attention to insulate his regime from issues of high inflation, high crime, poverty, or restricted freedoms and rights. On November 8, 2003, Chavez publicly stated his request to the Central Bank to transfer 1 billion USD for financing the agriculture sector. His statement according to the study by Paris referenced from the Ministry of Communication's transcript was

> *"We are reaching the level of US$ 21 billion in international reserves. For what purpose do we have to hold deposits for US$ 21 billion in American and European banks of money that belongs to all Venezuelans? What do we get from having those deposits? Why can't we use one billion? That it is what I am asking. This money does not belong to the government. This money belongs to the country. This money does not belong to the Central Bank either."* – Hugo Chavez in 2003

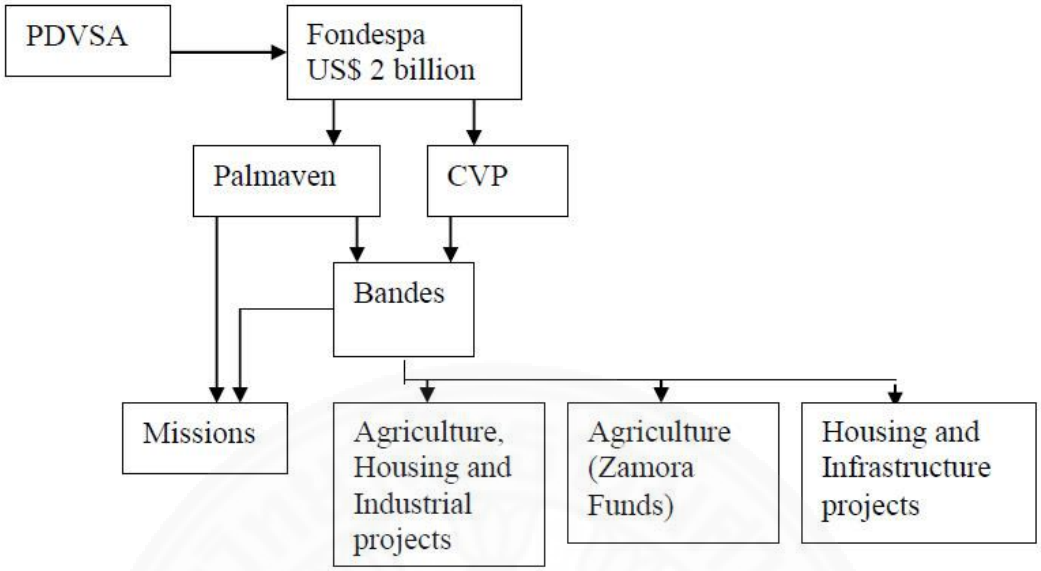
The Central Bank argued that it was impossible to convert that money back twice to finance the agriculture sector because it was comparable to provide inflationary financing. This is because the oil company had already received the equivalent amount in VEB when it transferred revenue in foreign currency to the bank. Those converted revenues in VEB were already used to cover the PDVSA's domestic expenditures and paying taxes to the government. Chavez replied with a rebuffed for his argument, employing on his opposition tactic he accused the Central Bank of pursuing 'neo-liberal' policies promoted by the International Monetary Fund (IMF) against the public interest. Chavez threatened to intervene with the Bank, as he had done with the oil company PDVSA, if the Bank refused to consent to his requirements or to challenge them in the Supreme Court of Justice (Paris, 2006, p. 255).

By 85 votes to 37, the National Assembly approved the facilitation of 1 billion USD from the Central Bank to finance the agriculture program

in January 8, 2004. In addition, the National Assembly's president Ameliach publicly announced two days after the approval that he intended to introduce an extraordinary legislative procedure to reform the Central Bank's Law in order to accommodate with Chavez's request. Orchestrated street protests against the Central Bank also occurred twice in January 2004 regarding the bank's refusal to grant 1 billion USD for the agriculture program. These combined events of politicization in the institution eventually led to suggestion by Central Bank's President Castellanos to establish the first fund within the PDVSA's structure, which was adopted in May 2004.

This short-lived fund was to be called Fondo para el Desarrollo Económico y Social del País (Fondespa), its roles allowed the PDVSA to hold up to 2 billion USD for swift funding of government's social development projects. Despite its loose structure and split-decision that were not clear about whether the Fund was to be regularly topped up or if it was a one-off authorization, Chavez announced the creation of the Fondespa and said that it was under his direct control on 23 May, 2004 (Paris, 2006, p. 257). Six months later, the Palmaven an existing subsidiary of the PDVSA was fully transformed into social development subsidiary for Chavez's programs. Another subsidiary under the PDVSA, the Corporación Venezolana del Petróleo (CVP) was tasked to administer the fund and compile the balance sheet within the PDVSA. Resources allocated to the Palmaven were treated as expenditures, while the rest was assigned as returnable investment for the CVP.

From 2004 to 2005, the Palmaven allocated 40% of the Fondespa to Chavez's social development missions (Paris 2006 p. 259). This process was done through opening a trust in a public bank, usually through Venezuelan Economic and Social Development Bank (Bandes) to make payments to the Foundations responsible for each mission. Each mission is independent on how to spend the money transferred to them (Paris, 2006, p. 260). The CVP was specifically made responsible for providing a vehicle to finance social projects other than the 'missions', the process was similarly done through the Bandes. The bank would then use CVP's resources to pay for the cost of social programs and other projects such as transportation, road infrastructure, agriculture, health and education (Paris, 2006, p. 261).



Source: Palmaven and CVP

Mission	2004	2005	Total
Misión Ribas	227	213	440
Misión Vuelvan Caras	157	154	311
Misión Barrio Adentro	23	173	196
Misión Identidad	60	0	60
Misión Sucre	64	0	64
Misión Mercal	93	295	388
Misión Núcleos de Desarrollo Endógeno	29	8	37
Misión Guaicaipuro	0	11	11
National Asphalt Plan	74	62	136
Technology resources to Missions	15	0	15
Other donations (1)	73	6	79
Total	**815**	**922**	**1737**

(1) Including funding a programme called Mission Milagro that covered Cataract surgery in Cuba for Venezuelan patients
Source: Palmaven

Figure 5.8 *Fondespa's fund flows and allocations in million USD.* Reprinted from *Institutional failure in Venezuela: The case of spending oil revenues*, by F. E. Paris, 2006, p. 259.

The dispute between Chavez and the Central Bank in 2003 and 2004 further contributed to Chavez's need to politicize his control in the institution. According to the previous law back in 1992, approving the Presidential position of the Central Bank required Venezuela's presidential nomination and two-third of the senates' ratification. In 2001, the law was amended to modify that requirement. The new law

required only a bare majority of votes in the National Assembly, resulting in a new Central Bank's President ratified by the National Assembly through simple majority in January 2005.

When oil prices began to increase in 2005, Chavez was able to establish strong ties with other countries through oil trade and formed ALBA for regional economic integration as a counter initiative against the American-led FTAA (Corridan, 2009). The Bolivarian Alliance for the Peoples of Our America (ALBA), was initiated through a joint cooperation between Chavez's Venezuela and Castro's Cuba to consolidate a regional economic alliance formed by socialist governments based on a vision of social welfare, bartering and mutual economic aid. Part of the ALBA's initiative was the creation of PetroCaribe, an oil alliance in June 2005. Caribbean members of the PetroCaribe are given allowance for preferential payment of oil at market value for 5%-50% up front with a grace period of one to two years, while the remainder can be paid through a 17 to 25 years financing agreement with 1% interest if oil prices are above 40 USD per barrel. This initiative has allowed Venezuela to exert its regional influence through the use of comparative advantage at the cost of oil export's profitability and the PDVSA's cash flow.

Outside ties from the regional level includes Russia, China, Iran, Iraq, North Korea and OPEC countries. Despite indifference in ideological identities, Chavez's rationale for these ties rest upon the use of oil diplomacy to leverage Venezuelan position, since his revolution has created a hostile stance towards the United States. Venezuelan ties with these countries rely on the fact that they share controversial figures, often acting against the will of international community and exploitable benefits from Venezuela's immense oil riches.

In attempt to boost food production and ease rural poverty, Chavez began implementing a 2001 law that allows the state to expropriate unproductive farms or seize land without proper titles in 2005, resulting in state's land redistribution amounting to millions of acres ("Factbox," 2012). The expropriations were often publicly conducted live on television network as a strategy to tighten state controls, while broadcasting his works to maintain the rural supporters. In 2007, Chavez further nationalized 82% of its largest power producer previously owned by American-based AES Corp in Electricidad de Caracas for 740 million USD ("Factbox," 2012).

Furthermore, the biggest expropriating move done by Chavez also occurred in the same year, when his government took a majority stake in four oil projects in the vast Orinoco heavy crude belt worth an estimated 30 billion USD in total. This led Exxon Mobil and ConocoPhillips to exit from Venezuela as they filed for arbitration, while France's Total SA and Norway's Statoil ASA received around 1 billion USD in compensation ("Factbox," 2012). It is interesting that whereas French and Norwegian companies agreed to the negotiation and received compensation, Exxon Mobil and ConocoPhillips declined to restructure their holdings to become a minority partner. Chavez's continued policy of expropriation would later be resumed in late-2008 onward, the move covered different sectors from cement, steel, industry, agriculture, transportation, power, gold and even tourism.

4.2.1.3 Expansion of the socialist revolution (2007 – 2013)

In 2008 the Economist reported that Venezuela' inflation increased to 22.5% since 2007, almost twice the government's target. In efforts to curb this economic issue, Chavez presented a socialist-style of monetary reform between 2007 and 2008. These reforms included plans to decrease the rate for value added tax (VAT) by 5% points and reducing three zeroes from the original Bolivar (VEB), effective on January 1, 2008. The new currency, known as the 'strong bolivar' (VEF) was pegged at the rate of 2.15 VEF per 1 USD, while the black-market rate offered between 3,500 to 4,000 VEB, which was 80% higher than the official rate.

Nonetheless, Chavez has continued to expand the socialist revolution by taking over foreign businesses in Venezuela and cementing strong ties with Russia and China. Since 2005, Venezuela has spent more than 4 billion USD worth of arms from Russia, which ranged from Su-30 fighter jets, training bombers, equipment parts and joint exercises. These efforts all required a large amount of fund, which made Venezuela increasingly rely more on its oil export. The expansion of socialist revolution continued in the region in 2010, when Chavez implemented the new regional currency, known as Sucre, while continued the expropriation of businesses by seizing 11 oil rigs from Oklahoma-based Helmerich & Payne Inc in June the same year ("Factbox," 2012). The Sucre was aimed to replace the USD as a medium of exchange in order to decrease American influence and control of Latin American economies and to increase stability of regional markets. As of 2015, the Sucre becomes the first Latin

virtual currency being used to compensate trade between Bolivia, Cuba, Nicaragua and especially Ecuador and Venezuela.

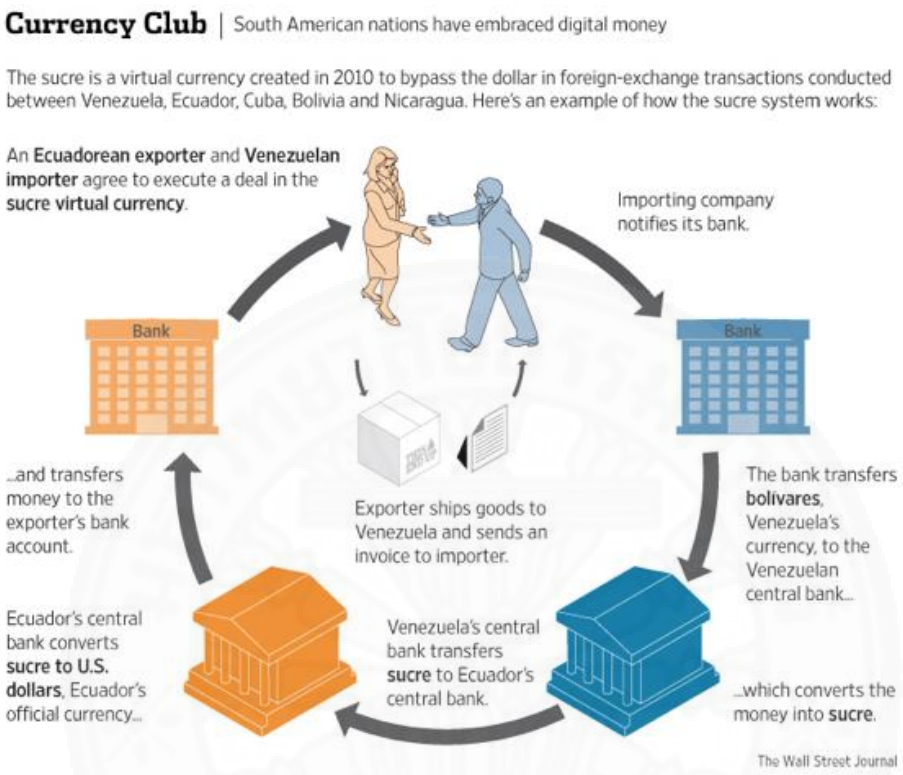


Figure 5.9 *Sucre's payment mechanism* Note: Reprinted from "Sucre Highs andSucre Lows; Money Laundering and Virtual Currency," by Fintrail, 2016.

After reviewing more than decade of Chavez's administration, we can observe that the internal conflict between Chavez and the PDVSA reflected different stances in managing its oil industry, while the former PDVSA before his politicization wanted to enhance its production efficiency through privatization, Chavez chose to prioritize in restoring order and compliance within OPEC mechanism through centralization of power. In addition, Chavez's administration has been imposing strong subsidy and price controls on fuel products. Within 14 years of his administration domestic oil prices were frozen under political decisions rather than economic argument. By keeping domestic prices below the international market, it has resulted in increasing contraband fuel trade with neighboring countries namely Columbia, Brazil and other Caribbean nations. The estimated illegal fuel trades amount to 30,000 to

100,000 barrels per day. Chavez's monetary reforms for the Bolivar fuerte (VEF) also yielded disappointment result. The new currency with three zeroes removed is anything but strong. According to ABC news report in 2013, the Bolivar fuerte has lost nearly two-thirds of its value since it was launched in 2008.

Nonetheless, Chavez administration through the time of high oil price has resulted in unsustainable high economic growth, despite currency instability in the following Maduro administration. According to the IMF database, Venezuela's GDP, PPP per capita at the initial year of Chavez's administration in 2000 was at 11,468.31 USD. By the end of his administration and his life in 2013, this figure reached 18,607.46 USD, a 62.25% increase during his 13-year as the president.

5.2.2 Nicolas Maduro's administration (2013 – 2018)

Nicolas Maduro's rise to power has been laid down since the time of Chavez's regime in 2011. According to Diario las Americas' newspaper article in 2017, Chavez had chosen Maduro to succeed him in presidency if he were to die from cancer due to Maduro's loyalty and because of his good relations with other chavista hard-liners. Shortly after Chavez won his second presidential election, he appointed Maduro as the Vice President of Venezuela on October 13, 2012. Chavez constantly endorsed Maduro in public, especially after he acknowledged the possibility of his death from cancer in December 2012 ("Venezuela's leader," 2012). It was not until the death of Hugo Chavez from cancer on 5 March 2013 that Venezuela began to fully experience the oil curse from his socialist policies' legacy. Nicolas Maduro, the handpicked successor to Chavez assumed the office with different personality comparing to the charisma Chavez had.

5.2.2.1 Chavez's legacy and crises that follows (2013 – 2017)

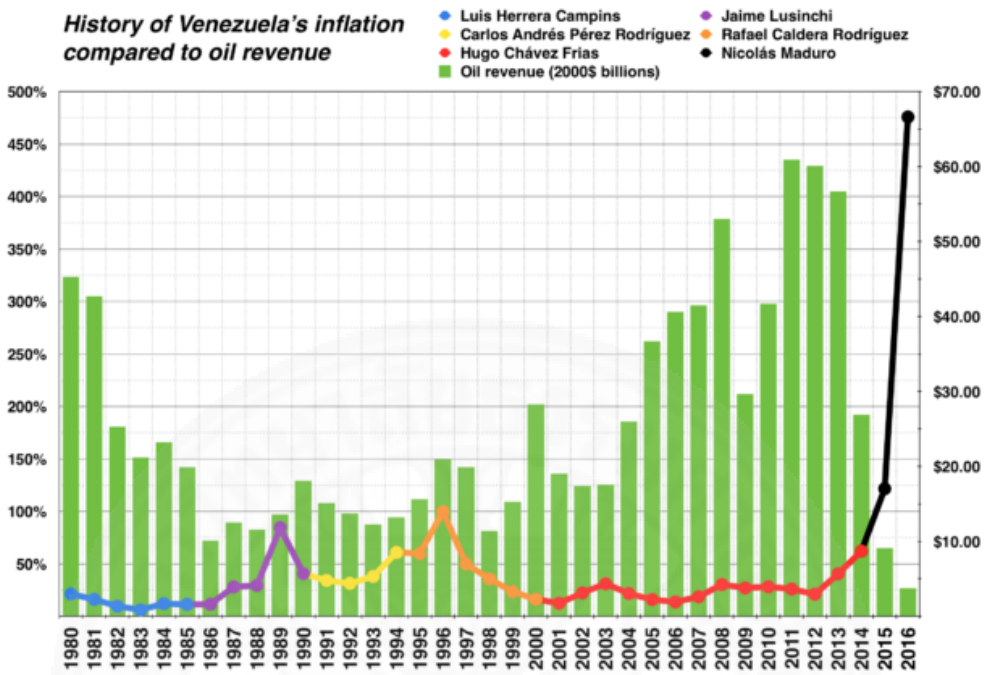


Figure 5.10 *History of Venezuela's inflation compared to oil revenue* Note: Reprinted from ZiaLater's compilation of EIA, IMF, CIA, Business Insider and BBC data, 2016. Historic rates of inflation and oil revenues in Venezuela from year 1980 to 2017 show the soaring hyperinflation during Maduro's administration and decline in oil revenue in 2015.

Maduro is not known for being a charismatic leader and national budget deficit from the falling oil price in 2015 begins to threaten political stability through uprising. Every year since Chavez implemented his Mission, except for 2009 and 2010, the PDVSA has spent more on social programs than on exploration and production activities (Viscidi, 2016). Although, oil prices were initially high enough for Maduro to maintain necessary spending for support, from the military, massive debts from constant budget deficit has been pressuring its economy as payment schedule is following through. Maduro also utilized foreign ties that were established by Chavez as he applied skills that he had learned while serving as a foreign minister for his advantage. This was done through cementing ties with Cuba, Russia and China, resulting in further debt restructure with Russia and oil-for-loan with China.

The government institutions aligned behind Maduro

increasingly used their advantageous positions in forms of repression and autocracy, originally demonstrated by Chavez, to become even more repressive with the opposition. As high debts were coming in due, Maduro was ruling under the risk of defaulting. In this regard, Maduro has pursued in further withdrawing from the foreign reserves, delaying investments in energy and cutting imports (Viscidi, 2016). Eventually, this has contributed to the cause of hyperinflation and shortage of food and medical supplies.

Due to large amount of food and medical supplies shortage, Venezuela in 2017 faced nation-wide political protests in attempt to reform the political system and economic crises from highly inflated currency. These further led to confrontations through violent uses of forces from the authorities resulting in 165 deaths, as Maduro administration was reported to have used lethal force in the crackdowns against protestors and detaining civilians on the street even when there were no demonstrations (“Crackdown on dissent,” 2017). But only if that was not the worse, Maduo's administration has also continued expropriation of business amidst its political crisis by seizing General Motors' production facilities and car stock in April 2017, resulting in a layoff of 2,700 Venezuelan workers (Kurmanaev, 2017). According to the industry group Conindustria, since the socialist regimes of Chavez and Maduro took over the power in 1999, more than 1,400 companies and private assets have been expropriated or nationalized. This policy has been the major contribution to its economic crisis as it discouraged investment from both the domestic and foreign fronts.

Since March 2015, the United States has imposed sanctions on Venezuelan government officials. The targets are individuals who were involved in the violation of Venezuelans' human rights, while citing concerns on Maduro’s effort to escalate intimidation of its political opponents. As of early 2018, the U.S. Treasury has sanctioned a total of forty-four Venezuelan officials. All their assets in the United States are frozen and American businesses are forbidden from working with them.

5.2.2.2 Introducing the petro cryptocurrency (2018)

As Venezuela plunged into widespread crises through worsening development of economic, political and social conditions, new effort was to be implemented in order to attract funding for government's operation. In the late-2017, Maduro's administration presented its white paper on 'Petro' national cryptocurrency.

The cryptocurrency market had widely attracted high level of investment in 2017 as people are being attracted to the newly introduced financial mechanism through blockchain technology, firstly introduced as 'Bitcoin'. Blockchain technology allows the transfer of value and information, without third parties through updating public ledger information.

The mechanism is designed to promote and enhance the decentralization of payment system and reduce transaction cost, its design is ultimately to reduce the role of the Central Bank and state's power in the monetary system, as third party is no longer relevance in the system. The major cause that led to the implementation of blockchain technology was that during the 2008 financial crisis, the Federal Reserve (FED) under the United States' government had decided to bailout the its financial system by spending up to 700 billion USD to supply cash and purchase distressed asset, especially the mortgage-backed securities in effort to assist the troubled banks for both domestic and foreign companies. This led to wide criticisms that sparked anger from the public, resulting in protests across 100 American cities in September 2008. In 2009, Bitcoin was created by an anonymous name titled, Satoshi Nakamoto as a new currency without the need of middle-man to handle financial transactions. But it was in 2017, that this psychological trend had caught widespread interest from many investors, resulting in a drive in price up to over 7,000 USD per 1 BTC. Towards the late-2017, Russia under Vladimir Putin administration agreed to extend the debt payment of 3.15 billion that Venezuela owe over the next ten years with minimal payments in the first six years, while China has ignored further request from Venezuela for new loans (CNN 2017).

Maduro's administration also sought to find new funding from this newly introduced blockchain technology, although its Petro cryptocurrency loosely stated the structure and mechanism in how the new currency would work with its national currency, the Venezuelan Bolivar (VEB). As stated in the released white paper and its official website, Petro will be backed by the abundance of Venezuelan proven crude reserve, thus its price would be determined by the price of Venezuelan oil barrel. But unlike Bitcoin, where supply is generated from reward given to the miners who act as the verifier of financial transaction through computing power, the total of Petro's supply is ultimately pre-mined by the government as an initial coin offering (ICO).

A total of 100 million Petro will be issued. 82.4 million Petro will be floated in the market while the government holds the rest of 17.6% for office responsibility and management cost. The aim is to help Venezuela bypass the United States' sanctions and combat against the depreciation of VEB. Two stages of Petro issuance will be implemented, first is the private pre-sale totaling to 38.4% and another 44% as an ICO. Its reference-selling price is set at 60 USD per 1 coin. Petro can be purchased in United States dollar, Chinese yuan, Turkish lira, euros, Russian roubles, as well as in other cryptocurrencies, including bitcoins, ethereums, or litecoins. However, Petro does not accept its own national currency the Venezuelan bolivar and in March 2018, the United States announced its ban on American citizens from engaging in transactions using the Petro, the Venezuelan oil-indexed digital currency (BBC 2018). In addition, Venezuela's National Assembly also declared its beliefs from lawmakers that the Petro cryptocurrency is unconstitutional and denounced it as a fraud and a threat to those who invest in it. The lawmakers criticized that Petro was a forced demand issued by the government to force business and retirement accounts in accepting the cryptocurrency, while also acts as an alternative way for the government to embezzle fund (CCN 2018).

These reasons led to criticisms and negative reviews on the transparency and ethical issues of the Venezuelan's cryptocurrency. Nonetheless, the initial pre-sale of Petro was claimed by Maduro to have raised 735 million USD in only one day and Maduro further announced the launching of another cryptocurrency, the Petro Gold in February 2018. He did not elaborate much of its detail. The Figure 31 below shows the distribution of funds raised by Petro. Most of the fund distribution will be transferred to Venezuela's sovereign wealth fund, the Fonden. The fund allows the president to spend oil revenue without check and control mechanism. Chavez established the fund since 2005 to allocate the PDVSA's revenue and excess level of international reserve from the Central Bank for his socialist missions. Further details on Fonden are emphasized in the next part, see *Chapter 4.3.3 Venezuela's National Development Fund (Fonden)*.

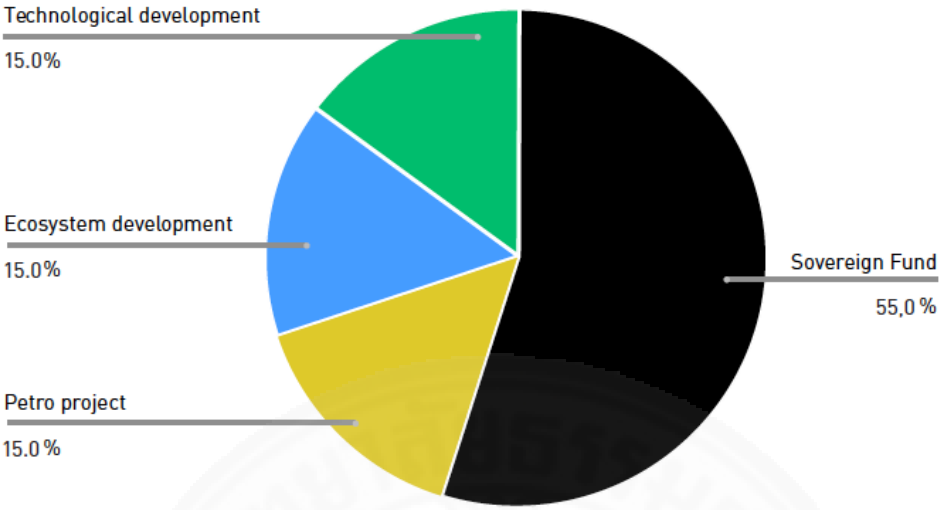


Figure 5.11 *Petro's initial offer fund distribution* Note: Reprinted from Petro's whitepaper, by Government of Venequela, March 2018, p. 18

After observing Maduro's administration, we can see that despite the lacking in similarity of personality and characteristic from previous Hugo Chavez, Nicolas Maduro has continued to pursue in socialist agendas and populist policies exemplified by the previous Chavez administration. Maduro continues to strengthen ties with Cuba, Russia and China, while restraining the relation with the United States who condemned the legitimacy of Maduro's administration and increased sanctions. The issuance of national cryptocurrency that does not allow the purchase through its own currency shows that Maduro targets funding from abroad and the major distribution to sovereign fund allows him to hinder transparent transactions of payment. The secrecy of Venezuelan official statistics also contributed to the soaring inflation.

Venezuela's central bank has steadily stopped releasing its economic data to the IMF since Maduro took power in 2013 but according to the IMF's estimates database, Venezuela's GDP, PPP per capita at the beginning of Maduro's administration in 2013 was at 18,607.46 USD. At the latest figure of his administration in 2017, this figure slumped down to 12,856.96 USD, a 30.9% decrease during his 4-year term as the president of Venezuela so far.

5.2.3 Conclusion

Venezuela is a traditional oil producer since the 1920s, the country has already experienced the Dutch Disease thrice. First was in 1950s, when its agricultural production collapsed. Second was in 1990s, when its industrial production collapsed by half. Third is currently ongoing, which was stemmed from Chavez's overspending social program and politicization of the oil industry. Venezuela's problems in the 2000s are the effect of falling into the Dutch Disease. By 2008, exports of everything but oil collapsed and by 2012, oil export was accounted for 96% of its total export and half of its fiscal revenue.

Chavez's policies have made Venezuela's economy more vulnerable to the changes in oil market and his politicization of institutions has driven the country further into the Dutch Disease. This was firstly done when Chavez fired over 40% of the PDVSA's workers in 2002, mostly high-ranking officials that were dissident with his socialist policies. As the oil industry becomes even more important for Venezuela due to the previous Dutch Disease from 1990s, Chavez's decision to remove its intellectuals from PDVSA positions was proven as an unproductive action. Fortunately for Chavez, during his administration the oil price rose over 100 USD per barrel. This situation has created a strong incentive for Chavez to gain control over the use of this increased revenue for the PDVSA. With Chavez's politicization of the Central Bank and creation of sovereign wealth funds under presidential power, he was able to implement many social programs that are often populistic in nature.

As Chavez gains control over the spending of oil revenue and the saving of international reserve in the Central Bank, mechanism for check and balance in the national account was gone. This led to a missing money totaling to 11 billion USD. The nation-wide expropriation and strong price control have results in a terrible condition for businesses and investment. Maduro, who continue the presidential power has continued Chavez socialist policies but in a very different situation and foundation. Maduro is not charismatic as Chavez and a year after he took the power, oil prices began to collapse in 2014. The centralized of power in financial management of Venezuela has created a corrupted foundation for the system and has been continuing in practice under Maduro. Venezuela is then easily caught by the Dutch Disease symptoms when

oil prices collapsed. Currency heavily depreciates into hyperinflation and the Central Bank has stopped releasing its economic statistics.

5.3 Comparison of sovereign wealth funds

Many literatures on Norway's development model have highlighted on the structure and benefits from its use of sovereign wealth fund (Holden, 2013; Elsgard, 2016). The motives according to Holden 2013, are the increased domestic demand from the oil sector combined with increased public spending led to a rapid rise in the cost level relative to trading partners in the mid-1970s, and a subsequent decline in the traded non-resource sector have become the core idea of the fund. Thus, in 1983 Hermon Skanland, deputy governor of central bank at the time suggested the establishment of a buffer fund, to ensure that the increasing oil revenues would not lead to a corresponding increase in the spending of the oil income (Holden, 2013, p. 9).

When comparing these two mechanisms in how states differently manage their oil revenues, we observed that while Norway advocates its structure on the long-term investment and competitiveness, consequently Venezuela under Chavez has vandalized the mechanism and overlooked the purpose of stabilizing and saving oil revenues. Norway's Government Pension Fund views oil wealth as a transformation of wealth from natural resource to financial wealth, whereas Venezuela sees revenues from oil export as the primary source of budgetary funding.

5.3.1 Norway's government pension fund

With many oil fields constantly discovered, Norway faced with a huge surplus from oil revenues; this led to the creation of the Government Pension Fund Global (GPFG) in 1990, to manage the excess wealth for the future of Norwegians. This wealth is directly transferred from oil taxes, license payments, SDFI and dividends from Statoil. The idea is that as oil will eventually run out in Norway but the return on the fund will still benefit the future generations. As a fiscal policy tool to engage in a long-term management of its oil revenue for future generation, the fund is under the ownership of Norway's Ministry of Finance on behalf of the Norwegian people through the parliament. Norges Bank Investment Management (NBIM) manages the fund with

the principle idea that since oil will eventually run out but the return on the fund will continue to benefit the Norwegian population (National Bank Investment Management (NBIM), 2017). Thus, Norway-model was initiated by viewing oil as a 'bonus' to their economy rather than the primary source of income.

Back in the 1990s the fund was originally called Petroleum Fund but was changed to Pension Fund in 2006 to highlight the key motivation for saving money (Holden, 2013, p. 9). With the lagging oil price in early 1990s, the purposes of investing outside of Norway are to provide currency income from the return on the assets, as well as avoiding increased investments in Norway that may push up the already high production cost level (Elsgard, 2016). Thus, it was decided that all government revenues from the oil sector would be directly transferred to the fund. In case of a budget deficit, the integration between the fund and the budget will automatically deduct the deficit amount from the fund. This structure is designed to prevent politicians from pretending to save the money, while also borrowing finances from elsewhere (Holden, 2013). In addition, the fund could only be used for ordinary government budget and not for financing purposes to prioritize the budget procedure in the parliament.

The fund itself separates into two entities, Government Pension Fund (GPF) Global and Government Pension Fund Norway. The GPF Global invests in equities and assets outside of Norway and is managed by Norges Bank Investment Management (NBIM) as part of Norway's Central Bank under the Ministry of Finance. While the GPF Norway established since the year 1967 as a national insurance fund with smaller size is managed separately from the GPF Global. The GPF Norway limits its investment only in domestic and Scandinavian market, thus becoming the major stock holder in the Oslo Stock Exchange. In this context, we will be emphasizing more details into the strategy of GPF Global as it is the primary channel for Norway's fiscal management of its oil wealth.

The GPF Global's investments can be categorized into three; as of 2017 these are equities (65%), fixed-income (32%) and real estate (2.5%). According to NBIM, the goal is to have well diversified investments that distribute risk and generate the highest possible return; hence Norway is investing globally only in trusted international assets. Government Pension Fund Norway is a much smaller branch that

emphasizes and limits investment only in domestic market; it has become one of the largest shareholders of Norwegian companies.

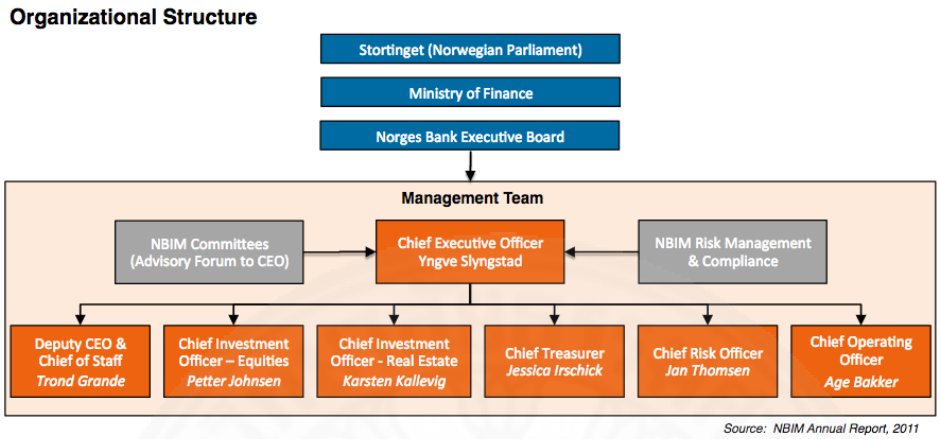


Figure 5.12 Organizational structure of Norway's government pension fund global *Note*: Reprinted from *NBIM annual report, 2011*, by the Sovereign Wealth Fund Initiative, 2012.

Norway's objective and strategy are to achieve at least 4 percent annual return on the fund, while also adopts spending rule that limits the budget withdrawal amount to only 4 percent of the fund value to regularly accumulate oil wealth for future generations. But after the 2017 annual report on long-term perspective, the government stated its intention to reduce the withdrawal rate to 3 percent of the fund's value. To achieve this end, Norway's investment strategies are to

1.) Invest new capital at the lowest cost possible
2.) Maintain the market portfolio cost-effectively
3.) Increase returns through active management
4.) Safeguard assets by promoting good corporate governance standards
5.) Advise the Ministry on the fund's long-term strategy

The goal is to have well diversified investments that distribute risk and generate the highest possible return (NBIM, 2017). Thus, its asset allocation has been distributed differently in three areas, as of March 2018, the allocation was 66.2 percent in equities, 31.2 percent in fixed income and 2.7 percent in unlisted real estate

(NBIM, 2017). These allocations are strictly reviewed by the management mandate under rebalancing rules of the benchmark index. According to Norway's strategic benchmark index, equity portfolio constitutes 62.5 percent while bond portfolio constitutes 37.5 percent, however the ministry has established plan to increase the equities' share up to 70 percent. In the actual benchmark index, stated that if the equity share exceeds 74 percent or is more than four percentage points lower than the weight in the strategic benchmark index then rebalancing shall occur on the last trading day of the following month. This index revealed to us that Norway's GPFG still has room and likely to increase its investment portfolio to equities in the future, but the mechanism maintains that it should not exceed three-fourth ratio of the total allocations.

The GPFG is scored with highest transparency in the world in Linaburg-Maduell Transparency Index, a method in rating transparency of sovereign wealth funds. It publishes lists of all holdings, voting records and issues of tax minimization. The fund market value is constantly updated in real time on the front page of its website and clear accounts are provided to the auditors and authority. Its market value as of May 2018 has reached 8.45 trillion NOK, an equivalent of over 1 trillion USD ranking high as the world's largest sovereign wealth fund. In addition, the fund also operates in concern with ethical guidelines that spanned from competitiveness to human rights and environmental issues. Since November 2017, it has taken more active role in voting on management proposals to bar excessive wage on the top-ranking officials and urge its invested companies to follow transparent and simple pay guidelines (Holter, 2017).

5.3.2 Venezuela's macroeconomic stabilization fund (FEM)

Like Norway and many oil dependent countries, Venezuela also had the vision and experiences with the uses of sovereign wealth funds. Historically, Venezuela used to operate its own Investment Fund from the years 1974 to 1989 but Due to a long held belief among economists and advice from the International Monetary Fund that volatility in oil revenues had, over time, harmed the Venezuelan economy (Paris, 2006, p. 157), the Macroeconomic Stabilization Investment Fund, also known as FIEM in Spanish acronym was established in 1998 to deal with this fluctuation and to provide the Venezuelan Treasury with a steady income from oil taxes. The creation

of the fund was long considered by several administrations before the time of Hugo Chavez (Paris, 2006), its implementation took place during the late second term of Caldera administration, a year later Chavez won the 1998 presidential election, since then much changes to the fund have been made to the extent that its aims have departed significantly from the original.

Unlike Norway's Government Pension Fund that the parliament and Ministry of Finance dictates decisions and ownership of the fund, while allowing the central bank to operate investments, the FIEM's structure and characteristics according to the Decree 2,991 of 4 November 1998 described it as an entity entrusted to the Central Bank. According to Article 1 and 2, the board of the Central Bank was the governing body of the Fund with authority to publish the fund's budget and annual report to Congress, dictate norms of operation, establish investment policies and approve withdraws (Paris, 2006). The criteria of the fund rest upon the term 'excess revenue' to defined amount of oil revenue above the average oil price in the previous five years. With this fund Venezuela is bounded to a simple rule, if the current oil price is higher than the average price within the previous five years, the differences from excess revenue shall be put into the fund, in a way similar to saving account.

According to Paris 2006, before the FIEM states had earmark access to the oil revenues through the Treasury under Ministry of Finance, where it had entitled to a special transfer established in a law passed in 1996 called the 'Law of Special Transfers for States from Mines and Hydrocarbons'. FIEM's Laws had attempted to cover this loophole. Its sources of fund accumulation can be put into three different accounts of oil revenues. According to Article 4, 5 and 6, these are from

1.) Central Government: excess oil revenues from taxation.

2.) States and municipalities: proportion from excess revenue under special transfer law and constitutional provision.

3.) PDVSA: excess revenue after deducting taxes paid to the Treasury.

According to Article 12, deposits to the fund were calculated after taxes were collected. Withdrawals were based on estimates of oil revenues. All withdrawals require positive opinion from both the lower chamber (Deputies) of Congress and the Finance Permanent Committee of the upper chamber (Senate). Both

entities were requested to give their opinion in the following twenty days after the Executive submitted a proposal. In case no opinion was given, it would be assumed favorable (Paris, 2016, p. 168). However, opinion does not mean approval in Venezuela. Even with a negative opinion the withdrawals could have been be made (Paris, 2006, p. 168). Thus, showing the inadequate system of check and balances. Limits were also imposed on both withdrawal and deposit under FIEM Laws Article 15 and 16. Withdrawals were limited to two-thirds of the amount in the fund at the beginning of each fiscal year, whereas the fund's value could not exceed an amount equivalent to eighty percent of the total oil exports in the previous five years (Paris, 2006, p. 168). In case the value reach limit, the excess amount shall be transferred back to the source of beneficiaries.

Since Hugo Chavez took office in February 1999, efforts to curb its laws and regulations have been implemented to distort the structure and eventually depleted the fund. Claims regarding breach in the fund withdrawals have emerged in 2001 and 2002. According to the study done by Paris in 2006, Leyda Betancourt who was the national treasurer, has admitted in acknowledging that Chavez's unique social fund budget appropriation did not receive the corresponding amount it should have received in 2002, the National Assembly ignored to act on these claims (Paris, 2006, p. 181).

Table 5.1

Withdrawals from the FIEM (2001-2003)

(US$ million)

Year	Treasury	States	PDVSA	Total
2001	894			894
2002	965	732	2,173	3,870
2003	51	416	1,372	1,839
Total	1,910	1,148	3,545	6,603
% of available funds	0	99.82%	77.57%	86.54%

Source: BCV

Note: Reprinted from *Institutional failure in Venezuela: The case of spending oil revenues*, by F. E. Paris, 2006.

Despite inadequate transparent system to enforce the FIEM mechanism, the fund's conditions and laws had been applied for savings during the first three-year of Chavez administration, accumulating almost $7 billion USD (Paris, 2006, p. 182). Contributions began to cease in 2001. Both the states and the PDVSA eventually depleted the fund in the following two years. As the Treasury was close to deficit in 2001 due to failure to obtain financing in the debt market, the government decided to withdraw money from the fund for the first time in December 2001 and later on in 2002 and 2003 (Paris, 2006, p. 182). These procedures under Chavez were irregular and denounced by the National Assembly's economic advisor office for exceeding withdrawal limit and lacking opinion from the Finance Permanent Committee (Paris, 2006, p. 182). However, these issues were not officially addressed by any legal entities. The executive also authorized PDVSA's withdrawals in June 2002, insisting on the needs of finance for investment plan. The committee eventually gave the favorable opinions for the PDVSA. By October 2002, despite operating under the period of increasing oil prices for four-year; the fund was already almost depleted (Paris, 2006, p. 183). This was followed by series of FIEM's modification through the National Assembly. In December 2002, the President was authorized to withdraw from the fund with the condition of having a positive opinion from the Finance Permanent Committee. PDVSA could withdrawal without limit. The central government and the states could withdrawal only the excess funds when it reaches capacity. The two-third-withdrawal limit and requirement only for decreased revenues had also been removed in 2003 through the National Assembly (Paris, 2006, p. 183). After its depletion the FIEM was abolished in November 2003.

Chavez however did see the use of wealth fund as a tool for his policy implementation, a new fund similar to previous one called Macroeconomic Stabilization Fund (FEM) was established in 2003. While it preserves the notion for saving revenues from oil export, the law was never implemented in practice. The National Assembly passed new FEM law again in 2005 that reshaped the idea of stabilizing oil income to be based on the concept of fiscal surplus. According to Paris 2006, this surplus is defined as the difference, in real and comparable terms, between total fiscal revenues and public expenditure. As no conditions on the level of public expenditure are set in this law, surpluses were subject to the voluntary restraint from

the Executive branch. This means that the stabilization mechanism has completely disappeared, and it becomes legal to spend any excess oil revenues. The FEM is ranked at the lowest score in Linaburg-Maduell Transparency Index.

5.3.3 Venezuela's national development fund (Fonden)

Before the time of Chavez's socialist administration, the neo-liberal reform was going on in 1992. The Central Bank was granted with greater independence in order to prevent the national monetary institution from financing the government. The former laws since 1982 made it mandatory for oil companies, including the PDVSA to sell foreign currencies' income from oil exports back to the Central Bank (Paris, 2006, p. 248). When Hugo Chavez sought to extract these resources from the central bank, public criticisms towards the Bank emerged and new legislation was materialized. According to the study of Venezuela's institutional failure by Paris in 2006, the National Assembly established new fiscal mechanism known as the National Development Fund (Fonden) in 2005. The Fonden allows the executive to collect oil revenues before they entered the existing taxation-budget procedures, therefore ensuring absolute Presidential control over those resources.

Towards the creation of the Fonden, Chavez had previously tried to modify the Central Bank's regulation to comply with the Fondespa as a permanent mechanism to channel extra oil revenues. However, Chavez's effort since late-2003 was only partially met as the National Assembly already fell under his control of influence; the institutional obstacle still remained with the Central Bank. Taxation and budget procedures forced the channeling oil revenues through bureaucratic processes that prevented his request to immediately use the oil revenues. The creation of Fondespa had further contributed to heighten the tensions between the government and the Central Bank.

This is when the concept of 'excess international reserve' was supported and introduced by President Cabezas of the Finance Permanent Committee in the National Assembly who presented the optimal level of reserves from international cases inspired by the idea that Venezuela had reached the optimal reserve level, thereby using the surplus would cause no harm to the Central Bank (Paris, 2006, p. 264). On July 19, 2005, the National Assembly passed the reform law for the Central Bank

through a simple majority vote, thereby implementing the concept of 'adequate level of international reserves'. Furthermore, the PDVSA's obligation to sell its oil export's income in foreign currency to the Central Bank was relaxed. The reformed law stipulated three new principles for the PDVSA's management. Firstly, is that the PDVSA was forced to sell foreign currency back to the Central Bank only in equivalent to its operating budget and fiscal commitment required in the annual budget, secondly the PDVSA's holding of international reserve was to be limited by the Central Bank's authorization only to cover its operating costs in foreign countries. Lastly, the remaining foreign currency from the PDVSA's export would be transferred to the Fonden.

The National Development Fund (Fonden) was founded as a public company through the Presidential Decree on August 29, 2005. It operates under the Ministry of Finance and the whole Board Members are to be appointed by the President. The initial endowment was 6 billion USD. Its roles regarding investment in real economy are loosely stated but include an article that authorizes the payment of sovereign public debt (Paris, 2006, p. 2xx). Fonden was officially launched and began operation in September 2005, allocating 400 million USD to various infrastructure projects. However, since its creation by the presidential decree, the regulations suggested by the Finance Select Committee of the National Assembly were neglected. These suggestions include a mechanism that allows federal entities participation in the financing programs of the fund, through proposing strategic investment projects for the regions and reporting its activities quarterly to the National Assembly. None of these were implemented or formally regulated since its foundation.

Table 5.2

Fonden's allocation in 2005 and 2006

Allocated to project	Us$ million
Environment	34.12
Defence	200.00
Energy and Oil	1,685.60
Mining	131.43
Infrastructure	1,820.72
Reduction of Public Debt	1,000.00
Agriculture and land reform	218.00
Public housing	226.00
Steel mill	1,837.00
Aluminium plant	210.00
Timber	687.00
Mission Barrio Adentro (phase III)	449.00
Cement Plant (joint venture with Iran)	221.00
Social security Fund	1,000.00
Total	**9,719.87**

Source: Ministry of Finance (Annual Report 2005); Transcripts of 'Alo Presidente' by Minci; Deputy Rodrigo Cabezas (President of Finance Select Committee of the National Assembly).

Note**:** Reprinted from *Institutional failure in Venezuela: The case of spending oil revenues*, by F. E. Paris, 2006, p. 274.

The funding from Fonden was ultimately spent by various governmental agencies similar to the Congress' funding but without the requirement of approval. Fonden's allocation is ultimately determined by President's approval and its board member, who were handpicked by Chavez himself.

According to Reuter's special report in 2012, the fund did not finance the purchase of buildings, vehicles or shares in companies. However, by 2010, it had spent nearly 700 million USD to buy shares in a retailer and two cement-makers ordered by Chavez's administration. Reuter further reported that Fonden has set aside 46 million USD to for an embassy in Moscow and 19 million USD to acquire a fleet of busses for use during the 2007 America's Cup soccer championships. According to the leaked internal report, Fonden has allocated 10 million USD to the presidential office and financing joint projects with Cuba, allocating up to 6.1 billion USD without revealing the detail of the projects. Fonden as of 2018, remains a channel for Venezuela to allocate its spending of oil revenue and has been reported in use for procuring arms trade from Russia and many infrastructure projects that did not come into existence (Toro, 2011).

5.3.4 Conclusion

Both countries use sovereign wealth fund as the mean to manage their oil revenues. However, the two is largely different in context and practices. Norway's wealth fund of the GPFG views oil revenue as pension, investment capital and funds for future generations. Whereas, Venezuela's wealth fund of the Fonden views oil revenue as the source of social program funding that allow Chavez and Maduro to retain their political support. It is also criticized as being a tool for them to embezzle funds.

Norway-model of the GPFG sets on the idea of saving and investment with very high transparency. The withdrawal limit of 4% and later 3% from the fund's annual return means that the more you export oil, the more you save. The mechanism of petroleum buffer portfolio (PBP) allows the Norges Bank to efficiently collect the oil taxes, while acting as internal foreign exchange that keeps the balance of international reserve in check. The long-term investment strategy of the GPFG transferred the risk from volatility of oil market into the growth of global economy. These strategies have prevented Norway from falling into the Dutch Disease.

Venezuela-model of the Fonden sets on the idea of 'excess international reserve' without regulations on the withdrawal limitation and power centralization under the president. This led Venezuela to constantly overspend and has been adjusting proportion of their budgets according to the oil price. The Fonden and politicization of the Central Bank allows Venezuelan government to overspend, extract foreign reserve and embezzle its oil revenue. This directly contributes to the symptom for the Dutch Disease. For Venezuela to have any real future with the management of oil wealth, it needs to abandon the Fonden or regulate its mechanism with more concreate investment goals and transparency.

5.4 Oil and foreign policy of Norway and Venezuela

After reviewing both Norway and Venezuela's oil management from 2000 to 2018, observations revealed that the strategies taken toward their spending of oil revenue also resemble foreign relations of the two oil exporting countries. This chapter will emphasize in details of what are the different incentives and motivations behind the different standings of Norway and Venezuela on the world stage.

5.4.1 Norway's status-seeking for international standing

Norway has long pursued in an active foreign policy, several scholars such as Carvalho, Neumann, Wohlforth and Leira have cited Norway for seeking to elevate its standing among the international system's small powers and middle powers to earn recognition from the great powers. It has become a member of over 70 international organizations worldwide in many areas and played an active role as a third-party mediator in several international conflicts such as those in Palestine, Guatemala and Bosnia. The major organizations that Norway participates are the NATO and the EU, although not a full membership of the EU, Norway has joined the EEA and the Schengen agreement.

However, Norway has long taken its position in non-interference with OPEC, despite being occasionally invited to join the meetings as an observer. Norway has declined OPEC invitation in 2016 meeting, stating that they were aware of the invitation but would not take part ("Norway says," 2016). Even if Norway wanted to join OPEC, it would unlikely qualify all the prerequisites as it does not fundamentally share similar interests with other OPEC members, as Norway is a member of OECD and NATO, which is considered as both political and economic ally of the United States, whom pursue in contrary international oil market position against OPEC's countries like Saudi Arabia and Venezuela.

Norway has been pursuing in state's devise strategy in investment diversification through its wealth fund, by joining OPEC, it would have to comply with OPEC's production quota and lose its full sovereignty over natural resources management. Nonetheless, Norway is still able to enjoy overall benefit from OPEC's effort to increase oil price through production quota. Despite not being in OPEC, Norway pursued its standing on global energy issue through membership of International Energy Agency (IEA), which established since 1974 to collectively respond against oil supply disruptions and ensure reliable, affordable and clean energy. However, the most direct Norwegian's foreign policy effort that associated with its petroleum sector rests upon the Oil for Development (OfD) program under the supervision of Norad. The OfD globally promotes responsible management of petroleum resources in four major areas. These are environmental protection,

transparency in revenue management, local participation in decision-making process and labors' rights (“Oil for development,” 2017). According to Norad, the OfD has thus far cooperated with 12 countries namely Angola, Cuba, Ghana, Iraq, Kenya, Lebanon, Mozambique, Myanmar, South Sudan, Sudan, Tanzania and Uganda.

Their works range from the basis of petroleum resource's foundation by providing capacity development related to the policies and the legal framework governing the petroleum sector, including the transparency and accountability of the authorities. The Norwegian officials provide comments and assistance to other countries in the design of oil extraction through giving advices on how revenues could be managed without causing macro-economic instability and “crowding out” other industries (“Oil for development,” 2017). All of these funding applications come with required ethical and audit guidelines written by Norad.

The OfD programs serve as Norway's exporting channel of its knowledge in institutional management. In addition to the promotion of greater transparent and sustainable framework, Norway will also able to gain better and updated insight information regarding the natural resources' opportunities from the applicant's countries, this in turn allow Norway to devise a more sounding investment strategy for both Statoil and the GPFG. Norway's status-seeking for international standing therefore allowed it to accumulate trust, credibility and reputation in the global development areas, which reflected into its own 'soft power' through the global demand of the 'Norwegian-model'. Norway's oil revenue management itself requires constant assessment for long-term investment in equities through the GPFG, by exporting its management style and sound policies will further ensure the stability of business operations and open new opportunities for Statoil itself to invest or be notified of potential competitors or acquisitions in different regions around the world.

Norway has also proved that to become successful in development of the oil industry, state does not always require participation with the OPEC. By not taking part in OPEC combined with its flexible model in oil revenue management, Norway can devise its oil strategies and management more efficiently according to different situations in the market. It could position itself as a reservoir in supplying crude oil whenever OPEC decides to fall short of its production without violating rules or agreements with other countries. Through the GPFG, Norway could also act as an

investor that redistributes funding to other growing sector against the downfall of the petroleum industry such as renewable energy.

5.4.2 Venezuela's oil, a geopolitical weapon

Venezuela on the other hand has been a key player of OPEC since its foundation. However, according to the study by F.E. Paris on Venezuela's institutional failure, evidences pointed that adhering to OPEC's production guidelines and lack of investment due to state's hunger for fiscal revenue has brought less benefits from the oil industry than it could have done (Paris, 2006). During the era of Venezuela under socialism led by Hugo Chavez from the year 2000, Chavez's first foreign policy was to revive the prospects of OPEC through high oil prices. Chavez often uses international platform like OPEC as an instrument to assert his opposition against the United States. His policy was to use the OPEC's influence in oil prices as geopolitical leverage on global politics. Chavez once made a strong statement at OPEC conference concerning his views and position within OPEC.

> *"If the United States attempts the madness of invading Iran or attacking Venezuela again, the price of oil is probably going to reach $200, not just $100,"* and
>
> *"We are witnessing constant threats against Iran. I think OPEC should strengthen itself in this capacity and demand respect for the sovereignty of our nations, if the developed world wants a guaranteed supply of oil*" ("At OPEC summit," n.d.).

Venezuela during Chavez adhered tightly to OPEC's production quota, although there were some occasions that production exceeded the limits ("Factbox," 2012). As Venezuela's relation with the United States further deteriorated after failed coup to overthrow Chavez's administration during 2002 and 2003, Chavez chose to cement strong ties with Cuba, Iran, Russia and China in effort to rebalance the geopolitical power. These efforts can be seen from Chavez visits to Iran and Russia in 2001 and Cuba-Venezuelan agreement in late-2004 that resulted in the formation of ALBA. Through ALBA, Chavez initiated PetroCaribe to provide preferential oil payment system for his allies in the Latin America in order to forge regional economic

coalition against the American free trade agreement. This policy revealed to us that Chavez was ready to use Venezuela's oil resource as a gambling stake in opposing the American influence in Venezuela and the region overall. Initial Chavez's attempt to build concrete alliance with Russia was also not in shape until 2005 when Russia signed contract to sell 100,000 Kalashnikov rifles to Venezuela. Russia would later become the major arms exporter to Venezuela from equipment parts to fighter jets and attack helicopter, in replacement of the United States. Ties with Iran were strengthened through common stances against the American imperialism and common front through OPEC, as they recalled. As of 2014, Venezuela and Iran had signed 265 agreements alongside with 58 projects in the industrial, environmental, agricultural, commercial, educational, sports, housing, cultural, energy and scientific and technology areas.

By using oil, as a geopolitical weapon against the United States, Venezuela needed to seek other importer in order to leverage different sources of funding, the answer to this was China. Venezuela's ties with China were strengthened through financial aspect emphasized in 2007 when the two governments signed 11 bilateral agreements, resulting in the creation of China-Venezuela Joint Fund administered by China Development Bank (CDB). The initial endowment from China was 6 billion USD; in return Venezuela agreed to send over 600,000 barrels of oil to China. After the 2008 financial crisis, the joint fund gained rapid expansion, as the Chinese government becomes an alternative to the developing world for financing in replacement of the Western banks. Chavez signed a series of energy cooperation with China in September 2008 and later in February 2009, when Xi Jinping made his visit to Venezuela. China signed agreement to double the fund up to 20 billion USD, due in 10 years through oil export from the PDVSA to CNUOC, a subsidiary of Chinese state-owned CNPC. Since 2007, China has lent more than 50 billion USD to Venezuela, becoming its biggest creditor and important trading partner.

However, the efficiency of using oil as a geopolitical weapon against the United States relies on two major components, which are the higher oil prices and continuation of the United States' dependency on Venezuelan oil export, both of which did not last very long. As shown in the below Figure 35 and Figure 36, the United States' import share of Venezuela's petroleum products has been in declining rate since 2006, while China has been increasing its import share to almost 1 million barrels per

day. Chavez's opposition against the United States, implementation of socialist agendas, oil-for-loan with China and increased oil production in the United States has contributed to this decline. In addition, the socialist revolution since the latter time of Chavez administration has not resulted positively to the economy, as nationalization and expropriation discouraged investment in the oil industry. In 2014 and 2015, Venezuela was reported to have fallen short on its oil export to China and missed a debt payment, as oil prices plunged to 50 USD per barrel. China's return from its investment now becomes a strategic gamble that depends on Venezuela's policy under Maduro administration. As of March 2018, Reuters reported that Venezuela still owes China about 19.3 billion USD.

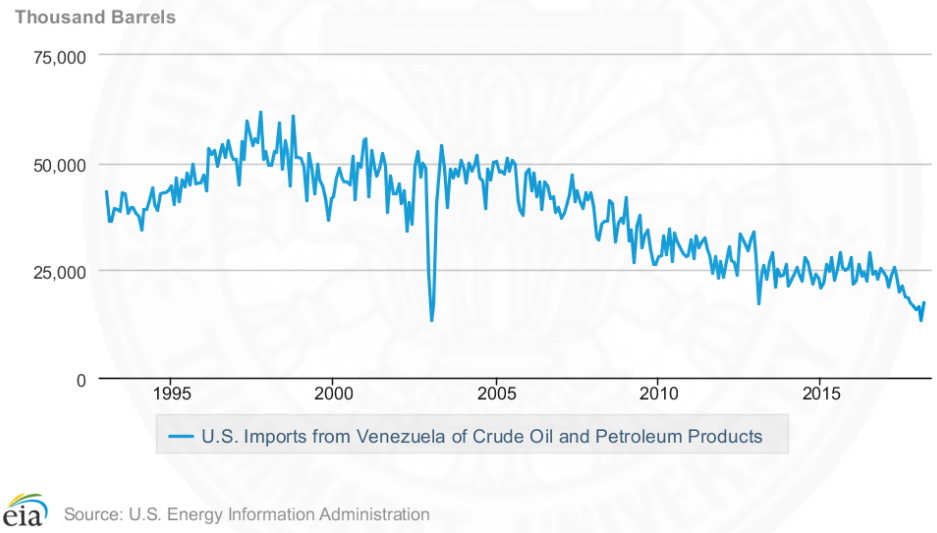


Figure 5.13 *United States' import of Venezuelan petroleum (1993 - 2018).* Reprinted from "U.S. import from Venezuela of crude oil and petroleum products," by the U.S. Energy Information Administration, 2018.

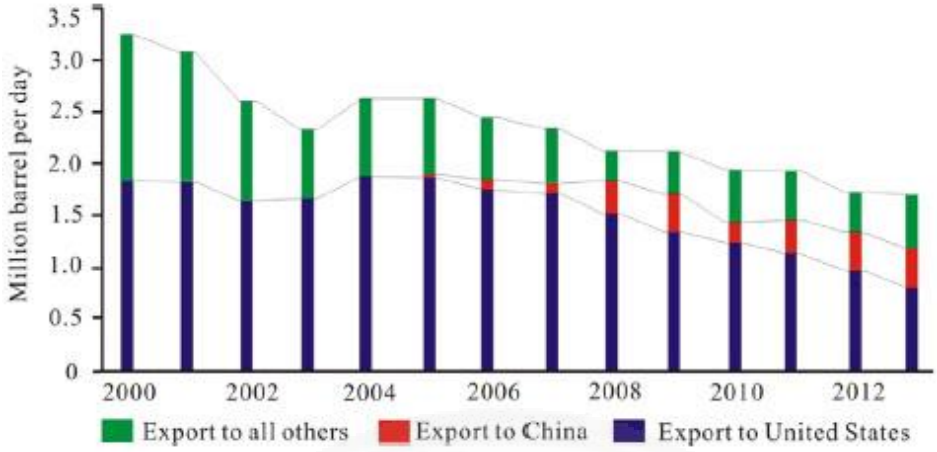


Figure 5.14 *Venezuela's oil export to China and the United States (2000 – 2012)*
Note: Reprinted from *Sino-Venezuelan oil-for-loan deal*, by Q. Wang & R. Li, 2016.

After Chavez's death in 2013, Venezuela under new President Nicolas Maduro faced a huge budget deficit and the PDVSA could not afford to continue pumping oil and pay maintenance as they lack enough budget (Viscidi, 2016).

5.4.3 Conclusion

The case of Venezuela has shown us that by combining oil management with politic and ideological differences, Chavez's government has bet its rich supply of natural resource as a stake against the success in maintaining global energy security. While the oil prices boom from 2000 to 2013 to over 100 USD per barrel, Venezuela used this period to quadruple its total external debt from 28.5 billion USD to 108.66 billion USD. Debt crises are now one of Venezuela's economic problems as of 2018.

Using oil as a geopolitical weapon show that it would eventually yield in negative outcome on the economy in long-term perspective as the invention and implementation of new technologies emerge not only to increase oil production capacity but also aim to secure the demand of energy consumption in part of national security. This can be clearly observed from the rising oil production of the United States that results in OPEC's struggle to maintain its market share to continue its previous game in geopolitical dominance from the petroleum sector.

5.5 Comparison of fiscal rules and taxation

This part reviews the main context of Norway and Venezuela fiscal rules from notable literatures and EY Global Oil and Gas Tax Guide 2017 to comparatively analyze their incentives, which reflected in the foreign direct investments figures.

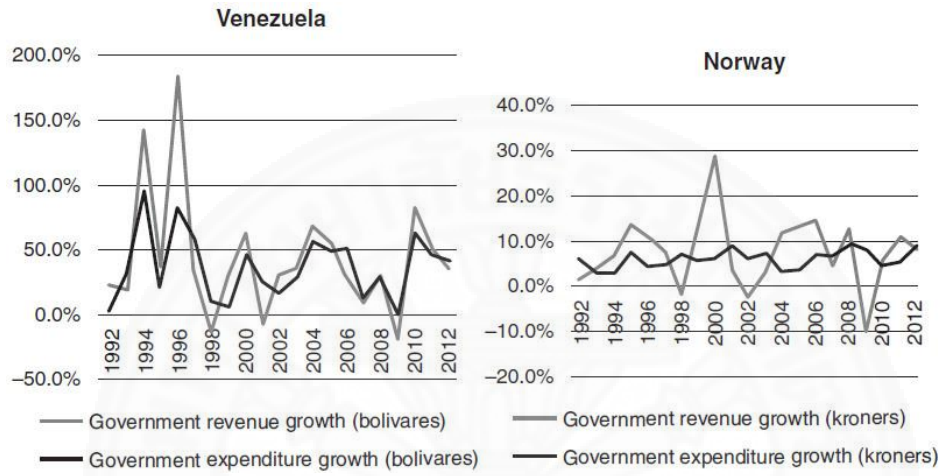


Figure 5.15 *Pro-cyclical and counter-cyclical spending of Venezuela and Norway (1992 - 2012).* Reprinted from *Global energy and development,* by Baurer & Quiroz, p. 247.

5.5.1 Fiscal rules

Oil companies usually have more knowledge regarding the value of oil resource, geological expertise and terms of international contracts, which resulted in strong bargaining position when compare to governments (Humphreys, Sachs, & Stiglitz, 2007). In addition, the effects of volatile oil prices also lead to unpredictable oil exporting countries' revenue, which makes long-term budget planning more difficult. From the Figure 37 above, Venezuela has shown a case of pro-cyclical spending, whereas Norway shows a case of counter-cyclical spending. A pro-cyclical spending strongly relies on the price cycle of the oil market, that led Venezuela to engaged in wasteful spending when oil prices are high and take painful budget cut when oil prices are low. Thereby, as an oil exporting country, the example of Norway is noteworthy of following as the counter-cyclical spending helps stabilize the revenue volatility and prevent the government from over borrowing which could ultimately lead to debt crises and bankruptcy in the long term.

According to the Norges Bank, Norway's fiscal rule states that over time, the structural non-oil deficit on the central government budget shall not exceed the real return on the capital in the GPFG, which is estimated at 4 percent (lowered to 3 percent after 2017). Norway's spending of oil revenue come from three sources according to its mechanism. These are oil taxes and dividend from Equinor in NOK, SDFI's revenues in foreign currency and transfer of foreign currency from the GPFG. The funding from the SDFI and GPFG has to go through an ongoing basis via a foreign exchange portfolio in Norges Bank called the "Petroleum Buffer Portfolio" (PBP). The PBP allows Norway's foreign exchange transactions to be smoothed over time despite fluctuation from oil taxes, SDFI's revenues and changes in monthly transfers to the GPFG (“Norges Bank’s,” 2018). As shown in the below Figure 38, Norway's cash flow mechanism helps covering the exceeded non-oil budget deficit through a transfer of foreign exchange from the GPFG when oil price plunged in 2015. Norges Bank then sold all the revenue in foreign currency from both the SDFI and the GPFG to help finance the non-oil budget deficit.

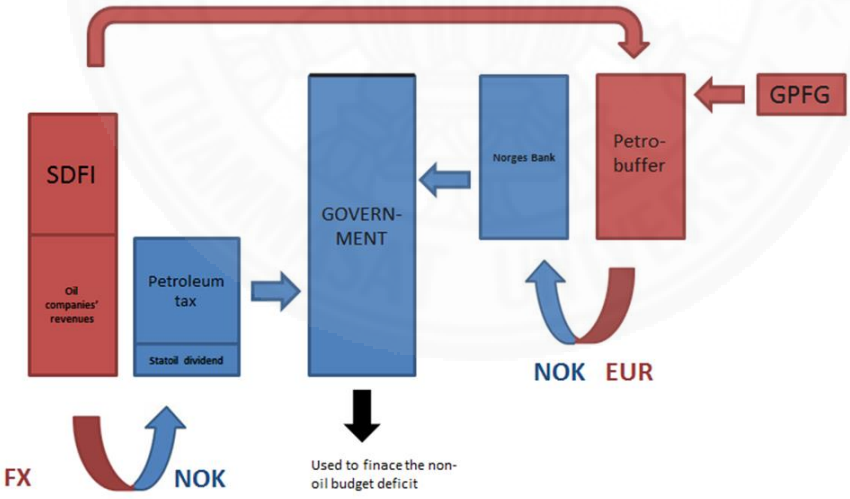


Figure 5.18 *The government’s revenues in NOK and foreign currency* from “Norges Bank's foreign exchange transactions with the government pension fund global,” by Norges Bank, 2018. When Norway's oil revenues in NOK and foreign currency are lower than non-oil budget deficit, Norges Bank buys NOK and foreign currency from the SDFI and GPFG through PBP.

The PBP's mechanism helps Norway combat budget deficit occurred from the decrease in oil prices in 2015 and allows its oil industry to expand with less concern on the changes of real effective exchange rate, which could lead to both appreciation and inflation from the Dutch Disease. This is because the PBP serves as a system for check and balances of capital inflow and outflow (into the budget) from both state's oil revenue from the SDFI and investment's return from the GPFG.

Venezuela on the other hand, mismanages its oil revenue from the PDVSA through the Fonden, which is loosely regulated and does not disclose its distribution to the public. Fonden, while operating as a public company under the Ministry of Finance with board members handpicked by the president has the power to limit the PDVSA's holding of foreign reserve for its operational cost. The rest of the PDVSA's revenue in foreign currency would be transferred to the Fonden itself. The loose mechanism of Fonden allows the executive branch of Venezuela to extract the revenue in foreign currency into public spending without check and balance. This means Venezuela's monetary supply of the Bolivar is not systematically backed by international reserve in its Central Bank because a portion of incoming oil revenue in foreign currency can be immediately disburse through Fonden. When large budget deficit and debts come to due in 2017, Venezuela was reported to be printing more of Bolivar to cover these expenses (“Money Printing,” 2017). The Fonden's mechanism has contributed to the depreciation of Venezuelan Bolivar, which resulted in a hyperinflation and shortages of basic goods as the country mainly rely on imports of these products from abroad.

5.5.2 Taxation

According to Section 1 of Norwegian Petroleum Act, companies that involve in oil extraction activities in Norway are subjected to a marginal tax rate of 78% on net operating profits gained from extractive activities. These are separated into 24% as corporate income tax and 54% on resource rent tax. As an incentive in case losses occur, Norwegian Ministry of Finance allows losses to be carried indefinitely for offshore activity at 0.8% rate. Value of tax losses may be refunded for losses incurred from year 2002 and extraction activities from year 2005. Thus, investors are guaranteed full tax deduction or refund for all the costs incurred. Regardless of whether drilling is

successful or not, tax value of exploration expenses for each year can be refunded except for financing cost ("Tax guide," 2017). This participation in tax regime' incentives have transformed state of Norway to become a shareholder for each extractive activity and opened up opportunities for third parties to fund exploration activities.

Venezuela's taxation in oil industry consists of a combination of corporate income tax, royalty tax, indirect taxes and special contributions. According to the Master Hydrocarbons Law 2006, upstream activities are reserved for the state to perform directly or through state-owned enterprise, the PDVSA. Upstream is referred to the supply exploration and production activities in oil and gas industry. Although, oil activities could be invested through joint venture with the PDVSA, the condition is that the state owns more than 50% share to qualify it as state-own enterprise. A joint venture is subjected to a 50% corporate income tax on net annual profits from both Venezuelan and foreign sources of income. A royalty, the payment to an owner for the use of property in Venezuela is set to 30% of the extracted crude; however, this can be reduced to 20% if it is proven that the oil field is not economically exploitable. Operating under losses may be carried forward for three years with no carryback or refund. The purchase and sale of currency in Venezuela is under tight control system centralized by the Central Bank of Venezuela, thereby, limiting foreign currency trade and business transactions in Venezuela ("Tax guide," 2017).

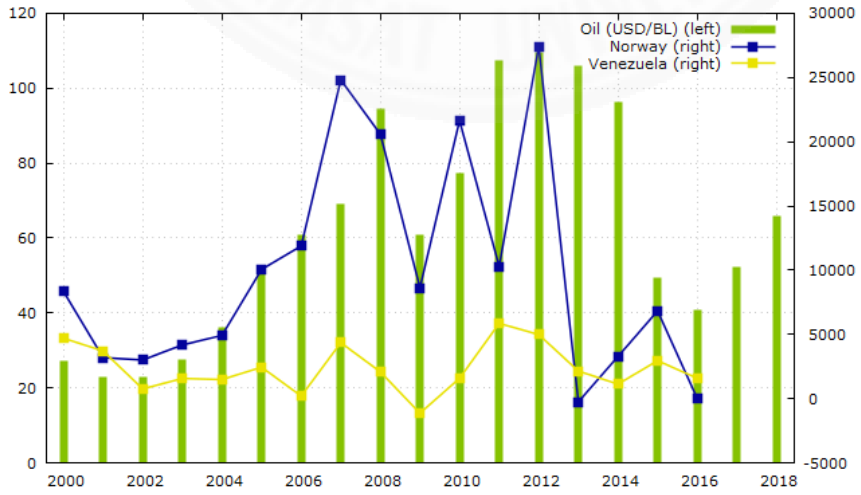


Figure 5.19 *FDI, net inflows in million USD against oil prices* Adapted from the World Bank and OPEC, 2018.

5.5.3 Conclusion

From two different fiscal regimes, we can observe that although Norway collects high level of tax that incurred from oil activities, it also provides significant refund measures as an incentive for investors to pursue in exploration, thereby promoting competitive opportunities in risk assessment for oil industry through sharing state's responsibility as the coordinator alongside the projects. Norway keeping a large tax base has also allowed for extra security in the case of oil downturns and has arguably kept the electorate more determined to hold their governments accountable (Havro & Santiso 2008). On the other hand, Venezuela has provided lesser incentives and pursued unfriendly policy towards both domestic and foreign investor. By reserving these activities only for the state and conducting constant nationalization and expropriation of assets, investors are driven away from the country. In contrast to its need, as Venezuela's most of its crude supply in the Orinoco Belt is heavy thick grade, thereby requiring high level of investment for technology and operations. While Norway advocates on the competitiveness, transparency and decentralized fiscal regime, Venezuela has widely incorporated socialist agendas to all its industries with authoritarian state-centric and centralized fiscal regime. Different rules and agendas thereby yielded different economic growth outcomes from the development in their oil industries. As shown in Figure 39, while Chavez was busy suppressing his opposition in 2002 and pursued expropriation of business entities through the entire period of his administration, Norway's design of high taxes with refund incentive have highly attracted foreign investment five-time difference when comparing to Venezuela.

CHAPTER 6
RECOMMENDATION AND CONCLUSION

6.1 Policy recommendation

This last chapter gathers important findings from the model and policy reviews of Norway and Venezuela to form a policy recommendation for Venezuela and other troubled oil exporting countries in general. The context will largely emphasize on the mistakes that Venezuela had taken in the mismanagement of its oil resource, while providing recommendation based on the lesson learned from Norway-model of oil and fiscal management. In combination with the empirical findings from the OLS model, that suggests the Dutch Disease plays the most important role regarding the oil curse, the context will also integrate key elements of the Dutch Disease mechanism into the basis of recommendation.

6.1.1 Strategies in escaping the oil curse

Crude oil is non-renewable resource, which means that the wealth from exporting it will also contain the same trait. To export the crude oil is to transfer the amount of proven reserves into liquidity of wealth. In term of the oil wealth's characteristic, the transfer process acts similarly to a liquidation of long-term asset. This is because the amount of proven crude reserves could not be realized in a short span of time. To be able to realize this asset, states and companies are required to participate in a long-term project that cover three business chains before the substance is ready serve the demand. These include the upstream, midstream and downstream businesses, all of which require a long period of time and different kind of investment and strategies for each level of the chains. In addition, it is crucial for states to understand the qualities of crude oil that can be described in terms of *sweetness* and *heaviness*. Sweetness of oil refers to the lesser amount of sulfur within oil that requires less process and is more valuable. Heaviness of oil refers to its density, which has more unwanted chemicals that must be refined out. Most of Norwegian oils are light but require higher cost due

to the difficulties in offshore activity. Most of Venezuelan oils are heavy crude that require water separation and other chemicals to process the crude.

The two core prerequisites for troubled oil-exporting states to escape the oil curse is to firstly acknowledge that both the value of crude oil and national currency are subjected to the volatility from the international market and global financial system. Secondly, by spending oil wealth is ultimately equals to liquidating a certain amount of national asset. Crude oil is treated as a commodity, which means it is a basic good that can be widely used, everyone needs it. However, after oil is consumed, the substance turned into energy for various kinds of operations and cannot be renewed or reused in any other way. This means that the value is lost within business operations after being consumed, unlike precious metals or currency that still holds its value even after using, unless you print too many papers without foreign reserve backing in the bank.

To escape the oil curse, states need to reassess the perception of the oil wealth. Because oil wealth requires a long period of time for projects to extract, market and export, thus states need to plan its oil management in the long term. The aim is for oil exporting state to prevent falling into Dutch Disease by gaining *absorptive capacity* (NRGI, 2015, p. 3), which is made of two elements. Zahra and George conceptualized these elements into

1.) Capability to identify and acquire externally generated knowledge that is critical to conduct oil operations.
2.) Routines and regulations that allow states to analyze process, interpret and understand the information obtained from external sources.

To achieve the first element, states require a strong and flexible human capital, which is a long-term process that can be gained from investment in education, research and development. Chavez's decision to put his consolidation of power over the PDVSA's intellectuals and human capital in 2002 was a mistake because it encouraged human capital flight to find more stable jobs abroad as they became unemployed, while directly undermining the true efficiency of Venezuelan population. To regain the capability in identifying and acquiring the generated knowledge is to allocate funding for education and restore reliability in the private sector development.

The first 5-year goal for Venezuela and other troubled oil exporting states is to be able to efficiently extract their crude reserves under their domestic capacity to decrease the operating cost as low as possible. To improve Venezuela's funding for oil production, government should sell some stakes of the PDVSA to investors for funding, while retaining at least 60 percent of the PDVSA' shares. The potential candidate is the highest creditor, the CNPC a state-owned company of China. This is due to the highest amount of external debt Venezuela owed to China from the oil-for-loan deal that is increasingly prone to default as Venezuela could not afford to refine the heavy thick crude into product. By allowing investors to participate in the production scheme, the PDVSA would be able to gain investment required in boosting its oil production capacity.

As for Venezuela's shortage of basic goods and oil smuggling problems, the first initiative that the government should take is to stop the price subsidization measures. Venezuela has been pursuing in import substitution and expropriation, while relying on oil export to drive its growth, this must be stopped. As price control has contributed to the expansion of black market transactions and ruins the functioning of overall market as businesses are forced to sell at a lost.

Venezuela's major problem is that the current government does not see and accept the failing market consequences from the socialist agendas, since it has been branding the idea of revolution from the beginning of Chavez's administration. Results are that population could not gain access to cash as the official rate is highly different than those traded in the black market and supply is limited, which becomes an obstacle to public consumption. This is the stake that Maduro's administration is facing, as the regime's most important concern is its survival. Furthermore, the government should recreate a strong incentive for private non-traditional sector development in line with its restoration of oil production, to prevent another Dutch Disease. Corporate income tax should be reduced to promote this effort. Incentives should firstly be focused on the agriculture sector through farm usages in land redistribution and support in establishing agriculture cooperatives. As property's value in Venezuela fall, it is the Venezuelans themselves that must display the true value of the lands.

Regarding Venezuela's hyperinflation problem, the first and foremost thing that the government must do is to release its economic statistics to the IMF. Ever since the government stopped releasing its statistic in 2013, Venezuela has begun

experiencing sharp increases in its real effective exchange rate in the following year, as shown in Figure 40 below. This is because an already inflated currency in the latter time of Chavez's administration was further accelerated by fears and distrust from the lack of official statistics and slump in oil prices.

Venezuela has two options, first is that it should totally disband the pegged-rate system, as the problem of hyperinflation was stemmed from government interference in politicizing the Central Bank, which resulted in a mechanism that allows the executive branch to exploit the spending of oil revenue in foreign currency from the PDVSA. In addition, monetary reforms introduced by both Chavez and Maduro to reduce three zeroes from the nominated original currency did not yield successful result in combating inflation and further discredited the national finance institution. Venezuela should introduce new reform for the monetary system to become floated because the USD-pegged system consistently requires certain amount of foreign reserves in the Central Bank. In combination, it should stop printing more money, begin saving more Bolivar and regulate other foreign exchanges besides the government, as it would directly address the issue of black market transactions and restore confidence in the currency's value in the short term.

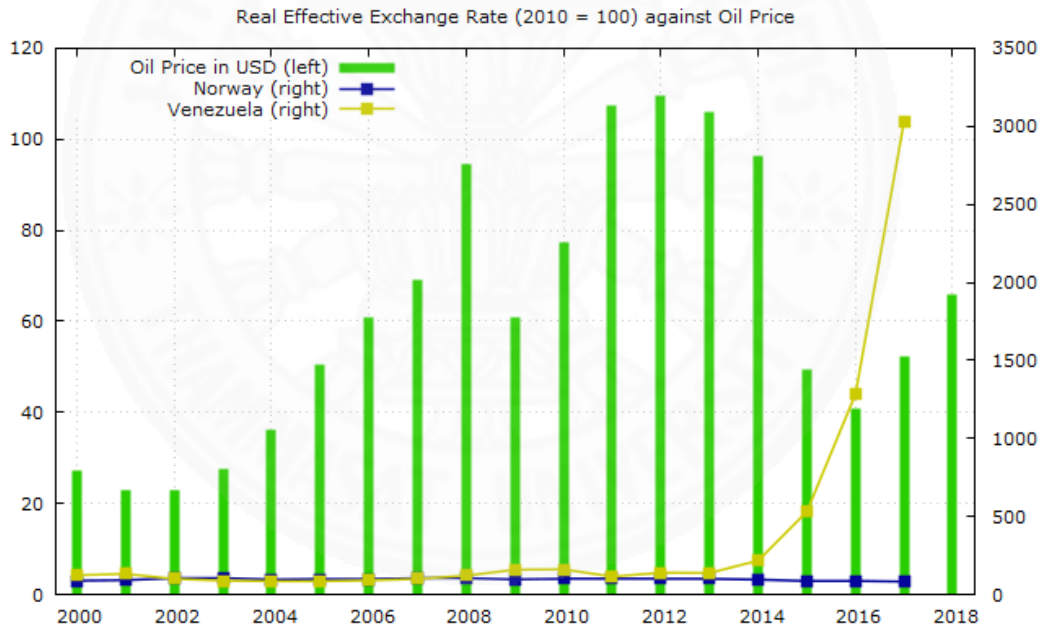
The second option is to temporality adopt other currency; amongst the potential candidates are the USD and RMB. Although, this option may not sound politically feasible for Maduro as it requires abandoning the financial identity of Venezuela. The measure is economically practical to enhance better flows of trade and investment. Like it or not, the United States is accounted for about half of Venezuela's total export, this is the fact that the government should be reminded in each policy it will be taking. The Chinese RMB is also a viable option, as China is the highest creditor of Venezuela and has already established a joint fund with some portion, injected as Chinese RMB. By adopting and backing the RMB in foreign reserve, Venezuela could negotiate better terms with China, attracts more Chinese investment and export more efficiently to China, to counter-balance the trade reliance with the United States. The goal for this option is to stabilize the currency value in domestic trading to promote real consumption as soon as possible.

Lastly and the most importantly, Venezuela must reform its institution, especially the mechanism of oil revenue spending through the Fonden. To

restore confidence and truly promote transparency as stated in 'Petro' whitepaper, The Fonden must be regulated and its distribution of expenditure must be disclosed to the public. The aim is to achieve the second element of absorptive capacity through reforming regulations that allow states to analyze process, interpret and understand the information obtained from external sources. Fonden should publish its own annual report and distribute some proportion for the PDVSA's investment and equity investment, like Norway's GPFG. In fact, all of Venezuela's saving from oil export should be reinvested in equities that do not relate with petroleum sector, to diversify risk away from the volatility of oil price in the market.

Figure 6.1

Real effective exchange rate of Norway and Venezuela (2000 – 2017).



Note: “Real effective exchange rate (200 = 100) against oil price,” by Bruegel, year.

6.2 Concluding remark

From the observations of regression results and comparative analyses on Norway and Venezuela’s oil management. The study pointed out that the Dutch Disease symptoms indicate the most crucial factors upon the oil exporting countries' economic

growth, while the other oil curse mechanisms partially show some signs of relationship. Both the real effective exchange rates and FDI have shown the highest significant levels in all models. Therefore, these two factors must constantly be monitored and reassess by the government. As when the oil price booms, currency tends to appreciate but, on the reverse, if states have already fallen to the symptoms the result when oil prices bust, and slump down is that the currency would become largely depreciated and lead to inflation as Venezuela has shown.

Despite, rejecting the institution and rent-seeking mechanisms, the main context is of incentives and institutions are still relevant for oil exporting states to be concerned. As from the qualitative review of Norway's oil management, we can see that institutions have played an important role in preventing the country to rely too much on oil export. Norway diversifies the risk generated by volatility of oil prices by transforming the oil wealth into company's stocks and bonds around the world. Norway achieved this through efficient management of its administrative reform that distributes different roles to many different institutions. All these institutions are connected and coordinated through Oil for Development program under the Norad. The clear distribution of roles and responsibility has allowed Norway to maintain the balance of decision making power within its administration.

Norway has shown us the management model sample in how considering oil revenues as transformation of wealth could save the eventuality of impact from fluctuations in the oil market. As it has essentially emphasized in the matter of competency and long-term saving. While states might also be able to implement other kind of alternatives, the uses of sovereign wealth funds serve as a decent example to combat the rising inflation. Venezuela on the other hand did not take much consideration in the importance of investment idea into its wealth fund, as the result it has turned state’s efficient tool into distortion mechanism of its fiscal policy by constantly adjusting its rules, with so much oil Venezuela had ignored the idea in how its economy should be sustained without income from crude oil. Thus, this has eventually led to its failure in oil management and the results are clearly shown from its rising hyperinflation when the oil prices began to tumble down.

When new technology in extracting oil supply through hydraulic fracturing has been widely implemented, the international oil market began to shift the leverage

in favor for the United States, who prefers to see lower oil prices as it consumes the highest oil resource in the world. OPEC's efficiency is becoming more problematic as prices continue to stagnate since 2015, its core idea of benefiting the interest of member states through increase in price and decrease in production may not always be a sounding choice to every country. This is because it set limits on state's capacity to take profit during certain period. Venezuela must learn by now that relying the country's future on higher oil price through OPEC's market dominance is outdated as fracturing technology has become widely used by the United States, the superpower aims to restore its self-dependent on energy. Lastly, states with rich oil resource should see the wealth from oil export as a bonus, instead of applying it into full traditional sector. From both Norway and Venezuela's experiences, the key lesson learned is that oil is a gift that can be both a blessing and a curse, all of which depends on those in powers whether they understand how to be blessed by the gift.

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