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THE POLITICAL ECONOMY OF TATMADAW:

Are Natural Resources A Barrier To An Economic Transition In Myanmar?

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Abstract

Myanmar’s economic freedom is ranked the lowest amongst ASEAN countries. Thus its GDP per capita is one of the lowest too. The low rank of the economic freedom highlights the fact that Myanmar’s economy is interfered with by the military regime – also called Tatmadaw. The question “Why is Tatmadaw reluctant to fully liberalize Myanmar economy even though it is a *sine qua non* to achieving economic growth and prosperity?” needs to be analyzed in order to understand Tatmadaw’s intervention in the economy. The research questions of this thesis are: “Are natural resources a barrier to an economic transition in Myanmar?” and “How does Tatmadaw control natural resources?” The hypotheses I test here are: (1) “The abundance of natural resources is a barrier and not an incentive to economic transition towards prosperous entrepreneurial society.” (2) “Natural resources are an important factor enabling Tatmadaw to demobilize ethnic armed groups by granting business concessions that become a part of a continued military power-game.” (3) “Natural resources partially trigger and fuel civil war between Tatmadaw and ethnic armed groups due to contesting resource grabs.” And (4) “China’s resource hunger is conducive to Tatmadaw to exploit natural resources”. In my analysis, all these hypotheses prove to be consistent with empirical observations.

Abstrakt

Myanmar’s economic freedom is ranked the lowest amongst ASEAN countries. Thus its GDP per capita is one of the lowest too. The low rank of the economic freedom highlights the fact that Myanmar’s economy is interfered with by the military regime – also called Tatmadaw. The question “Why is Tatmadaw reluctant to fully liberalize Myanmar economy even though it is a *sine qua non* to achieving economic growth and prosperity?” needs to be

analyzed in order to understand Tatmadaw's intervention in the economy. The research questions of this thesis are: "Are natural resources a barrier to an economic transition in Myanmar?" and "How does Tatmadaw control natural resources?" The hypotheses I test here are: (1) "The abundance of natural resources is a barrier and not an incentive to economic transition towards prosperous entrepreneurial society." (2) "Natural resources are an important factor enabling Tatmadaw to demobilize ethnic armed groups by granting business concessions that become a part of a continued military power-game." (3) "Natural resources partially trigger and fuel civil war between Tatmadaw and ethnic armed groups due to contesting resource grabs." And (4) "China's resource hunger is conducive to Tatmadaw to exploit natural resources". In my analysis, all these hypotheses prove to be consistent with empirical observations.

Klíčová slova

Myanmar, Tatmadaw, Economy, Free Market Economy, Economic Freedom, Natural Resources, China.

Keywords

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Range of thesis: 121,486 characters, 70 pages

Declaration of Authorship

1. The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.
2. The author hereby declares that all the sources and literature used have been properly cited.
3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague 10 May 2018

Lanung Tu Kumbun

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Topic characteristics / Research Question(s):

The paper aims to achieve the positive impacts of the free market system in Myanmar economy in which the absence of the military regime (Tatmadaw) intervention in the state’s economy. Myanmar economy, enterprises, and markets have been centrally managed by Tatmadaw for many decades. The centrally planned market economy gives no space for individuals to pursue their self-interests and benefit from the invisible hand of the market. The inspiration for the paper is that the economy works without any interference so that the country will be prosperous and the level of poverty can be curtailed.

The objectives of the paper are to reduce the degree of military intervention in the state’s economy by analyzing a barrier to the economic transition. Another objective is to give the possible solution to eliminate the level of intervention in the economy by evaluating the degrees of interference of the military in the state economy which induces the absence of invisible hand mechanism and how it creates the market failures. The paper also tries to address the problem of interference of military in the economy by laying down the possible solutions.

The paper fleshes out the core concept of the free market economy or an invisible hand of the market and how it affects individuals and society. The paper addresses the following research questions: “Are natural resources a barrier to an economic transition in Myanmar?” and “How does Tatmadaw control natural resources in Myanmar?”

Working hypotheses:

The hypotheses of the paper are;

- (1) “The abundance of natural resources is a barrier and not an incentive to economic transition towards prosperous entrepreneurial society.”
- (2) “Natural resources are an important tool of the military in Myanmar to demobilize ethnic armed groups by granting business concessions that become a part of a continued military power-game.”
- (3) “Natural resources partially trigger and fuel to civil war between the military and ethnic armed groups due to contesting resource grabs.” and
- (4) “China’s resource hunger is conducive to the military to exploit natural resources”.

Methodology:

This thesis employs a single-case study on the natural resource extraction. The methodology involves a descriptive analysis of the military’s involvement in extracting natural resources to capture the volume of military’s participation in the economy.

The thesis will use “narratives” by deploying simple data. The policy part of this thesis will be prescriptive and partially normative: pointing out “what should be done” in order to satisfy some objectives. The research relies on sources such as research papers from the Global Witness reports, National Resource Governance Institute's reports, the Union of Myanmar Economic Holdings Limited (UMEHL) Director’s Report and other. The data from these reports are used to substantiate the outcome of Myanmar economy where Tatmadaw interferes with it.

The thesis also uses economic data—such as gross domestic product (GDP), exports and imports, and taxes —generated by institutions such as the World Bank, the International Monetary Fund (IMF), and the Asian Development Bank (ADB). The thesis also employs the comparative method to capture the differentiation between Myanmar and its neighboring peers on economic freedom and its outcome by studying different indexes such as Index of Economic Freedom, GDP per capita indicator and corruption perception index and so on.

Outline:

Chapter 1: Introduction

Chapter 2: Literature Review

Chapter 3: A Brief History of Myanmar Economy

Chapter 4: Analytical Framework

Chapter 5: Methodology

Chapter 6: Natural Resources

Chapter 7: Purposes and Consequences of Resource Control

Chapter 8: Possible Solutions

Chapter 9: Conclusion

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List of Acronyms

ASEAN	Association of Southeast Asian Nations
BGF	Border Guard Force
DKBA	Democratic Karen Buddhist Army
DSI	Defense Services Institute
EIA	Environmental Investment Agency
EITI	Extractive Industries Transparency Initiative
IMF	International Monetary Fund
KIA	Kachin Independence Army
KIO	Kachin Independence Organization
KNU	Karen National Union
MEC	Myanmar Economic Corporation
NCA	Nationwide Ceasefire Agreement
NLD	National League for Democracy
NMSP	New Mon State Party
PNO	Pa-O National Organization
RCSS	Restoration Council of Shan State
SLORC	State Law and Order Restoration Council
UMEHL	Union of Myanmar Economic Holdings Limited
USDP	Union Solidarity and Development Party
UWSA	United Wa State Army

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Chapter 1: Introduction

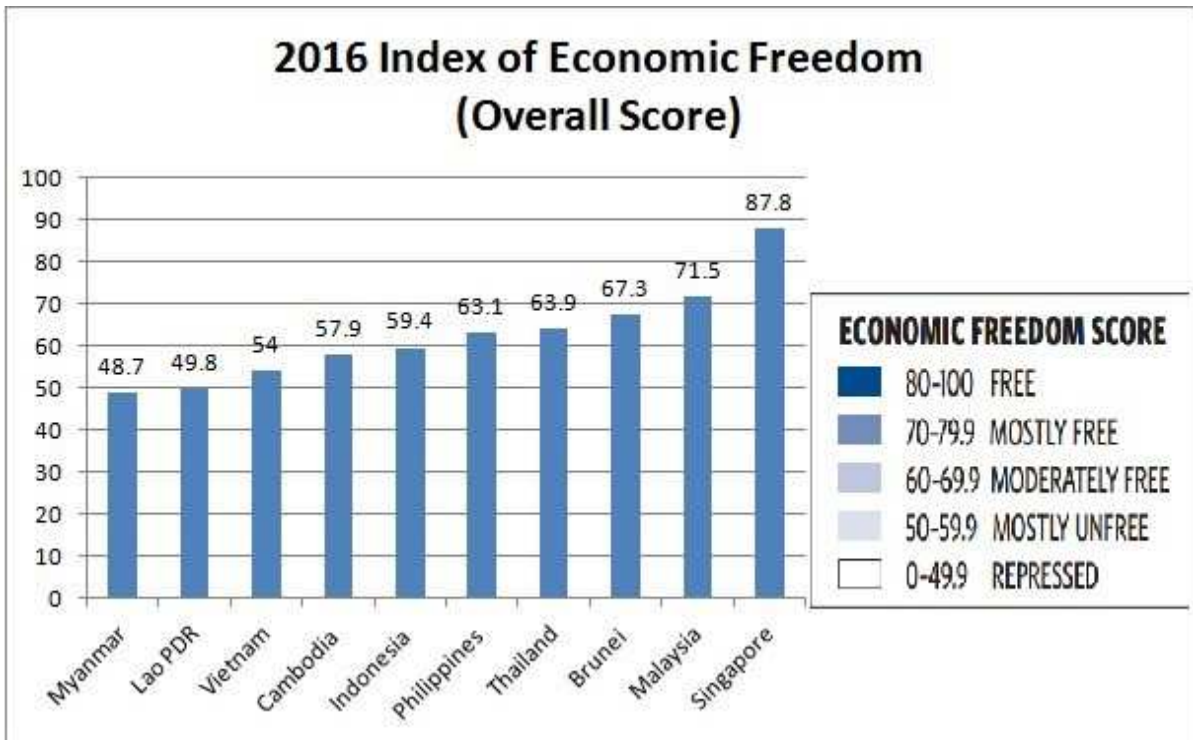
Myanmar military, *Tatmadaw*¹, paved the way for the quasi-democratic system as the military dictator as a guardianship, after several years of direct military rule. In November 2010, Myanmar military junta held the general elections and handed over the political power to the military-backed the Union Solidarity and Development Party (USDP) led by the former military general Thein Sein.

Under the military handpicked President Thein Sein's leadership, Myanmar garnered international trust that invited the international capital to the country. Many multinational corporations such as mobile companies like Norwegian Telenor and UAE Orredoo, multiple giants companies came to invest in several economic zones. After five years of President Thein Sein tenure, some minor economic reforms have been done. For example, the government reduced the general export tax from 7% to 2%, and the tax levied on remittances of foreign earnings from 10% to 2% (Turnell, 2011, p.161).

In April 2016, the National League for Democracy (NLD) led by Nobel Peace Laureate Aung San Suu Kyi government took over the power from the USDP government via the 2015 general elections. The international community, particularly the West bloc appreciated democracy icon Aung San Suu Kyi as her government had launched economic and political reforms. International organizations such as IMF and World Bank alike and many other countries helped Myanmar by pouring foreign aid, technical assistance, investments and loans, and writing off arrears which have led an increase in Myanmar GDP growth. Moreover, Myanmar citizens' high expectation was put on Aung San Suu Kyi's government, hoping Myanmar's economic and political transition would be faster under the civilian government.

Although Myanmar embarks on the path to an economic growth under the NLD-led civilian government, the country's economic freedom still ranks the lowest amongst its peer countries. According to the 2016 Index of Economic Freedom (Figure 1) ranked by the Heritage Foundation, Myanmar was ranked the lowest amongst ASEAN countries and ranked 158 out of 178 countries stranded in the category of trailing "Repressed" countries (Miller et al., 2016).

¹ In this thesis, the military regime and *Tatmadaw* will be interchangeably used.

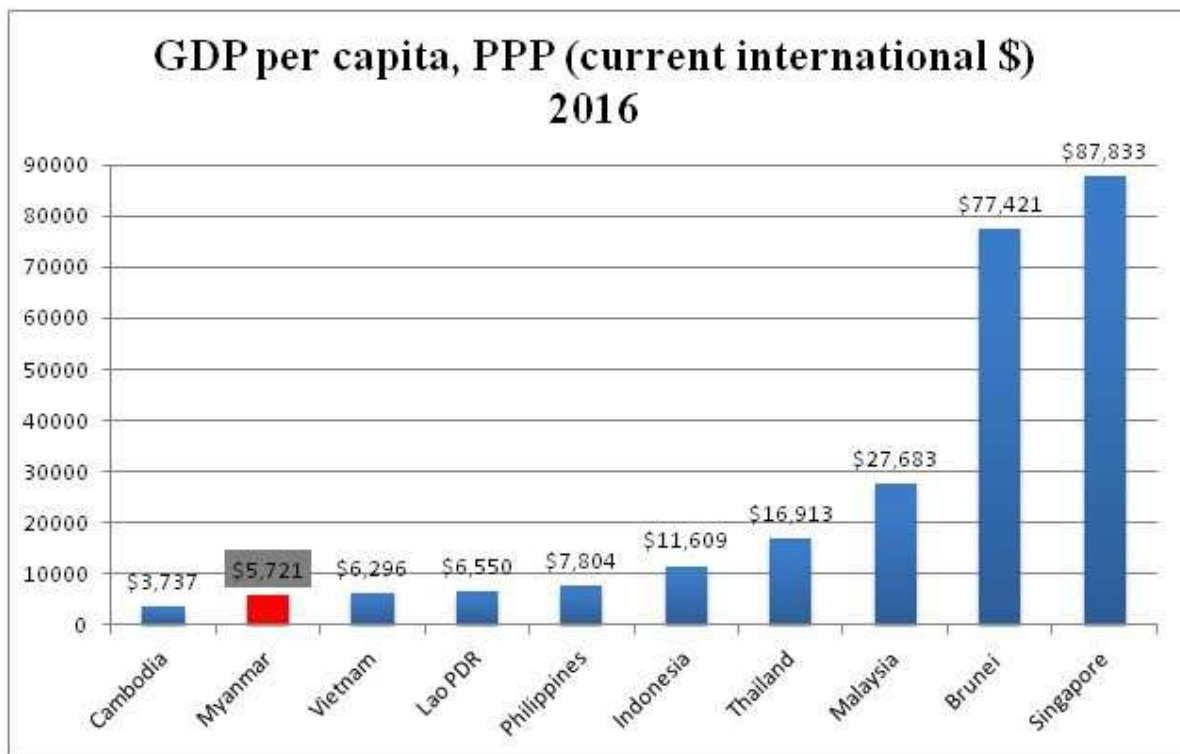
Figure 1: 2016 Index of Economic Freedom

Source: Miller et al., 2016/ Heritage Foundation

The colloquially accepted perspective, the economic freedom and the GDP per capita are correlated. It is undeniable that the higher economic freedom the country has, the higher GDP per capita it holds. In the other words, the lower economic freedom the country has, the lower GDP per capita it holds. This assumption is somewhat proved by Myanmar.

As mentioned above (Figure 1), Myanmar was ranked the lowest economic freedom amongst ASEAN countries. This lesser economic freedom has led Myanmar towards a lower GDP per capita. According to the World Bank, Myanmar's GDP per capita was \$ 5721 at purchasing power parity (PPP) in 2016. By comparison with the same ASEAN countries, Myanmar's GDP per capita is the second lowest, only ahead of Cambodia (Figure 2).

Figure 2: 2016 ASEAN's GDP per capita, PPP (current international \$)



Source: World Bank

Myanmar lacks economic freedom and the interference of the military regime in the economy still prevails. These ranks of economic freedom and GDP per capita (Figure 1 and 2) give us more visibility of the military regime's involvement in the economy. Although the military regime has handed over the political power to the civilian government, it still takes participation in the economy. The military regime has not given up their control not only over the politics but also on the economy.

The question: "Why does the military regime reluctant to fully liberalize Myanmar economy though it is a *sine qua non* to fully liberalize the economy to achieve economic growth and individual prosperity?" echoes us to find an answer for this question. Simultaneously, the question: "what is a barrier to economic transition or what makes the military regime not to give up their control over the economy?" needs to be analyzed to find an answer. In fact, Myanmar needs an economic transition from military's intervention to a free market system in order to achieve the benefits of individuals' self-interest and society as a whole.

Thus, the thesis asks the research questions: “Are natural resources a barrier to an economic transition in Myanmar? How does Tatmadaw control natural resources in Myanmar?”

In order to support the research questions, four hypotheses will be tested in this thesis. These hypotheses are;

1. “The abundance of natural resources is a barrier and not an incentive to economic transition towards prosperous entrepreneurial society in Myanmar.” The abundance of natural resources enables Tatmadaw to remain in the economy without substantial reforms at the grassroots of the economic system that would modify the entrepreneurial incentive schemes of economic agents and change the quality in the private ownership of businesses. This is because the revenues from resource extraction can be easily expropriated within a narrow group of political insiders (oligarchs) and spent in their political purposes, which in turn, facilitate Tatmadaw to remain in the economy even longer and with a boosted strength.
2. “Natural resources are a typical tool of Tatmadaw to demobilize ethnic armed groups by granting business concessions that become a part of a continued power-game, which crowd out the need of economic reforms and market-driven social development.” The military has used the natural resource as a ceasefire capitalism² to mitigate conflict, demobilize groups, build political coalitions as business concessions to the ethnic armed groups to transform Border Guard Force (BFP), militias and sign ceasefire agreements.
3. “Natural resources partially trigger and fuel to civil war between Tatmadaw and ethnic armed groups due to contesting resource grabs.” Control and competition for natural resources are conducive to the cause of ethnic conflict. The military regime and ethnic armed groups – the groups that have not yet signed any ceasefire agreements bilaterally or collectively – have sporadic clashes due to the controlling the resource-rich territories.
4. “China’s resource hunger is conducive to Tatmadaw to exploit natural resources. China is the main importer of Myanmar’s natural resources and its resource need for the project of the One Belt & One Road initiative and for bringing prosperity to the millions of populations of Yunnan and Sichuan provinces, China.

² The term “Ceasefire Capitalism” is coined by Kevin Woods who has decades-long observed the socio-political and economic changes in Myanmar. The metaphor of ceasefire capitalism comes from the military’s strategy for a ceasefire to cease conflict and stabilize the territories or peripheries in Myanmar.

The thesis aims to understand the political economy of the Tatmadaw and analyze whether natural resources play a major role in keeping Tatmadaw in the state's economy and, with it, the whole country. It attempts to give possible solutions to reduce the military's grasp in the natural resource and liberalize the economy from the military's dominance in the state's economy.

Following chapter 1: the introduction; I will discuss the fundamental economic notions – the concept of free market system, the features of centrally planned economy and the meaning of transition – to capture the objective of the thesis in Chapter 2.

In Chapter 3, a brief history of Myanmar's economy follows. In this chapter, I analyze the features of central planning that is how the successive military regime has manipulated the state's economy.

Turning to Chapter 4, I provide the analytical framework for hypotheses of the thesis. In this section, I draw attention to numerous academic papers, in which their authors have discussed the intricate functioning of resource abundance which is a major incentive for the reform capture by elites, military and political power holders in Myanmar.

In Chapter 5, I discuss the methodology, source criticism and scope and limitation of research. In this section, I explain the methodological approach to the thesis and the limits of resources to support the hypotheses and the scope of the research areas.

Looking next at Chapter 6, I examine the sectors of natural resources in order to understand the natural resources become a major incentive for the military regime. In this section, I focus on three main sectors – Gems, Oil and Gas, and Timber – of natural resources. In Chapter 7, I will answer the hypotheses by giving the consequences of resource grab which in turn negatively affected the economy. Moreover, the thesis will analyze the natural resource sectors in which the military regime has manipulated for their interest, political purpose and power-game.

In Chapter 8, I will discuss the possible solutions of reducing the grasp of Tatmadaw in natural resource, which in turn, would help to enfranchise the economy from the military dominance of the state's economy and politics.

Lastly, in Chapter 9, the thesis concludes with a brief summary of the findings of the thesis and gives the recommendation for further studies.

Chapter 2: Literature Review

As the thesis aims to have the free market system in Myanmar economy, it is important to situate the concept and features of the free market system within the wider literature to understand how the market works and the country is prosperous.

2.2. Free Market System

The free market system is the basic idea of individual freedom to pursue his or her interest without any interference from the government. Baker (2005, p.201) defines the free market system as “free trade, free currency convertibility, free movement of capital.” Li (2002, p. 13) also states that “A free market system knits together all economic activities through the movement of prices, wages, costs, and rates of return. The government functions primarily as a facilitator in the economy.” According to Schumpeter (1976), competitive free markets are an institutional setup which allows the entrepreneurs to achieve the optimal allocation of all economic resources and thus bring an optimal pace of economic development.

Adam Smith uses the term “invisible hand” to refer to the free market system as a metaphor. His claim is that not only individuals accumulate benefits through free exchanges but the society also benefits as well. The individuals’ strive to seek their benefits through voluntary trading in the market. Smith stated in his classic book *The Wealth of Nations* that:

“He will be more likely to prevail if he can interest their self-love in his favor, and show them that it is for their own advantage to do for him what he requires of them... By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it” (Smith, 1776, p.594).

Individuals’ efforts to ensure their own well-being makes the whole society better off through the invisible hand of the market.

In a free market system, the role of government is not to control the market, but to act as a referee to ensure the competition and fairness. The government should be similar to a referee in a soccer match so as to play a fair game. For example, a soccer game in which twenty-two players from both sides compete with each other is controlled by a referee to play fairly. Individual players’ strivings to win the game engenders the victory of the whole team.

Friedman (1955) also states that the government’s primary role is to preserve the rules of the game by preventing coercion, enforcing contracts, and keeping markets free.

In *The Theory of Moral Sentiments*, Smith stated that “In the race for wealth, and honors, and preferment, he may run as hard as he can, and strain every nerve and every muscle, in order to outstrip all his competitors. But if he should jostle, or throw down any of them, the indulgence of the spectators is entirely at an end. It is a violation of fair play, which they cannot admit of” (Haakonssen, 2002, p.97).

It is inevitable that the countries with the free market economy backed by the entrepreneurial exercise of private property rights are visibly more prosperous than the countries without it. In essence, the countries where individuals are free to pursue their interests grow the productivity and gain prosperity faster than the countries where the government controls the economy.

According to 2017 Index of Economic Freedom – a report made by Miller and Kim (2017), a country with higher economic freedom has higher GDP per capita whereas a country with lower economic freedom has lower GDP per capita (Figure 3).

Figure 3: Economic Freedom and GDP per capita



Source: Miller and Kim (2017)/ Heritage Foundation

By looking at this chart, it is important to see that countries that have higher economic freedom generate higher GDP per capita, which in turn makes the country more prosperous.

2.1. Centrally Planned Economy

The theory of the centrally planned economy is typically ideologically defended in most socialist and communist countries, though not practiced by all of them. It is also a common feature of the totalitarian (political) control of the society or of military dictatorships, such as used to be in the Nazi Germany or Khmer Rouge Communism. The system of the centrally planned economy (or command economy, which we could use as a synonym) is the one in which higher authorities supervise individual firms what to produce and how to allocate resources (Grossman, 1963, p.104).

These firms are not authentic private firms (although they could be legally declared as such) because their decision-making is not independent and guided by market forces. Also, their profits cannot be claimed exclusively by private owners. In essence, the central government has high control not only over the macro-economy but also over the micro-economy and its decision-making ranging from printing money down to firm's production structure, choice of production techniques, allocation of resources and its price setting.

The centrally planned economy in its theoretical extreme allows no private decision making in the market and it brings the operations of economic markets up to a halt (Otteson, 2014, p.23). It may do this either by owning the means of production outright or by a policy of dirigisme that centrally controls the use and activity of nominally private property. Authorities implement dirigisme but support the ruling elites or cronies for their interest. Individual competitions are absent and the whole economy is manipulated by the central planners. To capture this feature, Newman (2005, pp.2-3) states that “socialists have always rejected views that stress individual self-interest and competition as the *sole* motivating factors of human behavior in all societies and at all times. They have regarded this perspective as the *product* of a particular kind of society, rather than an ineradicable *fact* about human beings.”

The centrally planned economy is infamous for its lack of decentralized decisions in economic activities. The theory of the centrally planned economy or command economy was defended and practiced by the socialist countries. For example, the Union of Soviet Socialist Republics (USSR) practiced the “real socialism”, i.e. a nationally-specific form of the centrally planned economy (Grossman, 1963). We can hardly say that there existed some ideal form of the central planning since such completely centralized system of governance by direct command was hardly achievable in reality even of the times of Soviet War

Communism (1918-21) or during the War Economy (1941-45). Even in these days, it was the private initiative, independent of the central command that helped the system survive.

Mau (2013, p.90) highlights that “The principal goal of enterprises did not increase the productivity of labor, but the fulfillment and over-fulfillment of their centrally planned targets.” Economic agents (households and enterprises) had highly distorted incentive to save or to invest. Growth was obtained by extra-economic methods of exogenous command, practically coercion, including the use of force. The plan was handed down by some higher power that was deemed to be capable of managing everything.

To capture the element of the centrally planned economy in Myanmar, I will prove the feature of the centrally planned economy in Chapter 3: A Brief History of Myanmar Economy, by analyzing the military’s interference there. This also explains how the free market system has been paralyzed in the Myanmar economy.

2.2. Transition

The thesis aims to transform the Myanmar economy from the military’s intervention to the free market system. Another aspect is to consider if the economic transition can be done independently of the political transition to deeper parliamentary democracy. Thus, in order for Myanmar to achieve the free market system, the economy needs to pass the process of transition.

When a word “transition” comes out, it can be understood that the process of transiting from one situation to another and its meaning and aims may differ for different individuals and countries. Havrylyshyn (2013, p.59) states that for those of the former communist countries, the transition was seen as a way to defeat the stagnant economic conditions of the socialist world; and for those who are from dictatorship rule, the transition may be viewed as to defect regimes so as to get democratic institutions, personal freedom, religious freedom and economic freedom. However, economists focus on a market economy with private ownership, achieving market rules and attaining efficiency when the word ‘transition’ comes out.

I here want to stress the meaning of transition as a specific case on Myanmar as a process of military’s interference in the economy and how it can be transformed into the free market system. To capture the completion of the transition, Svejnar (1999, p.77) argues that two conditions must hold. These two are:

a) Central planning is abolished and no longer serves as the allocational and the distributional mechanism in the economy, and,

b) Central planning and direct government intervention are replaced by ‘an efficiently functioning market system’. The transition economies generate relatively rapid and sustainable rates of economic growth and become compatible with advanced market economies in the sense that neither side requires major protection through subsidies or barriers against trade, capital flows, and labor mobility. The crucial institutional assumption is that it is the entrepreneur (instead of bureaucrats) who becomes the dominant economic agent. This strikes the distinction between state capitalism and entrepreneurial capitalism.

Many countries have passed the process of transition to achieve a free market system in different ways. Thus, Myanmar needs to pass this process to gain economic freedom so that individuals and society will be prosperous and the country will gain the economic growth and prosperity.

Chapter 3: A Brief History of Myanmar Economy: *The Features of Central Planning*

The Myanmar economy can be divided into four periodic phrases – Golden Age, Socialist Era, Military Dictatorship and Semi-Democratic Era.

3.1. Golden Age (1948 – 1962)

Myanmar gained independence from British colony on January 4, 1948. In April 1948, Myanmar’s newborn government announced a two-year economic plan “an enunciation of the economic aspirations and of the economic principles to guide the process of advancement” (Than, 2007, p.54; Tun, 1960, p.492).

Many understand the socialist era as General Ne Win’s the Burmese Way to Socialism after building his political power through the military coup in 1962. However, the ideology of socialism started even before. Silverstein (1977, p.151) stated that “Socialism has been the goal of every government in Burma since independence.”

Under the ideology of socialism, the Myanmar economy was centrally planned by the state. In 1950, the government attempted to control the strategic sectors such as the state’s

rice export and foreign exchange by nationalizing and restricting upon them (Than, 2007). In 1952, the government launched Pyidawtha (Eight- Year Plan) to establish a democratic welfare state via a state-led strategy of “big push” and improve the standard of living of its citizens (ibid, pp.54-55).

While the government paved the way for the feature of the centrally planned economy, the military started ‘rubbing salt into the wound’ in the Myanmar economy. The military started its participation in the economy by establishing the Defense Services Institute (DSI) in 1951 so as to provide the welfare to service personnel and their families and advance the military’s political agenda (Myoe, 2009, p.174). The military-controlled DSI expanded its involvement in the business sectors by diversifying into retail and wholesale trade, services, banking, shipping, manufacturing, and publishing (ibid; Than, 2007, p.57). Its businesses were successful due to its special status under the Special Company Act of 1950 and became the largest business conglomerate in Myanmar by the late 1950s (ibid).

Yet the military regime took participation in the economy, the government practiced its partially unfettered economic policies that the private sector was invited to invest in a wide range of economic activities and the government gave guarantees against expropriation for at least ten years (Than, 2007, p.56). In the 1950s, the agriculture was a major production in Myanmar and the state focused on rice production. Rice production under the parliamentary government generated a huge surplus for export leading to investments in processing infrastructure and industry developments which supported the rice industry as well as mining and timber industries already dominated by foreign business interests.

Myanmar was thus in its “golden age” in terms of its economic productivity, though there was government control over and military participation in the economy (Kyi, et al., 2000, p.3).

3.2. Socialist Era (1962 – 1988)

The Myanmar economy was said to be spoiled under the socialist era and initiated the end of the invisible hand mechanism. General Ne Win who was the Commander-in-Chief of Myanmar Force, controlled the power through a military coup on 2 March 1962 (Taylor, 2015, p.255).

After taking the political power, General Ne Win’s new government— the Burmese Way to Socialism—nationalized all economic assets and expropriated private industries and

businesses. Under Gen. Ne Win government, the military was required to refrain from directly engaging in commercial activities. It, however, continued on a very small scale, in order to fulfill the welfare needs of soldiers and their families (Myoe, 2009, p.175).

Under Gen. Ne Win's government, the country faced a disparage situation in numerous sectors such as education or health, as well as in the standards of living and economy. Taylor also argued that "the autarkic economic policies of that period, as well as a strictly neutralist foreign policy, led to Burma's inability to keep pace with the economic development of its neighbors in South East Asia" (1998, p.7).

Furthermore, the Ne Win's government faced political measure by ethnic insurgencies and the rise of the communist group – Communist Party of Burma (CPB), across the Sino-Myanmar border. The military often had to fight and push those groups toward further peripheries. Diverse ethnic insurgencies and CPB controlled much of the borderlands and the army was left with insufficient resources to fight and wipe out (Bunte, 2017; Smith, 1999).

In 1987, Gen. Ne Win's government devalued Myanmar's currency 25, 35 and 75 kyat bank notes without warning or compensation, so as to stop inflation and put an end to the black market activities, (Bunte, 2017, p.99). This devaluation rendered more than 70 percent of the country's currency worthless (ibid). Furthermore, the currency crisis and economic downturn due to further economic mismanagement led massive student demonstration across the country in 1988. In July 1988, the students' protests rocked the nation and toppled Gen. Ne Win's government. When Gen. Ne Win was forced to abdicate the political power due to the student uprising, Gen. Saw Maung led the military regime that took the political power again.

The socialist era witnessed the consequence of the centrally planned economy with the economic downturn and the isolation of the Myanmar economy. The mismanagement of Gen. Ne Win's government led the surge of ethnic insurgencies and the communist party which has led the endless civil war.

3.3. Military Dictatorship (1988 – 2011)

After the fall of Gen. Ne Win's socialist era, a new military dictatorship arose. On 18 September 1988, General Saw Maung re-established direct military rule and dubbed the State Law and Order Restoration Council (SLORC) for his government (Steinberg, 2001). The SLORC then revoked the 1974 Constitution, dissolved parliament, controlled all executive,

legislative and judicial powers, and reasserted the control over the state's economy (Bunte, 2017, p.100).

In 1990, the SLORC held the general election. The National League for Democracy was born out of the students' uprising in 1988; it won in a landslide, winning 392 of 485 seats, (Irrawaddy, 2012a). The election result was nullified by the military regime, however, which argued that the country lacked a constitution for transferring power to a new government. Gen. Saw Maung was forced to resign by Gen. Than Shwe. The military regime led by Gen. Than Shwe detained the NLD's party leader Aung San Suu Kyi and kept her under house arrest for the next two decades.

The Junta Than Shwe era, the policies were often shrouded in secrecy and used opaque language. Bunte (2017, p.101) analyzes the military's policies into fourfold – the modernization of the armed forces, the deepening of the military's involvement in the economy, the demobilization of insurgencies, and the attempt to establish a political order. These policy goals were manufactured by Gen. Saw Maung's self-proclaimed goals, for example, 'non-disintegration of the union' (SLORC, 1988). In order to fulfill the aforementioned goals and policies and fund the expansion of the military, the SLORC started building up its business empire (Bunte, 2017). The military adopted a state-mediated capitalism from Gen. Ne Win's state-socialism.

In 1990, the military launched the giant business conglomerate dubbed 'Union of Myanmar Economic Holdings Limited (UMEHL)' under the Ministry of Defense. Military generals collectively own a 40 percent stake in the massive UMEHL, which is Burma's largest state-controlled firm (Zin, 2003). The UMEHL controlled diverse businesses such as transport, gem and jade extraction, agriculture, tourism, hotels, and construction (Myoe, 2009; Bunte, 2017, p.102). The military dominated the economy via large intrinsic rules and regulations which favor the military's companies a central position. Myoe (2009, p.176) pointed out, "As a special company, the UMEHL enjoys the privilege of tax exemption for its fully owned and subsidiary firms, but affiliated firms are not included."

In 1997, the military launched another economic firm dubbed 'Myanmar Economic Corporation (MEC)' which was founded totally on capital gained from state-owned enterprises. The MEC has dominated several business firms and signed joint venture agreements with foreign companies (Myoe, 2009, p.201; Ford et al. 2016, p.26). By 2009, the

MEC had an insurance monopoly, 21 factories, banks and a cement plant and all of its shares are owned by military personnel (Bunte, 2017, p.103).

The main objective of the UMEHL and MEC was to generate the benefits for higher military generals, support welfare organizations of the regime, veteran organizations and retired military personnel (Bunte, 2017, p.102). In all major investments, both domestic and foreign firms have to deal with either the UMEH or MEC. Linn (2012) states “the country’s important natural resources and heavy industries including import, export, and service sectors are monopolized by the UMEHL, MEC and their cronies. It is an open secret that military-managed business firms and crony enterprises are corrupted in various ways including tax evasions.” The military also engaged in a wide range of commercial interests and enterprises at the local level with local businessmen and ethnic elites. Those who engaged in these businesses became unusually rich (Bunte, 2017).

The military dictatorship era, the military, and numerous ethnic armed groups reached ceasefire agreements which significantly reduced the internally armed threat the military faced. The military allowed the ethnic armed groups who signed ceasefire agreements to retain their weapons and exercise control over the territories particularly across Sino-Myanmar and Thai-Myanmar borders (ibid). During ceasefire periods, the military expanded its territorial control in ethnic states, in which regional commanders and relevant state agencies gave out licenses to do businesses and extract the region’s natural resource (Woods, 2011).

After drafting a new constitution that was then approved by a controversial referendum in May 2008, Myanmar’s military regime planned to hold a general election in November 2010. The military formed the Union Solidarity and Development Party (USDP) from its mass social organization what was called ‘the Union Solidarity and Development Association’. As the party was formed by the military, all party candidates were ex-military generals who resigned their military posts and became party members. Thus, their party goal is to rule the country with civilian uniforms after transforming from military uniforms.

The military also restricted the number of parties that formed via the ‘Political Parties Registration Law.’ A total 47 parties filed to register, 42 were approved, whereas 5 parties were rejected by the Election Commission due to their potential success in the elections (Horsey, 2011, p. 31). Thus, the National League for Democracy (NLD) – the biggest opposition group – boycotted the elections, charging that the process is unfair and

undemocratic, but the military regime finally allowed holding the general elections in 2010 (TNI, 2015). The unfree and unfair 2010 election favored the USDP party, which won a landslide victory. According to the Union Election Commission (UEC) report, the USDP won 883 seats out of 1154 total seats for central and regional (state) parliaments. In the central parliaments, 259 seats of 325 seats from Lower House (Pyithu Hluttaw), 129 seats of 168 seats from Upper House (Amyotha Hluttaw). In regional parliaments, 495 seats of 661 seats (ALTSEAN-Burma, 2010). The USDP appointed Thein Sein – a former military general – as President and the military eventually handed over power to the USDP government in April 2011.

3.4. Semi-Democratic Era (2011 – present)

Thein Sein's government took the political power from the direct military regime, but the military secured a number of veto positions via the Constitution and deepened its involvement in the economy. The political system became a semi-democratic body in which the military acts as guardianship in Myanmar's political dynamics. MacDonald (2013) points out in the East Asia Forum that "there is an emerging political multi-polarity, and the military (or 'Tatmadaw') is no longer the exclusive repository of power in Burma. While it has close connections to the USDP government, which was handpicked by General Than Shwe before he handed over power, the military has retreated from controlling all aspects of the process and in many respects is almost completely absent."

Tatmadaw holds *de jure* political power given by the Constitution (Constitution, 2008). It grants the military a role in 'the national leadership of the state' and makes it the principal safeguarding force for the constitution, (Section 6-f, and 20 of Chapter 1: Basic Principle). The military obtains 25% of the seats reserved in the central and state legislatures (Sections 109-b, 141-b, and 161-d of Chapter IV: Legislature).

The military controls the three powerful ministries namely the Defense, Home Affairs and Border Affairs and all ministers of these ministries are directly appointed by the Commander-in-Chief of the military (Section 231-b (ii) of Chapter V: Executive). The Defense Ministry bridges between the commander-in-chief and the government body. The Border Affairs Ministry oversees the border affairs. The borders are in ethnic minority states and border trades are controlled by the Border Affairs ministry. The Home Affairs Ministry

controls both the General Administration Department which manages all administrative functions from the central level down to village level and police force.

The National Defense and Security Council (NDSC) was formed with eleven persons which include the military - the Commander-in-Chief, the Deputy Commander-in-Chief, Vice-President I, Defense Minister, Home Affairs Minister and Border Affairs Minister - and civilians - the President, Vice-President II, the Speakers of both houses, Foreign Minister, (Sec 201 of Chapter V: Executive). Majority voting power goes to the military with its 6 members against 5 people in the council. The final decision on any major issue, for example, declaring a state of emergency, is decided in the NDSC (Chapter XI of the Constitution).

The military also has a de facto veto power over any major constitutional changes since a quorum of 75 percent in the legislature is needed to change the Constitution (Section 436 of Chapter XII: Amendment of the Constitution). Indeed, the Constitution is heavily loaded in favor of the military and guarantees a leading role for the military. The CDES's Briefing Paper states "with the constitutional rights and powers that they wield under the 2009 constitution, they can either be instrumental in advancing the cause of the reform process or be detrimental in sabotaging the entire reform efforts" (CDES, 2018, p. 1). Tatmadaw is given the power not only by the Constitution, but many retired military officers have taken several posts in various sectors of government; for example, in the Education, and Health (Zaw, 2015).

The new semi-democratic government under former President Thein Sein made notable political and economic reforms. To give some examples of the political reforms, the government freed thousands of the country's political prisoners including the Nobel Peace Laureate Aung San Suu Kyi from house arrest, ended strict press censorship, and reduced the restrictions on freedom of speech and assembly. In economic reforms, the government gave licenses to foreign multinational behemoths like Telenor and Orredoo telecommunication corporations and the Central Bank (CB) allowed eleven private banks to trade foreign currency and four private banks to handle remittance and established a managed float of the Myanmar currency - *kyat*. A new Foreign Investment Law was introduced (Irrawaddy, 2012b). Two special economic zones (SEZs) – Dawei and Thilwa - have been built.

The government then held the 2012 by-election in order to replace the vacant seats in parliaments for both central and regional. By-election is held because some of these seats become vacant due to either elected Members of Parliament (MPs) are appointed for cabinet

ministers or die. Nobel Peace Laureate Aung San Suu Kyi-led NLD party decided to contest the 2012 by-election and won 43 seats of 45 seats both for central and regional parliaments (BBC, 2012).

Profound Economic reforms started after an international democracy icon Aung San Suu Kyi took participation in the government. The international community, particularly the West bloc appreciated that step and thus lifted economic sanctions which were imposed on Myanmar for decades. International organizations such as World Bank and IMF alike and many other countries helped Myanmar by pouring foreign aid, technical assistance, investments and loans, and writing off arrears. For example, Norway canceled all the \$534 million and Japan wrote off more than \$3 billion of Myanmar debts (Reuters, 2013).

In 2015 general election, Aung San Suu Kyi-led the National League for Democracy (NLD) again won in a landslide. The NLD government created the State Counselor position for Aung San Suu Kyi since she was banned by the Constitution due to her spouse and sons are foreigner [British citizen]. The NLD government appointed Htin Kyaw³ as the President, but Aung San Suu Kyi is a de facto leader in the country. The NLD government has launched some reforms in the economy. For instance, the ‘Company Act’ which has a lesser restriction on both domestic and foreign companies was enacted (Latt, 2017).

However, these reforms are limited and do not lead to major changes for economic liberalization since the military is powerful to halt any major economic reforms. Bunte (2017, p.106) states that “The military oligarchy transformed itself into an electoral-authoritarian regime ruled by a civil-military coalition under the leadership of the military proxy party USDP. The State Counselor Aung San Suu Kyi herself admitted she cannot control the military under the Constitution (Naung, 2017).

Tatmadaw still intervenes in the economy through two decades-long conglomerates – the UMEHL and MEC – which generate multi-billions of dollars for the military generals (Peel, 2017). The UMEHL and MEC work with business cronies those who have close personal and business connections with military officers, political elites, and the highest levels of the ruling elites (Ford et al., 2016). For example, the telecom operator MYTEL a joint venture company which will become Myanmar’s forth telecom operator launched in March 2018. The company (MYTEL) is owned by ‘Vietnam’s Viettel Group’ as a joint venture with the ‘Star High and Myanmar National Telecom Holding Public Limited

³ Htin Kyaw was replaced by Win Myint for his presidency in March 2018.

(SHMNTHPL) owned by the son of Tatmadaw's Commander-in-Chief. The 51 percent of the company's stake is owned by Myanmar's SHMNTHPL and 49 percent by Vietnamese (Lin, 2018).

All in all, the military regime holds ultimate political power given by the Constitution and can reject all major reforms made by the civilian government if the reforms seem to negate their interests and benefits, for example, enacting mining laws which may harm their resource extractions.

Chapter 4: Analytical Framework

There may have many incentives for the military to keep in the economy; however this thesis employs an analytical framework for targeting one particular factor: to examine the role of natural resources of Myanmar in the military clout and to verify whether the natural resources play a major determinant of the military not to liberalize the economic system and establish a political freedom.

A natural resource is naturally given and seems a blessing for human beings. However, an abundance of natural resources does not necessarily mean a blessing if the country cannot manage its endowments properly. It is well known in the literature that abundance of natural resource can be a curse rather than a blessing.

The abundance of resource normally leads toward what is called "Resource Curse". The term was coined by Richard M. Auty who describes the puzzling phenomenon of resource-rich countries that normally tend to be poor, whereas the countries with poor resources tend to be more prosperous (Auty, 1994, p.11). The resource abundance tends to induce the resource curse through unfavorable high price volatility for the commodity, the crowding out of manufacturing sector, the conflict or civil war, Dutch disease effects, plus poor institutions and bad governance (Frankel, 2010). Murshed (2001, p.113) claimed that "...a country with a greater endowment of natural resources relative to the rest of the world may be blessed for the present, but will eventually be subjected to a 'winners curse'." Sachs and Warner (1995, p.1) also state that resource-rich countries tend to grow more slowly than resource-poor countries. Simply said, countries with rich resources are biased to quick easy gains that constrain the development in the long run.

Resource abundance can also induce what is called “Dutch Disease” (Anty and Gelb, 2001, p.129). In a Dutch Disease Model, the three sectors: natural resource (a tradable), non-resource (manufacturing), and service (non-tradable) are included in the economy (Sachs and Warner, 1995, p.6). If the country experiences the greater the natural resource endowment (tradable sector), the lower is the demand for non-tradable goods (service sector). Consequently, the manufacturing sector which can endorse the service sectors tends to shrink. In the other words, when a country has an abundance of natural resources, natural resources become a major tradeable production, but manufacturing shrink and labors and capital that can be used in the manufacturing sector go to the resource extraction. The shrinkage of the manufacturing sector is dubbed the ‘disease’ (ibid). The country suffers from unemployment and thus also the wages in the rich natural resource sector are relatively low, which constrains the aggregate demand and spending on services and domestic manufacturing. High exports of natural resources tend to appreciate the exchange rate, which impairs the exports of manufacturing and services. High profits of the oligarchs often end up in imported luxury goods and on the accounts abroad. Profits are not plowed back into a harmonious national development and overall prosperity.

Natural resource sector tends to be dominated by monopolies or oligopolies – thus it is easily captured by political forces. The natural resource businesses that are controlled by oligarchs (in private or semi-private entities of ownership) can be easily converted into cash by selling them to foreign owners. In the end, both transfer the majority of proceeds and rents/dividends to tax havens abroad, leaving the national prosperity high and dry.

There are many causal linkages between natural resources and political outcomes. Natural resources are major incentives for the military regime to remain in the economy. Ross (2001, pp.332-335) asserts that three causal mechanisms might explain the alleged link between natural resource and the military regime. The first causal mechanism is the “rentier effect,” the second one is a “repression effect” and the third one is “modernization effect.”

Ross argues that the “rentier effect” may occur if the military regime earns considerable revenues from resource extraction. He discusses other three sub-causal effects that can be found in the “rentier effect.” The first one is ‘taxation effect’. The revenues from resource extraction reduce the need for the regime to collect taxes from the population, which may hamper the economic and political reforms. The fact is that low-taxed citizens may demand less accountability of the regime which in turn lessening the pressure to get better institution quality. The second causality is a ‘spending effect’. The revenues from resource

extraction allow the regime to mitigate dissents among the population, for instance, by spending on patronage. The third causality is a ‘group formation effect’. The revenues from source extraction enable the military regime to prevent the formation of social or special interest groups.

What Ross discusses is that the “repression effect” is the linkage between the natural resource and the military regime. The revenues from resource extraction allow the military regime to spend on internal security and block the population’s political demands. Although citizens want political changes or democracy, the regime represses them by spending a huge amount of money on internal security.

The “modernization effect” holds that democracy is caused by a collection of social and cultural changes that in turn are caused by economic development (Lipset, 1959). In the other words, if economic development does not produce these cultural and social changes, it will not result in democratization.

The revenues from natural resources may also lead to larger military forces for two reasons. The first reason is self-interest in which the revenues have given the opportunity to better arm itself. The second reason is the abundance of natural resources causes ethnic conflict in which a larger military might reflect the regime’s response. As normally the natural resources are not symmetrically distributed but concentrated in few geographic locations, some regions are privileged while the other is excluded. In case the resources are unearthed in peripheral geographies where ethnic minorities live, as is the case of Myanmar, resource extraction can exacerbate ethnic tensions and lead to violent conflicts.

All in all, natural resource abundance is theoretically a tool for the regime to maintain their powers and use the revenues from resource extraction for their political purposes which enables the military to remain in the economy.

Chapter 5: Methodology

This thesis employs a single-case study on the natural resource extraction. The methodology involves a descriptive analysis of Tatmadaw’s involvement in extracting natural resources to capture the volume of military’s participation in the economy.

The thesis will use “narratives” by deploying simple data. The policy part of this thesis will be prescriptive and partially normative: pointing out “what should be done” in order to satisfy some objectives. The research relies on sources such as research papers from the Global Witness reports, National Resource Governance Institute's reports, the Union of Myanmar Economic Holdings Limited (UMEHL) Director’s Report and other. The data from these reports are used to substantiate the outcome of Myanmar economy where Tatmadaw interferes with it. The thesis mainly uses economic data from institutions such as World Bank and IMF.

The thesis also employs the comparative method to capture the differentiation between Myanmar and its neighboring peers by using different indicators such as the economic freedom index, GDP per capita, and et cetera.

5.1. Scope and Limitation

There may be many determinants that enable Tatmadaw to remain in the Myanmar economy and may have many barriers to an economic transition from military’s participation to a free market economy and democracy.

However, this thesis focuses on a natural resource that seems to be a major barrier to an economic transition in Myanmar. Natural resources include mining mineral, for example, coal, jade, rubies, silver etc., logging timbers and teak and smuggling wild animals and more. However, my thesis focuses on three sectors –gems, energy sources, and logging forest. In the gems sector, jade, gold, and amber are included. In the energy sectors, oil and gas mining are included. In the logging sector, timber, hardwood, and hongmu are included.

The reason to narrow down on three sectors is that these natural resources not only make Tatmadaw fulfill their interest, power-game, and purposes but also are conducive to the ethnic conflict.

5.2. Source Criticism

After many years of military dictatorship in the country, it is very difficult to obtain reliable and accurate data and information regarding the economic activities and more. Due to Myanmar’s autarkic economic policies, even the IMF or World Bank cannot obtain the nuanced and genuine data of economic indications in Myanmar.

Many scholars are skeptical about the accuracy of Myanmar's statistics particularly reported by the government to international organizations. Turnell (2009, p.9) states that "Accessing reliable and accurate data on almost anything to do with contemporary Myanmar is extraordinarily difficult – except when it is utterly impossible."

Besides, Myanmar has little published national accounts and many other data categories are not available since the military regimes neglected even to collect. Turnell (2009) expressed the scant of data in Myanmar as 'data pathology' (ibid). Thus, this thesis proceeds while cognizant of Myanmar's scant data, but the common-sense measures will be used to partially overcome it. This includes comparing the data of Myanmar to that of peer countries, evaluating published data, and so on.

Chapter 6: Natural Resources

Natural resources are typical non-renewable resources – once they are extracted, they are lost. They have one important economic characteristic: their marginal costs of extraction can be much smaller than the marginal revenue accruing from their sale, offering thus enormous profits to the lucky owners of their extractable deposits or to the lucky agents with the opportunity to extract them, even though this extraction even may not be legal. These special profits from natural resources are called economic rents (Tollison, 1982). If there are not sufficiently high taxes on rents that would reflect the social interest in the controlled extraction of natural resources, the rents are easily privatized and excluded from using them for the social development.

Myanmar is geologically rich and is home to substantial natural resources. Natural resources range from significant quantities of minerals, for example, coal, jade, rubies, silver etc., to logging timbers and teak and more. For example, Myanmar supplies approximately 90% of rubies in the world (EITI, n.d.). However, due to a Tatmadaw that ruled the country with one iron fist and stole the state revenues with the other, these resources have been shackled as the private businesses of elite military families.

This thesis focuses on three sectors – gems, energy sources, and logging – in order to understand how the military regime manipulates the natural resources, how natural resources are allocated and who benefit from resource extraction.

6.1. Gems: Jade, gold, amber

Myanmar's gems are one of the most precious stones and the revenues from exporting gems amount to billions of dollars. In this section, jade, gold and amber sectors are analyzed to reflect the gems business.

6.1.1. Jade

Jade is the most famous natural resource in Myanmar and the country is also the world's largest single source of jade which is nearly 70 percent of the world's jadeite (Werid, n.d.). Mining jade is situated in Phakant Township, the west-south of Kachin State, northern Myanmar. The revenues from exporting jade contribute a substantial amount of Myanmar's GDP share. According to the Global Witness report, the revenues from exporting jade contribute 48% of Myanmar's GDP (Global Witness, 2015, p.6). Yet the Chinese import data indicated the value of official jade production in 2014 was over the USD 12 billion, it appears likely to have been as much as USD 31 billion (ibid; Linn, 2016).

In 2014, USD 27.44 million-worth jadeite necklaces sold in Hong Kong and the sale was a record-breaking (Global Witness, 2015). Likewise, in October 2016, one of the world's most valuable pieces of jade (See Picture A: at Appendices) was unearthed and the stone is valued at £140 million (Khan, 2016).

Myanmar earned the billions of dollar from extracting jade, but local people have little access to these resources. Instead of benefiting from resource extraction, local people are seeing their livelihoods disappear due to the intensifying scramble for their most prized asset. Local people dubbed "freelance miners" – who eke out their livelihoods by scavenging for scraps of jade at open-face pits – have little benefited from jadeite extractions. Besides, hundreds of migrant miners have constantly been killed by deadly landslides when improperly dumped waste soil (pit) collapsed (Guardian, 2015a; Htwe, 2018). 'Freelance miners' always face human rights abuses and have constantly been shot by the local authority, police forces and soldiers (DVB, 2017; AFP, 2017).

These tragedies and discontents frequently lead local people to protest the government and companies. For example, February 2016, hundreds of residents from three villages in the Hpakant Township protested against mining companies because of the companies' dumped waste soil (Mizzima, 2016). On 28 February 2018, thousands of Kachin people allied at

Manau Park, Myitkyina, (see Picture B: at appendices) and marched toward the government office, chanting the slogans such as “To enact newly Gems bill”, “No mega mining plots”, “To control heavy machinery”, “To stop 24-hour use machinery”, “To issue gems license to the citizens”, “To clean environ” and “To keep safety for jade hunters” (KLN, 2018a).

The protest fueled toward local people from Hpakant – where jade stones have been mined and protested again on 19 March 2018 (Min, 2018). These demonstrations aim to get opportunities for local people and freelance miners to access the resources and to amend the Gems bill in order to bring the benefits for the residents.

In fact, the Kachin State deposits highly valuable jade and generates multimillion dollars from jade mining, but the state *per se* is poor with dire infrastructure and even had no opportunity to hold ‘Gem Emporium’ for high quality until March 2018. The state had been allowed to hold gem emporium only C and D types of gemstones which are lower quality. Higher quality: ‘A and B’ types of gemstones have been only exposed in Gem Emporiums in Mandalay and Naypyidaw, the capital of Myanmar. After years of people’s demand and protests, the government eventually allowed the Kachin State to hold its first gem emporium for all types of gemstones in March 2018 in Myitkyina, the capital city, (Oo, 2018).

The questions arise from these protests that “who benefit from resource extraction and how much and how? Answering these questions is important to understand mining jade in Hpakant.

Before the “Ceasefire Agreement” between Tatmadaw and Kachin Independence Organization (KIO) was made in 1994, Hpakant jade mining was little known and only hundreds of people went for mining jade. The fact was that the fighting between Tatmadaw and KIO constantly erupted in Hpakant due to the contesting to control the area. In this period, a small-scale mining was done by hands and only small companies worked with lighter machinery.

However, the political situation was changed by signing the Ceasefire Agreement between Tatmadaw and the KIO in 1994, after Tatmadaw pushed the KIO far away from mining areas. Tatmadaw consolidated a control of the Kachin State’s valuable resources and its conglomerate the UMEHL began parceling the mining area into a block and granted them to companies. Consequently, state-licensed companies have squeezed the small-scale miners who previously mined the areas and heavy machinery was deployed to carry out large-scale jade extraction (Global Witness, 2015).

❖ **Who is benefiting?**

There are many jade companies that may have benefited revenues from the jade business. However, Global Witness (2015, p.40) has identified four major groups that have been benefiting from jade extraction. These major groups are;

1) Military Generals and Ruling Party

The military has been involving in jade extraction since the 1990s. Senior General Than Shwe – a dictator of Myanmar - is the main person who gained the biggest rent from jade extraction. After two decades of the direct military rule, he eventually handed power to the elected government in 2011. At the same time, his position – Commander-in-Chief – was given to his loyal Min Aung Hlaing. Many believe that Than Shwe still retains considerable power via his influence over Tatmadaw and is guiding Myanmar’s transition from behind the scenes. The Guardian (2015b) writes “Than Shwe has no official role. But though he has been out of the public eye since 2011, many in Myanmar are convinced he remains politically involved behind the scenes.”

Gen. Than Shwe's family involves several business sectors in Myanmar’s economy. For example, Than Shwe’s two sons – Htun Naing Shwe and Kyaing San Shwe – own two companies called “Myanmar Naing Group and Kyaing International Company”. These companies do several business sectors such as construction, export and import, and natural resources. These companies have obtained licenses to six jade mines and the mining licenses were handed by the Ministry of Mines without any of the usual procedures being followed (Global Witness, 2015, p.41). These two companies own another company called “Kywe Wa Sone” which was registered under its English name Richest Gems. The company has obtained a further three jade mines and is run by Win (ibid). See figure 6.3 in order to see the bigger picture of Than Shwe’s family’s involvement in jade extraction (See Picture C: at appendices for a list of Than Shwe family’s business).

Global Witness investigated other ex-military officers who benefit huge amount of money from jade extraction. These people are Ohn Myint, Maung Maung Thein, and Phone Swe. Ohn Myint, a retired general and former minister of Livestock, Fisheries and Rural Development Ministry, has long exercised considerable influence over source extraction such as amber, jade, gold and other (Global Witness, 2015). He was appointed as the Northern

Commander – the top general in Kachin State in 2005 and he then was promoted Lt. General and the Commander of the Bureau of Special Operations-1, which oversees Kachin, northern Shan, and Kayah states. When he was in the Northern Command in Kachin State, Ohn Myint had exceptional power over the administration and regulated economic activities, for example, giving business licenses within Kachin State. Many believed that Ohn Myint closely worked with Chinese resource extraction companies and their cozy tie led a large influx of Chinese people into Kachin State (Callahan, 2007, p.43). His family owns Myanmar Win Gate Gems and Jewellery Mining Co. Ltd and his son Kyaw Thiha and Kyaw Thiha's wife Daw Nway Ei Ei Zin hold 70 percent of the company's shares (Global Witness, 2015, p.44).

Maung Maung Thein, a retired military general, former Minister for Minister of Fisheries and former General Secretary of the USDP party, controlled two jade mining companies namely "Myat Yamon" and "Myo Nwe" which generated eye-watering sums of money (Global Witness, 2015, p.46). Phone Swe, a retired military general and former Deputy Minister for Social Welfare, Relief, and Resettlement own Shwe Inna Gems Company. Win Than, a retired military general and former Deputy Minister for Communications and Information Technology, was the sole shareholder of Myanmar Imperial Jade (Gems & Jewelry) Co. Ltd, which is MEHL's main jade-mining and trading subsidiary (ibid, p.49).

2) Military's companies

Military's a giant conglomerate: Myanmar Economic Holdings Limited (MEHL) involve in mining jade. After signing ceasefire agreement between the military and Kachin Independence Organization in 1994, the MEHL came involved in jade mining in 1995. The MEHL helped itself to large tracts of the best jade land, whereas other mining companies worked as its subcontractors (ibid, p.50).

The MEHL works through joint venture partners such as the Chinese companies, Xie Family Company, Myanmar Win Gate, Jing Hpaw Aung, and other. The production split with its partners is generally 20-40% for the MEHL and 60-80 % for the partners (ibid, p.51). Other military companies: Myanmar Economic Corporation, Shwe Innwa Gems, Northern Star Gems also involve in jade extraction. The MEHL annually organize a jade auction in Nay Pyi Daw, the Capital of Myanmar (ibid).

3) Crony Companies

Cronyism is not a new phenomenon across many countries including Myanmar. Myanmar's 'crony' tycoons with connections to the military generals, political elites, and the highest levels of the ruling elites have economic power which enables them to influence on socio-economic affairs (Ford et al., 2016). They also have close connections with military generals via intermarriage of their sons and daughters. For instance, a business tycoon Khin Shwe's daughter is married to former general Shwe Mann's son.

There are many cronies who own a number of major jade companies, but only a few are visibly known. The Global Witness (2015) has identified some of the most visible and giant companies: Ever Winner, KBZ Group, Asia World, and Htoo Group.

The Ever Winner is believed to controls and benefits from some most valuable assets in Kachin State (ibid). According to the Global Witness' investigation, Aike Htwe is the owner of the company and his five daughters are key players in the jade business. Ever Winner is a web of companies with different names. There is a dozen of Ever Winner companies active in jade extraction and the use of a range of names under Ever Winner is to cover the scale of the Ever Winner group's control of the jade business.

KBZ (Kanbawza) Group, owned by business tycoon Aung Ko Win, is one of the biggest companies in Myanmar. Many believe that Aung Ko Win was used to work for Maung Aye – the second most powerful military general of the junta. KBZ Group owns many firms: Nilayoma Co. Limited, Myanmar Billion Group, East Yoma Co. Limited and Cigarette Company and Bank. Today KBZ bank is the most successful bank in Myanmar. KBZ Group involves not only in Hpakant's jade extraction but also in Hkamti mines, a deposit in Sagaing Division and Mong Hsu's ruby mines in Shan State (Global Witness, 2015).

Asia World owned by Lo Hsing-Han and his son Steven Law is another of Myanmar's largest companies. Asia World is known for its partnership with the state-owned China Power Investment (CPI) in building the controversial Myitsone Dam hydropower project which former President Thein Sein suspended in 2011 (Beech, 2011). Yadanar Taung Tann and Shwe Taung Company are under the Asia World Company. Yadanar Taung Tann Gems controlled the best jade plots such as Gwi Hka area, south of Hpakant and Met Lin Chaung, west of Hpakant town (Global Witness, 2015).

Htoo Group owned by Tay Za who used to have a close relationship with former junta Than Shwe and was listed Myanmar's number one business tycoon. Htoo Group carried out several key projects on behalf of Tatmadaw, for example, the purchase of weapons, military equipment, aircraft and ships (Treasury, 2018). Htoo Group controls several jade mines and has sold some of them to Wa's firms (Global Witness, 2015).

4) Ceasefire groups

Some ethnic armed groups particularly the United Wa State Army, Pa-O National Organization, and Kachin Independence Organization, that signed the ceasefire agreements with the military regime have also benefited the revenues from the jade business. Due to signing the ceasefire agreements, these groups were awarded business concessions by the military regime. I will discuss further detail in Chapter 7, section 2.

❖ How much they benefit?

All business companies ranging from Than Shwe's family to ceasefire groups benefits a whopping amount of money from jade businesses. According to the data collected by the Global Witness (see Table 1), the military benefited the highest amount of jade sales in 2013 and 2014.

Table 1: Data of Jade Business Companies' Benefits

Category	Name	2013	2014	Total Sales in USD
Army/USDP families	Than Shwe family, associated firm and Kywe Wa Sone	103,499,788.00	116,541,880.00	220,041,668.00
	Ohn Myint family		80,429,544.00	80,429,544.00
	Maung Maung Thein family	36,621,049.00	105,430,521.00	142,051,570.00
				442,522,782.00
Army companies	Myanmar Economic Holdings Limited	80,492,459.00	149,425,506.00	229,917,965.00
	Myanmar Economic Corporation	20,826,415.00	32,000,008.00	52,826,423.00
	Northern Star		1,070,355.00	1,070,355.00
				283,814,743.00
Crony companies	Ever Winner group of companies	123881602	192,457,693.00	316,339,295.00
	Asia World	20,944,520.00	27,264,433.00	48,208,953.00
	Htoo Group		13,223,634.00	13,223,634.00
				377,771,882.00
Grand Total				1,104,109,407.00

Source: Global Witness (2015)

All in all, jade business is virtually under control of the military regime and the military generals, their families and relatives, political elites, business cronies and some ethnic armed groups benefit a whopping amount of incomes.

6.1.2. Gold

Myanmar is referred as the ‘Golden Land’ due to rich gold domiciled in many regions and as gold is used for Buddhist religious purposes. Estimates of Myanmar's gold production is 54 400 Troy Oz or 1692 kg per year, which accounts 70% of Asia’s gold markets (Norwegian Embassy, 2017; RGN, 2015). There are several regions, i.e. Sagaing and Tanintharyi Regions and Shan and Mon States, that host gold and gold mines, but the Kachin State, northern Myanmar, produces a major portion of gold which is mainly consumed in the domestic market and international markets via China.

In Kachin State, there are some gold mining areas: Hugawng Valley, Mali Hka (Irrawaddy River) and Mine Naung gold mines. Before 1994, a small-scale gold mining was done by Kachin villagers on dry land, on riversides, and underwater by using simple tools: sieves, spades, buckets, and iron bars (KDNG, 2007, p.15). After signing the ceasefire agreement between Tatmadaw and KIO in 1994, Tatmadaw granted licenses to private companies backed by Chinese and local investors. A gold mining changed from a small-scale local livelihood to a large-scale business venture with heavy machinery imported from China. Large gold mining companies pay for concessions from the regime’s Ministry of Mines to mine for gold in a given area for a given amount of time, but Northern Regional Commander oversaw the gold mining (ibid, p.24).

The largest gold mining in Kachin State is in Hugawng Valley, the western part of Kachin State, in Indo-Myanmar border. It has been internationally recognized as one of the world’s hotspots of biodiversity and the US-based Wildlife Conservation Society has established the world’s largest tiger reserve in the valley (Walsh, 2010). The Hugawng valley was largely untouched by the military regime until the mid-1990s, but it has become a host of gold mining industry after the 1994 ceasefire agreement between the military and the KIO (KDNG, 2007). See the map of gold mining areas in Hugaung Valley at Map A: at appendices.

The biggest gold mining companies include Sea Sun Star Co., Ltd., Northern Star Co., Ltd., BUGA Co., Ltd., Twe Co., Ltd., Yaung Che Oo Shwe Thu Phaw Yae Co., Ltd., and Yadana Hein Co., Ltd (ibid, p.62). These companies hold the concessions from the Ministry of Mine and no individuals or companies can mine for gold in these areas unless they pay taxes to the concession holders. These companies must pay 35-50% from their profits to the military and take care of travel expenses, food, and accommodation on special occasions when ministry officials, the Northern Commander, or other authorizes visit (ibid, 24).

Many other companies, for example, Kha Ka Bo Mining Company alike, mine gold in Mine Naung near the Inndaw Gyi Lake in Monyin District, the Irrawaddy River, and other areas. Unsurprisingly, the 18 percent of Kachin state has become a gold mining area (RFA, n.d.). Larger gold mining companies obtain the concessions from Myanmar's Ministry of Mine, but smaller companies, for instance, a Chinese company, obtain the concessions from the Military's Northern Commanders. Yet there is no official data about gold mining business, for instance, who get and how much from the gold business, the military commanders, however, might gain substantial benefits from gold extraction since the military has so far provided a security for the gold mining companies and the gold mines are guarded by the military's troops (KLN, 2018b, Burmalink, n.d).

Due to an entry of giant companies in gold mining companies, local people who do small-scale gold mining by using simple tools have lost their livelihood and suffered from environmental and health impacts of gold mining. The local people thus sometimes protest against the government, calling to halt gold mining operations (Mekongeye, 2017; Aung, 2017). In fact, gold mining has also become an income generator for Tatmadaw and gold mining companies whereas local people have little benefited from gold mining.

6.1.3. Amber

Amber, precious stones, posits in Kachin State, has made headlines in newspapers across the planet due to the discovery of the world's first preserved dinosaur tail embedded inside a chunk of amber (FP, 2017). Before the discovery of this rare amber in Myanmar, Baltic and Caribbean amber dominated the amber market (Ripper and Yang, 2017).

In 2015, scientists revealed a new species of extinct predatory cockroaches that lived alongside the dinosaurs for the 100 million years from amber unearthed from Tanai, Kachin State (Vršanský, 2015). In 2016, Lida Xing from the China University of Geosciences in Beijing discovered the tail of a feathered dinosaur preserved in the 99-million-year-old amber at an amber market in Kachin State, Myanmar (Rincon, 2016). Other types of amber, for example, spider, “dino-bird” tail, have been unearthed from Tanai (see Picture D at appendices).

Myanmar’s amber and other natural resources are exported to Yunnan Province, China. Yunnan’s Tengchong, Ruili, Jinjiang, Dali, and Je Gau become marketplaces for Myanmar’s gemstones (Rippa and Yang, 2017). In those markets, buyers from different parts of the regions such as Beijing, Shanghai, Hong Kong, Macao, and Taiwan, come and buy gemstones (ibid). There are a few buyers from European, Korean and Japan, but virtually all of the amber goes to China (ibid; Win, 2015). There is no specific data on amber sales due to illegal markets, but a sale of amber is estimated at US\$ 1 billion a year since even fossil amber easily fetch approximately US\$100,000 (FP, 2017).

Yet there is no an official data on amber business: who involves in amber extraction, who gives concessions, how much do they earn, who controls the amber mines, and how much do they pay for taxes. But the military is believed to have gained substantial revenues from the amber business through taxes, payments, and fees collected at the military gates/checkpoints. All ambers are carried by cars from Tanai to Myitkyina – Waimaw – Kanpaiti to Yunnan Province, China. To reach China, amber traders must pass several military gates or checkpoints and they have to pay the rate according to the values or tons of amber.

Tatmadaw, moreover, wanted to control all amber mining areas, thus they started the clearance operation against the KIA that had controlled some parts of the amber-rich territory in 2017. The operation has driven out many mining workers and local residents. Even Mr. U Lin Lin Oo who is a lawmaker from Lower House (Pyithu Hluttaw) criticized the military’s operation on illegal gold and amber mines in Tanai region, simply saying that “The Ministry of Natural Resources and Environmental Conservation and the Kachin State government should take the lead in handling this problem. Military action is not at all the right approach” (Pwint, 2017). It is very obvious that Tatmadaw is keen to take a control over the amber mines. That is the reason why it has been conducting its clearance operation in amber-rich areas.

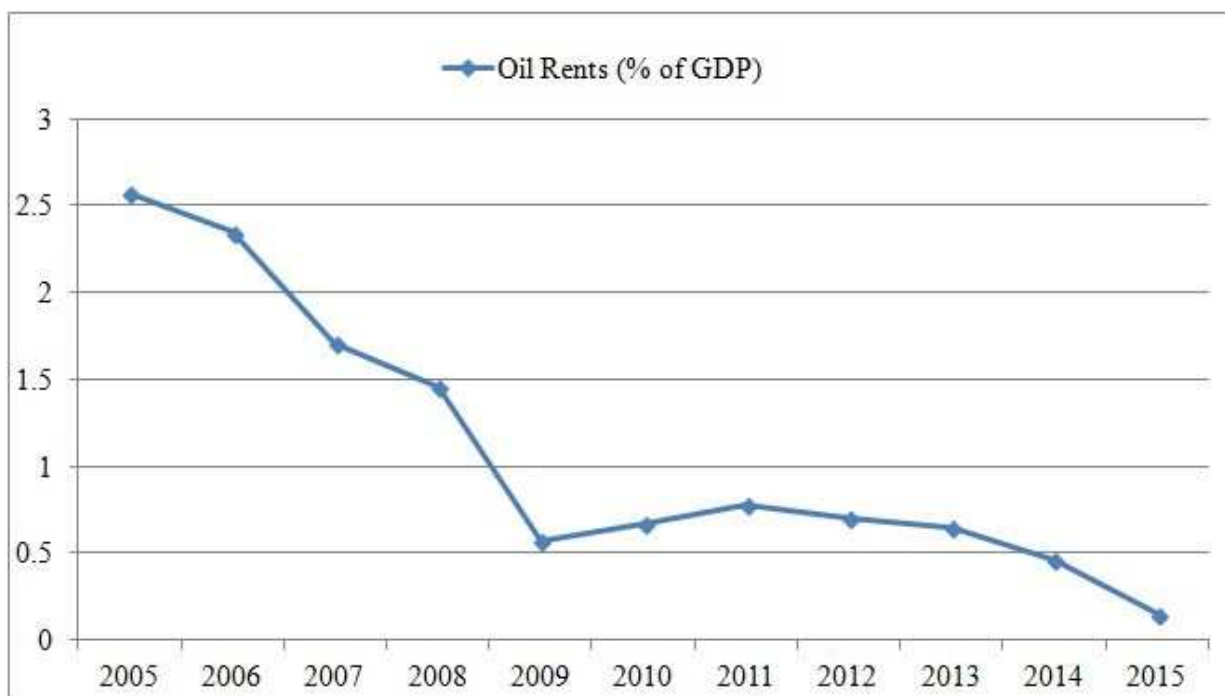
Due to Tatmadaw's blockage of roadways in the amber mining region, it is now difficult for amber miners to access the mining sites (RFA, 2018a). The military now controls all amber mining regions and has pushed back the KIA from the mining area and they will further benefit the rents from the amber business in the future.

6.2. Oil and Gas

Myanmar is one of the world's oldest oil producers and is the 10th largest producer of natural gas globally (Mudditt, 2014). Myanmar holds 3.2 billion barrels of oil reserves and 18 trillion cubic feet of natural gas reserves. It produced 16.8 billion cubic meters of natural gas in 2014 alone and gas accounted for approximately 30% of total exports in 2014 (NRGI, 2016a). Myanmar's gas has served as the government's main source of foreign exchange (ibid).

The country *per se*, however, gains a small percentage of revenues from oil and gas sales. According to the World Bank data (See Figure 4), the percentage of Myanmar's oil rents to GDP has substantially decreased from 2.6% in 2005 to 0.1% in 2015. This trend shows us the percentages have been decreasing tremendously.

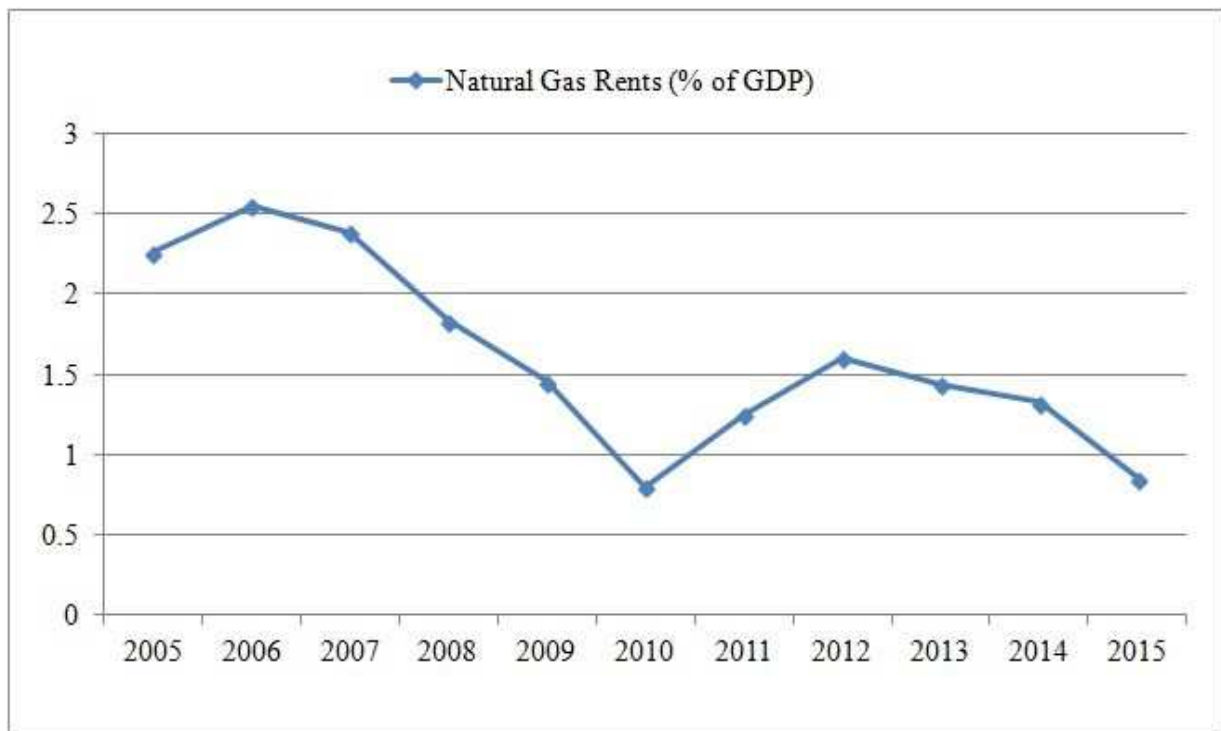
Figure 4: Myanmar's Oil Rents (% of GDP)



Source: World Bank

Similarly, the country gains a small percent of the revenues from natural gas sector though it has produced billion cubic meters of natural gas. The percentage of natural gas rent to GDP has also declined from 2.5% in 2006 to 0.8% in 2015 (See Figure 5).

Figure 5: Myanmar's Natural Gas Rents (% of GDP)



Source: World Bank

The question arises from these statistics: why the revenues from oil and gas extractions are considerably low though the country extracts billions of cubic meters and barrels of oil and gas. It is not easy to answer this question. But we can draw some assumptions and conclusions by analyzing the oil and gas business.

The Ministry of Energy is responsible to tender and grant a license to extract oil and gas in Myanmar. They also manage concession contracts, exploration & production and sale of oil and gas. The state-owned enterprise, Myanmar Oil and Gas Enterprise (MOGE), is the main player to conduct all exploration, production, and transportation of oil and gas in onshore and offshore areas (NRGI, 2016b). The MOGE not only supervises mapping for the oil and gas sector and provides detailed maps of all oil and gas blocks, but also sets procedures for bidding and licensing (ibid, p.20). However, a unified legal framework for oil and gas licensing is opaque and the criteria used to award permits were unclear (ibid).

In 2014, when Myanmar awarded 36 new blocks to foreign companies in onshore and offshore bid rounds, the bid attracted new international companies such as Woodside, Shell, BG, Eni, and Statoil (ibid; Mudditt, 2014). In fact, Myanmar's oil and gas have naturally drawn China's attention earlier as China's economy rapidly grow and quest for energy sources abroad has expanded. China started its presence in Myanmar's oil and gas fields by signing six contracts on production sharing with the Myanmar Oil and Gas Enterprise (MOGE) of the Ministry of Energy in 2004 (Kudo, 2006, p.16). The China Petroleum and Chemical Corporation (SINOPEC), the China National Offshore Oil Corporation (CNOOC), and the China National Petroleum Corporation (CNPC) have vigorously started to invest in oil and gas sectors in Myanmar. The biggest project was PetroChina's a gas pipeline from Kyukphyu, the Shwe field off the coast of Rakhine State, Myanmar to Yunnan Province, China. The PetroChina signed a memorandum of understanding with MOGE to buy gas from the block for thirty years starting from 2009 (ibid, p.17).

When Chinese President Xi Jinping launched "One Belt, One Road" (OBOR) initiative in 2013, Myanmar's oil and gas become a vital importance for the OBOR project. One of OBOR Corridors: India-Bangladesh-Myanmar-China Economic Corridor is designed to connect China with South Asia, running from Yunnan (China), Myanmar and Bangladesh to India (Barisitz and Radzyner, 2017, p.15). See the map of Myanmar-China Shwe Gas pipelines at Map B: at appendices.

The Chinese-Myanmar pipelines which started operation in April 2017, avoiding the Strait of Malacca - a narrow channel that connects the Indian Ocean with the Pacific Ocean – and has a designed annual transmission capacity of 22 million tons of oil and 13 billion cubic meters of gas (Xin, 2017). The pipelines project comprises the construction of parallel pipelines for transporting crude oil and natural gas from Kyaukpyu, the Rakhine State to Yunnan Province, China. The estimated investment on the pipeline project is US\$2.54 billion, including US\$1.5 billion for the oil pipeline and US\$1.04 billion for the gas pipeline (Hongwei, 2012).

Chinese government has promised to pay up to USD 1.8 billion on average annually in royalties over 30 years to Myanmar (Meyer, 2015). In return, the military guarantees the safety of the pipeline route by deploying approximately 28 battalions from the Rakhine State to China border (Earthrights, 2011, p.5). The military has committed a series of human rights abuses, for example, forced relocation and forced labor for the sake of providing security for the project (ibid). Therefore, the SHWE Gas Movement and other rights groups have asked

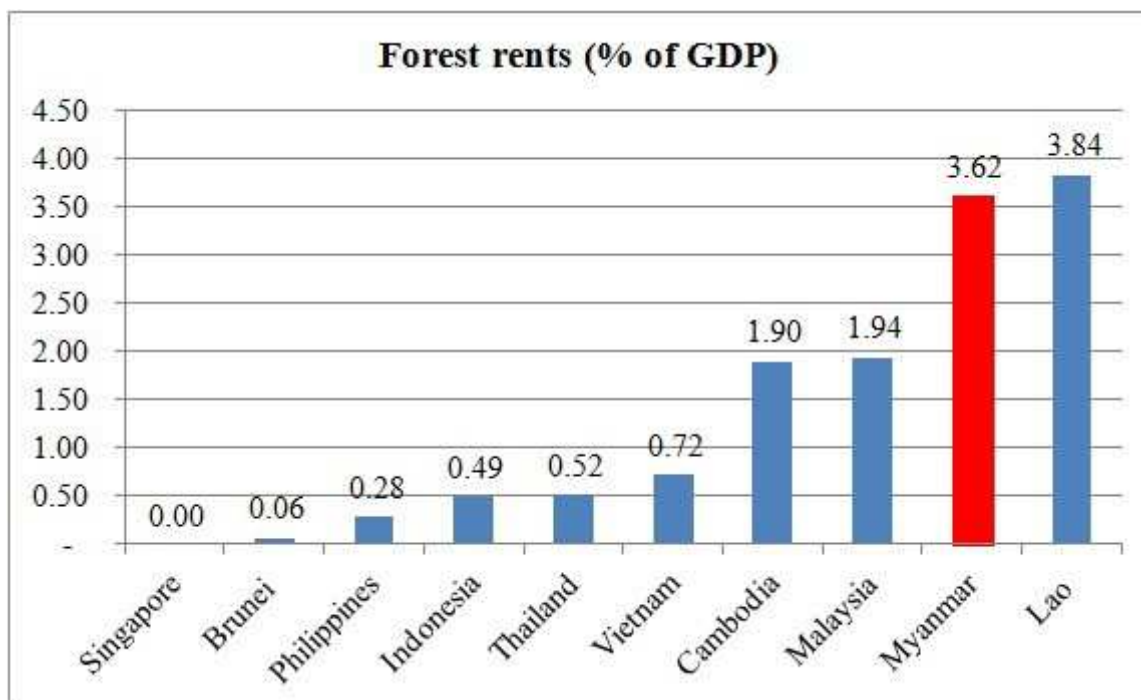
both Myanmar and Chinese governments including corporations to halt the project until there is assurance that Myanmar's people can participate in the decision-making process and benefit from this project (Shwe, n.d).

Chinese investors claim that both benefits from the pipelines as Myanmar will enjoy lucrative dividends for the next 30 years and as China has already supplied gas to three Chinese provinces – Yunnan, Guizhou and Guangxi – and other counties and cities (Yuan, 2017). However, it is opaque that who gains the annual payment US\$ 1.8 billion from China because the local people have not yet gained even adequate compensation, but lost their lands due to land confiscation and faced human rights abuses by the military that lead them to a mass demonstration (RFA, 2018b).

6.3. Logging Forest

Myanmar's primary products include many natural resources, amongst which is forestry. The revenues from logging forest also contribute to Myanmar's GDP. According to the World Bank database, Myanmar's revenue from forestry contributes 3.62 percent of its GDP which is the second largest portion amongst ASEAN countries (see Figure 6).

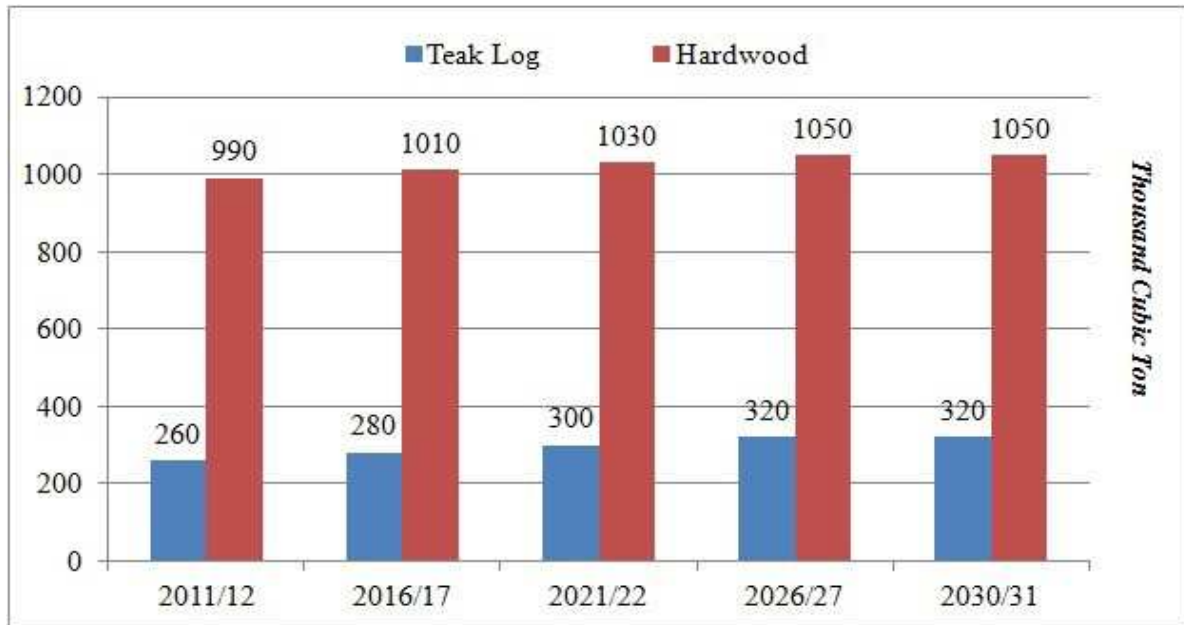
Figure 6: ASEAN's Forest Rents (% of GDP) in 2016



Source: World Bank: world development indicators

Exporting forest products has increased over time in Myanmar. It has projected (see Figure 7) to export progressively from 260 000 cubic tons of teak and 990 000 cubic tons of hardwood in 2011/2012 to 320 000 cubic tons of teak and 1 050 000 cubic tons of hardwood in 2030/2031 (Htun, 2009, p.41).

Figure 7: Projected teak and hardwood production



Source: Author's calculation based on Htun (2009)'s statistics

Nevertheless, actual productions for teak and hardwood have already exceeded targets (ibid; MNPED, 2006). Myanmar has lost more than 546,000 hectares of forest on average each year since 2010 (Phyu, 2015). See the photo of logging forest at Picture E: at appendices. According to the Environmental Investigation Agency (EIA), Myanmar's illegal log exports are worth nearly US\$ 6 billion a year (The Ecologist, 2014; Doherty, 2014). This value does not include an official data and will not become the state' revenue.

The question arises “who involve in these legal and illegal log businesses and how?” It is by no means easy to identify who really control the logging businesses. However, analyzing the recent logging activities can give us a clue to understanding the logging empire.

Ministry of Natural Resources and Environmental Conservation oversees the planning and production of teak, timber, hardwood and other forest products. The state-owned enterprise Myanmar Timber Enterprise⁴ fully involves in the logging business and other

⁴ See more detail about the enterprise: <http://www.myanmar-timber.com.mm/index.php/en/planning-statistics-department/organization-chart>

domestic private companies⁵ such as Myanmar Forest Products & Timber Merchants Association, Forest Products Joint Venture Corporation Ltd., and other business cronies' companies and international companies like Almtra Nordic take participation in the logging business. In November 2016, the timber company Almtra Nordic was ruled by a Swedish Administrative Courts as guilty of violating the EU Timber Regulation by importing Myanmar teak illegally (Saunders, 2016).

The profits from logging timbers reach a much wider range of beneficiaries such as the military officials, ethnic armed groups, business cronies, and Chinese businessmen, (Hammond, 2015). However, the military is the key player in logging timbers as they grant a concession to a range of interest groups and involves itself in logging business in many ways. The UK based Global Witness (2003, p.10) states that "Tatmadaw units are involved in logging on several levels: conducting logging operations themselves, transporting illegal timber, using forced labor, giving permission to log, and taxing legal and illegal log cutting and transportation."

The military's regional and local commanders have the ultimate power to take control not only in the logging business but also in other frontier businesses. Woods (2011, p.754) also states that "...the granting of a logging concession by the northern military commander to a Chinese company concomitantly reconfigures the political territory where the concession is located, precisely closing off other non-state authorities' access and use of that resource." Myanmar's regional commanders are very powerful and control over business sectors regionally. The position of Regional Commander can be a route to the military central office and Srn. Gen. Min Aung Hlaing, the Commander-in-Chief of Tatmadaw, for instance, used to be a Commander of the Triangle Regional Command in the eastern Shan state. These regional commanders pay their loyalty to Commander-in-Chief; they, in return, are promoted into higher ranks and position (Global Witness, 2003, p.26).

The military regime also provides a concession and allowed a range of ethnic armed groups, for instance, KIO, BGF, and militias in Kachin State, NMSP in Mon State, DKBA, KNU and BGF in Karen State, and RCSS in Shan State, to log timber and other hardwoods (Brenner, 2014; Woods, 2011 and 2013; Weng, 2009). For example, in Kachin State alone, an illegal log trade reaches \$600 million a year (Wadley, 2015). But the military and some of the ethnic armed groups have sometimes clashed due to the contesting over the black market logging trade (Holland, 2014).

⁵ There is a list of other timber companies: <https://www.company-list.org/myanmar/timber/>

The military also benefits the revenues from logging timbers via business cronies. Ferrie (2014, p.1) also states that “Myanmar's former military rulers relied on tycoons like Tay Za to prop up the economy. Commonly known as the cronies, they became experts at circumventing sanctions and were richly rewarded by the junta, which granted concessions ranging from forestry to car imports.”

All in all, the military is well known to usurp resources such as jade, gold, amber, oil and gas and timber from areas around its bases (Global Witness, 2003, p.28). The military has benefited a whopping amount of money from natural resource extractions that become a major incentive and tool for them to control the economy.

Chapter 7: Purposes and Consequences of Resource Control

The thesis now gives an answer to the hypotheses by analyzing the purposes and consequences of the military’s resource control. In this section, I will give a short discussion how Tatmadaw uses the natural resource as their political power-game, and what are the consequences of its resource grab.

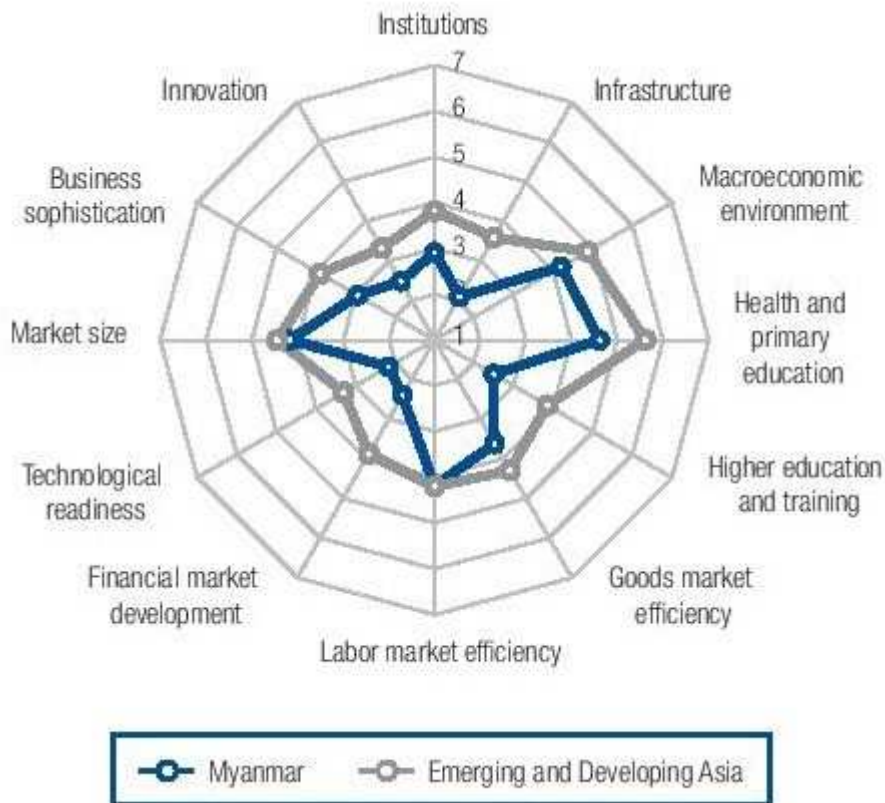
7.1. Hypothesis 1: Resource Curse More Than A Blessing

“The abundance of natural resources is a barrier and not an incentive to economic transition towards prosperous entrepreneurial society in Myanmar.”

- **Dutch Disease**

In a Dutch Disease Model, if the country experiences the greater the natural resource endowment, the lower is the demand for non-tradable goods. Consequently, the manufacturing sector tends to shrink and the tradable goods sector tends to expand. Myanmar’s manufacturing sector has shrunk due to the country was dependent on natural resources. According to the World Economic Forum (see Figure 8), Myanmar’s institutions, infrastructure, innovation and financial market etc. are below that of emerging countries (Schwab, Klaus 2015).

Figure 8: Myanmar: *Relative Competitiveness 2015-2016*



Source: WEF – Global Competitiveness Report 2015-16

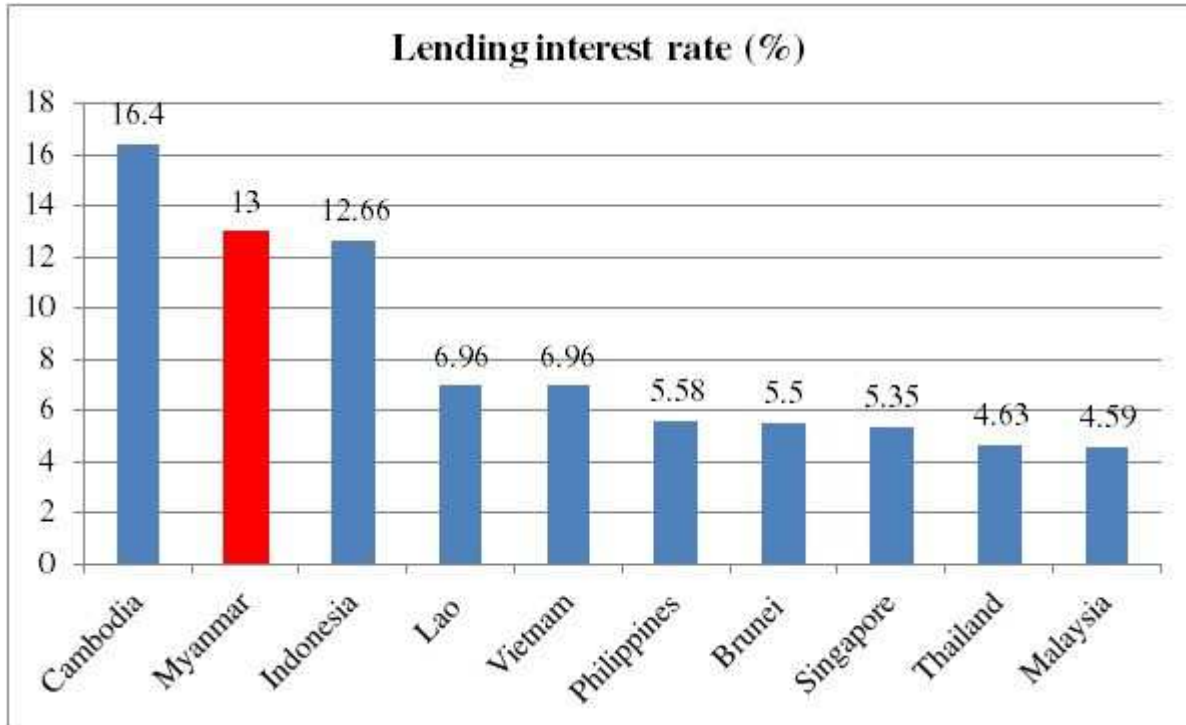
The natural resource sector booms but the remaining sectors lag behind. The whole economy suffers from the secular stagnation since the natural resource sector development has clear physical barriers to expansion while the rest of the economy is constrained by economic conditions (low profits, poor access to credit lines, low domestic demand).

For instance, the contribution of Myanmar's banking sector to the economy is limited and the banking asset to GDP ratio is 49% which is the lowest compared to its peer countries, (Chassat & Foerster, 2016). In Myanmar's banking sector, foreign banks that have strong equity base are restricted by the Central Bank of Myanmar⁶ from lending loans to local businesses though the state-owned banks have limited capabilities and private banks lack the critical scale (ibid; Htike, 2014). The banks of Myanmar charge 13 percent interest rate on loans, which are the second largest in the ASEAN countries (see Figure 9). Not only is

⁶ It is not clear whether the Central Bank of Myanmar is now independently operated by itself since it has been under the direct military control for many years.

interest rate high, but also borrowers must show collateral for loans which have put businesses in a difficult position (Aung, 2017).

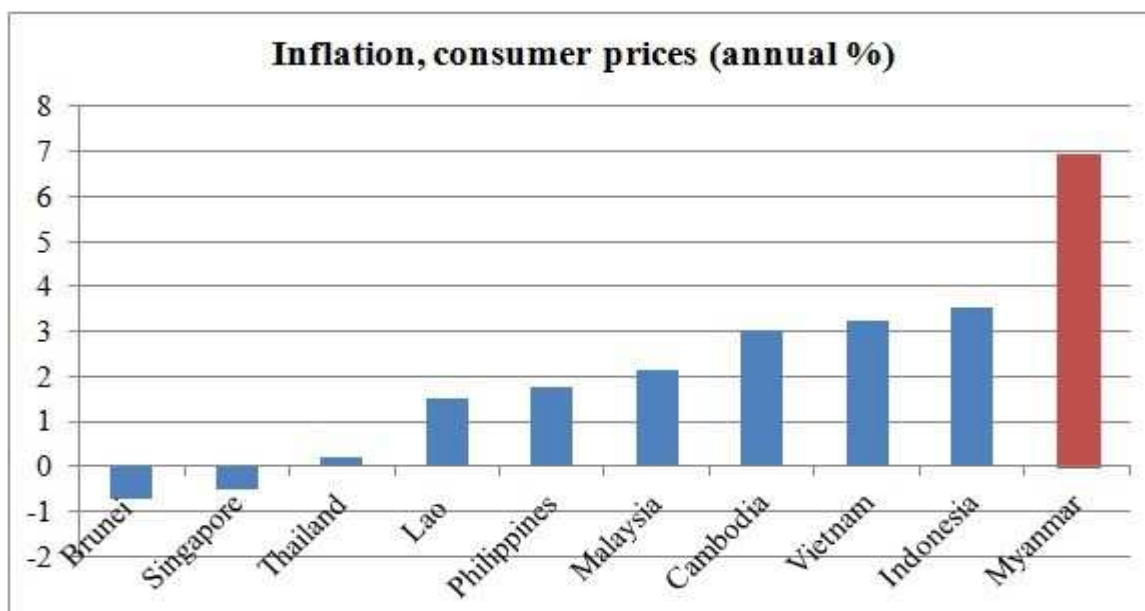
Figure 9: Myanmar's Lending Interest Rate



Source: World Bank

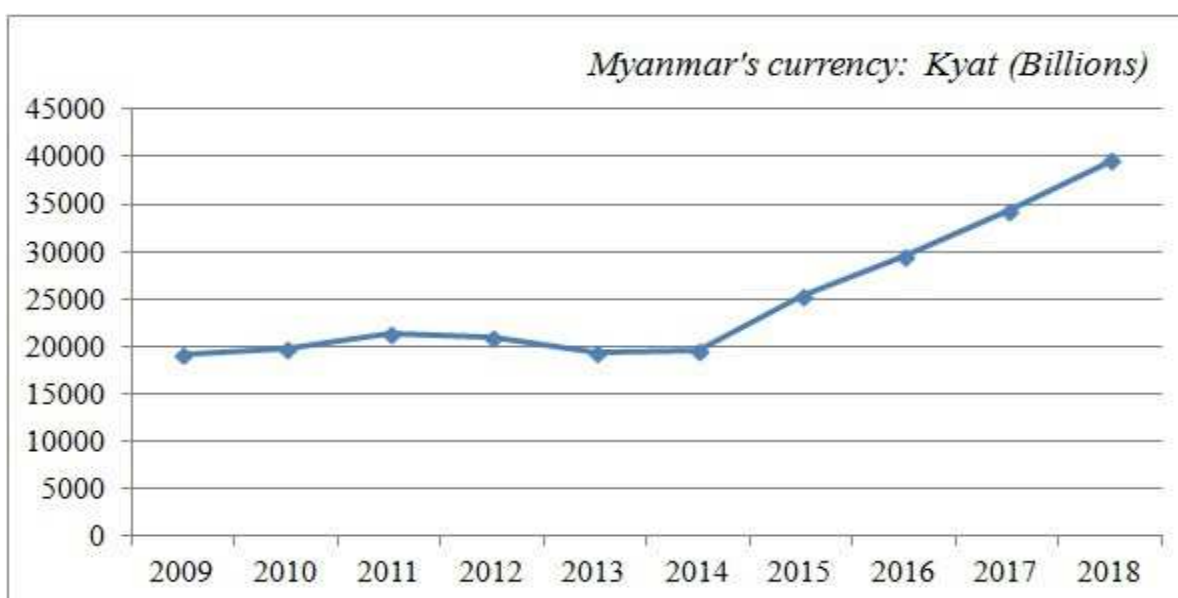
Moreover, Myanmar's economy has been slammed by high inflation for many years. The inflation occurs due to rising food prices, the depreciation of Myanmar's currency 'Kyat', and higher import prices (Kyaw, 2015). Higher inflation has weakened the purchasing power of the kyat. Myanmar's kyat has lost its strength against the US dollar and has driven down the competitiveness of Myanmar's exports.

Indeed, Myanmar's inflation is the highest amongst the ASEAN countries (see Figure 10). According to the World Bank, Myanmar's inflation rate has risen from 5.8 percent in 2015 to 6.9 percent in 2016. It is a result of mismanagement of monetary operations by the Central Bank, for example, an inflexibility of the exchange rate and lack of ability to supervise its banks (MBT, 2016).

Figure 10: Myanmar's Inflation in 2016

Source: World Bank

Consequently, Myanmar suffers from debt overhang and repaying debts becomes a challenge for Myanmar government. The Paris Club canceled \$5.925 billion, Norway canceled all the \$534 million and Japan wrote off more than \$3 billion of Myanmar debts in 2013, but Myanmar still owes approximately USD \$9 billion (Reuters, 2013; Htwe, 2017). According to the IMF, Myanmar's debt in 2018 is around 39000 billion kyat which is the estimated 35.75% of its GDP (see Figure 11).

Figure 11: Myanmar's General Government Gross Debt

Source: IMF (2017)

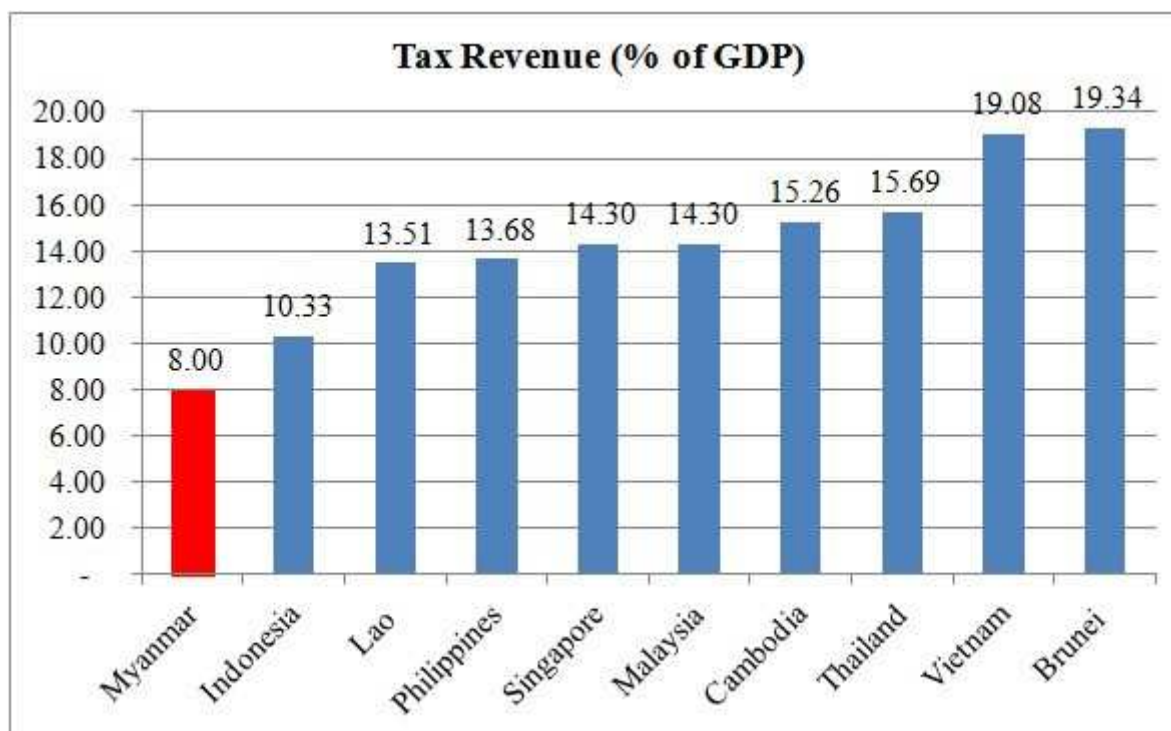
Myanmar's major creditors are China approximately with US\$3.96 billion, which is 44 percent of its total foreign debts, the Paris Club with US\$3.3 billion and to countries under the Paris Club, and international organizations like the Asia Development Bank and the World Bank (Htwe, 2017).

- **Rentier Effects**

As Ross (2001) argues that the “rentier effect’: *Taxation, Spending, and Group Formation Effects,*” may occur if the military regime earns direct and considerable revenues from resource extraction. The revenues from resource extraction reduce the need for the regime to tax the population, spend on patronage to mitigate dissents and prevent the formation of social or special interest groups.

Myanmar proves this argument as the regime has taxed a lower tax rate on its citizens. Since the country has earned the revenues from the resource extraction, Myanmar tax rate has the lowest tax-to-GDP ratio in ASEAN and one of the lowest in the world, at 8 percent in 2016 (see Figure 12).

Figure 12: Myanmar's Tax Revenue in 2016



Source: World Bank

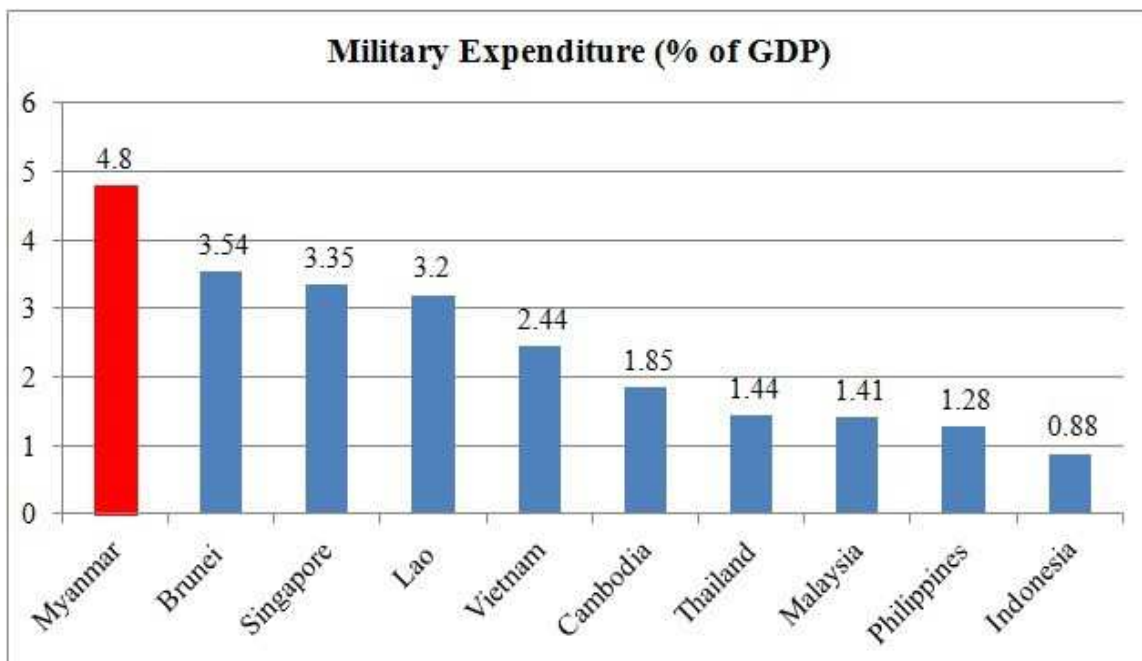
The percentages used to be even worse in the previous years under the direct military rulers. In 2011, the government collected less than 4% of GDP and by 2016 government revenue had more than doubled (The Economist, 2017). The revenues from resource extraction reduce the need for the military regime to tax the population.

The military earns the rent from resources which enable them to spend in patronage and mitigate dissents. For example, in 2012, the military and its patronage ‘police force’ severely cracked down on protestors, villagers and Buddhist monks, who protested the expansion of the Chinese Wanbao Copper Mine Company, a joint venture of the military’s UMEHL in Letpadaung, Sagaing Division, Myanmar (Marshall, 2012). Myanmar’s police forces who take the security for the military joint ventures ‘jade mining companies’ in Phakant constantly shoot mining workers (Coconuts, 2016, Mizzima, 2017).

- **Repression Effects**

The revenues from resource extraction allow the military regime to spend on internal security and block the population’s political demands. Although citizens want political changes or democracy, the regime represses them by spending a huge amount of money on internal security. According to the World Bank database, Myanmar’s military expenditure is the largest amongst ASEAN countries (see Figure 13).

Figure 13: Myanmar’s Military Expenditure in 2016



Source: World Bank

Myanmar's military spending has been opaque for many years since budgets were not published at all for many years. However, Bunte (2017) calculates the military's spending based on the data from the Stockholm International Peace Research Institute (see Table 2).

Table 2: Myanmar's Military Spending

Year	Spending by calendar year (in billion kyats)	Spending (in constant [2014] USD millions)	% of GDP	% share of government spending
1988	1.6	242	2.1	-
1989	3.7	430	3	-
1990	5.2	511	3.4	-
1991	5.9	443	3.2	-
1992	8.4	514	3.4	-
1993	12.7	591	3.5	-
1994	16.7	628	3.5	-
1995	22.3	668	3.7	-
1996	27.7	713	3.5	-
1997	29.8	593	2.7	-
1998	37.7	713	2.3	9.7
1999	43.7	484	2	9.2
2000	58.8	653	2.3	10.7
2001	63.9	585	1.8	9.6
2002	73.1	426	1.3	8.9
2003	148	634	1.9	13.9
2004	173	708	1.9	11.8
2005	192	716	1.6	9.6
2011	973	NA	2.6	18
2012	1902	2969	4.6	17.6
2013	2210	3269	4.7	16.3
2014	2336	3276	4.3	12.9
2015	2549	3187	3.9	13.3

Source: Bunte (2017)

The military spending has seen a steady rise since 2011. In 2013, Myanmar's military was granted a \$3.2 billion annual budget, just over 16 percent of total government spending in the poverty-stricken country (Chiang Rai Times, 2013). Furthermore, a special fund law enacted in 2011 makes it possible for the military to access additional funds without parliamentary oversight (Selth, 2015, p.11, Bunte, 2017, p.116). The increase in military spending can be interpreted as a tool to suppress not only the ethnic minorities but also to civilians who demand changes.

It is incontrovertible that the natural resources are major incentives for the military to remain in the economy since the revenues from resource extraction can be easily expropriated within a narrow group of political insiders and spent in their political purposes. And people who are linked with the military can benefit from natural resource extraction. But a super majority of the citizens of Myanmar lives in a severe standard of living. Myanmar's abundance of a natural resource is thus a curse for ordinary citizens more than a blessing since they live in abject poverty among a land of profitable reserves.

7.2. Hypothesis 2: Demobilization through Business Concessions

“Natural resource is an important tool of the military to demobilize ethnic armed groups by granting business concessions that become a part of a continued military power-game, which crowd out the need of economic reforms and market-driven social development.”

Tatmadaw has used the natural resource as a ceasefire capitalism to mitigate conflict, demobilize groups, build political coalitions as business concessions to the ethnic armed groups to transform Border Guard Force (BFP), militias and sign ceasefire agreements. Woods (2011, p.751) also states that “Ceasefire capitalism is meant to capture the particular modes of finance, landscape production, governance, and military–state formation within ceasefire spaces that together co-emerge over time.”

Myanmar has several ethnic armed groups that have signed ceasefire agreements with the military, transformed the Border Guard Force (BGF) and militias. An integral part of these agreements was to give the ethnic groups economic concessions and the control of natural resources (Global Witness, 2003, p.9). These groups are all believed to hold business assets—particularly involving natural resource extraction—in their territories.

I will give three ethnic armed groups that have gained business concessions from the military regime as an example. These groups are the United Wa State Army, Pa-O National Organization, and Kachin Independence Organization.

▪ United Wa State Army (UWSA)

After signing the bilateral ceasefire agreement in 1989 and 2011, the UWSA controls jade mines in Hpakant Township, Kachin State through its former financial affairs chief and drug lord Wei Hsueh Kang (Global Witness, 2015, p.62). Wei Hsueh Kang's jade company is exceptionally powerful by using the UWSA name. Wei Hsueh Kang is a beneficial owner of

other small companies. Wei Hsueh Kang normally coerces other jade companies to come under the UWSA-associated umbrella by making threats and using lawsuits to harass other companies (ibid, p.66). The UWSA benefits huge amount of revenues from jade business through Wei Hsueh Kang and his jade businesses.

- **Pa-O National Organization (PNO)**

The PNO signed the Nationwide Ceasefire Agreement (NCA) along with other seven armed groups in 2015 under the previous government led by the then President Thein Sein. The group had a former ceasefire agreement made in 1991 and this agreement earned business concessions from the military. The PNO's business company dubbed Ruby Dragon has become a prominent player in the jade and ruby industries (ibid, p.67). The Ruby Dragon diversifies its business from jade extraction to manufacturing and hospitality. The group earns a significant revenue stream from jade extraction.

- **Kachin Independence Organization (KIO)**

The KIO also benefits from jade extraction through its own company called 'BUGA Company Limited' and taxation. After signing the ceasefire agreement with the military in 1994, the military junta did not allow the KIO to collect tax in its controlled areas but granted permission to the BUGA Company Limited to do some businesses.

The KIO relied heavily on precious jade for its funding and the BUGA became a major income generator for the KIO. The BUGA Company Limited ran several businesses ranging from jade business to mining gold, to logging timber, to running sugar factory and giving electricity through its hydropower. The BUGA bought the sugar factory from the military regime for an estimated US\$150,000 (Kumbun, 2017).

After the KIO refused to transform into the Border Guard Force in 2011, the military regime restricted not only the KIO's businesses but also stymied BUGA Company Limited in doing businesses, particularly in jade business. The KIO then renewed collecting taxes over jade companies in Hpakant in December 2010 (KNG, 2010). According to the ceasefire pact, the KIO did not collect tax in the military-controlled areas, but they started collecting taxes in Hpakant.

These ceasefire groups have benefited substantial revenues from the natural resource extraction particularly from jade business. The UWSA and PNO have gained the highest amount of revenues from jade business (see Table 3).

Table 3: Data of Jade Business Ceasefire Groups' Benefits

Category	Name	2013	2014	Total Sales in USD
Ceasefire groups-related	Wei Hsueh Kang/UWSA-associated	58,770,400.00	43,009,842.00	101,780,242.00
	Ruby Dragon Group/PNO-associated	46,141,698.00	58,637,973.00	104,779,671.00
Grand Total				206,559,913.00

Source: Global Witness (2015)

In this table, there is no data of the KIO's benefits, but the KIO also benefits from a jade business via collecting taxes. According to the Global Witness, many of bigger companies each paid over between US\$ 100,000 and US\$ 500,000. The KIO collected over US\$ 20 million from the companies in January 2012 alone (Global Witness, 2015, p. 92).

Indeed, there are many other ceasefire groups that have gained business concessions from the military and run numerous businesses such as logging forest and mining jade, gold, amber, ruby and coal, and imported cars. When delivering a speech at the Union Parliament to mark the first anniversary of his new government taking office, a former President Thein Sein said that ethnic armed groups should "swap guns for laptops" (Naing, 2012). In the sense that ethnic armed groups should disarm and take advantages what the government offers to them. Thus, the natural resources become a typical tool for the military to demobilize ethnic armed organizations.

7.3. Hypothesis 3: Resource War

"Natural resources partially trigger and fuel to civil war between the military and ethnic armed groups due to contesting resource grabs."

The military's recent clearance operation against the KIO underlines the visibility of resource war. The military has been attempting to control amber-cum-gold rich areas in Kachin State by conducting its 'clearance operation'. On 5 June 2017, the military helicopters dropped leaflets over amber mining areas, ordering amber miners to leave by June 15 or risk being "considered as cooperating with the terrorist group KIA, the armed wings of the KIO (Mon, 2017; Lat, 2017). Then, on 4 August 2017, Maj. Hlaing Phyu – a military

representative – proposed amber-rich Tanai area as an environmentally protected area in the Kachin State parliament (RFA, 2017). The military’s argument was that the KIA had benefited through taxes from illegal mining whereas the state government had lost revenues. Ten days later on 14 August 2018, Tatmadaw representatives assigned to Parliament (Lower House) reiterated its policy to protect amber-rich Tanai and conduct a clearance operation against the KIA in line with the 2008 Constitution—without the need for approval from the government (Zaw, 2017). The military then started conducting its clearance operation against the KIA and the fighting continues and thousands of amber mine workers have fled from the mining areas.

Mark (2018) also writes about the current civil war in Kachin State that “But underneath this military operation is actually a ‘resource war’ between the Tatmadaw and the KIO in Kachin state. Indeed, control of not only gold and amber but also jade, copper, and ruby mines in the area is important for both the Tatmadaw and the KIO.” After several months of clearance operation, Tatmadaw has taken a control over the amber-rich region in Tanai, whereas the KIA has pulled back from most of its territorial control over the amber mines (Weng, 2018).

Tatmadaw has also targeted its offensive against the KIO in resource-rich territories, such as jade-rich Hpakant areas, gold and amber-rich areas in Hugawng valley, logging forest in Sino-Myanmar border (KNL, 2012; RFA, 2012; Mizzima, 2017; Fawthrop, 2017a). The military’s attempt to control natural resources has led a resource war in Kachin State and beyond.

7.4. Hypothesis 4: China’s Resource Hunger

“China’s resource hunger is conducive to the military to exploit natural resources.”

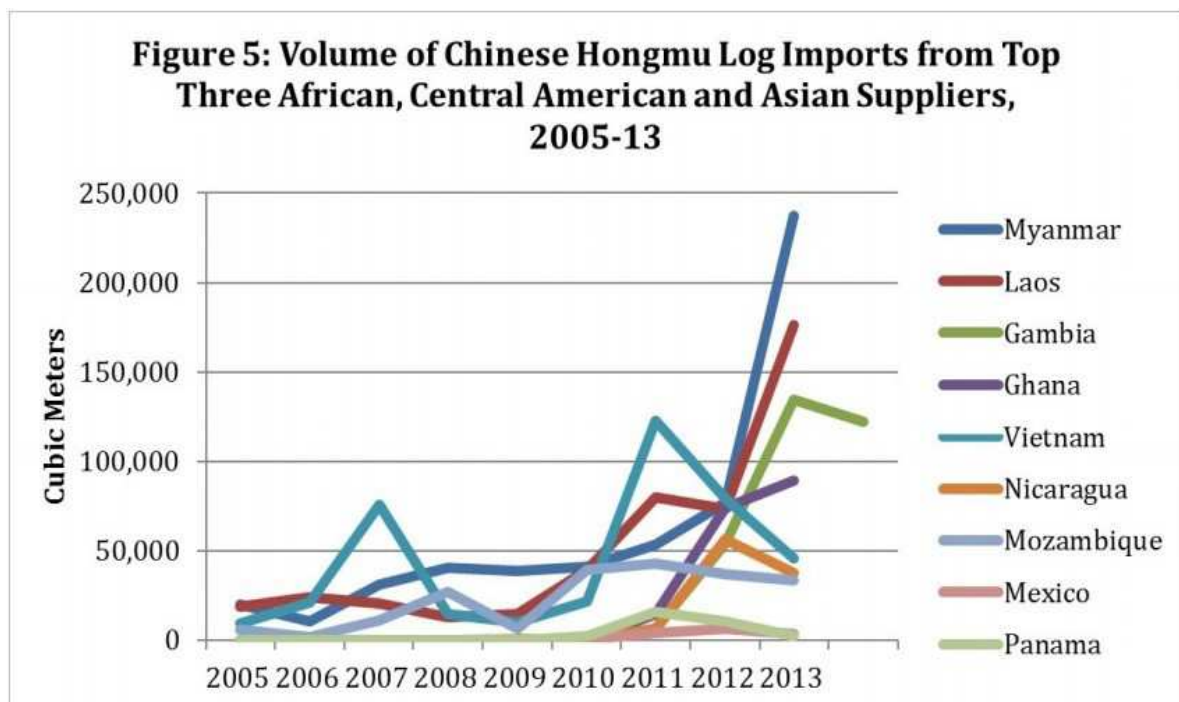
China is not only the main importer of Myanmar’s natural resources but also Myanmar’s largest trading partners. According to the World Bank, China accounted for 40.84 percent of Myanmar’s exports in 2016 (WITS, 2016).

China’s resource need for the project of the One Belt & One Road (OBOR) initiative, for factories, for electricity and for feeding millions of populations of Yunnan province, Myanmar plays a crucial role to fulfill their needs. For the OBOR project, China has built US\$2.54 billion worth parallel pipelines and has been transporting crude oil and natural gas from the Rakhine State. Wanbao Copper Mining Company – a subsidiary of the Chinese

arms manufacturer Norinco – makes it possible to extract copper. China also built USD 3.6 billion mega dams in Myitsone in Kachin State, and built Upstream Thanlwin hydropower project in Shan State. The former ones have been suspended by the former President Thein Sein in 2011, but the later one will have a capacity to generate 7,000 MW a year, but 90% of the produced electricity will be exported to China (The Nation, 2014; Fawthrop, 2017a).

China exports billions of cubic meters of timber, hardwood, Hongmu, and teak from Myanmar to fulfill its demand for classical Chinese-style furniture and décor. According to the Environmental Investment Agency (EIA), China imports the largest portion of Hongmu wood from Myanmar for its Hongmu industry (see Figure 14).

Figure 14 : China’s Import on Hongmu Log from Myanmar



Source: IEA (2014).

As China takes away the natural resources from Myanmar as much as they want, China, as a quid pro quo, diplomatically protects Myanmar at international arena particularly at the UNSC for any punishments on the military (Enze, 2016, p.158). For example, China vetoed a UN draft resolution on Myanmar in January 2007 and it also blocked a short UNSC statement expressing concern with the situation of human rights in Myanmar in 2017 (UN, 2007; RFERL, 2017). China’s resource hunger makes it possible for the military to remain in the economy by exploiting the natural resources for their own benefits and purposes.

Thus, the abundance of natural resources is a major incentive for the military to keep in the economy as they can use the natural resource as a tool of their political power-game and interest. The natural resource, in fact, is the barrier to the economic transition toward the free market system since the military has benefited the revenues from resource extraction and used the natural resources as their political interest.

Chapter 8: Possible Solutions

Tatmadaw's participation in the economy mainly via controlling the natural resources has negated the benefits of the free market system in Myanmar. It is important to cut the bloodline of Tatmadaw's motives, interest, and benefits from the natural resources in order to reinvent the free market economy.

It boils down to three possible solutions: reduce production, making payments more transparent and higher taxes, to cope with the military's control over the natural resources in Myanmar.

8.1. Reduce Production

It is undeniable that aggressive reductions in the natural resource consumption could help in reducing prices and hence the flow of money to Tatmadaw. By reducing its total resource consumption, consumers particularly China could help both reduce gemstones' prices and undermine the resource-based military. But China will not stop buying and exploiting the natural resources from Myanmar as it needs to fulfill the resource hunger.

Thus, the production of natural resources is an alternative option to mitigate the military's control over the resources. As the level of informality varies between sectors, oil and gas are increasingly formalized, whereas informal extraction such as jade, gold, amber, and timber has been estimated to vastly exceed formal extraction (Lynn and Oye, 2014). The NLD government must address the current illegal extraction and exceed production of the natural resources by enacting laws, restricting extraction licenses and controlling the companies, enforcing rule of law, and taking action on illegal businesses. The NLD should pass legislation that prohibits the military and its patronages such as police and serving officers from establishing and operating beneficial ownership over companies. It is

appreciable that the NLD government has recently removed import-export restrictions on gold and gold products – the restrictions had been imposed by the military regime for many years – aiming to regularize the domestic industry and stem the informal trade in gold (Thiha, 2018).

If the government cannot reduce the exploitation and production of the natural resources as these resources cannot be replanted, the country will end up with nothing except beefing up the strength of the military and an extinction of the resources. For example, forests – a non-renewable resource - take hundred years to grow a forest for the logging maturity while it takes a couple of weeks to turn the forest into a barren clearance (e.g. by a forest poaching). Logging forests can become an exceptionally prosperous private business while causing enormous social losses to the society at the same time. U Tint Soe, a member of Lower House, from Hpakant Township, also expresses that Myanmar's natural resources, for example, jade bounty are disappearing due to a large-scale excavation (Htwe, 2016).

Therefore, the current civilian government must prevent from exceeding production of the natural resource through enacting laws. Controlling the production of the natural resources will be conducive to prevent the military from benefiting the revenues from the resource sectors which, in turn, can reduce Tatmadaw's participation in the economy.

8.2. Making Payments More Transparent

The revenues from the natural resources are obscure since the government discloses only “partial” or “scant” information about their resource revenues, particularly its formal revenue collection. The disaggregated budgets of state-owned enterprises, audit responsibilities, and the procedures are not always transparent (Lynn and Oye, 2014).

In 2002, then British Prime Minister Tony Blair launched the Extractive Industries Transparency Initiative (EITI), aiming the resource-rich countries to publicly disclose their income (Ross, 2011). Myanmar became the EITI candidate country in 2014 and it now submits the EITI annual progress report (EITI, 2017). This requirement will make it tougher for the military to hide their rents. The government thus should prioritize full implementation of EITI in the natural resource sector particularly in the jade sector by publishing data on license bidding processes, the production volumes; government revenues including revenues from government shares of state-owned enterprises, and license terms (Global Witness, 2015, p.19).

The NLD government should audit the accounts of state-owned enterprises and the military-owned conglomerates such as UMEHL or MEC and publish the details of all natural resource revenue receipts and transfers to the government. If the NLD government can enforce a greater transparency in the natural resource markets, the possibility of Tatmadaw to use state funds for graft is lesser.

8.3. Higher Taxes

Not only is levying proper taxes on the natural resource extraction important to mitigate tax holidays and illegal trade, but higher taxes on the natural resource sectors also reduce the production of the resources and increase the state revenues.

Lynn and Oye (2014) analyze that it is very difficult to measure the exact share of revenues deriving from natural resources because (1) tax revenue includes taxes paid by concession companies and the state-owned enterprises; (2) taxes collected by different ministries and sub-national entities are not all uniformly recorded.

The government's the Internal Revenue Department targeted 332,591.27 million Kyat tax collection on minerals and gems, oil and gas, and logging forest in 2014/2015 (see Table 4), which target was very low amount compared to what the military officials gained the rents from jade sales in 2015 alone.

Table 4: IRD targets for tax collection on state-owned resources in 2014/2015

Sr. No.	Tax	Million (Kyats)
1	Taxes on minerals and gems	1,400.00
2	Taxes on oil and gas extraction	329,343.27
3	Taxes on extraction of forest products	1,848.00
Total		332,591.27

Source: Lynn and Oye (2014)

Thus, the NLD government should simplify and clarify taxes on the natural resource extraction, with input from the private sector, local people, and civil society and strengthen revenue collection systems to reduce tax evasion, impose higher taxes on the resource sectors. By imposing higher taxes on the natural resource sectors, the country not only earns higher revenues, but also it reduces the production of resource extraction.

All in all, in order to mitigate participation of the military in Myanmar's economy and invent a free market system, it is very crucial to control the natural resource sectors which are a major incentive for the military to remain in the economy. To do so, the NLD government should do three possible solutions: reducing the production of the sources, making payments more transparent and levying higher taxes. Once the military loses its control over the natural resources, the characteristics of its centrally planned economy will no longer serve as the allocational and the distributional mechanism in Myanmar's economy, and, an efficiently functioning market system will replace on the direct economy.

Chapter 9: Conclusion

This master thesis aims to have the free market system in Myanmar where the economic activities are unfettered from the military's involvement and the economic functioning is fully fledged. Aiming to achieve this goal, the thesis has analyzed the barrier to an economic transition from the military's intervention to a free market economy.

The thesis has focused on the natural resource sector and analyzed whether it is a barrier to an economic transition toward a free market system. It has examined the three sectors of the natural resources namely the gems (jade, gold, and amber), oil and gas, and logging forest. In gems sector, the data has shown us that the military has benefited a whopping amount of money from the jade extraction. It is very opaque how much revenue the military has gained from on oil and gas, and amber extraction since a reliable data is unobtainable as they do not disclose them. However, the thesis finds that the military was involved in the resource extractions through its companies 'UMEHL' and 'MEC' and business cronies, patronages such as police and individual serving officers in different ways. For example, it is not clear whether the payment from China for oil and gas pipeline goes to the state revenues since the government does not disclose the data publicly.

Due to Tatmadaw's control over the natural resources and the greater the natural resource endowment, the whole economy suffers of the secular stagnation and the Dutch Disease since the natural resource sector development has clear physical barriers to expansion while the rest of the economy is constrained by economic conditions (low profits, poor access to credit lines, low domestic demand). Moreover, the 'rentier effects' and 'repression effects' occur due to the natural resources have been used by the military for its political purposes and power-game.

The military regime has used the natural resources for a political goal by granting concessions to ethnic insurgencies so as to demobilize the groups, sign ceasefire agreement, and transform to Border Guard Force or militia. Thus, the natural resources have become a major incentive for the military to remain in the economy, and in the national political setup, since not only have they gained the revenues from the resource extractions, but also they can use the resources for their political goals.

China's resource hunger is also conducive to Tatmadaw to remain in the economy by controlling the natural resources that China really needs and wants. As China needs substantial resources such as oil and gas, timber, copper, other mineral and electricity for the OBOR project and for its citizens, the military is in a dominant position to trade the resources with China's protection in international arena particular at the UN. Thus, China's resource hunger makes it possible for the military regime to remain in the economy by exploiting the natural resources for their own benefits and political purposes. The military in Myanmar and the Chinese government are thus natural allies that both benefit vastly from their coalition, allowing the political and economic *status quo* in Myanmar to persist.

In fact, the abundance of natural resources is a major incentive for the military to keep in the economy and is a barrier to the economic transition toward the free market system since the military has gained revenues from resource extractions and can use the natural resource as a tool of their political purpose and power-game.

In order to reduce the military's control over the natural resources and intervention in the economy, the thesis gives three possible policy recommendations, such as reducing production of the natural resources; making payments more transparent; and levying higher taxes on the resource businesses.

All in all, if the three possible solutions can be implemented by the NLD government in Myanmar, the military regime will gradually give up its control over the natural resources and its participation in the whole economy. Myanmar will have the free market system where the economic activities are unfettered from the military's participation and the government will remain as a facilitator in the economy.

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Appendices

Picture A: A giant £140 million worth jade stone



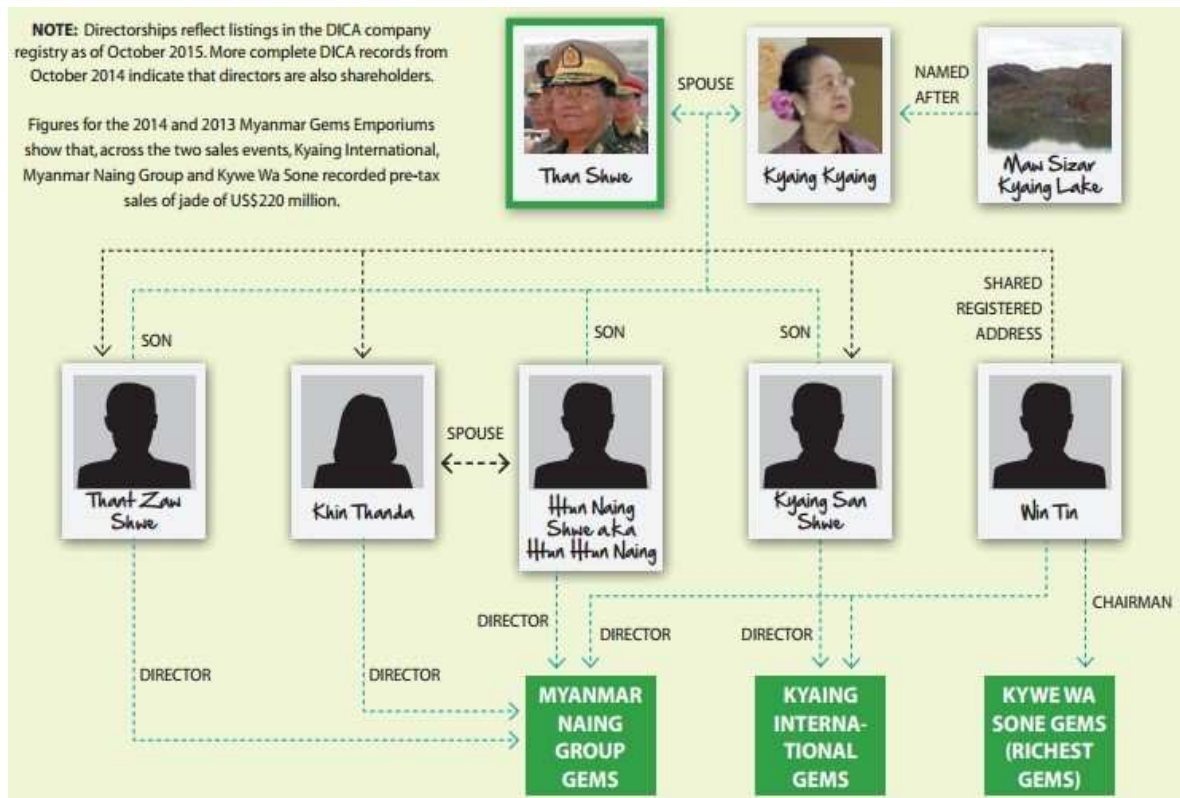
Source: Khan (2016) /The Independent

Picture B: Mass Demonstration over Jade Bill in Myitkyina



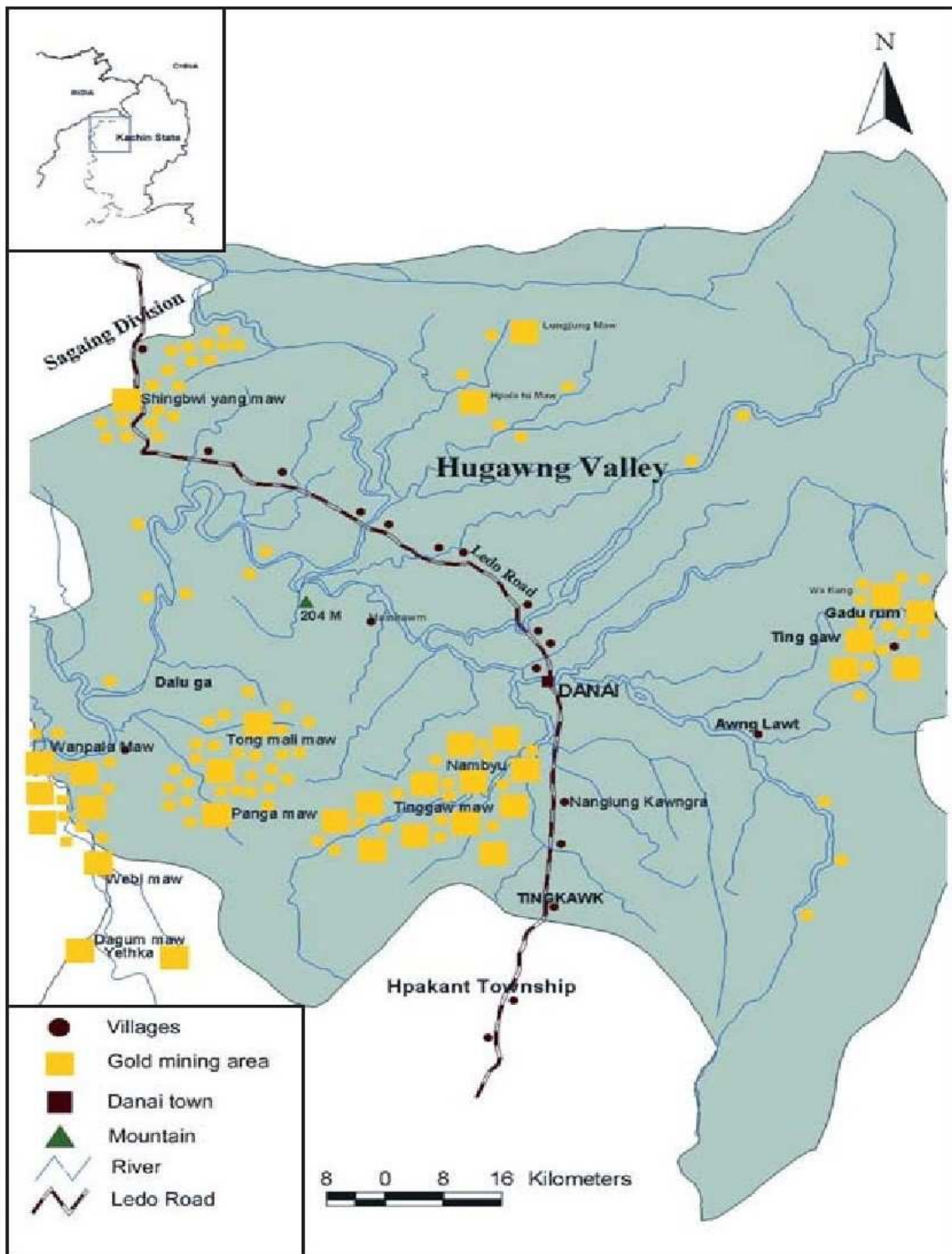
Credit: M Kawn La/Facebook page

Picture C: Jade companies controlled by the family of former Senior General Than Shwe



Source: Global Witness

Map A: Gold Mining Areas in Hugawng Valley



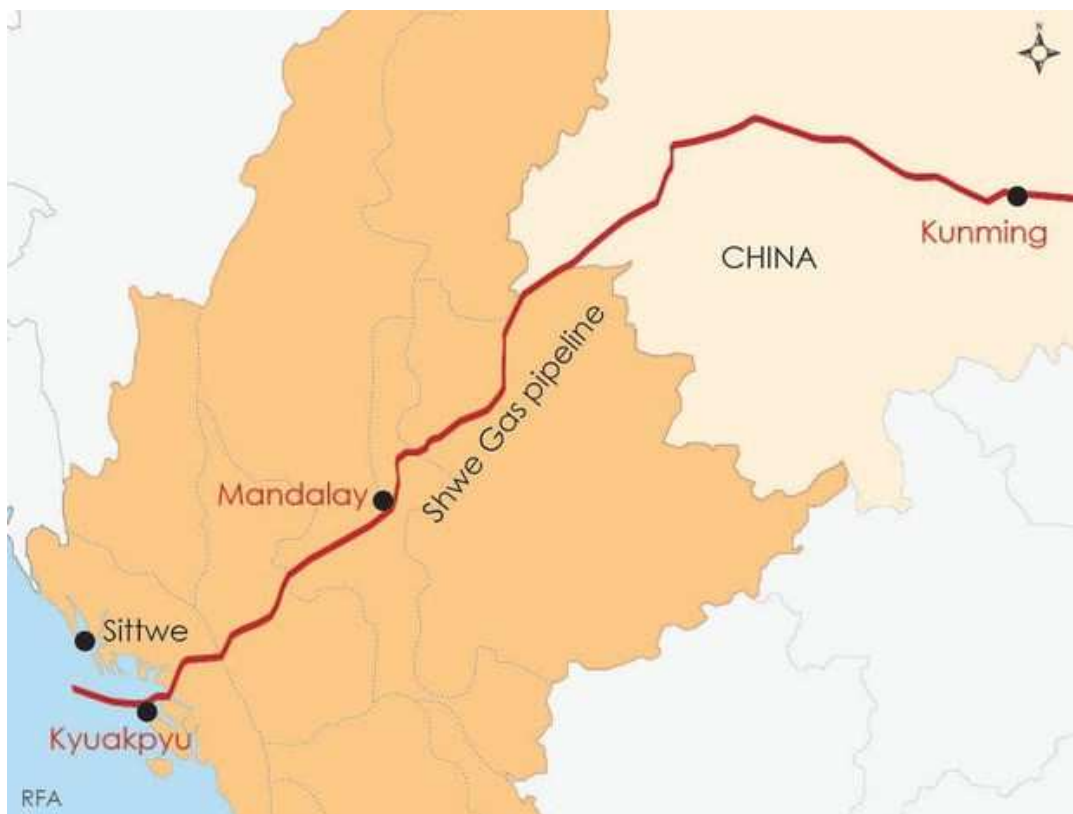
Source: KNDG (2007)

Picture D: Amber with the feathered tail



Source: Rincon (2016)/BBC

Map B: Myanmar-China Shwe Gas Pipelines



Source: RFA

Picture E: Myanmar Timber Logging



Source: Forest Trends