

MONGOLIA'S ECONOMIC SECURITY: HOW CAN ECONOMIC DEVELOPMENT
FURTHER SUPPORT MONGOLIAN NATIONAL SECURITY
THROUGH DEVELOPING ITS MINING SECTOR?

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General Studies

by

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

MONGOLIA'S ECONOMIC SECURITY: HOW CAN ECONOMIC DEVELOPMENT FURTHER SUPPORT MONGOLIAN NATIONAL SECURITY THROUGH DEVELOPING ITS MINING SECTOR, by LTC Munkh-Orgil Tuvdendarjaa, 91 pages.

A strong economy is the pillar of an effective national security strategy and an instrument of national power. Mongolia's geographic position between two political and economic powers (China and Russia) provides both opportunities and disadvantages for Mongolia's economy. Mongolia's economy is currently sustained through exports of raw minerals to its neighboring countries, which means Mongolia is vulnerable to the mineral market values of those countries. Moreover, highly ambitious natural resource extraction hinders other potentially productive domestic economic manufacturing sectors, which impacts Mongolia's overall economic development. Therefore, Mongolia needs to develop a multi-pillared, sustainable economic structure based on its resources under a strategic institutional management. This thesis argues that economic and national security are inseparable. Therefore, Mongolia must leverage and develop its mining sector to bolster its economic security, further enhancing its national security. The author stresses the importance of developing an economic security strategy in Mongolia and recommends ways to accomplish this.

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ACRONYMS

ASEAN	Association of Southeast Asian Nations
ASEM	Asia-Europe Meeting
BOM	Bank of Mongolia
CMEA	Council for Mutual Economic Assistance
DSA	Debt Sustainability Analysis
EITI	Extractive Industries Transparency Initiative
EUASEC	Eurasian Economic Community
GDP	Gross Domestic Product
IMF	International Monetary Fund
MOFCOM	Chinese Ministry of Commerce
OSCE	Organization for Security and Co-operation in Europe
PBOC	People's Bank of China
PPG	Public and publicly guaranteed debt
PPP	Purchasing Power Parity
SCO	Shanghai Cooperation Organization
SOEs	State-owned enterprises
UNDAF	United Nations Development Assistance Framework
UNIDP	United Nations Industrial Development Organization
USSR	Union of Soviet Socialist Republics
WTO	World Trade Organization

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CHAPTER 1

INTRODUCTION

Background

Mongolia's economy is based on agriculture, livestock, and mining industries; but the central Asian nation has not developed domestic heavy industries to support its economic growth. According to Batchuluun, the mining industry of Mongolia is responsible for one-fifth of Mongolia's Gross Domestic Product (GDP), two-thirds of its industrial output, three-quarters of export earnings, and one-half of public revenue.¹ In 2014, the mining sector's contribution to the Mongolian economy represented about 26 percent of national GDP.² During the last decade, Mongolia's economy has been buffeted by the varying value of the global mineral market with its economic growth fluctuating greatly as a consequence. For example, The World Bank reported that copper concentrations alone constituted 37 percent of total exports and coal constituted 13 percent of total exports in 2014 with copper exports to China projected to account for almost half of total exports by the end of 2017. However, a sharp drop in coal exports to China has been a significant drag on Mongolia's economy and the external accounts for 2015. A 10 percent drop in copper and coal export revenues from the baseline projection would widen

¹ Amrita Batchuluun and Joung Yol Lin, "An Analysis of Mining Sector Economics in Mongolia," *Global Journal of Business Research* 4, no. 4 (2010).

² World Bank Group, *Mongolia Economic Update* (New York: World Bank, 2014), 8.

Mongolia's current account deficit by more than 3 percentage points of GDP in 2016.³

This finding affirms that the mining sector is a major component of the Mongolian economy and will remain a vital part of the nation's development.

The world economic crises of 2008 had telling effects on the mining industry in Mongolia. The prices of copper fell from \$8,000 a ton to \$3,400. This worldwide recession negatively impacted Mongolia's economy, given that the mining industry is the main economic pillar of the Mongolian GDP. This resulted in Mongolia's monetary balance going from 4.4 percent of GDP surplus into a deficit of 9.6 percent.⁴ This simple finding is testimony to the place and vitality of the mining sector in the overall economic growth and national development of Mongolia.

In general, economic security and its development is a vital part of the overall national security of all modern countries, Mongolia being no exception. Ronis has demonstrated that economic security is crucial to national security through explaining how Union of Soviet Socialist Republics (USSR) national security disintegrated due to the lack of economic security.⁵ Stephen Wegren writes that 1990s, due to the political and economic uncertainty Soviet Union's economy contracted up to 50 percent industrial output, 40 percent of the agricultural production lost, and unemployment spiked, and

³ World Bank Group, *Mongolia Economic Update* (New York, World Bank, 2015), 37.

⁴ World Bank Group, *Mongolia: The Political Economy of the Resource Paradox, Synthesis Note* (Washington, DC: World Bank, 2009), accessed November 21, 2016, <http://www.worldbank.org/en/country/mongolia>.

⁵ Sheila Ronis, "Economic Security is National Security" (Lecture, National Defense University, Washington, DC, October 1997).

budget deficiencies and public debt were unleashed.⁶ This shows that economic stability, its strength is the important to national security and its failure could lead to unexpected consequences.

In addition, Neu Charles suggests national security centers on the use of economic tools as means to achieve national security ends, as the United States uses its economy as one of the main instruments of national power.⁷ Furthermore, Ronis has emphasized that economic security is national security, even as borders are less important than ever.⁸ For example, Mongolia was one of the worst impacted countries in East Asia by the global financial crisis in 2009 due to its significant dependence on natural resources exports. Nowhere is this more apparent than in contemporary Mongolia.

Research Problem

This thesis examines the concept of economic liberalism in the context of the contemporary Mongolian security environment using the framework of systems theory. While there is discussion about the development of contemporary Mongolian economy, there is a lack of research on the linkages between economic security and national security, particularly in the mining sector. The thesis aims to fill the gap between economic security and national security through analyzing Mongolia's mining sector development. The study provides a framework for the economic development of

⁶ Stephen Wegren, *Putin's Russia: Past Imperfect, Future Uncertain* (London: Rowman and Littlefield, 2016), 177-78.

⁷ C. Richard Neu and Charles Wolf, Jr, *The Economic Dimensions of National Security* (Santa Monica, CA: Rand Corporation, 1994), 7.

⁸ Ronis, "Economic Security Is National Security."

Mongolia, focusing on the country's mining sector, thus contributing to the furtherance of its national security. A direct connection between economic factors and national security has not been addressed for Mongolia. In contrast, the United States national security policy has viewed economic and national security interests as connected during the Cold War. For instance, Donald Losman writes that by the mid-1970s, American policy analysts had argued with respect to economic security that global economy was highly interrelated and the United States dependence on goods from other countries might affect national security.⁹ Also, during the cold war period, the United States' conflict containment strategy sought to bottle up the Soviet bloc using its national powers and employed a strong defensive effort to support it.¹⁰

The purpose of this research is to explore viable measures for furtherance of national security by achieving economic development, through a focus on the mining sector.

Research Question

The primary question being answered by this thesis is How can economic development further support Mongolian national security through developing its mining sector? Keeping in view the peculiar environment of the country and the dependence of the economy on mining, a number of secondary questions are also addressed:

⁹ Donald Losman, "Economic Security a National Security Folly," *Policy Analysis* 409 (2001): 5, accessed March 16, 2017, <https://object.cato.org/pubs/pas/pa409.pdf>.

¹⁰ David Denoon, "Economics and National Security," *Politics*, accessed December 5, 2016, <http://politics.as.nyu.edu>.

1. How can Mongolia further develop its mining sectors?
2. How can the mining sector contribute more to the economic growth of the country?
3. How can economic development enhance national security?

Enrico Columbia determines that economic development is institutional evolution to support economic liberty, economic growth and enhance highest productivity.¹¹ The mining sector is a main contributor to Mongolia's economy and one of the main pillars of the national security concept. To ensure an appropriate theoretical framework, research pursuant to intrinsic case studies is vital. Thus, it is vital to conduct research under intrinsic case study in theoretical framework. This study will analyze and identify the relationship between economic development and national security through analyzing Mongolia's mining sector development. Due to the time limitation and various commitments during the classes of the Command and General Staff College, limited literature will be reviewed. Similarly, the paper will not address any classified material.

Scope and Delimitations

This research will collect data from published secondary sources. The research is restricted to the economic period from 2004 to 2014. The thesis relied on openly available secondary sources for data collection. The paper does not study economic development as a broad subject, but focuses on the mining sector and its specific contribution to the Mongolian economy and national security. In the absence of domestic validated academic,

¹¹ E. Colombatto, "On Economic Growth and Development," *Austrain Economy*, 19 (2006): 243-260, accessed February 17, 2017, http://www.gmu.edu/depts/rae/archives/VOL19_4_2006/2-Colombatto.pdf.

statistic and literature reviews and others related resources to determine interrelations between the mining sector, economic development and national security of Mongolia, the majority of the analysis is based on international agencies' reports and analysis' such as from the International Monetary Fund (IMF) and the World Bank data and the work of foreign subject matter experts as cited throughout the paper.

Significance of Study

Mongolian economic prosperity is vital to the national security of Mongolia. Mongolia is a landlocked country that is sparsely populated but endowed with rich natural resources. Economic security is an important element of national security that is needed to ensure self-sustainability of a country's resources. Mongolia was under the Soviet influence both politically and economically until the 1990s for 70 years. After the collapse of the Soviet Union in the 1990s, Mongolia has been pursuing independent policies, promoting democratic values and an open market system. However, due to a lack of management and specific policies, Mongolia relies on foreign investors who manage and run the mining industry. This arrangement deprives Mongolia of the true benefits of its wealth.

In the absence of any significant heavy industrial development in other economic sectors, Mongolian economy is largely dependent on its mining sector and its further development to support these other economic sectors and will therefore have a direct impact on the overall state of affairs in the country. There are more than 8,000 deposits with more than 440 types of minerals, including gold, silver, copper, molybdenum, lead,

steel, iron, coal, fluorspar, salt, semi-precious stones, and crystal.¹² Currently, the natural resource sector has a major impact not only on economic development but also on the national security of Mongolia. The National Security Concept of Mongolia emphasis to ensure development of the mineral sector should avoid becoming a field of confrontation or conflicting interests among the domestic and foreign political interests or businesses. Therefore, analyzing the development process and determining appropriate management of the mining sector is crucial to the domestic economic development and national security concerns of Mongolia.

Research Outline

The basic purpose and theme of the research is outlined in chapter 1. The primary and secondary questions were then posed to help frame the objective of the thesis. The primary question being answered by this research paper is: ‘How can economic development further support Mongolian national security through developing its mining sector? Keeping the peculiar environment of the country in mind, and the economic dependence on mining, a number of secondary questions are also being addressed:

1. How can Mongolia further develop its mining sectors?
2. How can the mining sector contribute more to the economic growth of the country?
3. How can economic development enhance national security?

¹² M.A.D., “The Mongolian Real State Report,” accessed November 30, 2016, <http://madresearch.com/mongolia/macroeconomicsmongolia/mining-sector-mongolia/>.

In chapter 2 of this paper, the author reviewed the literature under four inter-related categories; International Security Paradigm and Mongolian Economy, Economic Liberalism and Systems Theory, Mongolia's Economy and Its Mining Sector, and Nature of Relationship between Economic Security and National Security. The author also made an effort to underline the relationship of economic dependency and national security, in the peculiar Mongolian environment.

In chapter 3 rides on the literary foundations and sets out the methodology and design which the author sought to answer the respective research questions. The applying methodology covers subsequent chapters to determine theoretical framework of the mining sector, economic development and national security.

In chapter 4, the author analyzed the data that was gathered in chapter 2. The author also analyzed Mongolia's economic statistics from 2000 to 2014. Based on this analysis, facts based findings were highlighted in response to the primary and secondary research questions.

Chapter 5 concludes the overall thesis and recommends suitable, feasible and acceptable strategies for mining sector development, with the overall purpose of improving the Mongolian national security. The author also highlights related areas for further study by future researchers.

Summary and Conclusion

Mongolia's economic development is a key component of the nation's growth as the country tries to balance diplomatic relations with its powerful neighbors. A strong economy is part of the political instrument to protect and support Mongolia's national interests in a complex world. This chapter has provided a brief introduction of the thesis,

covering the short historical background of Mongolia's economy. The chapter also presented the research questions, methodology, and limitations of the study. Chapter 2 will discuss the available literature to examine Mongolia's economy and the process of market based economic reform, particularly related to the development of the mining sector.

CHAPTER 2

LITERATURE REVIEW

The Mongolian economy is largely dependent on its mining sector, but the existing arrangements do not fully exploit the natural potential of the country. The mining business is currently dominated by foreign investors. The non-availability of a strong industrial base deprives Mongolia of potential wealth given that raw materials are exported with little value added enhancements. This study identifies the gaps that exist between the national economy and a vibrant mining sector of Mongolia. It also analyzes the relations between economic development and national security by focusing on the Mongolian mining sector as the major contributor to national GDP.

The literature was collected and grouped into general areas, catering to the specific research questions as already discussed in chapter 1. The author has also made an effort to explore systems theory related to national security and economic liberalism. This assisted in establishing a common baseline for further discussion on the research questions and analysis of the resulting information. The theories are being looked at from a Mongolian stand point given its peculiar context and focus specifically on the mining sector of the multi-faceted economy.

International Security Paradigm and Mongolian Economy

Most countries experience both positive and negative globalization process with some receiving the economic “miracle” benefits while others struggle to sustain their current status and are greatly affected by the political and economic turmoil generated by domestic and foreign stakeholders. Bedeski and O’Rourke write that the international

security environment has evolved and continues to evolve across a broad array of factors that extend beyond mere military security that broadens political and economic interests.¹³

Robert Bedeski argues that the large growing competition for resources in the Middle East, Caspian Sea, Central Asia, and the Arctic Region are shaping the contours of new security challenges as China is playing the main role in the South to increase its dominance and to increase non-traditional and strategic uncertainties. He therefore expressed concern regarding national security for countries bordering China, such as Mongolia and Kazakhstan, that have associated high dependency on the export of raw materials.¹⁴

Ruchir Sharma writes that Russia's interest is to increase its present role in solving security issues in Asia, and to implement a more defensive economic strategy guarding against foreign influences which maybe destabilizing to the region's economic and political security.¹⁵ Besides, Russia is undergoing a more general reform, which has not been fully stabilized; but is still wants to retain influence over Mongolia as it does with all Asian territories.

Moreover, Robert stated that China wishes to reduce Mongolia's sovereignty through economic pressure, as increasing its economic ties allows it to play a main role in

¹³ Robert Bedeski and Ronald O'Rourke, *A Shift in the International Security Environment: Potential Implications for Defense—Issues for Congress* (Washington, DC: Congressional Research Service, 2016), 1, accessed December 2, 2016, <https://www.imf.org/external/pubs/f>.

¹⁴ Robert Bedeski and Niklas Swanstrom, *Eurasia Ascent in Energy and Geopolitics* (New York: Routledge, 2012), 77.

¹⁵ Ruchir Sharma, *The Rise and Fall of Nations: Forces of Change in the Post-Crisis World* (New York: W. W. Norton and Company, 2016), 390-93.

economic sectors. The main imports from China include rice, vegetables, and garments, and account for 90 percent of Mongolia's total imports.¹⁶ But at the same time, China is also the biggest investor in Mongolia, as more than 700 Chinese owned enterprises are operating in the country, employing more than 50,000 workers. Large Chinese state-owned enterprises (SOEs) have explicitly stated their interest to invest in Mongolian mining and oil sectors.¹⁷

The People's Republic of China calculates its national power numerically by combining various quantitative indices to create a single number to represent the power of a nation-state. These indices take into account both military factors known as hard power and economic and cultural factors known as soft power.¹⁸ Sebastien Peyrouse writes that Central Asian states are afraid of China generating giant economic gains and increasing their military power, and resultant uncertainties over political policies with its neighboring countries.¹⁹

Furthermore, Harold Brown argues that "national security is the ability to preserve the nation's physical integrity and territory; to maintain its economic relations with the

¹⁶ Ibid., 232.

¹⁷ Ibid.

¹⁸ Benjamin Cohen and Eric M. P. Chiu, eds., *Power in a Changing World Economy: Lessons from East Asia* (New York: Riggold, 2014), 27.

¹⁹ Bedeski and Swanstrom, 94.

rest of the world on reasonable terms; to protect its nature, institutions, and governance from disruption from outside; and to control its borders.”²⁰

The IMF reported that during the past 2 decades Mongolia’s economy was the fastest growing economy in the world, with its GDP averaging 9 percent of per capita income of around \$4,000. Mining accounts directly for 20 percent of the economy, while the total share, including its indirect impact, is likely to be much higher, as mining exports account for over 40 percent of the GDP.²¹ As a result of such a lack of economic diversification, public debt surged dramatically from 10 percent of GDP to 60 percent of GDP in 2013.²² This shows that Mongolia’s economy is vulnerable to its mining sector raw exports, which highlights national security concerns in connection to economic development.

Economic Liberalism and Systems Theory

Economic liberalism provided the intellectual basis for the capitalistic way of running the economy as identified by Adam Smith. The starting point of Adam Smith’s economic theory was the doctrine of three production factors: labor, land, and capital.

²⁰ Harold Brown, *Thinking about National Security* (Boulder, CO: Westview, 1983), 4.

²¹ Pranav Bin Grace Li Gupta and, and Jiangyan Yu, “From Natural Resource Boom to Sustainable Economic Growth: Lessons for Mongolia” (International Monetary Fund Working Paper, 2015), 1, accessed April 3, 2017, <http://www.imf.org/external/pubs/cat/longres.aspx?sk=42851.0>.

²² *Ibid.*, 2.

Labor makes the other two factors fruitful and productive.²³ Economic liberalism states that in the absence of the progress of industry and agriculture, the population could not have been nourished, thus industrialization is crucial and a country needs to pursue a free market through sources of prosperity, profit, and trade competition.

Furthermore, David Held argues that politicians are not willing to address significant areas of market failure in terms of the international market integration of economic liberalism, which includes:

1. The problem of externalities, such as the environmental degradation exacerbated by current forms of economic growth;
2. The inadequate development of non-market social factors, which alone can provide an effective balance between 'competition' and 'cooperation' thus ensure an adequate supply of essential public goods, such as education, effective transportation and sound health;
3. The underemployment or unemployment of productive resources in context of the demonstrable existence of urgent and unmet need; and
4. Global macroeconomic imbalances and poor regulatory framework, policies that led to the financial crises.²⁴

David writes that "Economic liberalism studies that leaving the market alone to resolve problems of resource generation and allocation neglects the deep roots of many economic and political difficulties. Leading to the erosion of the economic fortunes of some countries, those who enjoy protection in some sectors and assistance in others, the

²³ Franz Josef Stegmann, "Economic Liberalism, Marxism and Critical Judgement," accessed December 1, 2016, <http://ordosocialis.de/pdf/Stegmann/Econ-Liberal-Marx-Crit-Judg.pdf>.

²⁴ David Held, *Cosmopolitanism Ideals and Realities* (Malden, MA: Polity Press, 2010), 6.

emergence of global financial flows which can rapidly destabilize economy.”²⁵ Similarly, Merilee Grindle addresses that a state’s concern is to establish and maintain its internal and external security, to generate revenue, and control economic and social relationships.²⁶ “These interests derive from the state’s concern to establish and maintain internal and external security, to generate revenue, and to achieve hegemony over alternative forms of social organization.”²⁷

Systems theory is an interdisciplinary theory about every system in nature, in society, and in many scientific domains. It also serves as a framework within which phenomena can be investigated from a holistic approach.²⁸ Systems thinking comes from a shift in attention from the part to the whole. Von Bertalanffy defines a system as a complex of interacting elements, and tries to find general principles valid to all systems.²⁹ He introduces systems theory as a new paradigm contrasting the analytical, mechanical paradigm that characterizes classical science and tries to give answers to perennial problems.³⁰ Therefore, systems theory can be applied to this thesis to examine Mongolia

²⁵ Ibid., 1.6.

²⁶ Merilee Grindle, *Challenging the State Crisis and Innovation in Latin America and Africa* (Cambridge: Cambridge University, 1996), 3.

²⁷ Ibid.

²⁸ Fritjof Capra, *The Web of Life: A New Scientific Understanding of Living* (New York: Anchor Books, 1996), 1.

²⁹ Ludwig Von Bertalanffy, *Modern Theories of Development: An Introduction to Theoretical Biology* (New York: Harper, 1962).

³⁰ Ibid.

as a state when studying the mining sector, and the way it impacts the overall economic development and national security of the country.

Mongolia's Economy and its Mining Sector

The Mongolian economy traditionally sustained agriculture and small and medium sized business, however since 2000 Mongolia's economy boomed due to the wide-reaching interest in mining deposits. Unfortunately, a lack of institutional control, management and the experience to develop its rich mining sectors, Mongolia is facing great challenges maintaining its economic sustainability in the face of becoming a natural resources export oriented country. Susan V. Lawrence reported that Mongolia struggles with the economic development difficulties that must be mastered such as the 'natural resource curse' that has afflicted on Mongolia currency pressures, corruption, a lack of foreign investment, and environmental degradation.³¹ Further, he noted that Mongolia's geographical challenge, land-locked status and its limited domestic transportation networks impacts economic development and increases trading and economic dependency of neighbors, China and Russia.³²

De-yang Chan noted that Mongolia's mining sector development dragged far behind due to Mongolian political corruption and a tax regime which does not meet

³¹ Susan V. Lawrence, *Current Politics and Economics of South, Southeastern, and Central Asia; Hauppauge* (Washington, DC: Congressional Research Service, 2014), 6.

³² Ibid.

international standards.³³ The United Nations Industrial Development Organization (UNIDP) reported that “Mongolia has world class reserves of gold, copper, coal fluorspar, silver, uranium and tungsten, but exploitation of these resources has been deterred by a combination of corruption and political instability.”³⁴ The responsibility lies with the state and successive governments, as Merilee writes that “States are important in the process of development, it alone could provide a set of conditions essential to economic development like law, order, effective macroeconomic policy, infrastructure development, invest human capital, enhancement of human capital, enhancement of equality.”³⁵

As noted, Mongolia has major reserves of 80 different minerals including copper, gold, coking coal, iron ore, fluorspar, molybdenum, and crude oil. The Oyu Tolgoi mine, in particular, is said to be the world’s largest copper mine.³⁶ Importantly, some minerals can be substituted for each other in their uses and their prices are set according to variations in world supply and demand. For example, since 2005, there was a substantial change in the structure of mineral exports of Mongolia. In 2009, 26.64 percent of exports were copper concentrate, 17.7 percent—gold, 16 percent—coal, 6 percent—crude oil, and in 2013 22.2 percent were copper concentrate, 7.3 percent—gold, 26.1 percent—coal, 12.1

³³ De-yang Chan, “A Brief Analysis of Mongolia’s Mining Industry Development and Related Problems,” *Mongolian and Tibetan Quarterly* 18, no. 2 (2009): 1, accessed April 3, 2017, http://www.mtac.gov.tw/mtac_quarterly/quarterly_e/2/1356496379.pdf.

³⁴ United Nations Industrial Development Organization, *Strategic Directions on Industrial Policy in Mongolia* (Vienna: United Nations, 2011), 43.

³⁵ Grindle, 3.

³⁶ United Nations Industrial Development Organization, 1.

percent—crude oil, 15.3 percent—iron ore, etc.³⁷ Copper and aluminums are substitutes in the conduction of electricity, and energy commodities are substitutes in the generation of heat. It is well known that such homogeneity and substitutability severely limit the market power of any one producer or group of producers.³⁸

The United Nations Industrial Development Program has further determined that Mongolian mineral processing faces many challenges such as unemployment, lack of fresh water resources in mining areas, China’s mineral policy and mineral needs as the main importer of Mongolia’s mining outputs, Mongolia’s eco-tourism and biodiversity of regulatory framework, and poor infrastructure.

The World Bank has suggested that a sharper slowdown in China’s import interests and the commodity market in general could further weaken Mongolia’s economic growth and exacerbate its external vulnerabilities.³⁹ China’s growth moderation and rebalancing have already exerted a significant negative impact on Mongolian commodity prices. Mongolia’s lack of diversification in export products and trade partners leaves the economy highly vulnerable to global mineral market value. Exports to China constituted 42 percent of the 2014 GDP, with the neighboring economy absorbing 87.9 percent of

³⁷ World Trade Organization, “Major Economic Sectors of Mongolia,” *Trade Policy Review* (2014): 12, accessed November 16, 2016, https://www.wto.org/english/tratop_e/tpr_e/g297_e.pdf.

³⁸ United Nations Industrial Development Organization, 43.

³⁹ World Bank Group, *Mongolia Economic Update*, 2015, 3.

Mongolia's total exports. Compounding these vulnerabilities is Mongolia's high export concentration on minerals, which account for over 80 percent of total exports.⁴⁰

Mongolia's relations with China are among its most significant foreign relations concerns. China is Mongolia's largest trading partner accounting for nearly 90 percent of Mongolian exports, primarily coal. Accordingly, Chinese demand is a key determinant of Mongolian economic growth. In 2015, the economic slowdown in China caused Mongolian exports to that market to decline by around 23 percent compared to about 62 percent of GDP compared with 2014 levels. This decrease contributed to Mongolia's slowing economic growth to only about 2.3 percent in 2015.

Further, around 25 percent of Mongolian imports come from China. China is also Mongolia's largest source of foreign investment with around 50 percent of Mongolia's annual foreign direct investment (FDI) inflow being from China. Apart from the mining sector, Chinese firms are also heavily investing in new road construction, railways, and power-transmission systems, an essential part of which is aimed at improving connections between the two countries.

Nature of Relationship between Economic Security and National Security

Economic power is playing a main role in the grand strategy and national objective of many countries. The power of the political and military establishment depends on economic resources, and economic strength. Donald Losman writes that economic

⁴⁰ Ibid., 4.

security is a national security goal.⁴¹ Paul Collier and Anke Hoeffler are of the opinion that many of the civil wars in the past several decades have primarily been caused by economic factors.⁴² Collier finds that countries with a high proportion of primarily commodity exports are positively correlated with the risk of a civil war, and countries with high levels of natural resources are more likely to engage in civil wars.⁴³ Jonathan Holslag also writes of the importance of the economic power and determines that economic power is military strength; without a strong industrial economy there can be no strong defense to strength for the nation.⁴⁴

According to Vladimir Pankov, economic security is not only the protection of national interests but also the readiness and ability of government institutions to foster a national economy; others extend this view to include the absence of threats that could endanger economic stability and independence.⁴⁵ Vincent Cable offers three conceptual definitions for economic security:

⁴¹ Losman, 5.

⁴² Paul Collier and Anke Hoeffler, "Economic Causes of Civil Conflicts and their Implications for Policy," World Bank, June 15, 2000, 16, accessed January 12, 2017, http://siteresources.worldbank.org/DEC/Resources/economic_causes_of_civilwar.pdf.

⁴³ Robert I. Rotberg, ed., *When States Fall* (Princeton, NJ: Princeton University Press, 2004), 96.

⁴⁴ Jonathan Holslag, *China's Coming War with Asia* (Malden, MA: Polity Press, 2015), 30.

⁴⁵ Vladimir Pankov, "Economic Security: Essence and Manifestations," *International Affairs* [Moscow] 57, no. 1 (2011): 199; Sasa Mijalković, and Goran Milošević, "Correlation between Economic, Corporate and National Security," *Megatrend Review* 8, no. 2 (2011): 441.

1. The investments that directly impact a country's ability to defend itself,
2. The economic policy instruments that can be used for the purpose of aggression,
3. a weak economy may undermine the ability for a country to project power.⁴⁶

Vincent Cable writes that many authors believe that the ambiguity of the concept means that the definition of economic security, like homeland security, is dependent on the values of the individual studying it.⁴⁷ Homeland security was not part of the national discussion until the 1993 World Trade Center bombing; the phrase appeared in documents prior to that but was used interchangeably with homeland defense.⁴⁸

Siminiuc's concepts are relevant to the theoretical framework of this research as he stated that security and stability, both political and social, are multi-dimensional concepts, and that economics is one of the most important drivers. The international economy plays a considerable role in domestic economic conditions; foreign policy and national security should support policies that strengthen the international economy. Economic security provides the important link between social and national security. Thus, a stable international economy is closely related to maintaining domestic (homeland) security.⁴⁹ Mijalković supports this view, but extends it to include the absence of threats that could

⁴⁶ Vincent Cable, "What is International Economic Security?" *International Affairs* 71, no. 2 (April 1995): 306.

⁴⁷ *Ibid.*, 300.

⁴⁸ Cynthia A. Watson, *U.S. National Security* (Santa Barbara: ABC-CLIO, 2002), 14.

⁴⁹ Bijan Karimi, "Applying the Economic, Homeland and National Security Analysis Framework," *Homeland Security Affairs* 12, essay 4 (May 2016): 14, accessed February 17, 2017, www.hsaj.org.

endanger economic stability and independence. He believes, “economic power is a traditional ‘lever’ of national security and the state’s role in the international community.”⁵⁰ In relation to this point, Bijan Karimi clearly described the linkage between national security and economic security and how interrelated they are to one another as shown in figure 1.

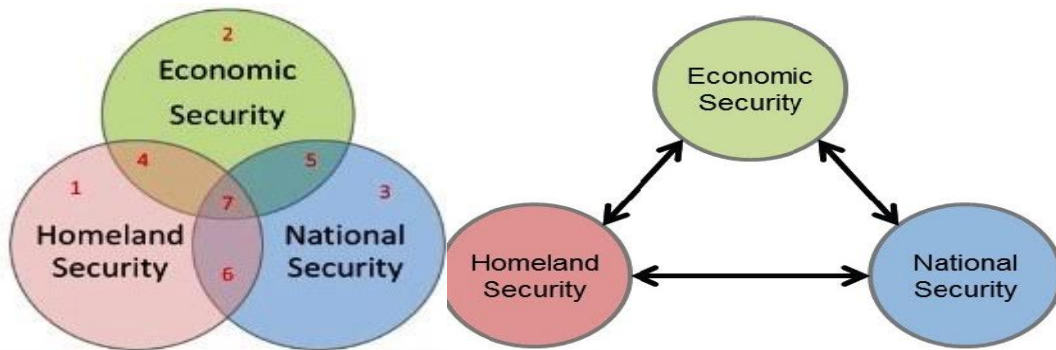


Figure 1. Security Elements and Conceptual Connection

Source: Bijan Karimi “Security and Prosperity: Reexamining Connection between Economic, Homeland and National Security” (Paper, Naval Postgraduate School, Monterey, CA, 2015).

Bijan Karimi continues to argue, “Economic strength is presented as one of the key pillars of national strength and it provides the foundation from which the U.S. can project itself globally.”⁵¹ The National Security Strategy of the United States clearly states the importance of the economy domestically and internationally:

⁵⁰ Karimi, “Applying the Economic, Homeland and National Security Analysis Framework,” 14.

⁵¹ Ibid.

[t]he American economy is an engine for global economic growth and a source of stability for the international system. In addition to being a key measure of power and influence in its own right, it underwrites our military strength and diplomatic influence. A strong economy, combined with a prominent U.S. presence in the global financial system, creates opportunities to advance our security.⁵²

Mijalković and Milošević also support the relationship between economic and national security, and explain that securitization of economic issues elevates their importance and suggests that they require additional protection because of their relationship to national security.⁵³ Ronis writes that national security must embrace a healthy market based economy, with internationally competitive products and services that produce jobs.⁵⁴

Therefore, understanding the importance of the economy to national security is crucial in this complex system. As per the National Security Concept of Mongolia, it was determined that “National security shall be assured through the interrelationship among the security of the existence of Mongolia, economic security, internal security, human security, environment security and informational security.”⁵⁵ The National Security concept of Mongolia determined that “Economic Security is an adaption of a sustainable development model that ensures independent economic development and a natural environment conducive to human security and peaceful living.”⁵⁶ Moreover, the National

⁵² Ibid., 8.

⁵³ Ibid., 9.

⁵⁴ Ronis, 4.

⁵⁵ Embassy of Mongolia, *Mongolian National Security Concepts*, accessed October 1, 2016. [http://www.nsc.gov.mn/sites/default/files/images/NationalSecurityConcept20of20Mongolia EN.pdf](http://www.nsc.gov.mn/sites/default/files/images/NationalSecurityConcept20of20Mongolia%20EN.pdf).

⁵⁶ Ibid.

Security Concept of Mongolia highlights that when developing the mineral sectors, Mongolia must give importance to ensuring national security in terms of avoiding national and foreign conflict of interests, as well as to avoid an excessive dependency on exports.

The collapse of the communist system brought two significant changes to Mongolia. One was the end of Russian subsidies and funding for development and second was the transition to a market economy. Mongolia underwent an economic recession followed by a collapse of the banking system in 1995. The elections of 1996 were won by the Democratic Party, establishing the first Mongolian democratic government. In the 2000 election, the Mongolia's People's Revolutionary Party (MPRP) won, and in the 2004 election, the Democratic Party won again. The transition to the Democratic Republic brought about a relatively stable government, and peaceful transfers of power, while election results reflect a struggle between the desire for the stability and state support of the past, and an equally deep desire for a free economy and liberal business policies.

In recent years, Mongolia has been experiencing economic growth and increased prosperity, largely due to the inflow of foreign investment and the exploitation of mineral resources.⁵⁷ External conditions such as the balance of power between the neighboring two super powers were defining factors of Mongolia's national security. As the security environment factors partially changed from time to time, different implications for Mongolian national security have arisen; however, the ongoing relations and balance between its two big neighbors have been the pre-condition for the very existence of Mongolia, and changes in this balance have had direct implications. Mongolia has its

⁵⁷ Mongolian-way.com, "History of Mongolia," accessed November 23, 2016, <http://www.mongolian-ways.com/history.htm>.

vulnerabilities: (1) weak external self-defense system, (2) small and sparsely settled population, (3) underdeveloped economy, and (4) geographical constraints. Mongolia maintains a small military power for border patrol, peacekeeping missions, natural disaster relief, and humanitarian assistance. Therefore, in the absence of military and hard powers, Mongolia seeks its security through political, diplomatic relations, cooperation and economic independency means.

In recent decades, policy makers and academics have recognized a more significant role of economic security in the institutional and political aspects of national security. For example, Panko believes that economic security is not only the protection of national interests but also the readiness and ability of government institutions to create mechanisms to implement and protect national interests in the development of a national economy.⁵⁸ Neu Charles, author of *The Economic Dimensions of National Security*, wrote that national security focus on the use of economy means to achieve national security ends.⁵⁹

Mongolia has been a member of the Association of Southeast Asian Nations (ASEAN) Regional Forum since 1998 and is seeking membership in the Asia-Pacific Economic Co-operation (APEC) forum. In 2014, China and Mongolia set a bilateral trade target of USD10 billion by 2020, up from USD 6.2 billion in 2013, and agreed to establish a cross-border free-trade zone at the Erenhot-Zamiin-Uud border crossing on the China-Mongolia-Russia railway. Stambulov Serik Berdibaevich writes that if Mongolia joins the

⁵⁸ Panko, 199.

⁵⁹ Neu and Wolf, 1.

Shanghai Cooperation Organization (SCO) as an active member, Mongolia would be benefitted as being between two big economic power Russia and China. However, currently Mongolia, being an SCO country-observer, demonstrates its interest to cooperate in transport, railroad, and energy sectors with SCO members.⁶⁰ Joining the SCO is important for Mongolia's interest as a regional political, economic, and security organization, which China co-founded as a full member.

As noted above and according to Stambulov, Mongolia has held observer status with the SCO which includes China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan since 2004.⁶¹ Full membership remains unlikely in the medium term, partly because most existing members consider Mongolia too distant from Central Asia, and partly because Mongolia wishes to maintain some distance from an organization dominated by China and Russia.⁶² In 2008, Mongolia became a member of the Asia-Europe Meeting (ASEM), an Asian-European forum to enhance intergovernmental relations and cooperation. In 2012, Mongolia joined the Organization for Security and Cooperation in Europe (OSCE) as a participating state. While Mongolia has been catering for its security needs on other fronts like diplomacy, etc., it needs to focus on the vital front of

⁶⁰ Stambulov Serik Berdibaevich, Shotbakova Lyazzat Kasymovna, Smagulova Gulnara Muratbekovna, Tuleuova Bakhytgul Tieubaevna, and Musin Kuat Saniyardanovic, "The Main Problems of Enlargement at the Present Stage," *Asian Social Science* 11, no. 13 (2015): 6-11, accessed October 1, 2016, www.ccsenet.org/journal/index.php/ass/article/download/48166/2592.1.

⁶¹ Ibid.

⁶² Ibid.

economy too. Mining, as the center piece of Mongolian economy, thus stands out as a most vital issue.

Damdin Badaraev argued that for: Foreign powers competition in the mining sector of Mongolia, one of the key conditions of Mongolia's economic development is the involvement of foreign companies in the development of large-scale mining. Moreover, the issue of cooperation with foreign companies plays a significant role in Mongolian foreign policy strategy and national security. While Mongolia's resource dependence policy implicates the economy as a security environment factor that partially changes from time to time leading to different implications for Mongolian national security arising; the ongoing relations and balance between its two big neighbors have always been the pre-condition of the very existence of Mongolia, and changes in this balance have always had direct implications. Mongolia has its vulnerabilities and inequality, and severely impacts non-resource sectors as many of international organizations and agencies analyzing Mongolia's economy.⁶³

Following from the above, and as supported by World Bank data, more than 75 percent of total exports were natural resources, and almost 40 percent of revenues were generated from minerals in 2008. Because of such dependence on minerals, Mongolia is confronted with governance and macroeconomic risks.⁶⁴

Under the perspective of the globalization of countries, nations are becoming more integrated economically and environmentally which brings advantages and disadvantages.

⁶³ M.A.D.

⁶⁴ World Bank, *Mongolia: Unbundling the Resource Paradox* (Washington, DC: World Bank, 2009), 1.

Therefore, Mongolia as a resource export-oriented country needs to be more sensible for future unforeseen friction in order to maintain its national interest and national security.

While economic security is a very important aspect of national security in the contemporary environment, Mongolia's history, geopolitics, economy, and its social developments are equally important for its national security. In order to enhance its security, Mongolia must maintain alliance, coalition, bilateral relationship, diplomacy, multilateral international, and regional cooperation. However, Mongolia's government priority on economic development is lacking, as it is vulnerable and insecurity domestically and internationally.

Mongolia's vast mineral resources, especially in coal, copper, gold, uranium, oil, and rare earth minerals, have had an available market in a rising China that could have been reached without a modern transportation infrastructure or massive investment of FDI in downstream industries. However, this path to riches and development during the past ten years only have led to Chinese monopoly of Mongolia's economy and exploding domestic concerns about how to preserve the country's independence. Mongolian resource nationalist policies and reliance on exporting to the slowing Chinese raw mineral market have resulted in vacillating Mongolian economic and legal policies that have discouraged many Western investors and only increased dependency on China. To respond in a more comprehensive and efficacious manner to the present economic and energy environment while strengthening overall Mongolian national security, the present government has just embarked on a four-pronged program consisting of developing Mongolia as an Eurasian Transit Corridor or "Steppe Road," initiating new regional organizations and institutions, executing a dynamic trilateral relationship with China and Russia.

In order to mitigate Chinese monopoly over its economy and diversify its trade partners, Mongolia has chosen to pursue a regional transportation development plan that expands Russian-gauge spur lines to link its large mineral deposits to the primary trans-Siberian rail system to the north as well as southwards to China. Until the Northeast Asian regional transport and energy grid, including pipeline, is developed to include Mongolian power and mineral processing infrastructure as well as passage through North Korean rail and ports as an alternative to the existing Chinese and Russian systems, Mongolia cannot do much to develop alternative markets for its raw mineral exports. Nevertheless, Mongolia believes that through its own efforts to build trust among the nations in its region and by declaring itself a permanently neutral nation that will not endanger its border neighbors, it can possibly win China and Russia over to its policy of being an economical transit corridor for Sino-Russian trade. This corridor would be an economic boon to all three nations, increase Eurasian integration, and strengthen regional frameworks for connectivity and national security.

Conclusion

Economic security is a vital part of the national security needed to ensure self-sustainability of a country's own resources. Mongolia has rich natural resources and can be self-sustained by managing its own resources. However, Mongolia is experiencing reduced economic growth which decelerated in 2014 with high inflation and a current account deficit which narrowed due to the world market impact. These are ongoing effects of its dependence on imported goods and a lack of development of domestic industries. Even though Mongolia is an underdeveloped country, it has the full capacity to develop its economy and has the potential to achieve much greater economic strength if it drives its

economic policy. Mongolia needs a strong economy based on national industrialization which the government can foster by instituting appropriate policies and implementing high-quality standards and regulations. In order to deliver reliable support to facilitate domestic industries, the government must develop proper economic strategies through appropriate regulations and professional management of these critical economic sectors.

National economic security policy should be focused on the overall national interest and the encouragement of general benefits as well as cooperation with Mongolia's partners. By analyzing the current economic status and instituting appropriate policies and regulatory frameworks, the Mongolian government must also identify appropriate approaches and develop a feasible economic environment internally to strengthen its internal economic security and thus reinforce its national security. This would also entail developing a strong industrial base to absorb some, if not all of the raw materials being produced in the country. If Mongolia ignores sustainable development, as it continues to rely on FDI, there will be no guarantee of ensuring economic security thus potentially bringing undesired consequences to national security. The author will engage an analysis intrinsic case study based on the Mongolia's situation using research approaches in chapter 3.

CHAPTER 3

RESEARCH METHODOLOGY

Economic development is vital to safeguard the national security of any country. It is more relevant in the case of Mongolia due to its peculiar geo-strategic and political environment as highlighted in chapter 2. The mining sector merits special focus given it is the major contributor of national GDP. The author has made an endeavor to highlight the existing gaps between the capabilities and practices of Mongolian economy by focusing on the mining sector. The paper also looks at the vital relationship between economic development and national security through analyzing the mining sector development of Mongolia. An attempt has been made to propose an appropriate approach to fill the gap in order to support national security. This chapter describes the research methodology and design. The researcher seeks to answer the research questions through the lens of the theoretical framework in aspects of systems theory described in chapter 1. There are three main steps applied to this thesis: analyzing Mongolia's economy, determining importance of the mining sector, and addresses significant linkage of the economic and national security.

Research Methodology

The research methodology used in this paper incorporated a qualitative research method by analyzing various open sources in forms of information, documents, and statistical data using an intrinsic case study. A study of the linkages between Mongolia's national security and economic security meets the intrinsic case study for the following reasons: there is a lack of empirical research conducted regarding Mongolia's economic

security, there are lack of theses that explore relations between Mongolia's national security and economy, and there are scant studies about the significance of the mining sector's contribution to Mongolia's economic security. Stake determines that an intrinsic case study is not undertaken primarily because the case represents other cases or because it illustrates a particular trait or problem but, because in all its particularity and ordinariness, the case itself is of interest.⁶⁵ Therefore, a qualitative intrinsic case study is suitable for analyzing Mongolia's economic security, because this research is narrowly focused on enhancing national security through economic development by improving the Mongolian mining sector development. The author therefore mirrored the findings of others in relation to economic development and national security. The author also presents a detailed description of Mongolia's economic security paradigm and its in-depth complexity. In order to reach more concise conclusions, the author analyzed collected qualitative data on Mongolia's economical statistical information between 2000 and 2014, Mongolia's national and economic security analysis, and reports of international and domestic organizations, agencies and other researchers' studies.

Research Design

Based on the nature of the primary and secondary questions, specially trying to link national security and economic development in Mongolian cases, the researcher determined to use qualitative research approach. There were four research steps conducted during the thesis process. The primary step of the research design was to apply the

⁶⁵ Robert E. Stake, *The Art of Case Study Research* (London: Saga Publication, 1995), 136.

theoretical framework in relation to national and economic security, particularly mining sector development to inform the research methodology. The author employed in this thesis a qualitative intrinsic case study research methodology. The second step was to identify informational resources to collect, study and provide an understanding of national and economic security concepts and interrelations between those systems in order to seek information that could address the primary and secondary research questions. A great number of resources were obtained from the Ike Skelton Combined Arms Research Library. The third step was to classify informational resources and distinct relations of primary and secondary research questions. Various books, research papers, journals' various publications, professional articles, and digital resources were used and cited throughout the research project to produce an effective thesis. The fourth step of this research paper was to assess and analyze to validate information and data. During this step, all available resources and information was assessed and justified as relevant and reliable to the primary and secondary research questions. In order to provide valid information, the author applied a triangulation procedure. Triangulation is for checking integrity of inferences that includes multiple resources, data, theoretical perspective, and methods.⁶⁶ Therefore, this thesis examined more than one vantage point, throughout the thesis, to widen the perspective of national and economic relations and their role and their impact on the national security of Mongolia.

⁶⁶ Thomas Schwandt, *The Sage Dictionary of Qualitative Inquiry* (London: Sage Publication, 2015), 307.

Conclusion

The advantages for using a qualitative intrinsic research methodology is to focus on a single case study, analyze it in-depth, and investigate the process of, and interrelations between national and economic security of Mongolia. On the other hand, the research methodology chosen for this thesis mitigated the complications associated with limitations addressed in chapter 1. The literature review described in chapter 2 addressed the importance of economic and national security through the primary and secondary research questions. The analysis of this data, collected from open sources, helped provide intrinsic insights into the issues being addressed through the research questions. The following chapter provides various sources of evidence to illustrate Mongolia's need to improve economic development through the mining sector to enhance national security. The author used trustworthiness criteria for judging quality of resources to make the thesis worthy to readers. The literature review inform author's decision to use trustworthiness criteria to deliver legitimate information. Trustworthiness criteria are comprised of credibility, transferability, dependability, and confirmability to define the quality of the findings.⁶⁷ The research based on the different facts, assumptions about reality, and different views were considered if they were valid and reliable from the underlying paradigms such as international, governmental and nongovernmental organizations' interpretations of their importance. The next chapter contains an analysis of the data collected within the research framework of this thesis.

⁶⁷ Stake, 308.

CHAPTER 4

DATA FINDINGS AND ANALYSIS

This chapter provides an analysis of collected information and data within the system's theoretical framework through employing an intrinsic case study methodology described in chapter 3. The chapter will analyze Mongolia's mining sector and its effects on the domestic economy, and examine how economic dependency or independence affects Mongolia's national security.

Mongolia's ongoing economic reforms and its future political decisions over the mining sector require a coherent policy to develop its economy and enhance national security. As Mongolia was a satellite state of the former Soviet Union, its economic policy was aligned with and supported the Soviet Union from 1924 to 1990. Even though it has been three decades since Mongolia started its economic and political reforms, its political and economic system is still immature, and the economy is vulnerable and dependent on outsiders. However, Mongolia's mining sector has played a significant role in Mongolia's economy since Mongolia started transforming from a centrally planned economy to a free market economy after the collapse of the USSR in 1990. Due to institutional deficiencies and mismanagement, Mongolia failed to develop its economy on par with other post-Soviet countries who were in a similar situation (e.g., Kazakhstan, Tajikistan, and Moldova) Mongolia's economic vulnerabilities impede its economic stability and growth, and thereby exacerbate its national security concerns. Thus, it is vital to analyze the mining sector's development, being the main stay of Mongolian economy, and its direct impact on national security.

This chapter analyzes primary and secondary information resources by using a qualitative intrinsic case study approach in the context of systems theory to answer the primary research question, “How can economic development further support Mongolian national security through developing its mining sector?” The analysis also takes into account the data that answers the following secondary research questions:

1. How can Mongolia further develop its mining sectors?
2. How can the mining sector contribute more to the economic growth of the country?
3. How can economic development enhance national security?

Chapter 2 reviewed literature collected and grouped into general areas, catering to the specific research questions to explore systems theory related to national security and economic liberalism. This paper specifically looks into the relation of economic development, independence—dependence, and national security. The results of the qualitative research are included in this chapter with conclusions to follow in chapter 5. A bottom-up approach was adopted to organize this chapter, because answering the secondary research questions will logically address the primary research question.

Mongolia’s Mining Sector Development

Over the last two decades, Mongolia’s mining sector has been identified as the main contributor to its economic growth. Mining Sector Overview reported that there are approximately 600 deposits being exploited, whereas approximately 8,000 individual deposits have been explored in Mongolia. These include over 180 gold deposits, 5 copper and molybdenum deposits, a lead deposit, 5 tin deposits, 10 steel iron deposits, 4 silver

deposits, 42 deposits of brown and cooking coal, 42 fluorspar deposits, 12 salt and 10 sodium sulphate deposits, 6 semi-precious stone deposits, 9 crystal deposits and over 200 deposits of minerals used in production of construction materials. Currently, over 200 deposits of gold, copper, coal, salt and other minerals are being exploited.⁶⁸ Each key deposit will be discussed below in order to demonstrate the importance of Mongolia's mining sector.

Coal

According to Eighth Extractive Industries Transparency Initiative (EITI) Reconciliation, coal is Mongolia's biggest export in terms of value and weight. Mongolia is the 20th largest producer of coal in the world. Mongolia has over 300 coal deposits containing an estimated 152 billion tons of coal resources. However, the official figures of explored reserves stands at only 19.5 billion tons. Amongst coal mining deposits, the Tavan Tolgoi is one of the world's largest coal deposits, and contains reserves estimated at 7.5 billion tons.⁶⁹ Out of 7.5 billion, 1.8 billion tons is coking coal, 4.6 billion tons is terminal coal. The reserves can provide an estimated 30 million tons a year for at least a 100 year and is therefore considered the largest high quality coal deposit in the world.⁷⁰

⁶⁸ SES Professionals, "Overview of Mongolia's Mining Industry," accessed January 18, 2017, <http://sesprofessionals.com/overview-of-mongolias-mining-industry/>.

⁶⁹ Mongolia's Extractive Industries Transparency Initiative (MEITI), *Mongolia Eighth EITI Reconciliation Report*, December 15, 2014, accessed January 20, 2017, <https://eiti.org/sites/default/files>.

⁷⁰ Bo Kong and Jae H. Ku, eds., *Energy Security Cooperation in Northeast Asia* (New York: Routledge, 2014), 117.

Since 2012, the Australian company Macmahon Holdings Ltd has contracted the operations at five of the six sections of coal deposits in Mongolia, and its contract expires in 2017.⁷¹ Terrence Edwards writes that the Tavan Tolgoi is under bid of Hong Kong-listed Mongolian Mining Corporation with Chinese state miner Shenhua Group and Japan's Sumitomo Corporation.⁷² Coal is also the largest energy resource in Mongolia domestically as 98 percent of the country's electricity is produced through coal.

Copper

Mongolia Eighth EITI Reconciliation reported that copper is Mongolia's second largest export by value as well as the fourth largest export by weight. Mongolia has proven reserves of between 12 and 14 million tons and estimated reserves of 84 million tons, making the country the world's 12th largest source of copper.⁷³ Mongolia's largest copper reserves are located at the Oyu Tolgoi copper deposit (OT Project). British and Australian company Rio Tinto maintains a controlling interest through its ownership of 51 percent of TRQ and is the manager of the OT project. The Government of Mongolia (GOM), through Erdenes OT LLC, owns 34 percent of the OT project. Rio Tinto believes that Oyu Tolgoi contains 2.7 million tons of recoverable copper in addition to 1.7 million

⁷¹ Cecilia Jamasmie, "Mongolia Readies to Revive its Giant Tavan Tolgoi Coal Mine," *Mining.com*, September 9, 2016, accessed January 20, 2017, <http://www.mining.com/mongolia>.

⁷² Terrence Edwards, "Cash-Strapped Mongolia Puts Giant Coalmine Back in Play," *Reuter*, September 9, 2016, accessed January 23, 2017, <http://www.cnbc.com/2016/09/09/reuters-america-cash-strapped-mongolia-puts-giant-coalmine-back-in-play.html>.

⁷³ Mongolia's Extractive Industries Transparency Initiative (MEITI).

ounces of recoverable gold, and the scale of the deposit at Oyu Tolgoi is estimated to have a lifespan of more than 50 years of reserves.⁷⁴ Mongolia's second largest copper deposit, Erdenet mine, is 51 percent owned by the Mongolian government and 49 percent by the Russian government and produces nearly 24 million tons per year with reserves up to 40 years.⁷⁵

Iron Ore

Iron ore is Mongolia's third largest mineral export by value and the second largest export by its weight, according to Eighth EITI Reconciliation.⁷⁶ Mongolia has 985 million tons of iron ore reserves, or around 0.6 percent of the total global reserves. In March 2014, there were nine iron ore projects in Mongolia, six of which were operational, together producing iron ore and iron concentrate. The nine projects are expected to produce 281 million tons of iron between 2014 and 2030.⁷⁷ Mongolian iron ore deposits occur in grades of between 30 and 35 percent iron, making it relatively simple and economical to upgrade the product to the 62 percent quality required by blast furnaces in steel production.⁷⁸ Various private companies, incorporating Chinese investment companies, predominantly own the iron ore mines.

⁷⁴ Vince Peckham, "10 Mines Will Set the Copper Price for the Next Decade," Mining.com, November 3, 2015, accessed January 20, 2017, <http://www.mining.com/mongolia>.

⁷⁵ Ibid.

⁷⁶ Mongolia's Extractive Industries Transparency Initiative (MEITI).

⁷⁷ Ibid.

⁷⁸ Ibid.

Gold

Mongolia extracted almost 8,904 kg of gold in 2013, of which 7,559 kg was exported producing revenue of 310 million US Dollars.⁷⁹ The Boroo gold mine, which has only hard rock gold sources, closed in 2003 and is close to depletion. Oyu Tolgoi contains 1,800 tons of recoverable gold in reserves. There are many small-scale miners extracting alluvial gold, the main historical practice in Mongolia. Environmental restoration concerns led to the cancellation of many licenses in recent years mainly due to a law passed in 2009 that banned mining in water basins and forests.⁸⁰

Fluoride and Uranium

Fluoride is an alkali earth metal that is widely used not only in the black and colored metallurgy, but also used in chemistry, medicine, and optical industries. There are also large uranium deposits in Mongolia, with estimates of reserves being between 30 and 62 thousand tons.⁸¹ At present, none of these deposits are operational due to the lack of investments.

Mongolia Eighth EITI Reconciliation reported that Mongolia has been extracting 400 thousand tons of fluoride per year.⁸² Mongolia ranks 15th in the world with 37,500

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Robin Grayson, Baatar Tumenbayar, Daramsenge Luvsanvandan, and Amarsaikhan Lkhamsuren, "Uranium and Fluoride Geochemical Pathways in Ulaanbaatar and Rural Mongolia," uploaded October 8, 2016, accessed January 20, 2017, <https://www.researchgate.net>.

⁸² Ibid.

tons of uranium plus 11,800 tons of inferred resources. By 1980, Mongolia was one of the largest export countries in fluoride behind only China and Mexico.

Molybdenum

By 2013, production volume of Molybdenum in Mongolia was at 3.8 thousand tons (content at 47 percent), which is down 4.7 percent compared to the previous year, but this level of production places Mongolia as the 13th largest producer in the world.⁸³ Mongolia exported 1.2 percent of the world's molybdenum production in 2003. There are three copper-molybdenum metalorganic deposits that are operational; the Erdenetiin Ovoo deposit is the largest in Asia and the Tsagaan Suvarga deposit has 230 mln. tons of ore with 0.53 percent copper and 0.018 percent molybdenum.⁸⁴

Artisanal Deposits

There are around 100,000 artisanal and other small-scale miners, actively digging gold, coal, and fluorspar in different provinces in Mongolia. Such small-scale mining helps residents to increase their income and reduce the unemployment rate. In 2005, Mongolia initiated a program to support the positive contribution of an artisanal small mining community and assistance for processing of mining ores without the usage of mercury or cyanide in the gold recovery process.⁸⁵ In 2010, Mongolia's government officially approved access to mining land to minors and set an income tax levels for them.

⁸³ Mongolia's Extractive Industries Transparency Initiative (MEITI).

⁸⁴ Mbendi.com, "Molybdenum Mining in Mongolia," accessed January 21, 2017, <https://www.mbendi.com/indy/ming/moly/as/mn/p0005.htm>.

⁸⁵ Ibid., 30.

Mongolia's Mineral Institution

Mongolia has been revising the mineral related laws and regulations to foster its economy through the mining sector since 1997. The government agency of the Mineral Resources Authority of Mongolia was formed in 1997. It administers geological and mining surveying, research, registering, and issuing of licenses in compliance with the Law of Minerals. The first law, "The Law of Minerals," was approved in June 1997, with amendments in 2006, 2009, and 2014 and it regulates mining exploration, exploitation, and production in the context of economic growth for Mongolia. Most of the amendments are based on investment policy, taxation law, customs law, mining exploration licenses, and environmental safety matters. The amendment in 2009 determined the classification of the mineral deposits as strategic, common, and conventional.

The government holds more than 50 percent ownership in all the strategically important deposits. These deposits are categorized as strategic because they may impact Mongolian national security, economy and social development. Strategic deposits are those that are in strong international demand and annual mineral production will contribute at least 5 percent of GDP, and final the deposits that can be developed and identified with private funds. Common minerals are those minerals whose concentrations are abundant in sediments and rocks and that might be used as construction material (e.g., iron ore). Conventional minerals are those minerals that are not of strategic importance and are not classifiable as common minerals (e.g., artisanal deposits).⁸⁶

⁸⁶ Mineral Law of Mongolia, "Article 6," (2009), accessed January 26, 2017, http://www.forum.mn/policyissue/MineralsLawOfMongolia20090919_en.pdf.

Table 1. Strategically Important Mining Deposits

No	Deposit name	Type of mineral	Location	Reserves & Resources
1	Tavan tolgoi	Fossil coal	Umnugobi, Tsogttsetsii	6,420 million tonnes coal
2	Nariin sukhait	Fossil coal	Umnugobi, Gurvantes	125.5 million tonnes coal
3	Baganuur	Brown coal	Ulaanbaatar, Baganuur	600 million tonnes coal
4	Shivee Ovoo	Brown coal	Gobisumber, ShiveeGobi	646.2 million tonnes coal
5	Mardai	Uranium	Dornod, Dashbalbar	1,104 tonnes at 0.119% U ₃ O ₈
6	Dornod	Uranium	Dornod, Dashbalbar	28,868 tonnes at 0.175% U ₃ O ₈
7	Gurvan bulag	Uranium	Dornod, Dashbalbar	16,073 tonnes at 0.152% U ₃ O ₈
8	Tomortei	Iron	Selenge, Khuder	229.3 million tonnes at 51.15% Fe
9	Oyu tolgoi	Copper, gold	Umnugobi, Khanbogd	2.7 billion tonnes of ore, 25.4 million tonnes of copper, 1028 tonnes of gold
10	Tsagaan suvarga	Copper, molybdenum	Dornogobi, Mandah	10.64 million tonnes oxides at 0.42% Cu and 0.011% Mo, 240.1 million tonnes sulphides at 0.53% Cu and 0.018% Mo
11	Erdenet	Copper, molybdenum	Orkhon, Bayan-Ondor	1.2 billion tonnes at 0.51% Cu and 0.012% Mo
12	Burenkhaan	Phosphor	Khubsugul, Alag-Erdene	192.24 million tonnes at 21.1% P ₂ O ₅
13	Boroo	Gold	Selenge, Bayangol	24.5 thousand tonnes at 1.6g/tonn Au
14	Tomortein ovoo	Zinc	Sukhbaatar, Sukhbaatar	7.7 million tonnes at 11.5% Zn
15	Asgat	Silver	Bayan-Ulgii, Nogoonnuur	6.4 million tonnes at 351.08g/tonn Ag

Source: Susan Wacaster, "The Mineral Industry of Mongolia," U.S. Department of Interior, June 2014, accessed April 2, 2017, <https://minerals.usgs.gov/minerals/pubs/country/2012/myb3-2012-mg.pdf>.

Presently, Mongolia has its ambitions based on Oyu Tolgoi and Tavan Tolgoi, the strategically important deposits. Oyu Tolgoi has 2.7 billion tons of copper ore, 45 million tons of copper and 1.8 tons of gold. The potential mine life is a minimum of 50 years at 100 tons a day of ore processing. Mongolia's government owns 53 percent of the deposits while foreign investors own the remaining 47 percent. These deposit accounts for up to 44 percent of the country's exports, with Oyu Tolgoi alone expected to account for one-third of Mongolia's GDP by 2020.⁸⁷

Currently, Mongolia exports copper and molybdenum to China, fluorspar to Russia, USA, and Ukraine, and gold is exported to China, USA, and Great Britain. China

⁸⁷ Mongolia's Extractive Industries Transparency Initiative (MEITI).

is the largest export destination and accounts for more than 70 percent of total Mongolian exports, plus it is the main importer of Mongolian coal, copper, and molybdenum concentrate. Russia is the third largest export market and accounts for 11 percent of the total of Mongolian exports and is the main importer of fluorspar concentrate.⁸⁸

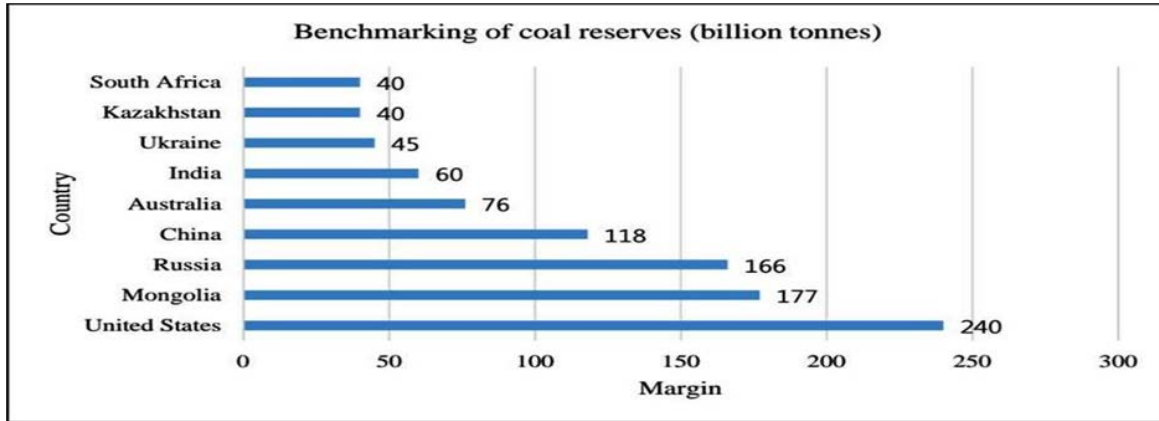


Figure 2. Benchmarking of Coal Reserves

Source: Erdenebat Mungunzul, “Foreign Direct Investment in the Mongolian Mining Sector,” *International Journal of u -and e-Service, Science and Technology* 9, no. 3 (2016): 249 -258, accessed February 10, 2017, <http://dx.doi.org/10.14257/ijunesst.2016.9.3.24>.

According to Batchuluun’s estimates, the Mineral Resource Authority has issued 6,171 mining exploration and exploitation licenses covering 71,107,888.66 hectares, which cover more than 45 percent of the Mongolian territory.⁸⁹ This indicates that a huge

⁸⁸ Ibid.

⁸⁹ Batchuluun and Lin.

percentage of the territory needs environmental protection more than monetary value.

Lkhagva Erdene has observed:

The Mongolian mining sector is well known for its corruption. The signing and ripping of contracts, the constant political infighting, and the swelling tide of resource nationalism, have marred many a mining deal. Foreign investors, like Rio Tinto, have felt the heat. Many others were spooked by Mongolia's uncertain political and legal environment, which contributed to the country's rapid slide from the world's fastest-growing economy in 2011 to its present miserable and worsening state.⁹⁰

Mongolia, as a member of the major important international financial institutions such as the World Bank, the International Monetary Fund, and the World Trade

Organization (WTO), is fully eligible to exercise the full gamut of international and national trade and industrial activities in order to further develop its economy.

Unfortunately, Mongolia is unable to develop its raw mineral processing industries into value added products, resulting in the economy is benefitting primarily from the revenue of raw mineral exports. Mongolia's mining sector requires comprehensive internal institutions supported by external financial investments, innovation, and new technologies to improve Mongolia's position among the big markets of the world.

The Impact of the Mining Sector on Mongolia's Economy

Mongolia's economic growth has been fluctuating in correlation with its mineral exploitation and has been affected by the global market value instability of the past two decades. The mining sector's performance suffered a 26 percent interruption as a result of

⁹⁰ Lkhagva Erdene and Sergey Radchenko, "The Mysterious Sale of Mongolia's Erdenet Mine," *The Diplomat*, July 9, 2016, accessed January 26, 2017, <http://thediplomat.com/2016/07/the-mysterious-sale-of-mongolias-erdenet-mine/>.

the global financial crisis in 2009 as shown figure 3. The financial crises impacted Mongolia's economy due to the significant dependence on mining sector exports as during the crises, copper prices fell from USD 8700 per ton in April 2008; to USD 3000 per ton in March 2009, a 65 percent reduction. This resulted in a 13 percent unemployment increase and affected other economic factors adversely.⁹¹ This fact alone indicates that Mongolia is significantly dependent on its mining sector export and its economy is highly vulnerable to that market's price fluctuations. In 2014, Mongolia exported 28.5 million tons of coal, 90 percent of which was delivered to China. The proportion of coal extracted in Mongolia for export rose from 44 percent of the total in 2009 to more than 56 percent of the total in 2012. According to mining researchers, Mongolia is the largest exporter of coal to China, surpassing Australia.⁹²

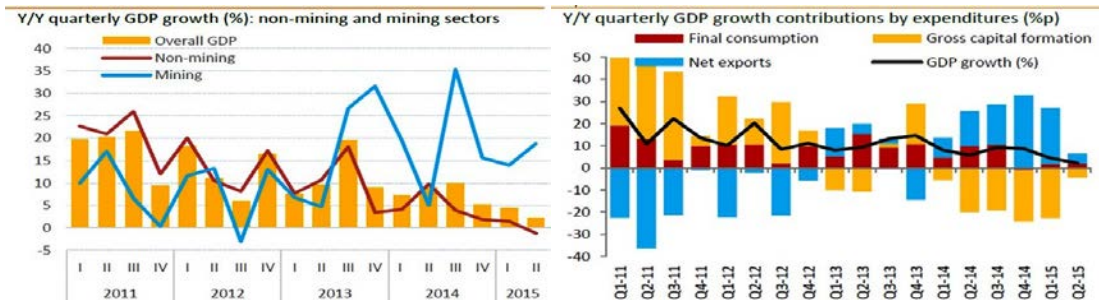


Figure 3. Percentage Gross Domestic Product Growth 2011-2015

Source: The World Bank Group, *The Mongolia Economic Update* (Washington, DC: World Bank Group, 2015), assessed April 4, 2017, <http://pubdocs.worldbank.org/en/920971447119845335/meu-nov2015-en.pdf>.

⁹¹ Jiří Mičánek, “Mongolia: Economic Miracle or Another Case of Resource Curse?” (Master’s thesis, Mendel University in Brno, 2014), 29, accessed January 16, 2017, https://theses.cz/id/68u409/zaverecna_prace.pdf.

⁹² SES Professionals.

The World Bank reported that mineral related GDP recorded a 22 percent growth in 2014 largely on the back of a 34.5 percent increase in copper concentrate production, with Oyu Tolgoi copper and gold mine beginning its first full-year commercial production. Copper concentrate production of the Oyu Tolgoi mine accounted for one-third of total mining production and approximately eight percent of total GDP in 2014. In the first half of 2015, production of copper concentrates increased by 24.9 percent year-on-year, a robust but slower growth than the 56.2 percent growth one year before as Oyu Tolgoi mine entered into the second year of full production. Coal production declined by 2.4 percent in the same period, reflecting the continued weak coal market conditions. This resulted largely from China's slowing economy and its drop of steel production, which lead to a reduction in market needs, which pushed coking coal benchmark prices to such low levels.⁹³ Moreover, the World Bank analyzed that Mongolia's mining sector should expect less coal exports in 2016 and 2017 based on the global market decline. However, from 2018 mineral concentration markets would increase its demand. Therefore, Mongolia needs to improve mineral concentration of ores to recover the predicted market losses in the coming years.⁹⁴

Furthermore, in order to analyze Mongolian economic environment, it is important to understand China's economic environment, as its largest trading partner's mineral market needs. China is the developing world's second largest economy and is expanding

⁹³ Mongolian Mining Corporation, *Annual Report 2015* (Wanchai, Hong Kong: Computershare Hong Kong Investor Services, 2015), 20, accessed January 16, 2017, <http://www.mmc.mn/upload/2016-04-25eng.pdf>.

⁹⁴ *Ibid.*, 34.

its interests in natural resources beyond its border to gain a greater market value share. This has led to other nations more carefully considering their economic policies including foreign policy with China. Significantly, China has been the biggest trading partner and investor in Mongolia since 1999 and, as elaborated below, currently tries to exert influence over Mongolia's diplomatic relations with other state actors. Therefore, in the framework of developing a domestically sustainable economy, Mongolia should closely monitor China's economic policy and political swings besides just its global economic tendency in order to avoid any undue complications both internationally and domestically.

China's Mining Export Influences over the Mongolian Economy

China practices a socialist market economy based on the dominance of the state owned sector but with aspects of an open-market economy. China's share of the world GDP in purchasing power parity terms reached about 17 percent in 2015, exceeding the United States and the Europeans Union, evidencing that China's economy is becoming the strongest in the world.⁹⁵ This is confirmed by the Congressional Research Service (CRS) which reported that China's economy is the world's largest economy on a purchasing power, manufacturing, and merchandise trader basis, and as a holder of foreign exchange reserves. However, China's economy has slowed in recent years, as GDP fell from 10.4 percent in 2010 to 7.8 percent in 2012, to 7.3 percent in 2014 and is expected to be slower

⁹⁵ Lee Jong Wha, "China's Economic Growth and Convergence" (Asiatic Research Institute, Korea University, Korea, April 2016), accessed January 21, 2017, [http://econ.korea.ac.kr/jwlee/papers/China 2020160426.pdf](http://econ.korea.ac.kr/jwlee/papers/China%2020160426.pdf).

in the coming years.⁹⁶ China's current economic slowdown resulted in some negative political, economic, and social outcomes with challenges reported for government corruption, over reliance on investment and exports, an inefficient, heavily controlled weak banking system and financial policy, and increasing income inequality.⁹⁷

However, the CRS reported that China's growing economic power has made it a critical and influential player on the global stage with China carrying out several critical initiatives that could increase its soft power in the world. For example:

In July 2014, China, along with Brazil, Russia, India, and South Africa, announced the creation of "New Development Bank."

China announced plans in 2013 for a Silk Road Economic Belt and a 21st Century Maritime Silk Road (together, referred to as the "One Belt, One Road initiative").

In October 2014, China launched the creation of a new \$100 billion Asian Infrastructure Development Bank aimed at funding infrastructure projects in Asia.

In November 2014, China promised to contribute \$40 billion to a new Silk Road Fund to improve trade and transportation links in Asia.

In April 2015, China publicized that it would invest \$46 billion in infrastructure development in Pakistan under the umbrella of China-Pakistan Economic Corridor.⁹⁸

Even though it must be recognized that China is becoming a world economic super power, this paper cannot ignore Chinese natural resource concerns. China's Prime minister Pan Yue addressed that:

Our raw materials are scarce, we do not have enough land and our population is constantly growing. . . . Cities are growing, but desert areas are expanding. . . .

⁹⁶ Wayne M. Morrison, *China's Economic Rise: History, Trends, Challenges, and Implications for the United States* (Washington, DC: Congressional Research Service, 2015), 2, accessed January 21, 2017, <https://fas.org/sgp/crs/row/RL33534.pdf>.

⁹⁷ *Ibid.*, 38.

⁹⁸ *Ibid.*, 2.

Five of the most polluted cities in the world are in China; acid rain is falling on one third of our territory; half of the water in China's seven largest rivers is useless, a quarter of our citizens lack access to clean drinking water.⁹⁹

Due to these acknowledged limited natural resources, China is extending its quest for resources around the world but especially in Asia, Africa, and Latin America. Chinese domestic output increased 3.3 times, while imports of iron ore rose 8.5 times, from 52 M. tons to 444 M. tons. As a result, China's iron ore dependence on imports gradually rose from 31.6 percent in 1998 to 54.8 percent. In fact, China has been the largest steel producer for over a decade, producing nearly one-third of the world's steel, which is more than three times the output of Japan and the United States, the second and third largest producers respectively. By 2008, China's share of total world steel production had risen to 47.4 percent. Steel production in China nearly doubled during the 1990s, and it tripled during the 2000s, rising at an average annual rate of over 22 percent in 2008 and 72.9 percent in 2009.¹⁰⁰

China's copper smelting industry also grew fast, quickly increasingly since 2000 when its annual growth rate was 10 percent. The average growth rate of smelting (14.3 percent) has been more than twice as high as that of mining output (6.6 percent), reflecting increased reliance on copper ore imports. China's copper demand rose from 0.7 M. tons in 1990 to 6.6 M. tons in 2007. Since 1990, China's annual average copper growth rate is

⁹⁹ Andreas Lorenz, "China's Environmental Suicide: A Government Minister Speaks," *Open Democracy*, April 5, 2005, accessed November 1, 2016, https://www.opendemocracy.net/globalization-china/article_2407.jsp.

¹⁰⁰ Yongzhen Yu, "Identifying the Linkages between Major Mining Commodity Circle and China Economic Growth-Implications for Latin America" (Working Paper, International Monetary Fund, April 2011), 8, accessed January 21, 2017, <https://www.imf.org/external/pubs/ft/wp/2011/wp1186.pdf>.

close to 14 percent, well above the rate of increase of domestic copper output. In 2007, China imported high volumes of copper-related products included 4.5 M. tons of copper ore; 0.2 M. tons of crude copper; 1.4 M. tons of refined copper; 0.6 M. tons of copper products; and 5.6 M. tons of scrap copper. The deficit of copper trade was equivalent to US\$30.1 billion. China's dependency on copper imports is very high, as around two-thirds of world, mined copper ore is used in China.¹⁰¹ The geographic contiguity of Mongolia to China gives it an enormous opportunity to leverage this situation.

China is the world's largest coal-powered economy even as it has continued to develop high volumes of nuclear and renewable energy. China's heavy industrialization and an increase of population and urbanization are quickly raising its coal demand. If demand increases continue, national reserve estimates indicate a coal deficit is likely to emerge, bringing with it concerns for China's energy security. Nathaniel Aden reported that in 2006, the power generation sector, iron and steel, and cement accounted for 71 percent of coal consumption. He further noted that future coal use is likely to come from the burgeoning coal liquefaction and chemicals industries. China estimated that demand for coal to liquids and coal to chemicals might add up to 450 million tons of coal by 2025, and annual coal demand will reach 3.9 to 4.3 billion tons by 2025.¹⁰² China's high coal demand, increasing coal prices and domestic resource shortages will influence its political, economic, and social stability, which may affect the regional and global economic and

¹⁰¹ Ibid., 10.

¹⁰² Nathaniel Aden, David Fridley, and Nina Zheng, *China's Coal: Dema, Constraints, and Externalities* (2009), 1, accessed January 21, 2017, http://www.circleofblue.org/wp-content/uploads/2011/02/coal_bohai_report.pdf.

political landscape. A global resource deficiency coupled with a rising China coal demand may bring about high competition with other coal importing countries in Asia Pacific, including Japan, South Korea, Taiwan, and India. Bedeski writes that China has possible eyes on Mongolia with the same long-term re-incorporative lust as it views Taiwan. He stated that China invested US 2.3 billion in Mongolia in 2009, which is more than 60 percent of total foreign investment and as such, this is a significant reason why Mongolia cannot afford a deterioration in relations with China.¹⁰³ Michael Swaine argues that China's increasing dependence on foreign market and external economic factors could result in increased pressures for expanding China's ability to control events beyond its border.¹⁰⁴ Therefore, Mongolia has an effective geo-economic leverage, being the second largest producer of coal, and can balance its national security equation in this context.

Jeffrey Reeves wrote about China's most divisive policy stances, such as its expansive territorial claims, disruptive diplomacy in the ASEAN, and growing use of unilateral economic sanctions.¹⁰⁵ The Chinese Ministry of Commerce (MOFCOM) identifies Mongolia, Cambodia, Laos, and Myanmar as target nations for investment and trade. MOFCOM also identifies several specific industries as key for investment and development, such as logging (Laos, Myanmar, and Cambodia), oil and natural gas (Myanmar), commodities (Mongolia), and textile manufacturing (Cambodia and

¹⁰³ Bedeski and Swanstrom, 220.

¹⁰⁴ Michael D. Swaine, *Interpreting China's Grand Strategy: Past, Present, and Future* (Santa Monica, CA: Rand, 2000), 144.

¹⁰⁵ Jeffrey Reeves, "China's Unraveling Engagement Strategy," *The Washington Quarterly* (2013): 139-49, accessed April 3, 2017, https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/TWQ_13Winter_Reeves.pdf.

Mongolia).¹⁰⁶ Evidence that the societies in these small states have come to view aspects of Chinese economic activity in their countries as negative has grown in tandem with China's expanding economic presence within the respective states. Cambodian academics have spoken out against the long-term consequences of economic cooperation with China and the negative effect China's economic activity has on Cambodia's political development.¹⁰⁷ In Cambodia, opposition to China's economic footprint is also rising. Protests have occurred in Phnom Penh (and places such as Botum Sakor and Koh Kong) against perceived Chinese involvement in land grabs, environmental degradation, and influences of increase of political corruption.¹⁰⁸ Over the past years, Myanmar has undergone a change in political orientation, spurred at least in part by economic dependency, which has led to a social backlash, which in turn forced a change in state policy and a desire to limit China's economic influence over the country's domestic institutions. A key development in this regard was Yangon's suspension of a Chinese license to develop the country's Myitsone Dam in September 2011, on the grounds it was environmentally damaging and socially disrupting.¹⁰⁹

¹⁰⁶ Ibid.

¹⁰⁷ Samean Yun and Joshua Lipes, "Chinese Influence under Scrutiny," Radio Free Asia, April 3, 2012, accessed February 17, 2017, <http://www.rfa.org/english/news/cambodia/influence-04032012180802.html>.

¹⁰⁸ Andrew R. C. Marshall and Prak Chan Thul, "Insight: China Gambles on Cambodia's Shrinking Forests," *Reuters*, March 7, 2012, accessed February 17, 2017, <http://www.reuters.com/article/2012/03/07/us-cambodia-forests-id>.

¹⁰⁹ Jonathan Watts, "Victory for Burma Reformers over Dam Project," *The Guardian*, September 30, 2012, accessed February 17, 2017, <http://www.guardian.co.uk/world/2011/sep/30/victory-burmareformers-dam-project>.

Mongolia is also seeking policies designed to limit China's economic influence such as the Strategic Entities Foreign Investment Law that sought to limit Chinese state-owned enterprises' ownership of and operation in the country's key mining sites.¹¹⁰ China is growing its economic dominance over Central Asia through SCO offerings. Sebastien Peyrouse observed that the Central Asia's rich mineral resources are increasingly important for China's economy. Beijing is avaricious to get access to Caspian oil and gas reserves. Therefore, China is increasing its economic supremacy and immigrants' numbers to Central Asia. In particular, Kyrgyzstan, Tajikistan, and Uzbekistan are benefiting from Chinese economic dynamism and geo-strategic influence, but also fearful of its potential demographic and cultural power.¹¹¹ Such a Chinese pushy policy makes Russia often disappointed as Russia still has a former hegemony mentality over Central Asia. Tugsbilguun writes that Russia promotes its Central Asian interests through Eurasian Economic Community (EUASEC), which includes Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, and Belarus. China egoistically seeks to establish a free trade zone with EUASEC rather than SCO without concern for Russian political and economic interest in these areas.¹¹²

Mongolia has abundant reserve minerals, which in cooperation with an appropriately behaving China market can bring huge prosperity to the economy of Mongolia if managed well. Mongolia's mining sector needs to be developed under

¹¹⁰ Ibid.

¹¹¹ Bedeski and Swanstrom, 92.

¹¹² Ibid., 187.

feasible institutions, law, regulation, and judicious intervention of the government for its potential to attract reasonable Chinese investments in capital and human resources to the advantage of both countries. Importantly, Mongolia needs to consider building manufacturing based industrializations to process raw minerals and support macro and micro economic factors and constructing infrastructures to increase the variety of mining based exports for partners like China, thus supporting the underlying national interest for both Mongolia and its trading partners.

Mongolian Economy's Role in National Security

Neu Charles concluded that national security is a consequence of economic policies, in other words, national security centers on the use of economic means to achieve traditional national security ends. He has debated that national security problems have resulted from economic factors such as trade restriction, embargos, freezing of financial assets, and so on.¹¹³ Similarly, Losman writes that economic goals for national security objectives are the making and implementation of national security strategy and core national security ends.¹¹⁴ Mongolia's economic development is inseparable from its politically significant shift from communism to democracy.

Prior to 1991, 80 percent of Mongolia's trade was with the former Soviet Union, and 15 percent was with other Council for Mutual Economic Assistance (CMEA) countries. Mongolia was heavily dependent upon the former Soviet Union for fuel, medicine, and spare parts for its factories and power plants. The former Soviet Union

¹¹³ Neu and Wolf, 7.

¹¹⁴ Losman, 5.

served as the primary market for Mongolian industry. In the 1980s, Mongolia's industrial sector became increasingly important. By 1989, it accounted for an estimated 34 percent of material products, compared to 18 percent from agriculture. However, minerals, animals, and animal-derived products still constitute a large proportion of the country's exports. Principal imports included machinery, petroleum, cloth, and building materials. In the late 1980s, the government began to improve links with non-communist Asia and the West, and tourism in Mongolia improved. Despite its external trade difficulties, Mongolia has continued to press ahead with reform. Privatization of small shops and enterprises was largely completed in the 1990s, and most prices have been freed. Privatization of large state enterprises has begun. Tax reforms also have begun, and the barter and official exchange rates were unified in late 1991. Further, between 1990 and 1993, Mongolia suffered triple-digit inflation, rising unemployment, shortages of basic goods, and food rationing. During that period, economic output decreased by one-third. As market reforms and private enterprise took hold, economic growth began again in 1994 and 1995. Unfortunately, since this growth was fueled in part by over-allocation of bank credit, especially to the remaining state-owned enterprises, economic growth was accompanied by a severe weakening of the banking sector. GDP grew by about 6 percent in 1995, in response to the increase of copper prices. Average real economic growth leveled off to about 3.5 percent in 1996 through 1999 due to the Asian financial crisis, the 1998 Russian financial crisis, and worsening commodity prices, especially copper and gold.

Mongolia's GDP growth fell from 3.2 percent in 1999 to 1.3 percent in 2000 due to the loss in the mainstay agricultural industry of 2.4 million livestock which died because of bad weather and natural disasters. Unfortunately, prospects for development

outside the traditional reliance on nomadic, livestock-based agriculture are constrained by Mongolia's landlocked location and lack of basic infrastructure. Thus, agriculture, livestock and other major industries have been declining ever since.

By 2003, private companies made up 70 percent of Mongolian GDP and 80 percent of exports. Consequently, the mining industry's development and subsequent contribution to FDI amounted to a total of almost 25 percent in 1999 from zero in 1990. Mongolian economy, being heavily dependent on exports, received a setback due to 2008 and 2009 economic crises. With the sharp decrease in metal prices, especially copper prices down 65 percent from July 2008 to February 2009, exports of its raw materials withered. Just as the economy started to recover, Mongolia was hit by a Zud (natural disaster) over the winter period of 2009 and 2010, causing many livestock to perish and severely affecting cashmere production, which accounts for a further 7 percent of the country's export revenues. This was especially severe, because beginning in 2004, Mongolia promoted an export-oriented economy based on raw and unprocessed materials such as meat, fur, leather, oil, and mining productions, which left Mongolia's economy vulnerable to external and internal market value fluctuations.

Rowland has declared mining a political business, and nowhere else is this more evident than in Mongolia. Situated between two significant economic and political powers, Russia and China, Mongolia owns colossal mineral wealth, but even at the greatest of the commodities cycle in the world market, Mongolia was incompetent at develop its mining industry to any significant extent.¹¹⁵ Even now, disharmony associated

¹¹⁵ Jonathan Rowland, "Mongolia: The Slow and Bumpy Road," World Coal, March 7, 2016, accessed January 16, 2017, <https://www.worldcoal.com/special-report>.

with parliamentary elections, coupled with the downturn in global commodity demand, are likely to keep Mongolia's mining industry development in the slow lane. Mongolia's macroeconomic performance continues to be strongly linked to that of China with the mainland economy accounting for approximately 90 percent of the demand for Mongolia's exports.¹¹⁶ Therefore, if China challenges Mongolia over raw mineral exports, the Mongolian government will face significant difficult internal challenges to sustain the economy over the coming years.

For instance, in the last three, China's economy has been slowing down and thus China has reduced its imports in order to support its domestic economic producers. Such a slowdown and the subsequent knock on effect to China's needs for Mongolian exports reveals Mongolia's lack of economic diversification. The World Bank reported that China absorbed 87.9 percent of Mongolia's total exports which contributes 35 percent of GDP in 2014. Copper concentrates alone constituted 37 percent of total exports in 2014 and is projected to account for almost half of total exports by 2017. A sharp drop in coal exports to China was a significant drag on Mongolia's economy and the external accounts in the first nine months of 2015. A 10 percent drop in copper and coal export revenues from the baseline projection would widen Mongolia's current account deficit by more than 3 percentage points of GDP in 2016.¹¹⁷ Batsuuri writes, "Given falling GDP, an increasing budget deficit, decreasing foreign reserves and other negative macroeconomic indicators,

¹¹⁶ Ibid.

¹¹⁷ The World Bank, *Mongolia Economic Update*, 2015, 1.

experts agree that Mongolia is in economic recession, if not in crisis.”¹¹⁸ The IMF reported that Mongolia’s total foreign debt grew quickly to US\$20.98 billion or 175 percent of GDP now, with private debt making up 25 percent and the remaining 75 percent being public debt.¹¹⁹

The International Monetary Fund prepared a Debt Sustainability Analysis (DSA), which assesses public debt, including general government debt. Euro bonds issued by the Development Bank of Mongolia (BOM), the drawing of the People’s Bank of China (PBOC) swap line by the BOM, and also borrowing by, and government guarantees for, state-owned enterprises, which were not included in the previous DSA as such data were not reliably available at the time. The report revealed that external public and publicly guaranteed debt (PPG) reached more than 56 percent of GDP by the end of 2014, and key external debt indicators have been breached, or are projected to breach, the relevant indicative thresholds: debt-service ratios spike in various years when external bonds mature, and some of these breaches are significant in magnitude and persist for extended periods under both baseline and stress tests. Public debt stood at 77 percent of GDP and will stay above the benchmark for almost the entire projection period of 2015 to 2035. Total external debt rose to 170 percent of GDP reflecting, in large part, intercompany lending in the mining sector undermining the economy’s resilience to external shocks. The

¹¹⁸ H. Batsuuri, “Original Sin: Is Mongolia Facing an External Debt Crisis?” *The Northeast Asian Economic Review* 3, no. 2 (October 2015): 1, accessed January 22, 2017, http://www.erina.or.jp/wp-content/uploads/2015/11/naer32-1_tssc.pdf.

¹¹⁹ International Monetary Fund, IMS Country Report No. 15/109, *Mongolia* (Washington, DC: International Monetary Fund, 2015), accessed January 22, 2017, <https://www.imf.org/external/pubs/ft/sct/2015/cr15109.pdf>.

elevated debt ratios have also raised market concerns and the credit rating agencies have downgraded Mongolia's sovereign rating several times since the issuance of Eurobonds in late 2012 and they have maintained a negative outlook with Mongolia's sovereign spreads being among the highest of all frontier economies.¹²⁰ Importantly, with no legal limit, both foreign, public and private debt has a significant impact on the national security through the potential to lead to economic instability.

Mongolia's government manages public debt through a combination of two laws: the "Fiscal Stability Law" adopted in 2010 and renewed in 2015, and the "Debt Management Law" adopted in February 2015. Batsuuri writes that the present value of Mongolia's government debt, excluding borrowings of state-owned enterprises, is 40 percent of GDP and would be up to 58.3 percent in 2015.¹²¹ This debt includes the amounts of US\$250 million which the government borrowed in the form of a tax prepayment from the controversial Oyu Tolgoi and US\$350 million of another interest-bearing tax advance the government received from Tavan Tolgoi. In addition, the Chinese and Mongolian central banks have a supplementary currency swap arrangement, signed bilaterally for 15 billion yuan (US\$2.44 billion), an approximate 4.7 trillion togrog swap agreement, which ends in 2017.¹²²

The IMF reported that the present value of the debt-to-GDP ratio is the most popular and frequently used baseline scenario measurement indicator in Mongolia. Based

¹²⁰ International Monetary Fund.

¹²¹ Batsuuri, 1.

¹²² Ibid.

on this five-baseline measurement assessment, one of four possible risk-of-debt-distress ratings, high, moderate, low risk, and in debt distress, are applied to Mongolia's last few years.¹²³ Under the new debt management framework, for the second quarter of 2015 Mongolia's total public debt stood at 13.2 trillion togrogs or 55 percent of GDP in nominal terms, and 10.9 trillion togrogs or 46 percent of GDP in PV terms. External public debt was US\$5.4 billion or 45 percent of a US\$12 billion economy, external debt 175 percent of GDP, and private debts hit 150 percent of GDP, 5 percent over the indicative threshold that meant Mongolia has a high debt distress risk.¹²⁴ Economic stability and balance in trade are key for the national security of Mongolia like any other country around the world. As explained above, heavy dependence on a particular country (China) prevents the Mongolian nation from pursuing independent foreign and national policies. In the absence of such independence, the national security of the country cannot be safeguarded in tangible and effective terms.

Political Dimension

It is worth mentioning what occurred during the Tibetan Buddhist Leader, Dalai Lama's religious visit to Mongolia at the end of 2016 at the request of Buddhist majority. Since 1979, Dalai Lama's visit in Mongolia were of no concern to China. However, China expressed discount with his visit in 2016. Tibetan Buddhism was adopted in Mongolia in the beginning of the 14th century and it is one of the main cultural traditions of Mongolia, with 53 percent of the population identifying as Buddhist. Tashi writes that China delayed

¹²³ Ibid.

¹²⁴ Ibid., 8.

several diplomatic talks including a huge loan and imposed new fees on a key border point between the two countries due to Dalai Lama's visit. Wang stated on the Chinese Foreign Ministry's website, "We hope that Mongolia has taken this lesson to heart" as well as China hoped Mongolia would "scrupulously abide by its promise" not to invite the Dalai Lama again.¹²⁵

Such a shocking, aggressive, and disrespectful Chinese overreaction violates international, Mongolia's, and even China's, various laws and regulations related to human rights such as the Universal Declaration of Human Rights, International Covenant on Civil and Political Rights, and the Declaration on the Elimination of All Forms of Intolerance and Discrimination Based on Religion or Belief. Secondly, China violates its own government's "White Paper" on Freedom of Religious Belief in China, which declares that:

[B]asically in accordance with the main contents of the concerned international documents and conventions . . . stipulations in the Universal Declaration of Human Rights . . . the International Covenant on Civil and Political Rights, the United Nations Declaration on the Elimination of All Forms of Intolerance of Discrimination Based on Religion or Belief, and the Vienna Declaration and Action Program are all included in China's laws and legislation in explicit terms and are being put into practice: that the freedom of religion or belief is a basic human right.¹²⁶

This episode points to the single fact that China's economic threat may also have significant political overtures and is thus an added potential danger to Mongolia's national

¹²⁵ Gulf Times, "China says Mongolia Learned Lesson after Dalai Lama Visit," accessed January 25, 2017, <http://www.gulf-times.com/story/530355/China-says-Mongolia-learned-lesson-after-Dalai-Lam>.

¹²⁶ Chris Siefert, "Religious Freedom, International Law and the People's Republic of China," accessed January 25, 2017, http://www.memoryhole.net/~chris/research/govt326_religiousfreedom.html.

security through economic means. This further emphasizes the need for Mongolia to develop its own sustainable economy rather than relying on revenue of raw mineral export to China. Only then will Mongolia be able to exercise its sovereign rights of pursuing national aspirations including its own vital national security interests.

Mongolia's Economic Strategy–Future

Sebastien Peyrouse writes that two main drivers strengthen security: geopolitical balance, or the interplay of major powers, and reinforcement of national sovereignty through economic development.¹²⁷ The economy is becoming a major national policy instrument of nations, as the world's main powers are competing for economic dominance. Tang writes that:

The United Nations Assembly Resolution 66/290 3(g) states, 'Government retain the primary role and responsibility for ensuring the survival, livelihood and dignity of their citizens.' Although human security advocates a paradigmatic shift to conceptualize security from a state-centric model to a people-based approach, the state retains its centrality in the provision of economic security.¹²⁸

CRS reported that Chinese investment in Mongolia accounted for just under one third of total FDI with no other country exceeding such a high investment from one neighbor.¹²⁹

While Mongolia has vast mineral wealth, it is landlocked between two powers and has limited domestic infrastructure. Mongolia therefore struggles in the face of the economic

¹²⁷ Bedeski and Swanstrom, 93.

¹²⁸ Siew Mun Tang, "Rethinking Economic Security in a Globalized World," *Contemporary Politics* (2015): 1, accessed January 23, 2017, <http://www.tandfonline.com/doi/abs>.

¹²⁹ Lawrence, 6.

domination of China and its own mismanaged raw mineral export and non-transparent foreign investment.

The United Nations Development Assistance Framework (UNDAF) has worked for the past five decades in Mongolia to improve its civil society development, human rights, gender equality, and environmental protections. United Nations extended its framework in order to deliver continuous support to Mongolia and Mongolia and UNDAF signed “Mongolia Sustainable Development Vision 2030” in 2016. The Vision states that Mongolia aims to develop a multi-sector stable economy with a middle-income country level based on per capita income by 2030, all being based on the integrated development approaches of Mongolia and UNDAF.¹³⁰ In the scope of the UNDAF, the United Nations appoints staff and consultants for program development, program support, technical assistance, and monitoring and evaluations activities to support national development priorities.

Mongolia also endorsed the Millennium Development Goals (MDGs)-based Comprehensive National Development Strategy of Mongolia in 2008. The strategy reflected a MDG-based Comprehensive National Development Strategy (CNDS) of Mongolia in two phases: first, to achieve the Millennium Development Goals and intensive development of its economy in 2007 to 2015, and second, to make a transition to a knowledge-based economy in 2016 to 2021.¹³¹ MDG reported that MDGs and the

¹³⁰ Government of Mongolia, *United Nations Development Assistance Framework 2017-2021*, June 2016, accessed January 24, 2017, <http://www.un-mongolia.mn/new/wp-content/uploads/2016/06/UNDAF-Mongolia-2017-2021-ENG.pdf>.

¹³¹ State Great Hural (Parliament) of Mongolia. Resolution, *Endorsement of the Millennium Development Goals (MDGs)-based Comprehensive National Development*

MDG-based CNDS have played a decisive role on the development strategy serving as a foundation for Government Action Plans and annual fiscal policy. During the first phase, Mongolia implemented 429 projects focused on education, health, social welfare, poverty reduction, gender, infrastructure, and governance. The Oyu Tolgoi project alone attracted a total of US\$ 6.4 billion of FDI. However, the first phase of the CNDS implementation reported that few objectives were fully met and many challenges were encountered in objectives such as lack of responsible and good governance, unsatisfactory law enforcements, and weak institutions. Also noted were insufficiencies of financial resource allocation that affected Mongolia's accomplishments and failures between 2008 and 2014.¹³²

Mongolia also joined the IMF in 1991 in order to be supported in its economic and financial programs. The IMF reported that Mongolia's economy is highly vulnerable to external shocks, as minerals account for 90 percent of all exports, and 90 percent of these are bound for China.¹³³ As a result of the lack of economic policy management, Mongolia failed to support its economy through China's economic crisis in 2009. As a consequence, the budget deficit ballooned to around 10 percent of GDP in 2012 and 2013, and, as stated above, public debt had surged dramatically from below 40 percent of GDP in 2011 to

Strategy of Mongolia, 2008, accessed January 24, 2017, <https://www.adb.org/sites/default/files/linked-documents/cps-mon-2012-2016-oth-01.pdf>.

¹³² Government of Mongolia, *Mongolia's National Report, "Managing the Transition from the Millennium Development Goals to the Sustainable Development Goals,"* 2015, accessed January 24, 2017, http://www.un.org/en/ecosoc/newfunct/pdf15/nvp_mongolia_report.pdf.

¹³³ International Monetary Fund, *IMS Country Report No. 15/109*, 5.

more than 60 percent of GDP at the end of 2013.¹³⁴ The IMF did not succeed well on the “Comprehensive Macro Adjustment Plan” as being a role model of economic and financial consult as seen from its last report.

Conclusion

Mongolian economy is heavily dependent on exports of raw materials as explained in this chapter. It is resource-rich country but lacks infrastructure, industries, and technologies to process value added products, and human capital to develop its mining sector. Moreover, the country is overly reliant on its exports to China and thus lacks diversity in its economic base. Mining thus attains a central stage in Mongolian economy. The country is so far unable to exploit the full potential of its natural wealth as it failed to develop a broad-based industry to support its mineral resources. The economy is one of the national power instruments as it affects national security. A weak and dependent economy means weaker national security. The situation is further exacerbated, as Mongolia does not have a strong competent military power to defend itself, especially as compared to its two neighbors, China and Russia. Both China and Russia actively seek natural resources relating to their increasing demand and population and try political and potentially military engagement to obtain resources. Therefore, Mongolia needs to enhance its national security through developing a sustainable economy to lessen these threats.

To further its national security, Mongolia must also diversify its economy and further integrate it with international markets to reduce reliance on only a few countries.

¹³⁴ Ibid.

According to Mongolia's National Security Concept, the economy is one of the major pillars of national security concern. Heavy economic dependence on other nations limits Mongolia's ability to pursue its national aspirations independently. This has a direct bearing on national security. Mongolia has tremendous economic potential in the form of its mineral resources. There is a dire need to exploit this leverage by broadening the industrial base and diversifying the export destinations. By doing so, Mongolia will be well placed to ensure its national security in accordance with national aspirations and without the clout of any particular foreign country. The next chapter provides conclusions, recommendations, based on the analysis of chapters 2 and 4.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Mongolia's economy is an export-oriented industry of its services and raw materials. Economic growth is private sector led and is underdeveloped due to a lack of institutional depth and poor management by the government. In the last few years, Mongolia has found itself at a critical juncture where Eurasian continental integration and critical variables for Northeast Asian security have been energized by the rise of the Chinese economy, Sino-Russian formalized cooperation on new "Silk Road" initiatives (especially in the energy and transportation sectors), and the state of U.S.-Chinese relations. This has increased sense of globalization validated systems approach and author to analyze primary and secondary questions of the thesis. Mongolia reviews that its former policy of passivity was not very effective in elevating its voice in its region or in the world, so it must be more proactive in promoting its own ideas for political and economic continental integration to overcome obstacles to its economic progress and to solidify its national security. At the same time, Mongolia has come to recognize that its attempts to create an economy based on minerals, which was not dominated by a resource nationalist mentality, were not successful during the past ten years. Its GDP growth rate of over 17 percent in 2011 has plunged dramatically year by year to only 3 percent in 2015. Such experiences necessitates the country and its leadership to take stock of its domestic and foreign policies and re-tool its national security strategies.

The purpose of this research was to examine the relationship between economic development and national security through analyzing Mongolia's mining sector

development. As a result, an endeavor was made to suggest viable measures for furtherance of national security by achieving economic development, through focus on the mining sector.

Interpretation of Findings

The economies of the countries around the world are becoming interdependent and interrelated largely due to the utilization and trade in scarce natural resources. Changes in demand by the major market players affect world macroeconomic balances and can significantly influence the economic stability of developing countries. As analyzed previous chapters, in the 1990s, a failure of Eastern-bloc economic cooperation and trade system caused significant damage to Mongolia's economy and GDP decreased by more than 20 percent. The level of national savings rapidly declined, from about 35 percent of GDP in 1990 to 26 percent in 1995. Imports also decreased substantially, falling from US\$924 million in 1990 to US\$388.4 million in 1992. Inflation reached a peak of 325.5 percent in 1992, accompanied by growing unemployment. The government launched reforms for the economic, political, and social sectors starting in 1991. These reforms included liberalization of state-controlled prices and tariffs, trade, privatization of state-owned enterprises, and developing a financial and monetary policy to improve Mongolia's economy. Mongolia rushed to start its economic transition without sufficient institutional fundamentals being in place, having a lack of experience and the absence of proper management and investment, which in combination caused the deterioration of general industrial and service sectors. Macroeconomic stability also deteriorated, especially in terms of price increases for domestic and imported goods, external shocks, banking distress, and the slowing of economic activities lead to significant income losses.

Despite joining the major monetary and financial international organizations such as the International Monetary Fund, the World Bank, the Asian Development Bank, and the WTO, Mongolia's economy is still very immature and heavily dependent on outsiders. Being geographically located between two strong economic and military powers (e.g., insert them for a reminder here), Mongolia must prudently maintain its foreign and security policy. The future security environment will be more complex and unpredictable as world powers are using economic power, almost as a substitute for military instruments of national powers. Based on the analysis in chapter 4, there is overwhelming evidence to suggest that Mongolia is vulnerably dependent on its mining sector exports and its influences on the national economy.

Next, there are strong indications to support the thesis that a National Security Concept of Mongolia must underscore the direct and mutual linkage between national security and economic security. The National Security Concept of Mongolia determined that “A constructive strategy shall be put forward to design a multi-pillared economic structure, balanced investment policy and financial security as well as efficient policy on such issues as energy, mineral resources, foreign trade and regional economic integration.”¹³⁵ In other words, through strong economic strategy, Mongolia needs to develop its sustainable economy using its natural resources and available assets to support its national security concept as a buffer against its giant economic and politically ambitious neighbors and as a means to support its own economic development. Because of

¹³⁵ Embassy of Mongolia, *Mongolian National Security Concepts*.

this, Mongolia needs a coherent national economic strategy in order protect its national security interests.

As Mongolia's economy is dependent on its raw mining export, its national security is vital but also vulnerable to its major trading partners and global market fluctuation. The mining sector is the backbone of Mongolian economy and is vital for national security. This research highlights ways to address the vulnerabilities of this critical aspect of the Mongolian economy (e.g., the mining sector):

Develop global mineral market analysis for coming decades, particularly focusing on the world economic and political leading player countries' needs and requirements.

Invest in local human capital, such as policy makers, subject matter experts, technical specialists, and a mass manufacturing labor force to support industrialization.

Improve the institutions of the mining sector and maintain stable policy in order to encourage value added mineral production, and attract foreign and domestic investment by promoting feasible political and economic conditions.

Develop infrastructure, particularly a road network system and transportation assets to support microeconomic factors.

Improve mining sector institutional management, through innovation, natural environment, financial, and technical analysis.

Increase the number of trading partners both domestically, and importantly internationally in order to avoid single trader hegemony.

Improve production quality as per international standards and requirements to attract and maintain stable customers.

The mining sector has a direct bearing on not only the national security but also the socio-cultural and political outlook of Mongolian society. The following facts have been identified as relevant to recommended strategies in this thesis:

1. Linkage to GDP, FDI, per capita income.
2. Need to diversify the economy through industrialization to broaden tax revenues.
3. Need to develop sustainable monetary and fiscal policy to support the economy and reduce dependence on raw materials.
4. Direct bearing on the employment and middle and upper middle income social classes.

Recommendations

This thesis repeatedly emphasized the importance of economic development for national security. Mongolia's government should set conditions essential to successful economic development such as law and order, a national development strategy, effective economic policy, infrastructure development, and appropriate investment in human capital and industrializations. With a view to developing a sustainable multi-pillared economy to support its national security, Mongolia needs to formulate a comprehensive economic security strategy. This strategy must aim to:

Provide an overview of the economic setting for the next 20 years of development.

Determine a vision for the economy and examine the implications to improve and increase the resiliency of the economy.

Promote economic and national security to enhance domestic and international interest.

Reduce the high dependency on one specific country or on one certain particular resource, which may make national security vulnerable to internal and external adverse occurrences.

There are several primary objectives to formulating a comprehensive economic security strategy for Mongolia. First, Mongolia must improve its mining sector through

industrializations in order to promote economic diversification and reduce dependency on unprocessed materials by the enhancement of value-added processes, increasing the standard competence of employment through human capital investment, and enhancing productivity through technological innovation. Second, Mongolia must develop infrastructures in order to support national assets and national capabilities domestically and internationally to enhance national security. The ultimate goal of formulating a national economic security strategy must provide potential reassurance against being overtaken by other developing countries. If this occurred, Mongolia could not self-sustain itself in the face of worldwide economic stagnation or decline. The mining sector thus attains the status of a lifeline not only for Mongolian economy but also for its larger national security interests.

Areas for Further Study

The primary objective of this paper was to suggest viable measures for the furtherance of national security by achieving economic development, through a focus on the mining sector. Both China and Russia's increasing needs and interest on natural resources are critical to Mongolia as Mongolia has huge natural resources which can fill other nations' expanding growth and preservation. Mongolia also needs to undertake political and diplomatic approaches to ensure its economic security as part of national security.

While the author recommends that Mongolia formulate a comprehensive national economic security strategy, there are several areas requiring further in-depth study, especially considering Mongolia's geographically important location in the context of security and economy.

First, researchers should consider the global economic tendencies, particularly Asian economic development in mineral resources trends for the next 20 years. Mongolia is heavily reliant on China's raw commodities market requirements, which makes the economy run on a short-term policy. It does not enhance long-term strategies to develop many parts of the country. Therefore, further analysis is vital to plan broad goals that affect national security issues. Second, global security concerns, regional security challenges, and diverging interests of neighboring countries in Asia should be analyzed. Hence, Mongolia needs to consider ramifications of its foreign policy decisions on Mongolia's partners.

Third, Mongolia needs to focus its effort to develop better-streamlined relations in aspects of political, economic, and military in the national security environment as those are main pillars of the national strategic means to determine its national interest. A strong policy can build a strong economy, which can develop a strong military to protect Mongolia's interests. Further analysis will help to initiate research in order to support and shape Mongolia's political, economic, and military policy towards further global integration.

Therefore, Mongolia needs to focus its effort to develop a national economic security strategy to support its economic development further to secure the national interest of Mongolia and promote ways and means of ensuring national security.

BIBLIOGRAPHY

- Aden, Nathaniel, David Fridley, and Nina Zheng. "China's Coal: Dema, Constraints, and Externalities." 2009. Accessed January 21, 2017. http://www.circleofblue.org/wp-content/uploads/2011/02/coal_bohai_report.pdf.
- Batchuluun, Amrita, and Joung Yol Lin. "An Analysis of Mining Sector Economics in Mongolia." *Global Journal of Business Research* 4, no. 4 (2010): 91-93.
- Batsuuri, H. "Original Sin: Is Mongolia Facing an External Debt Crisis?" *The Northeast Asian Economic Review* 3, no. 2 (October 2015): 3-15. Accessed January 22, 2017. http://www.erina.or.jp/wp-content/uploads/2015/11/naer32-1_tssc.pdf.
- Bedeski, Robert, and Niklas Swanstrom. *Eurasia Ascent in Energy and Geopolitics*. New York: Routledge, 2012.
- Berdibaevich, Stambulov Serik, Shotbakova Lyazzat Kasymovna, Smagulova Gulnara Muratbekovna, Tuleuova Bakhytgul Tleubaevna, and Musin Kuat Saniyazdanovich. "The Main Problems of Enlargement at the Present Stage." *Asian Social Science* 11, no. 13 (2015): 6-11. Accessed October 1, 2016. www.ccsenet.org/journal/index.php/ass/article/download/48166/2592.
- Brown, Harold. *Thinking about National Security*. Boulder, CO: Westview, 1983.
- Cable, Vincent. "What is International Economic Security?" *International Affairs* 71, no. 2 (April 1995): 305-324.
- Capra, Fritjof. *The Web of Life: A New Scientific Understanding of Living*. New York: Anchors Books, 1996.
- Chan, De-yang. "A Brief Analysis of Mongolia's Mining Industry Development and Related Problems." *Mongolian and Tibetan Quarterly* 18, no. 2 (2009). Accessed April 3, 2017. http://www.mtac.gov.tw/mtac_quarterly/quarterly_e/2/1356496379.pdf.
- Cohen, Benjamin J., and Eric M. P. Chiu, eds. *Power in a Changing World Economy: Lessons from East Asia*. New York: Routledge, 2014. Accessed April 1, 2017. <http://www.gbv.de/dms/zbw/745954626.pdf>.
- Collier, Paul. "Economic Causes of Civil Conflicts and their implications for Policy." World Bank, June 15, 2000. Accessed January 12, 2017. http://siteresources.worldbank.org/DEC/Resources/economic_causes_of_civilwar.pdf.
- Colombatto, E. "On Economic Growth and Development." *Austrain Economy* 19 (2006): 243-260. Accessed February 17, 2017. http://www.gmu.edu/depts/rae/archives/VOL19_4_2006/2-Colombatto.pdf.

- Denoon, David. "Economics and National Security." *Politics*. Accessed December 5, 2016. <http://politics.as.nyu.edu>.
- Edwards, Terrence. "Cash-Strapped Mongolia Puts Giant Coalmine Back in Play." *Reuter*, September 9, 2016. Accessed January 23, 2017. <http://www.cnbc.com/2016/09/09/reuters-america-cash-strapped-mongolia-puts-giant-coalmine-back-in-play.html>.
- Embassy of Mongolia. *Mongolian National Security Concepts*. Accessed October 1, 2016. <http://www.nsc.gov.mn/sites/default/files/images/NationalSecurityConcept20of20Mongolia EN.pdf>.
- Erdene, Lkhagva, and Sergey Radchenko. "The Mysterious Sale of Mongolia's Erdenet Mine." *The Diplomat*, July 9, 2016. Accessed January 26, 2017. <http://thediplomat.com/2016/07/the-mysterious-sale-of-mongolias-erdenet-mine/>.
- Government of Mongolia. *Economic Growth Support and Poverty Reduction Strategy*. Washington, DC: International Monetary Fund, 2003. Accessed January 21, 2017. <https://www.imf.org/external/pubs/ft/scr/2003/cr03277.pdf>.
- . *Mongolia's National Report, "Managing the Transition from the Millennium Development Goals to the Sustainable Development Goals."* 2015. Accessed January 24, 2017. http://www.un.org/en/ecosoc/newfunct/pdf15/nvp_mongolia_report.pdf.
- . *United Nations Development Assistance Framework 2017-2021*. June 2016. Accessed January 24, 2017. <http://www.un-mongolia.mn/new/wp-content/uploads/2016/06/UNDAF-Mongolia-2017-2021-ENG.pdf>.
- Grayson, Robin, Baatar Tumenbayar, Daramsenge Luvsanvandan, and Amarsaikhan Lkhamsuren. "Uranium and Fluoride Geochemical Pathways in Ulaanbaatar and Rural Mongolia." Uploaded October 8, 2016. Accessed January 20, 2017. <https://www.researchgate.net>.
- Grindle, Merilee S. *Challenging the State Crisis and Innovation in Latin America and Africa*. Cambridge: Cambridge University, 1996.
- Gulf Times. "China says Mongolia Learned Lesson after Dalai Lama Visit." January 25, 2017. Accessed January 25, 2017. <http://www.gulf-times.com/story/530355/China-says-Mongolia-learned-lesson-after-Dalai-Lam>.
- Gupta, Pranav Bin Grace Li, and Jiangyan Yu. "From Natural Resource Boom to Sustainable Economic Growth: Lessons for Mongolia." International Monetary Fund Working Paper, 2015. Accessed April 3, 2017. <http://www.imf.org/external/pubs/cat/longres.aspx?sk=42851.0>.
- Held, David. *Cosmopolitanism: Ideals and Realities*. Malden, MA: Polity Press, 2010.

- Holslag, Jonathan. *China's Coming War with Asia*. Malden, MA: Polity Press, 2015.
- International Monetary Fund. IMS Country Report No. 15/109, *Mongolia*. Washington, DC: International Monetary Fund, 2015. Accessed January 22, 2017. <https://www.imf.org/external/pubs/ft/scr/2015/cr15109.pdf>.
- Jamasmie, Cecilia. "Mongolia Readies to Revive its Giant Tavan Tolgoi Coal Mine." *Mining.com*. September 9, 2016. Accessed January 20, 2017. <http://www.mining.com/mongolia>.
- Jong-Wha Lee. "China's Economic Growth and Convergence." Asiatic Research Institute, Korea University, Korea, April 2016. Accessed January 21, 2017. <http://econ.korea.ac.kr/~jwlee/papers/China%2020160426.pdf>.
- Karimi, Bijan. "Applying the Economic, Homeland and National Security Analysis Framework." *Homeland Security Affairs* 12, Essay 4 (May 2016). Accessed February 17, 2017. www.hsaj.org.
- . "Security and Prosperity: Reexamining Connection between Economic, Homeland and National Security." Paper, Naval Postgraduate School, Monterey, CA, 2015.
- Kong, Bo, and Jae H. Ku, eds. *Energy Security Cooperation in Northeast Asia*. New York: Routledge, 2014.
- Lawrence, Susan V. *Current Politics and Economics of South, Southeastern, and Central Asia; Hauppauge*. Washington, DC: Congressional Research Service, 2014.
- Lorenz, Andreas. "China's Environmental Suicide: A Government Minister Speaks." *Open Democracy*. April 5, 2005. Accessed November 1, 2016. https://www.opendemocracy.net/globalization-china/article_2407.jsp.
- Losman, Donald. "Economic Security A National Security Folly." *Policy Analysis* 409 (2001): 5. Accessed March 16, 2017. <https://object.cato.org/pubs/pas/pa409.pdf>.
- M.A.D. "The Mongolian Real State Report." Accessed November 30, 2016. <http://madresearch.com/mongolia/macroeconomicsmongolia/mining-sector-mongolia/>.
- Marshall, Andrew R. C., and Prak Chan Thul. "Insight: China Gambles on Cambodia's Shrinking Forests." *Reuters*, March 7, 2012. Accessed February 17, 2017. <http://www.reuters.com/article/2012/03/07/us-cambodia-forests-id>.
- Mičánek, Jiří. "Mongolia: Economic Miracle or Another Case of Resource Curse?" Master's thesis, Mendel University in Brno, 2014. Accessed January 16, 2017. https://theses.cz/id/68u409/zaverecna_prace.pdf.

- Mijalković, Sasa, and Goran Milošević. "Correlation between Economic, Corporate and National Security." *Megatrend Review* 8, no. 2 (2011): 441.
- Mongolia's Extractive Industries Transparency Initiative (MEITI). *Mongolia Eighth EITI Reconciliation Report*. December 15, 2014. Accessed January 20, 2017. <https://eiti.org/sites/default/files>.
- Mongolian Mining Corporation. *Annual Report 2015*. Wanchai, Hong Kong: Computershare Hong Kong Investor Services, 2015. Accessed January 16, 2017. <http://upload.mmc.mn/financialreport/ANNUAL REPORT2015eng.pdf>.
- Mongolian-way.com. "History of Mongolia." Accessed November 23, 2016. <http://www.mongolian-ways.com/history.htm>.
- Morrison, Wayne M. *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*. Washington, DC: Congressional Research Service, 2015. Accessed January 21, 2017. <https://fas.org/sgp/crs/row/RL33534.pdf>.
- Mungunzul, Erdenebat. "Foreign Direct Investment in the Mongolian Mining Sector." *International Journal of u -and e-Service, Science and Technology* 9, no. 3 (2016): 249 -258. Accessed February 10, 2017. <http://dx.doi.org/10.14257/ijunesst.2016.9.3.24>.
- Neu, C. Richard, and Charles Wolf, Jr. *The Economic Dimensions of National Security*. Santa Monica, CA: Rand Corporation, 1994.
- O'Rourke, Ronald. *A Shift in the International Security Environment: Potential Implications for Defense—Issues for Congress*. Washington, DC: Congressional Research Service, 2016. Accessed December 2, 2016. <https://www.imf.org/external/pubs/f>.
- Pankov, Vladimir. "Economic Security: Essence and Manifestations," *International Affairs* [Moscow] 57, no. 1 (2011): 199.
- Peckham, Vince. "These 10 Mines Will Set the Copper Price for the Next Decade." *Mining.com*. November 3, 2015. Accessed January 20, 2017. <http://www.mining.com/mongolia>.
- Reeves, Jeffrey. "China's Unraveling Engagement Strategy." *The Washington Quarterly* (2013): 139-49. Accessed April 3, 2017. https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/TWQ_13Winter_Reeves.pdf.
- Ronis, Sheila. "Economic Security Is National Security." Lecture, National Defense University, Washington, DC, October 1997.

- Rotberg, Robert I., ed. *When States Fall: Causes and Consequences*. Princeton, NJ: Princeton University Press, 2004.
- Rowland, Jonathan. "Mongolia: The Slow and Bumpy Road." *World Coal*. March 7, 2016. Accessed January 16, 2017. <https://www.worldcoal.com/special-report>.
- Schwandt, Thomas. *The Sage Dictionary of Qualitative Inquiry*. London: Sage Publication, 2015.
- SES Professionals. "Overview of Mongolia's Mining Industry." Accessed January 15, 2017. <http://sesprofessionals.com/overview-of-mongolias-mining-industry/>.
- Sharma, Ruchir. *The Rise and Fall of Nations: Forces of Change in the Post-Crisis World*. New York: W. W. Norton and Company, 2016.
- Siefert, Chris. "Religious Freedom, International Law and the People's Republic of China." Accessed January 25, 2017. http://www.memoryhole.net/~chris/research/govt326_religiousfreedom.html.
- Siew Mun Tang. "Rethinking Economic Security in a Globalized World." *Contemporary Politics* 21, no. 1 (2015). Accessed January 23, 2017. <http://www.tandfonline.com/doi/abs>.
- Stake, Robert, E. *The Art of Case Study Research*. London: Sage Publication, 1995.
- State Great Hural (Parliament) of Mongolia. Resolution, *Endorsement of the Millennium Development Goals (MDGs)-based Comprehensive National Development Strategy of Mongolia*. 2008. Accessed January 24, 2017. <https://www.adb.org/sites/default/files/linked-documents/cps-mon-2012-2016-oth-01.pdf>.
- Stegmann, Franz Josef. "Economic Liberalism, Marxism and Critical Judgement." Accessed December 1, 2016. <http://ordosocialis.de/pdf/Stegmann/Econ-Liberal-Marx-Crit-Judg.pdf>.
- Swaine, Michael D., and Ashley J. Tellis. *Interpreting China's Grand Strategy: Past, Present, and Future*. Santa Monica, CA: Rand Corporation, 2000.
- Tang, Siew Mun. "Rethinking Economic Security in a Globalized World." *Contemporary Politics*, 2015. Accessed January 23, 2017. <http://www.tandfonline.com/doi/abs>.
- Thakchoe. Tashi. "Mongolians Hope for His Holiness the Dalai Lama's Visit." Tibet Information Office, Australia. January 4, 2017. Accessed January 25, 2017. <http://tibetoffice.com.au/mongolians-hope-for-his-holiness-the-dalai-lamas-visit/>.
- Tuya, Nyamosor. "Mongolia's Nuclear-Weapon-Free Status: Recognition vs. Institutionalization." Brookings Working Papers 61, Brookings Institution, Washington, DC, 2012.

- United Nations Industrial Development Organization. *Strategic Directions on Industrial Policy in Mongolia*. Vienna: United Nations, 2011.
- Von Bertalanffy, Ludwig. *Modern Theories of Development: An Introduction to Theoretical Biology*. New York: Harper, 1962.
- Wacaster, Susan. "The Mineral Industry of Mongolia." U.S. Department of Interior. June 2014. Accessed April 2, 2017. <https://minerals.usgs.gov/minerals/pubs/country/2012/myb3-2012-mg.pdf>.
- Watson, Cynthia A. *U.S. National Security*. Santa Barbara, CA: ABC-CLIO, 2002.
- Watts, Jonathan. "Victory for Burma Reformers over Dam Project." *The Guardian*, September 30, 2012. Accessed February 17, 2017. <http://www.guardian.co.uk/world/2011/sep/30/victory-burmareformers-dam-project>.
- Wegren, Stephen. *Putin's Russia: Past Imperfect, Future Uncertain*. London: Rowman and Littlefield, 2016.
- The World Bank. *Annual Report 2016*. Washington, DC: The World Bank, 2016. Accessed January 17, 2017. <http://www.worldbank.org/en/about/annual-report>.
- . *Mongolia Economic Update*. Washington, DC: World Bank Group, 2014. Accessed April 3, 2017. <http://documents.worldbank.org>.
- . *Mongolia: The Political Economy of the Resource Paradox, Synthesis Note*. Washington, DC: World Bank, 2009. Accessed November 21, 2016. <http://www.worldbank.org/en/country/mongolia>.
- . *Mongolia: Unbundling the Resource Paradox*. Washington, DC: World Bank, 2009.
- The World Bank Group. *Mongolia Economic Update*. New York: The World Bank, 2014.
- . *The Mongolia Economic Update*. Washington, DC: World Bank Group, 2015. Accessed April 4, 2017. <http://pubdocs.worldbank.org/en/920971447119845335/meu-nov2015-en.pdf>.
- World Trade Organization. "Major Economic Sectors of Mongolia." *Trade Policy Review* (2014): 12. Accessed November 16, 2016. https://www.wto.org/english/tratop_e/tpr_e/g297_e.pdf.
- Yu, Yongzhen. "Identifying the Linkage between Major Mining Commodity Circle and China Economic Growth-Implications for Latin America." Working Paper, International Monetary Fund, April 2011. Accessed January 21, 2017. <https://www.imf.org/external/pubs/ft/wp/2011/wp1186.pdf>.

Yun, Samean, and Joshua Lipes. "Chinese Influence Under Scrutiny." Radio Free Asia. April 3, 2012. Accessed February 17, 2017. <http://www.rfa.org/english/news/cambodia/influence-04032012180802.html>.