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A Guidebook of Carbonate Laws in China and Kazakhstan: Review, Comparison and Case Studies

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Abstract

As two of the most important oil and gas players in the world, China and Kazakhstan are experiencing similar CO2 issues related to oil and gas industry. Both countries have been benefiting from oil and gas industry, and striking to reduce the impacts of CO2 emission at the same time. The problem is how to increase the profits while decreasing the CO2 emissions, not only from technical perspective, but also from policy / legislation / permitting perspectives. However, currently there are few studies focusing on the oil and gas laws for these two countries. The objective of this study is to systematically review and compare oil and gas law frameworks, carbonate management, fiscal structures, and taxation systems between China and Kazakhstan.

Therefore, this paper first discusses in details about oil and gas laws in China and oil and gas laws in Kazakhstan, respectively; then a comparison study is conducted between these two countries. In addition, field cases with their fiscal statements are introduced and analyzed to explore the profitability of an oil company in those two counties under CO2 regulation. Finally, advantages and disadvantages of their law frames and fiscal systems are analyzed and discussed.

The royalty rate, taxation and bonuses in China are set in reasonable range subject to applicable laws. The disadvantages of Chinese oil and gas laws system lie in that (1) a windfall tax ranging from 20% to 40% with a threshold of $55/bbl is set in the fiscal system, which can prevent further investment when oil price is high; (2) the clauses and terms in contract system are not flexible enough; (3) an R factor (Columbian model) should be introduced to protect investment when oil price is low and government can receive more revenue when oil price is high; (4) NOC has the right to take over the production operations at any time once the foreign companies have recovered all costs with reasonable reimbursement based on the book values of tangible costs; (5) remittance policy is strict; (6) lack of the incentive for oil and gas industry to decrease CO2 emissions. By contrast, the royalty rate and taxation in Kazakhstan are set within a reasonable range subject to applicable laws. However, according to available and reliable sources, the royalty and bonuses are all negotiable. There is a trend that Kazakhstan government will decrease the relevant taxes rates and extend the tax-exempt range in order to encourage more carbonate investments. The disadvantages Kazakhstan oil and gas laws system include (1) inconsistent policy system and uncertainty in contract types, (2) uncertainty in investment, and (3) uncertainty in disputes settlement. It

can be observed from field cases that Kazakhstan government is working on optimizing the law frame and significant progress has been made.

In previous literature, there is no systematic review comparison study of oil and gas laws between China and Kazakhstan. This paper provides insights into oil and gas law systems in these countries for the first time and the results of studies can work as a guidebook of the carbonate management, investment, and legislation for oil and gas companies, potential investors and policy makers.

Introduction

With strong economic growth, China has become one of the largest oil and gas producing countries in the world. In 2012, China produced 206 Mt oil, accounting for 5% of total oil production in that year, as shown in the Figure1. At same time, China has also become the second largest oil importing country due to large domestic demand, importing 5 MMbbl/day, accounting for about 50% of total demand. In recent year, the main nation- owned oil companies have increased investment in domestic and international oil and gas exploration, development and production in order to maintain oil and gas supplies. It is predicted that in 2020 China's oil import will reach more than 10 MMbbl/day [1].

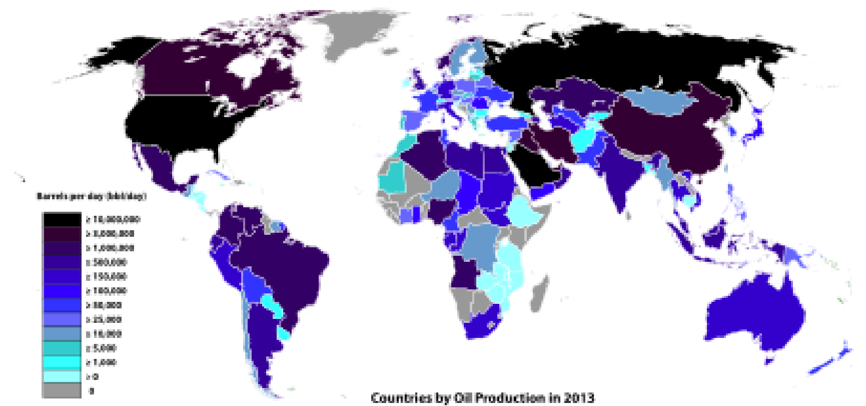

Figure 1— Countries by oil production in 2013[2].

There are four major NOCs dominating Chinese oil and gas industry, from upstream to downstream, including China National Petroleum Corporation (CNPC); China Petroleum and Chemical Corporation (Sinopec); China National Offshore Oil Corporation (CNOOC) and China national Chemicals Import and Export Corporation (Sinochem). General speaking, CNPC and Sinopec are the top two NOCs in China, and they have their main business in onshore oil and gas exploration and production while CNOOC focuses on offshore oil and gas resources. Sinochem mainly refines oil, produces fertilizer and chemical products while recently years they also extend their activities into overseas oil exploration, production and refining[3].

Since independence in 1991, Kazakhstan has made of significance progress on economic reform. As a traditional oil producer, Kazakhstan's oil production increased rapidly since 2000, and exceeds 1 MMbbl/day for the first time in 2003. Kazakhstan produces 1.7 million barrels per day in 2014, ranking 18th in top oil producer in the world, as shown in Figure 3. Two large projects, Tengiz field and Karachaganak field, account for 50% of the country's production. The production is predicted to increase in the future due to the third large project, Kashagan, will start to operate during 2016 to 2017. As of 2014, Kazakhstan has proved 30 billion barrels crude oil reserves, raking the twelfth largest oil reserves in the world[4].

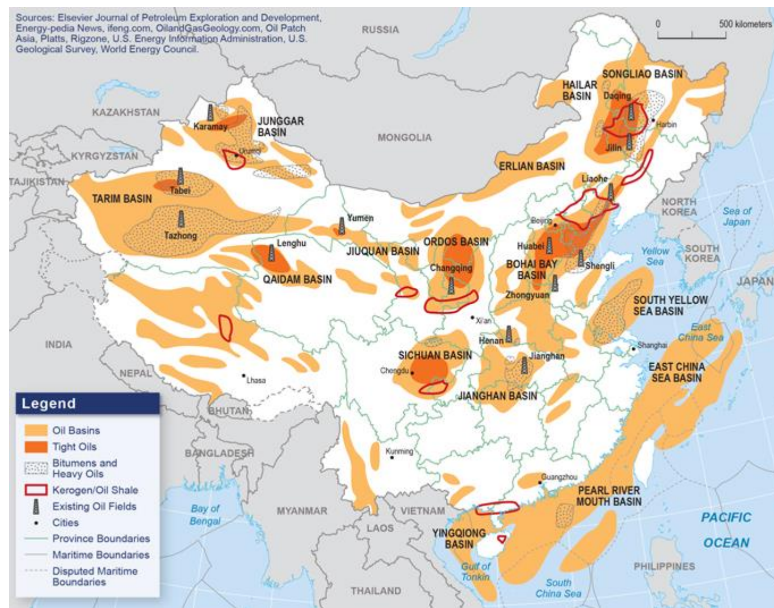

Figure 2— Main oil and gas fields in China[5].

Therefore, as two of the most important oil players in the world, China and Kazakhstan have many things in common: both of them used to have similar political system; both of them have large oil and gas reserves with lack of effluent capital and advanced technology; both of them make significant progress on economic development, as well as the oil and gas production. However, there are some differences between two countries, including currently political system, economic system, financial system, and goal of nation interests. Especially for the goal of nation interests, China is determined to become new energy supreme power in the world, while Kazakhstan "will come a factor of energy security in Asia and Europe"[6], which works as an important bridge connecting even controlling the oil and gas from between Asia and Europe. It would be very challenging and rewarding to study and compare the oil and gas laws in China and oil and gas laws in Kazakhstan. In the following sections, oil and gas laws in China and Kazakhstan, in term of ownership and title, oil and gas law framework, operating requirement, roles of national oil companies, foreign investment, private investment, private investment, oil price, fiscal structure, tax regime, contracts, currency regulations and disputes settlement, are studied and compared in detail.

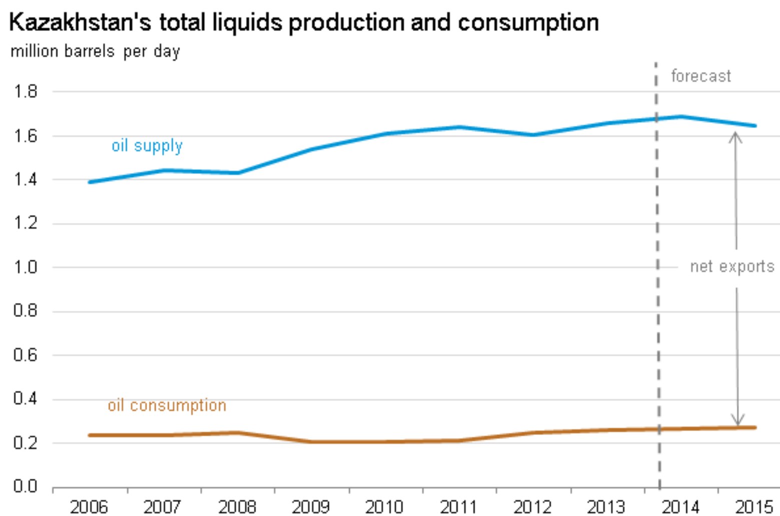

Figure 3— Kazakhstan's oil supply[7].

Oil and Gas Law in China

With strong economic growth, China has become one of the largest oil and gas producing countries in the world recently. In 1979, China government started its first cooperation with foreign investment to explore offshore oil and gas fields in South Sea. Since then, China accelerated to open its onshore and offshore oil and gas resources to international investment. In 1993, China first allowed exploration onshore activities, in the western China Tarim Basin's natural gas reserves. On the other hand, during the cooperation with foreign companies, three Chinese national oil companies, CNPC, Sinopec and CNOOC, have grown rapidly and became top oil companies in the world within 30 years. This section discusses Chinese oil and nature gas law framework, fiscal term, taxation and so on, which can work as a guideline to potential investment.

Ownership and Title

According to the Constitution of China, the ownership of all minerals, including oil and gas, belong to the state, and the state distributed the rational use of all nature resources. NOCs, as illustrated above, were only, and still are the major operators responsible for onshore and offshore oil and gas exploration, development and production. Because of capital and technology-intensive nature of the exploration, China has signed hybrid contracts, which include the element from concessions, PSA, joint venture and service contracts, with foreign companies for offshore oil field development in South China Sea since 1978, and opened its onshore exploration in Northwest basins to foreign companies since 1993. Local governments and State Ministry of Land And Resource (MOLAR) are responsible for administration of exploration, development and production[8]. Figure 2 shows the onshore and offshore oil and gas fields distributions in China.

Oil and Gas Law Framework

According to PRC Constitution, National People's Congress, State Council, and local government administrate and regulated exploration and exploitation of oil and gas resources, as a tired structure (arts. 62 89 and 100). The National People's Congress enacts national legislations while the State Council implements national legislations by enactment of regulations and measures. Local governments enforce and administrate the implement of national legislations, regulations and measures. Local regulations are enacted by the people's congress of provinces. Similar to the U.S. legislation system, in term of law enforcement, PRC Constitution is at the top of the legislation structure, followed by national legislations, regulations and measures, and local regulations. In general, the main China legislations directly related to oil and gas exploration, development and production are summarized as following[9]:

- Mineral Resources Law
- Rules for Implementation of the Mineral Resources Law
- Measures for Registration Administration of Exploration Blocks of Mineral Resources
- Measures for Registration Administration of Mineral Resources Exploration
- Measures for the Administration of Transfer of Exploration Right and Exploitation Right
- Regulations on the Exploration of Continental Petroleum Resources in Cooperation with Foreign Enterprises
- Regulations on the Exploration of Offshore Petroleum Resources in Cooperation with foreign Enterprises
- Provisional Regulations on Resources Taxes

In particularly, the Mineral Resources Law, Rules for Implementation of the Mineral Resources Law, Regulations on the Exploration of Continental Petroleum Resources in Cooperation with Foreign Enterprises and Regulations on the Exploration of Offshore Petroleum Resources in Cooperation with Foreign Enterprises are very important therefore discussed below in detail.

In 1986, the Mineral Resources Law was enacted and amended in 1996, stating that the State Council implements the mineral ownership on behalf of the state. The significance of Mineral Resources Law is

that it is the first law related to mineral resources, including oil and gas, and is applicable to foreign investment. The purpose of the Law is to promote exploration, development and production of mineral resources. The key points related to oil and gas in the Law include: It is applicable to all mineral resources in China (art.2); Anyone who wish to exploit the resource must make a registration and meet the qualifications (art.3); NOCs are the primary forces in oil and gas development (art. 4); Resources in developed with royalty and government take to the state (art. 5); A unified registration system for mineral exploration and exploration is established (art. 10); Comprehensive assessments are required for the survey of mineral resource (art 21); Original data and sample must be protected and preserved (art. 24) . Especially, it should be noted that only central government are authorized to review and approve offshore exploration and development proposal, while onshore exploration and development proposal can be reviewed and approved by local government[10].

Rules for Implementation of the Mineral Resources Law were enacted by the State Council in 1994, and are divided into sections to explain the Mineral Resources Law. The purpose of The Rules is to secure lawful rights and interests of exploration licensee and boost development of resources industry. Chapter 1 introduces general information, definition of mineral resources and classifications of mineral resources. The key points in the Rules include: The state should establish a united block register system, and an exploration permit for oil and gas is 2,500 basic unit blocks (art. 3). The State Council designate an organization to examine the approve oil and gas activities (art. 4). The state should establish a licensing system of mineral exploration, development and production. Anyone who wants to exploit mineral resources must apply for registration in accordance with the law (art.5). Mineral resources exploration and exploitation mush by supervised and administrated by the State Council while local governments are responsible for supervision and administration in their respective areas (art. 8). An oil and gas exploration and exploitation license is valid up to seven years, and can be extended to fifteen years (art. 10). After a license is issued, the license is required to begin work within six months (art 18.). With an economic deposit, the exploration rights can be reserved for up to four years for the licensee (art.21). It should be noted that all provisions are applicable to foreign investors[11].

Enacted in 1982 and revised in 2001, Regulations on the Exploration of Offshore Petroleum Resources in Cooperation with Foreign Enterprises is the first petroleum law of PRC, setting up the legal framework in the offshore petroleum development for cooperation between foreign investors and PRC, as well as to ensure nation interest. The key in the law include Chinese government shall protect profits, legitimate rights, and interests of foreign investors (art.3). All offshores petroleum activities shall subject to Chinese lads and jurisdictions (art. 4). CNOOC shall have the overall responsibility and exclusive rights for offshore oil and gas exploration and exploitation in cooperation with foreign enterprises (art. 6) All contracts signed by CNOOC and foreign investors by bidding shall subject to approval by the Ministry of Foreign Trade and Economic Cooperation (art. 7). All enterprises shall relevant taxes and fees, and all employees shall pay individual income taxes (art. 10). Foreign contractors must report production related activities to CNOOC (art. 14). CNOOC shall have the ownership of all records, samples and other original data (art. 21). Operator and subcontractors must comply with laws and regulations of environment and safety (art 22.). Details about tax, contracts and fiscal structure are discussed in the following sections in this paper. Regulations on the Exploration of Continental Petroleum Resources in Cooperation with Foreign Enterprises is adopted in 1992 and revised in 2001. They are identical to offshore regulations in terms of objective, framework and contents The only difference is that onshore regulations provide CNPC and Sinopec with the exclusion right to cooperate with foreign companies in the exploration, development and production of onshore petroleum resources, as well as new mineral resources, shale oil and shale gas for example[11].

Operating Requirement

Before exploration the project should be examined, approved, registered and licensed by the State Council. According to the size of the project, the license term run from ten to thirty years. With thirty days before the expiration of a term, the concessioner can extend the license if the certain reporting requirements are met and rents are paid to the state on time. Based on related applicable laws, both exploration and exploitation rights are transferable if certain requirements are satisfied. Once the rights are transferred, the term will continue based on whatever time remains[9].

According to the Regulations on the Payment of Royalty for the Exploitation of Offshore Petroleum Resources, which is approved by the State Council on 2 December 1988, royalty is calculated and paid on the basis of the Annul Gross Production of Crude Oil or Natural gas of each oil or gas field at various rates. The signature bonuses and payment methods vary cases by cases, and is determined and calculated by NOCs. General speaking, based on the general Chinese law, CNOOC is paid a signature fee of $1,000,000 by the contractor with three installments. The contractors pay the first $250,000 within thirty days from the date of the implements of the contract. The second $ 250,000 is paid within the thirty days of the contractor's election exercised. The remains $ 500,000 is paid with the thirty days of the date when the overall development programs for the first oil/gas field in the contracted is approved by the contractors. Again, currently the bonuses, including signature bonuses, production bonuses and reserve based bonuses, are calculated and determines according to negotiations[12].

Roles of National Oil Companies

In China, oil and gas resources must be explored, developed and produced by National oil companies or Chinese foreign joint ventures. There are three national oil companies, CNPC, Sinopec and CNOOC, are authored to purchase exploration rights, development rights, operation rights, overseas lease rights and overseas oil and gas exploitation rights. In addition, if foreign companies want to explore, develop and produce onshore and/ or offshore oil and gas resource, only CNPC, Sinopec and CNOOC are authorized to negotiate and execute under cooperative on petroleum agreement. Foreign companies can operate with these three NOCs to explore and exploit oil and gas resources under the Mineral Resources Law, and subject to all other laws. The objectives of introduction of foreign capitals and advanced technology include promoting domestically mineral resources; transferring advanced technology; increasing mineral and raw materials supplies, increasing government revenues and improving employment opportunity in China[13].

Due to nation energy security, China government imposes new tariffs to discourage the export of crude oil, and decreases relevant tariffs to encourage import of crude oil products from overseas. There is not such restrictions on the natural gas. The sales of crude oil and natural gas in Chinese markets should be licensed by the MOFCOM with fulfill of certain requirements, such as nosiness status, faculties, capitals and certificates. In particular, foreign companies to a PSA usually sell their share of profit oil to the Chinese NOCs at the price, which is agreed in the PSA, instead of selling and exporting the oil and natural gas outside of China. Figure 4 shows performance of NOCs.

Private Investment

China government also introduces private capitals to domestic oil and gas exploration and exploitation. The government has approved to establish a 10 billion yuan petrochemical venture, including Shanghai Pengdong Petrochemical and other ten private firms, to compete three NOCs, including CNPC, Sinopec and CNOOC, in order to achieve the goal of nature gas and oil diversity and privatization. The venture, called China Great Wall Petroleum United, was funded by China Chamber of Commerce for Petroleum Industry, with the goal to protect small and medium sized private oil firms in domestic and international nature gas and oil market. However, it should be noted that in China three major NOCs still dominate domestic natural gas and oil market while private oil companies obtain a small share of oil and gas market.

Tax Regime

In addition to the Tax laws and regulations which are applicable to all companies in China, the operations of natural resource exploration, development and production between NOCs and foreign companies are also subject to several specific regulations related to onshore and offshore oil and gas exploitation. The laws and regulations include: The 1991 Income Tax Law on Enterprises with Foreign Investment and Foreign Enterprises; the 1982 Regulations; the Provisions on the Payment of Royalties for the Exploitation of Offshore Petroleum Resources (1989). In order to encourage investment in onshore and offshore nature gas and oil exploration, development and production, the foreign companies are exempted from the some specific tax, like consolidated industrial commercial tax (CICT) for the imported tools, equipment, and materials which are directly applied to explore, develop and produce onshore and offshore oil and gas natural resources. Subject to the signed agreement, export tax for profit crude oil can also be exempted. Specifically, as a requirement by WTO and a united tax regime for both of domestic companies and foreign companies will be established, announced by China government recently. The taxes related to offshore and onshore exploration, development and production are summarized in below[14].

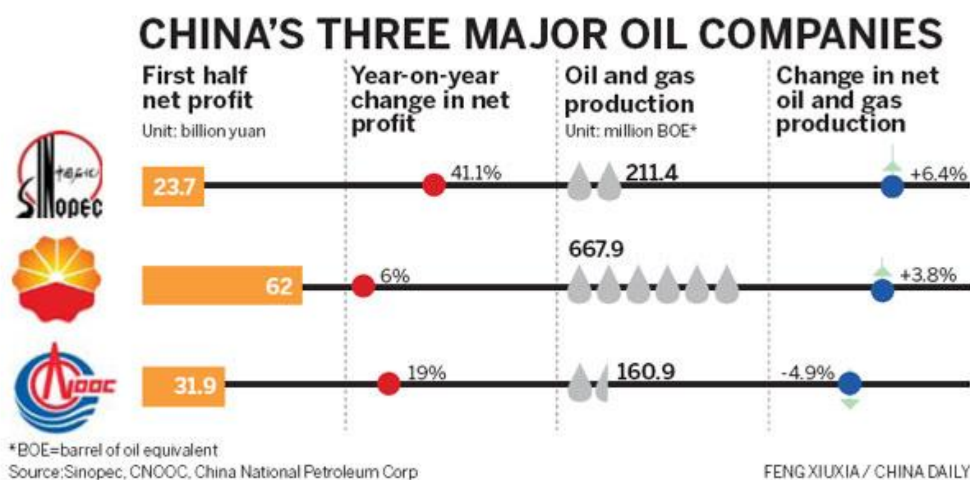

Figure 4— China's NOCs and related performance[15].

Contracts

According to Chinses law," Foreign investors enjoy mining rights as granted by the Chinese authorities, and such rights are to be realized through the execution of petroleum rights". The mining rights include exploration rights and exploitation rights. Exploration rights mean the rights to explore mineral resource with the approval of authorities. Exploitation rights are the rights to develop the mineral resources with the approval of authorities. Both rights are defined in detail by the Law of Mineral Resources[16].

In order to attract foreign investments and avoid exploration risks, a hybrid contract is used as the form of petroleum contracts in China to cooperate with foreign oil companies. It can be seen that China chose the hybrid contract model after a careful study. During 1978 and 1979, in order to design the contract model which best meet national interest, Chinese delegations visit all main oil producing countries in the world, and invited 23 foreign oil companies to China to discuss the pros and cons in each contract model[17].

During exploration phase, foreign companies provide all capitals and technology. If the exploration fails, the investment is unrecoverable. During production phase, both of NOC and foreign companies provide the exploitation capital to develop and produce oil from target oilfield. The hybrid contract contains different elements from concession, PSA, joint venture and service contract, in order to meet the specific needs and interest in different producing stages. Production Sharing Contracts is the official term Chinese government use to describe this contract model, it is flexible and addition terms and clauses can be added to the contract depending on the actual situations.

In term of tax and royalty, first a 12.5 % royalty and 5% Consolidated Industrial Commercial Tax are charged based on the total revenue. It should be noted that after 2011, a resource tax, which is usually 5%, is used to replace the royalty. Then the foreign companies are allowed to use the net revenue to cover the tangible cost first, which is called the cost oil and untaxable. After that, what remaining is called profit oil, and divided to NOC share and company share based on their net revenue interest. Based on the profit oil, a 5% VAT, a 25% Enterprise Income Tax and a 1% Mineral Resources Compensation Fee are charged to the companies. If the oil price exceeds $55 per barrel, an additional tax is added, varying from 20% to 40%. Under some certain circumstances, companies may be exempted from specific types of tax[9].

Given the fact that China is short of capital, management experience and advanced technology, the advantages of hybrid contract include: China government takes no risk during exploration phase and foreign capitals are used to explore potential fields; China government take royalty (or resource tax) first without any risk; foreign companies can recover their cost first, which can encourage further cooperation; during production phase, NOCs can learn advanced technology from foreign companies[11].

The exploration period is usually 5 years, which can be extended to 7 years, and the production period is usually 25 years, which can be extended to 30 years, as agreed by both parties. Most term in the contract is non-negotiable except the work program, X factor and other contributions. In the production phase, the foreign companies must cooperate with a NOC (CNOOC for offshore, and CNPC/Sinopec for onshore) as a joint venture. Usually the NOC owns 51% share of working interest with the option to decrease its WI, while the foreign company is usually appointed as the operator. The operator is also required by the contract: to use advanced technology to develop and produce oil; to design and establish a work program and budget; to share all information with NOC; to establish insurance programs; to establish a training program; to minimize the potential damage to the environment and to ensure employee safety. Especially, the NOC has the right to take over the production operations at any time once the foreign companies has recover all costs with reasonable reimbursement based on the book values of tangible costs[18].

Currently there are some new trends regarding to the cooperation of onshore and offshore oil and gas exploration, development and production between China government and foreign companies, including: NOCs starts their own offshore operations without cooperation with foreign companies due to increasing capitals, technology and experience; CNOOC starts to act as an operator during production phase; and a reverse PSCs in developed, in which foreign companies cooperate with NOC to develop the offshore oil and gas field CNOOC explored. It should be noted that Chinese NOCs have indeed grow to oil giants since 1978 when it first cooperated foreign investment to explore, develop and produce onshore and offshore oil and gas fields, in term of capitals, management, experience and technology.

Oil and Gas Law in Kazakhstan

Since independence in 1991, Kazakhstan has made of significance progress on economic reform. Currently Kazakhstan owns large reserves of energy, including Tengiz field, Karachaganak field and Kashagan field. The large oil reserves attract international investment from major oil players in the world. On one hand, the state –owned company, KazmunayGas, perform some significant project in those fields. On the other hand, giant international oil players, such as Chevron, ExxonMobil, Lukoil, CNPC, and so on, increase their investment in cooperation to explore, develop and produce gas and oil field in Kazakhstan. President Nazarbayev has claimed “Kazakhstan will come a factor of energy security in Asia and Europe”, it means Kazakhstan intend to works as an important bridge connecting even controlling the oil and gas from between Asia and Europe. This section discusses Kazakhstan oil and natural gas law framework, fiscal term, taxation and so on, which can work as a guideline to potential investment[11].

Ownership and Title

According to the Constitution of Kazakhstan, the ownership of all minerals and subsurface, including oil and gas, are properties of the state. Upon the acceptance of oil and gas agreement approved by government, the investment can be granted by the mineral rights, including exploration rights and exploitation rights.

KazMunayGas is the Kazakh National Oil Companies, holding approximately 40% of total oil reserves. The objectives of government policy include: to ensure and promote energy independence and security; to export oil to west and east; to reform and stimulate domestic economic.

Oil and Gas Law Framework

The Kazakh code on Subsoil Resources and the Processing of Mineral was adopt in 1992, which was the first law containing ownership of mineral resources, licenses for the exploration and exploitation and roles of central government and local government. The cooperation with foreign investment to explore, develop, and produce onshore oil and gas is subject to regulation under the generally applicable legislation, including the Foreign Investment Law of 17 January 1991, the related Concessions Law of December 1991, the Enterprise Law of 15 January 1991, the Tax Law of 14 February 1991 and foreign exchange legislation. Especially, The Gas Law was adopted in 2011, which establishing a unified system for gas supply and setting measures to fulfil the domestic gas requirements and ensure the implementation of state policy in order to provide provisions and regulations to the gas industry. In addition, the foreign investments are also subject to domestic laws and regulations, including: The 2003 Law on Investment; the Civil Code; the Customs Code and Custom Code of the Customs Union; The Law on Currency Regulation and Currency Control; and The Tax Code, which demonstrates the rights and responsibilities of foreign investment in Kazakhstan.

Due to the Dissolution of Soviet Union, on 1992, President Nazarbaev issued a Decree ”On the Implementation of Organization and Activity of the Administrative State Bodies of the Republic of Kazakhstan under Conditions of Economic Reform” to create ministries, state committees and the Bank of Foreign Economic Activity. Right now, there are two ministries responsible for petroleum operations, including the Ministry of Geology and Protection of the Subsoil and the Ministry of Energy and Fuel Resources. The specific duties of each ministry are not well defined, so it is important for foreign companies to identify the appropriate negotiating partner. The Ministry of Geology and Protection of the Subsoil is responsible for exploration phase and the Ministry of Energy and Fuel Resources is responsible for production phase for cooperation with foreign companies. In addition, the Ministry of Industry and the Ministry of Ecology are also involved into oil field exploration and exploitation, which the foreign companies should take into consideration.

Operating Requirement

In order to obtain the license for the petroleum operations, the company must meet all financial and constituent requirement and register with the following government authorities: the Ministry of Finance; the Ministry of Foreign Economic Relations; and other organization authorized by legislation of Kazakhstan. For the oil and gas operation with foreign investment, an agreement is required by the foreign company according to the Law ’On Enterprises’ and the Law ‘On Economic Activity and Entrepreneurship’. Based on the result of competitive bidding process and financial and experience check, the local branch of the State Committee of State Property is authorized to grand the agreement. The following documents are required for application: agreement draft between foreign investment and local branch of the State Committee of State Property, technical feasibility study and financial evidence. The surface usage should be licensed which is subject to the land legislation. In addition, the National Foreign Investment Agency of Kazakhstan also works as an authority to grant license for oil and gas exploration and exploitation operations. General speaking, the applicant should obtain a document of mining operation after expert assessment by four government authorities corresponding to mining, environment, safety and health care. Figure 5 shows new developed oil fields in Kazakhstan.

As it can be concluded that the license system in Kazakhstan is quite complicated, and there is not a single authority to grant the license for oil and gas exploration and exploitation operation, therefore it is recommended to approach to the production entity, which holds the operation right, then contact central authority and local branches of the Ministry of Geology.

Roles of National Oil Companies

There are no national oil companies in Kazakhstan before 2002. KazMunayGas is founded in 2002 by merging Kazakhoil and Oil and Gas Transportation. Before that, foreign companies need to negotiate agreements with regional organizations.

Private Investment

There are some domestic oil companies, like Temir Oil and on so, in Kazakhstan. However, in term of capital, technology, management exercise, and oil reserves obtained, they cannot compete with KazMunayGas and international oil companies.

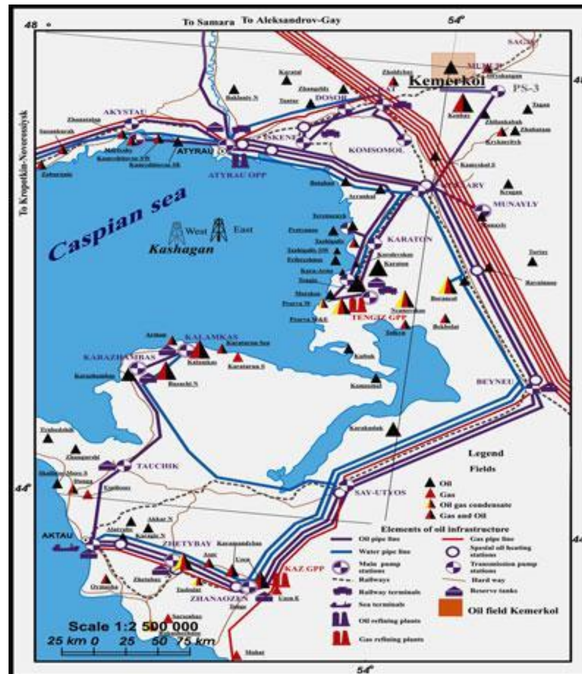

Figure 5— New developed oil fields in Kazakhstan[19].

Tax Regime

According to the law, there are four types of payments liability for foreign companies to cooperate with Kazakhstan to explore, develop and produce oil and gas fields, including taxes, rentals, and productions based payments (royalties) and income based payments (taxes). Royalties are calculated at a negotiable rate, sometimes as high as 20%. A profit tax with a general tax rate of 35% was charged to the foreign companies. In the joint ventures, if the foreign share exceeds 30%, the profit tax rate is 30% or at the general profit tax rate of 35%. The export tax is levied at a tax rate of 40% on the gross revenues. Rentals, dividends, the amount of income allocated to the construction, maintenance and repair of the highway are deductible from the balance profit. According to the signed agreement, the Kazakhstan can receive a profit share from the profit oil. In addition, in order to meet domestic oil requirement, Kazakhstan government has the priority to purchase all or part of the production from the projects, which is subject to applicable law. Before the commencement of investment activities, bonuses are required to pay to the Kazakhstan government, including signature bonus, production bonus and reserve based bonus. The amounts of bonuses are agreed in the agreement by both parties. According to the concession law, social insurance for employee is mandatory to purchase by foreign companies based on the contract. According to 2009 Kazakh tax code, the Valued Added Taxes was reduced to 12% while the corporate income tax was decreased to 20%. Based on revenues, Kazakhstan applies a flat 11% social tax to companies and a personal income tax rate of 10%.

Contracts

In Kazakhstan, there are mainly three types of petroleum agreements available when foreign companies negotiated with KazMunayGas or regional organizations: Concession, joint venture and production sharing agreements. The joint venture used to more polpular in Kazakhstan because within the framework of joint ventures Kazakh side can obtain higher level of position in management and administration. A production sharing contracts have been signed with Chevron and Kazakhstan to explore, develop and produce Tengiz field and with Elf for various projects in the Aktyubinsk Oblast. It should be noted that the joint venture and production sharing contracts can be negotiated individually with the regional organizations depending on the situation. In 2005, Kazakhstan government switch to production sharing contracts, and the National Oil Company KazMunayGas is authorized as the operator and take at least 51% share of profit. Currently almost all petroleum agreements are signed based on PSA. 4 shows new developed oil fields near Caspian Sea in Kazakhstan.

Comparisons and Discussion

The comparisons of oil and gas laws between China and Kazakhstan are summarized in Table 1, from the perspectives of license authority, applicable laws, NOCs, contracts, Royalties, taxation, bonuses, remittance and disputes settlements.

As we can observe from the Table 1, Chinese central government has the absolute power to examine, approve, register and license projects of exploration, development and production of onshore oil fields, either cooperating with foreign investment or investing from NOCs and private companies, while local governments are only responsible for administration of the projects. The law frame is hierarchically structured, like a pyramid. The National People's Congress enacts national legislations while the State Council implements national legislations by enactment of regulations and measures. Local governments enforce and administrate the implement of national legislations, regulations and measures. Local regulations are enacted by the people's congress of provinces. When domestic and/or international companies intend to invest in oil and gas projects, they should directly negotiate with department of central government, and get license from central government by fulfill all requirements, as discussed in previous section. If there is confliction between state legislations and local legislations, the disputes are settled based on state legislations. This hierarchically structured system can ensure the consistency of policy implement.

In order to encourage foreign investment in onshore and offshore nature gas and oil exploration, development and production, the China government started to optimize its law frame and fiscal system since 1978. Currently the law frame in China is relatively complete, and can work efficiently to protect the lawful right of foreign investments. The hybrid contract model is used as the form of petroleum contracts in China to cooperate with foreign oil companies while three NOCs, CNPC, Sinopec and CNOOC, must participate in the all projects with at least 51% share of the project. On one hand, foreign companies can use cost oil to recover cost, which can work as an incentive to stimulate investment and avoid risk in exploration phase. On the other hand, by working with major oil players in the world, Chinese NOCs have made significant progress from perspectives of capitals, technology and management. Currently, CNPC, Sinopec and CNOOC have ranked as the top oil players in the world and start to international oil and gas fields to perform exploration, development and production.

The royalty rate, taxation and bonuses in China are set in reasonable range subject to applicable law. Especially, the 12.5 % royalty is replaced by a 5% resources tax, and there is a trend that China government will decrease the relevant taxes rates and extend the tax-exempt range in order to encourage more investments. When disputes arise, consultations and international arbitrations are expected instead of lawsuit.

The disadvantages in China oil and gas laws system include: a windfall tax ranging from 20% to 40% with a threshold of $55/bbl is set in the fiscal system, which can prevent further investment when oil price is high; the clauses and terms in contract system are not flexible enough, a R factor (Columbian model)

should be introduced to protect investment when oil price is low and government can receive more revenue when oil price is high; NOC has the right to take over the production operations at any time once the foreign companies has recover all costs with reasonable reimbursement based on the book values of tangible costs, even though it never happened; Remittance policy is strict, which means government wants to hold money within China.

Table 1— Comparison Between China and Kazakhstan.

	China	Kazakhstan
License Authority	State Council	Local Council of People's Deputies Ministry of Finance Ministry of Foreign Economic Relations Other authorized agencies
Applicable Laws	Mineral Resources Law Rules for Implementation of the Mineral Resources Law Measures for Registration Administration of Exploration Blocks of Mineral Resources Measures for Registration Administration of Mineral Resources Exploration Measures for the Administration of Transfer of Exploration Right and Exploitation Right Regulations on the Exploration of Continental Petroleum Resources in Cooperation with Foreign Enterprises Regulations on the Exploration of Offshore Petroleum Resources in Cooperation with foreign Enterprises Provisional Regulations on Resources Taxes	The Kazakh code on Subsoil Resources and the Processing of Mineral 1991 Foreign Investment Law 1991 Concessions Law 1991 Enterprise Law 1991 Tax Law Foreign exchange legislation 2011 The Gas Law The Law on gas and gas supply The 2003 Law on Investment The Civil Code The Customs Code and Custom Code of the Customs Union The Law on Currency Regulation and Currency Control The Tax Code
NOCs	CNPC Sinopec CNOOC	KazMunayGas
Contracts	Hybrid contract	Concession PSA Joint Venture
Royalty	Royalty 12.5% (Before 2011) Resource Tax 5% (After 2011)	Negotiable, sometimes as high as 20%
Taxation	Valued Added Tax 5% Enterprise Income Tax 25% Mineral Resources Compensation Fee 1% Windfall Tax 20% ~ 40% Production Sharing > 51%	Valued Added Tax 12% Profit Tax 35% Social Tax 11% Personal Income Tax 10% Corporate Income Tax 20% Production Sharing > 51%
Bonuses	$1,000,000	Negotiable
Remittance	Withholding taxes 10%	Permitted subject to currency legislation
Disputes Settlement	Consultation International Arbitration	International Arbitration Courts of Law Arbitrazh Courts

Kazakhstan central government distribute its power to examine, approve, register and license projects of exploration, development and production of onshore oil fields, either cooperating with foreign investment or investing from NOC and private companies to local governments. The law frame is not very complete due to relatively short time of independence. When domestic and/or international companies

intend to invest in oil and gas projects, sometimes they get confused because they do not know which departments or organization to negotiate.

In order to encourage foreign investment in onshore and offshore nature gas and oil exploration, development and production, the Kazakhstan government started to optimize its law frame and fiscal system since 2000. Even though the law frame and fiscal system is not perfect, it can be seen that the government is working on optimizing the systems to protect and encourage investments. The PSA contract model is used as the form of petroleum contracts in Kazakhstan to cooperate with foreign oil companies while NOC, KazMunayGas, must participate in the project with at least 51% share of the project, which KazMunayGas owns the mineral right. It should be noted that KazMunayGas owns approximately 40% of national oil reserves while the foreign investments owns the rest of reserves.

The royalty rate and taxation in Kazakhstan are set in reasonable range subject to applicable law. However, according to available materials, the royalty and bonuses are all negotiable. Sometimes it is good for foreign companies, but sometimes it also contributes to uncertainty to the cooperation. There is a trend that Kazakhstan government will decrease the relevant taxes rates and extend the tax-exempt range in order to encourage more investments. When disputes arise, the Courts of Law and Arbitrazh Courts determine the settlement of disputes. It should be noted that Courts of Law and Arbitrazh Courts are part of court system, which unequal to the concept of arbitration in western legal systems. There are concerns that investors are limited to settle the disputes by international arbitration. Recently Kazakhstan government starts to allow negotiation and international attributions to settle the disputes.

The disadvantages in Kazakhstan oil and gas laws system include: inconsistent policy system and uncertainty in contract types, uncertainty in investment, and uncertainty in disputes settlement. It can be seen that Kazakhstan government is working on optimizing the law frame and significant progresses have been made.

Conclusions

It can be seen that both of China and Kazakhstan are working on optimizing their law frame and fiscal systems in order to encourage more investment and advanced technology in onshore and offshore oil and gas exploration, development and production. Both of countries have made significant progress while it would still be a long journey for both countries to achieve their national energy objectives. It is believed that China and Kazakhstan will play more and more important roles in international oil and gas market. In the future, the results of this paper can work as a guidebook for potential oil and gas international or/and domestic investment in both countries.

Reference

[1] IEA. Oil & Gas Security Emergency Response of IEA Countries.
[2] Wikipedia.
[3] IEA. Developing China's natural gas market: the energy policy challenges.
[4] Elliot, Gordon. "Kazakhstan, Nazarbayev, foreign investment and oil." *La. L. Rev.* 53 (1992): 1243.
[5] EJPE
[6] Nichol, Jim. "Kazakhstan: Recent Developments and US Interests." *Current Politics and Economics of Russia, Eastern and Central Europe* 28.2 (2013): 241.
[7] EIA
[8] Jiang, Julie, and Jonathan Sinton. "Overseas investments by Chinese national oil companies." (2011)
[9] MacBride Jr, William L., and Wang Bei. "CHINESE MINING LAW OVERVIEW (1)." *Mineral Resources Engineering* 10.03 (2001): 365-393.
[10] Lim, Tai-Wei. *Oil and gas in China: the new energy superpower's relations with its region*. Vol. 21. World Scientific, 2010.
[11] Smith, Ernest E., et al. "International petroleum transactions." (1993).
[12] Zweig, David, and Bi Jianhai. "China's global hunt for energy." *Foreign affairs*(2005): 25-38.
[13] Andrews-Speed, Philip, and Roland Dannreuther. *China, oil and global politics*. Routledge, 2011
[14] Keyuan, Zou. "China's governance over offshore oil and gas development and management." *Ocean Development & International Law,* 35.4 (2004): 339-364.
[15] China Daily
[16] Falola, Toyin, and Ann Genova. *The politics of the global oil industry: an introduction*. Greenwood Publishing Group, 2005
[17] Hayton, Bill. *The South China Sea: the struggle for power in Asia*. Yale University Press, 2014.
[18] C. Li, Jennifer. "China's rising demand for minerals and emerging global norms and practices in the mining industry." *Minerals & Energy-Raw Materials Report* 22.3-4 (2007): 105-126
[19] Wikipedia