

China's Direct Investment on Energy Industry Development in Kazakhstan

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Abstract. Since the independence of Kazakhstan, the government of Kazakhstan has taken the development of the Energy Industry as an important strategic measure to attract foreign investment, so the Energy industry has become the main field of foreign investment inflow. In recent years, the inflow of FDI to Kazakhstan has been expanding, so the Energy sector has gradually become one of the sectors with a high demand for foreign investment. There is no doubt that this event will have an important impact on Kazakhstan's economy by promoting the sound development strategy of the crude oil and Energy mining industry, to improve other production sectors in the national economic structure. At present, China one belt, one road, is considered one of the most important foreign investors in Kazakhstan. So, it is of great significance to explore China's direct investment in Kazakhstan. This paper first clarifies the definition of the Energy industry and FDI, also the theory of industrial development and direct investment. Secondly, it analyzes the current situation of Kazakhstan's Energy industry and clarifies the current situation of China's direct investment in Kazakhstan and Energy industry investment. The analysis of the current situation enables the decision-makers in the government to take further decisions toward developing this industry. Besides that, illustrating the level of China's FDI in the Energy Industry, it will encourage potential investors from China to invest in the Energy industry in Kazakhstan.

Keywords: foreign direct investment, energy industry, one belt – one road, Kazakhstan, China.

Introduction

Kazakhstan is located at the junction of two continents – Europe and Asia. It is the ninth-largest country in the world, and it is considered as a treasure-house land of mineral resources. According to many scientists, Kazakhstan ranks sixth in the world in terms of natural resources, although it cannot use this advantage with the greatest effect. According to the calculations of some scientists, the explored subsoil of Kazakhstan is estimated at 10 trillion US dollars.

Investment is one of the main sources for building the state's economic potential. Currently, one of the priority directions of development of the economy of Kazakhstan is to attract foreign investment. At the same time, over the past 10 years, the national economy has received 231.6 billion US dollars. This trend confirms the effectiveness of the investment policy. The largest volume of FDI was received in 2012 (28.9 billion US dollars), in 2011 (26.5

billion US dollars) and 2018 (24.3 billion US dollars). In 2019, FDI inflows totaled 24.1 billion US dollars, compared to us 24.3 billion US dollars in 2018. Thus, despite a slight decline of 0.6%, gross inflow to Kazakhstan remained at the level of 2018. The leaders in attracting investment to Kazakhstan are investors from the Netherlands – 7.3 billion US dollars (with a share of 30.2%), the United States – 5.5 billion US dollars (23.0%), Switzerland – 2.2 billion US dollars (9.3%) (see table. 1).

In 2019, the volume was 1.7 billion \$ with an increase of 55% by 2017. In the country structure, the dynamics of FDI attracted from China shows moderate growth: 2017-5.2%, 2018-6.1%, 2019-7.0%. China investment in Kazakhstan is mainly in the Energy sector, where the volume of proven oil reserves according to BP is 39.6 billion barrels or 6.5 billion tons, which is 3.2% of the total world reserves, as well as there is an accumulation of minerals in large quantities. The main sectors

of direct investment are oil exploration and production, gas station networks, telecommunications, agricultural processing, leather processing, catering services, trade, etc. The main investment projects are: Aktobe munai-gas, Karazhanbas munaigas, Petro Kazakhstan oil company, oil exploration in the Eastern outskirts of the Central part of the Caspian basin, Pavlodar aluminum plant, Railways, development of a uranium mine, Moynak HPP, Kazakhstan-China oil pipeline, Kazakhstan-China gas pipeline, international center for cross-border cooperation "Khorgos" on the Kazakhstan-China border.

Literature review

Review of studies on the Impact of FDI on Host Countries Economy

Braithwaite and Greenridge (2005) break down the effect of FDI on the general growth of the Barbados economy. Their sequential arrangement of yearly information traversed from 1970 to 2003 and was explored by the co integration examination. To clarify the monetary advancement during the period 1970-2005, they present a structure that applies Granger causality tests utilizing a vector mistake remedy model (VECM). The hypothetical writing offers clashing conclusions about the impact of FDI on growth. This contention has been reached out to the field of exact research and is reflected in different ends.

In the modernization hypothesis, FDI is considered to advance monetary growth under the suspicion that growth requires capital investment. Lately, the importance of FDI has been labeled with several other essential conditions. Consequently, the new growth hypotheses underlined the movement of innovation through

FDI, as poor countries experience the harmful effects of the absence of essential foundations, developed and open financial markets, financial and political strength. It has also been affirmed that FDI could provide hierarchical and administrative skills, knowledge of advertising and reach market circumstances. According to these hypotheses, dependence on FDI could have a positive effect on growth and wage circulation, since FDI causes commercial models to be imposed on the modern part that causes the underutilization of local assets. The economy may also be limited by foreigners instead of developing alone. In this way, the multiplier impact of FDI can be fragile and can cause backward growth in beneficiary countries.

Review of studies on Kazakhstan's Energy Industry

Sarkar, Al-Amin, Mustapa, and Ahsan (2019) define Energy as power derived from the utilization of physical or chemical resources, especially to provide light and heat or to work machines. Energy development refers to the practices used to obtain and maintain Energy from natural sources (Zhang, Pang, Chen, & Lu, 2019)

Figure 1 clarifies the classifications of the Energy industry, which can be categorized into two main sources, fossil Energy, these categorized into three main sources that oil, gas, and coal. Meanwhile, renewable Energy that categorized into four main sources that bio, tidal, wind, and solar.

Current situation of China's FDI in Kazakhstan energy industry

1) FDI in Kazakhstan's Energy industry

China's investment in Kazakhstan is mainly in the Energy sector, where the volume of

FDI in Kazakhstan									
Country	Place			Volume, billion USD			Volume structure, %		
	2017	2018	2019	2017	2018	2019	2017	2018	2019
Total				20.960	24263	24115			
Netherlands	1	1	1	5.935	7.350	7.272	28.3	30.3	30.2
USA	2	2	2	3.693	5.342	5.548	17.6	22.0	23.0
Switzerland	3	3	4	2.964	2.540	2.245	14.1	10.5	9.3
China	5	5	4	1.082	1.476	1.667	5.2	6.1	7.0
Russia	4	4	5	1.226	1.449	1.387	5.9	6.2	5.8
France	7	7	6	802	916.1	1.068	3.8	3.8	4.4
Belgium	6	6	7	1068.9	1049	860	5.1	4.3	3.6
UK	8	8	8	533.8	593	591	2.5	2.4	2.5
Korea	9	9	9	495.5	478.9	466	2.4	2.0	1.9
Germany	10	11	10	391	400	364.1	1.9	1.7	1.5

proven oil reserves according to BP is 39.6 billion barrels or 6.5 billion tons, which is 3.2% of the total world reserves, as well as there is an accumulation of minerals in large quantities.

As we can see, in the period from 2014 to 2018 the solar Energy was the most benefited, going from a share of 8 to 32% of FDI flows compared to the previous period, while the other renewable Energy means went from a share from 17% to 21%, respectively. On the other hand, the Energy stations maintained constant participation in the two periods with 17%, while the sectors affected by the decrease in FDI from one period to the other are financial services, going from 21 to 9%; transport, storage, and communications, which goes from 10 to 8%; and electricity and gas going from 16% since 2014, up from 0.2% between 2015 and 2018.

2) The Main Problems of China's FDI in Kazakhstan's Energy Industry

1) Impact on the Kazakhstan economy

From the point of view of Kazakhstan, the inflow of financial resources from China has a dual nature. On the one hand, they contribute to the development of infrastructure and basic industries of the region's States, and contribute to their social and economic well-being, on

the other hand, the China's "offensive" poses a number of challenges to the republics. Among them: the prospect of becoming a raw material appendage of China, preserving the lopsided structure of the economy, reducing incentives to modernize and diversify industry; weakening financial and macroeconomic stability. According to Sumer, Zhanaltay, & Parkhomchik, (2019), the vast majority of China's investment comes in the form of loans with specific terms and conditions of repayment, which increase the external debt of the recipient country, which leads to debt dependence. In addition, excessive reliance on China's anti-crisis assistance, especially to meet social and economic obligations, supports a deceptive sense of stability, delaying the solution of systemic problems; similar challenges are associated with Beijing's infrastructure policy in the region.

2) Impact on Kazakhstan's Energy industry

The main volume of electricity in Kazakhstan is generated by 37 thermal power plants that use coal from the Ekibastuz, Maikubin, Turgay and Karaganda basins. The largest power plant in Ekibastuz GRES-1, which has 8 power units with an installed capacity of 500 MW each. According to Ayala (2019) the larg-

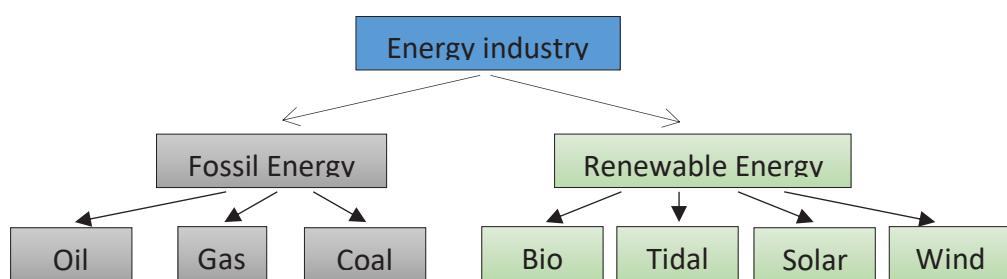


Figure 1 – Energy industry formation



Figure 2

Source: Kazakhstan Energy ministry

est power generation is carried out by Aksu GRES. Many power plants do not operate at full capacity due to worn-out equipment. At power plants, 65% of the equipment is more than 20 years old, and 31% is more than 30 years old. Large coal deposits are mainly concentrated in Northern and Central Kazakhstan, where the main sources of electricity are located. These regions independently provide themselves with electricity and potentially have an excess of it, which can be offered to the domestic and foreign markets of the country. Currently, electricity from these regions is exported to China and other countries.

The global experience and methodology of research for the Energy future, long-term trends (technology trends) global scenarios of Energy industry development and Energy and ecological problems revealed in the studies of (Ayala, 2019; Ke, 2019; Sumer, Zhanaltay, & Parkhomchik, 2019). In the fundamental works of Keynes, P. Krugman, R. Mandell, B. Olin, M. Porter, J. Stiglitz, p. Fischer and other foreign scientists reflected the theoretical problems of the inclusion of national economies in the global economic relations of post-crisis development, the problems of institutional support and regulation of social-economic processes, structural aspects of financial opportunities

and investment constraints, the formation of Energy potential and technology transfer, taking into account the dynamics of global and regional energy markets.

Conclusion

Over the years of independence, Kazakhstan has attracted more than \$ 300 billions of FDI, created a special council of foreign investors under the president and has repeatedly stated its intention to increase its inflow in the coming years. A variety of factors can interfere with ambitious plans – from an unstable national currency to the size of an economy. The authorities analyze the key factors that are important for foreign investors.

Thus, Kazakhstan may be attractive to investors because of the relatively cheap wages for skilled labor, its transit position and infrastructure, which is developing thanks to huge investments from China, good economic growth, high economic potential, a developed financial sector and a positive trade balance as well as a huge amount of resources. Among the positive factors for investors include the high dependence of the economy on oil prices, dependence on third-party economies and, in particular, Russia, political instability, and high level of state participation in the economy.

REFERENCES

1. Balasubramanyam V.N., Salisu M. & Sapsford D., FDI and growth in EP and IS countries [J]. The economic journal, 1996, 106 (434), 92-105.
2. Braithwaite K., & Greenidge K. FDI and growth in Barbados. 2005. Paper presented at the 26th Annual Review Seminar, Central Bank of Barbados.
3. Fry M.J. FDI in a macroeconomic framework: finance, efficiency, incentives and distortions 1993. (Vol. 1141): World Bank Publications.
4. Sumer V., Zhanaltay Z., & Parkhomchik L. Renewable Energy in Kazakhstan: Potential and Challenges. In Renewable Energy 2019. (Pp. 211-229): Springer.
5. Ayala D. (2019), Kazakhstan – Republic of Grain and Feed Update.
6. Kazakhstan Grain and Feed Update Report. Retrieved from https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Grain%20and%20Feed%20Update_Astana_Kazakhstan%20-%20Republic%20of_2-20-2019.pdf
7. Sarkar, M.S.K., Al-Amin, A.Q., Mustapa, S.I., & Ahsan, M.R. Energy consumption, CO2 emission and economic growth: empirical evidence for Malaysia. International Journal of Environment and Sustainable Development 2019. 18 (3), 318-334.
8. Zhang L., Pang J., Chen X., & Lu Z., Carbon emissions, Energy consumption and economic growth: Evidence from the agricultural sector of China's main grain-producing areas. Sci Total Environ, 2019. 665, 1017-1025. doi:10.1016/j.scitotenv.2019.02.162
9. Behera S.R., Dash, D.P.J.R. & Reviews S.E. The effect of urbanization, Energy consumption, and FDI on the carbon dioxide emission in the SSEA (South and Southeast Asian) region. 2017. 70, 96-106.
10. Dunning, J.H. The eclectic paradigm of international production: a restatement and some possible extensions. In the Eclectic Paradigm 2015. (Pp. 50-84): Springer.

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11. Ke L. Chemical Energy Security in China and Kazakhstan Based on Central Asian Cooperation. Paper presented at the 2019 International Conference on Management, Education Technology and Economics 2019. (ICMETE 2019).
12. Keeley, A.R., & Ikeda, Y.J.J. o. C.P. Determinants of FDI in wind Energy in developing countries. 2017. 161, 1451-1458.
13. McCardle, J.G., Rousseau, M.B. & Krumwiede, D.J.O.M.R. The effects of strategic alignment and competitive priorities on operational performance: The role of cultural context. 2019. – 12 (1-2), 4-18.

Қазақстанның энергетика саласын дамытуға Қытайдан тікелей инвестиция

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Аннотация. Тәуелсіздік алғаннан бері Қазақстан үкіметі шетел инвестициясын тарту мақсатында энергетика саласын дамыту бойынша маңызды стратегиялық шаралар қабылданап, бұл саланы шетелдік инвестицияның негізін бағытына айналдырыды. Соңғы жылдары Қазақстанға тікелей шетелдік инвестицияларға (ТШИ) ағыны артып, энергетика саласы бірте бірте шетелдік инвестицияларға сұранысы жоғары салалардың біріне айналуда. Бұл дамудың Қазақстан экономикасына маңызды ықпалын тигізіп, ұлттық экономика құрылымындағы өндірістің басқа салаларын жақсарту үшін мұнай және энергетика өндірісін дамытудың дұрыс стратегиясын алға жүлжытатын даусыз. Қазіргі уақытта «Бір белдеу – бір жол» стратегиясын жүзеге асыратын Қытай Қазақстандағы ең маңызды шетелдік инвесторлардың бірі болып саналады. Сондықтан, Қытай Қазақстандағы тікелей инвестициясын зерттеудің маңызы зор. Бұл мақала бірінші кезекте энергетикалық индустрия мен ТШИ-ны анықтайды, сонымен қатар өнеркәсіптік даму және тікелей инвестициялар теориясын талқылайды. Екіншіден, Қазақстан энергетика саласының ағымдағы жағдайы талданып, Қытайдың Қазақстанға және энергетика саласына тікелей инвестиациясына ағымдағы жағдайы түсіндіріледі. Ағымдағы жағдай талдау үкіметте шешім қабылдаушы тұлғалар осы саланы дамыту бойынша қосымша шаралар қабылдауға мүмкіндік береді. Сонымен қатар, Қытайдан энергетика саласына тартылған тікелей шетелдік инвестиацияның деңгейін жоғарылату Қытайдан келетін әлеуетті инвесторларды Қазақстанның энергетика саласына инвестиция салуға ынталандыруға көмектеседі.

Кілт сөздер: тікелей шетелдік инвестиция, энергетика саласы, бір белдеу – бір жол, Қазақстан, Қытай.

Прямые инвестиции Китая в развитие энергетической индустрии Казахстана

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Аннотация. С момента обретения независимости казахстанским правительством были принятые важные стратегические меры по развитию энергетической индустрии с целью привлечения иностранных инвестиций, что сделало этот сектор основным направлением притока иностранных инвестиций. В последние годы приток иностранных прямых инвестиций (ИПИ) в Казахстан увеличивается, и энергетический сектор постепенно становит-

ся одним из секторов с высоким спросом на иностранные инвестиции. Неоспоримо, что это событие окажет важное воздействие на экономику Казахстана, содействуя звучной стратегии развития нефтяной и энергетической добычи для улучшения других секторов производства в национальной экономической структуре. В настоящее время Китай, реализуя стратегию «Один пояс, один путь», считается одним из самых важных иностранных инвесторов в Казахстане. Таким образом, исследование прямых инвестиций Китая в Казахстане имеет великое значение. В данной статье, во-первых, дается определение энергетической промышленности и ИПИ, а также рассматривается теория промышленного развития и прямых инвестиций. Во-вторых, проводится анализ текущей ситуации в энергетической промышленности Казахстана, разъясняется текущая ситуация прямых инвестиций Китая в Казахстан и в энергетическую промышленность. Анализ текущей ситуации позволяет ответственным лицам в правительстве принять дополнительные меры по развитию этой отрасли. Кроме того, иллюстрация уровня иностранных прямых инвестиций из Китая в энергетическую промышленность будет способствовать мотивации потенциальных инвесторов из Китая вкладывать средства в энергетическую промышленность Казахстана.

Ключевые слова: иностранные прямые инвестиции, энергетическая промышленность, один пояс – один путь, Казахстан, Китай.

REFERENCES

1. Balasubramanyam V.N., Salisu M. & Sapsford D., FDI and growth in EP and IS countries [J]. *The economic journal*, 1996, 106 (434), 92-105.
2. Braithwaite K., & Greenidge K. FDI and growth in Barbados. 2005. Paper presented at the 26th Annual Review Seminar, Central Bank of Barbados.
3. Fry M.J. FDI in a macroeconomic framework: finance, efficiency, incentives and distortions 1993. (Vol. 1141): World Bank Publications.
4. Sumer V., Zhanaltay Z., & Parkhomchik L. Renewable Energy in Kazakhstan: Potential and Challenges. In *Renewable Energy* 2019. (Pp. 211-229): Springer.
5. Ayala D. (2019), Kazakhstan – Republic of Grain and Feed Update.
6. Kazakhstan Grain and Feed Update Report. Retrieved from https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Grain%20and%20Feed%20Update_Astana_Kazakhstan%20-%20Republic%20of_2-20-2019.pdf
7. Sarker, M.S.K., Al-Amin, A.Q., Mustapa, S.I., & Ahsan, M.R. Energy consumption, CO2 emission and economic growth: empirical evidence for Malaysia. *International Journal of Environment and Sustainable Development* 2019. 18 (3), 318-334.
8. Zhang L., Pang J., Chen X., & Lu Z., Carbon emissions, Energy consumption and economic growth: Evidence from the agricultural sector of China's main grain-producing areas. *Sci Total Environ*, 2019. 665, 1017-1025. doi:10.1016/j.scitotenv.2019.02.162
9. Behera S.R., Dash, D.P.J.R. & Reviews S.E. The effect of urbanization, Energy consumption, and FDI on the carbon dioxide emission in the SSEA (South and Southeast Asian) region. 2017. 70, 96-106.
10. Dunning, J.H. The eclectic paradigm of international production: a restatement and some possible extensions. In the *Eclectic Paradigm* 2015. (Pp. 50-84): Springer.
11. Ke L. Chemical Energy Security in China and Kazakhstan Based on Central Asian Cooperation. Paper presented at the 2019 International Conference on Management, Education Technology and Economics 2019. (ICMTE 2019).
12. Keeley, A.R., & Ikeda, Y.J.J. o. C.P. Determinants of FDI in wind Energy in developing countries. 2017. 161, 1451-1458.
13. McCardle, J.G., Rousseau, M.B. & Krumwiede, D.J.O.M.R. The effects of strategic alignment and competitive priorities on operational performance: The role of cultural context. 2019. – 12 (1-2), 4-18.