6

Chinese Investments Across the New Silk Road

Tian Han and Abby Ghobadian

Introduction

The rise of China is arguably one of the most prominent events in the twenty-first century. With its economic might gained from its growth lasting decades, the incoming superpower is determined to play a leading role in the modernization of Middle Asia. Riding the tide, Kazakhstan is actively embracing the opportunity to reform its economy and evoke its geographical advantage as a trade hub in Eurasia.

Kazakhstan and China share common ground on which to collaborate and cooperate, which fits the national interests of both countries. The benefits to Kazakhstan are evident—investment from China partially releases the financial constraints to reform its economy. As a long-standing foreign investor to Kazakhstan, China has already massively invested in exploring natural resources in the last decade. The ambitious Belt and

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Road Initiate (BRI) marks a milestone shift of investment interests from pouring money into the oil and gas (O&G) industry only into exporting infrastructure industry in Kazakhstan. With the establishment of the Asian Infrastructure Investment Bank (AIIB), China fills the vacuum left by the incumbent international financial institutions—the World Bank and IMF—by providing not only funds but also knowledge and expertise in upgrading the infrastructure in relatively underdeveloped areas. This is in line with the objectives set by the Kazakhstan government in the *Kazakhstan 2050 Initiative*. In return, by funding the infrastructure projects in Kazakhstan, China opens up the gate to Europe and henceforth the gate to expanding the economic influence from the east to the west.

Given the profound influence of Chinese investment in Kazakhstan, in this chapter, we will discuss the topic in the context of BRI, particularly the New Silk Road, from which we could infer the motivation behind Chinese investment, and its outlook for the future.

An Overview of Chinese Investment in Kazakhstan

Kazakhstan is one of the founding members of the Shanghai Cooperation Organization (SCO) established in 2001, since when it has kept a close trade and economic relationship with China. Statistical data collected from the National Bank of Kazakhstan (NBK) suggests that FDI from China has rapidly increased since 2000. Prior to 2000, China's total gross FDI was around US $500 million. From 2002 to 2012, China's FDI had increased from US $0.0647 billion to US $2.414 billion, with an average annual growth rate of 38.9%. After 2012, China has invested US $7.793 billion in Kazakhstan, promoting it as the second largest investor just behind the Netherlands. From 2013 to 2015, however, affected by the dramatic depreciation of the Kazakhstani tenge (KZT), the investment from China and other countries has shrunk greatly. In 2013, 2014 and 2015, compared with the same period of previous years, the gross FDI from China decreased by 7.51%, 20.67% and 121.99%, respectively (see Fig. 6.1).

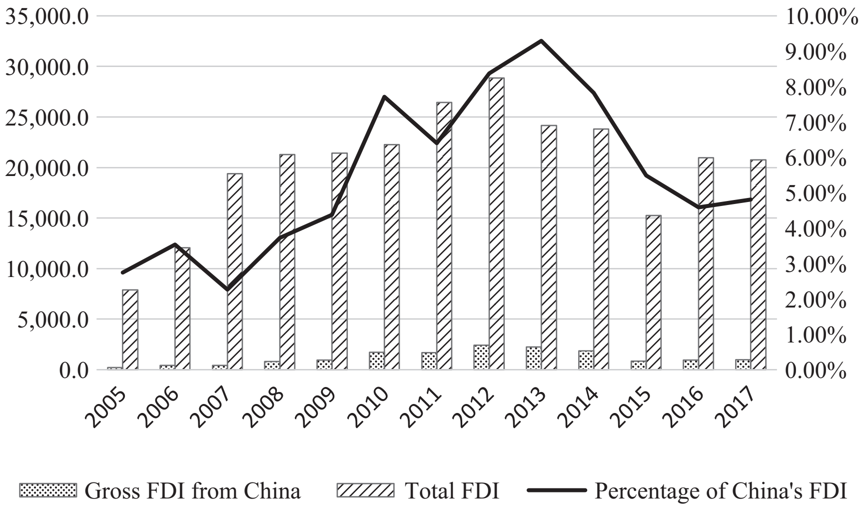

Fig. 6.1 FDI capital inflows from China and the world, and the percentage of China's FDI in the world (2005–2017). (Source: Authors' own processed data based on National Bank of Kazakhstan)

Despite the decline, China is still one of the most important investors to Kazakhstan. As it shows in Table 6.1, since 2006, it has never dropped out of the top six investors club. From 2010 to 2014, it topped as second on the list. By taking the sum of gross FDI from 2005 to 2017, it can be seen that China is the fourth biggest investor in Kazakhstan (see Fig. 6.2).

Apart from the FDI, mergers and acquisitions (M&As) are a critical form of investment. According to the Thomson One Banker database, which provides historical data of global M&As, from 1997 to 2018, China had acquired more than 30 local firms (see Table 6.2). The number is tiny compared to the rest of deals made by Chinese investors across the world, but the value involved in these acquisitions is particularly high. For instance, a single acquisition made by the Chinese energy giant, the *China National Petroleum Corporation* (CNPC) in 2013, reached a deal value of US $5 billion, which is four times more than the investment without involving M&A activities in the same period.

Moreover, M&As could reflect the trend of investment. By looking at the Chinese M&As in detail, one would observe three important features:

Table 6.1 Gross FDI from China, annual growth rate, and FDI ranking (2005–2017)

Year	FDI capital inflows	Growth rate, %	Ranking
2017	998.7	3.68	4
2016	961.9	12.84	3
2015	838.4	−121.99	3
2014	1,861.2	−20.67	2
2013	2,246.0	−7.51	2
2012	2,414.6	29.88	2
2011	1,693.1	−1.45	2
2010	1,717.6	45.45	2
2009	936.9	15.34	3
2008	793.2	44.64	5
2007	439.1	2.87	6
2006	426.5	49.24	5
2005	216.5	–	14

Source: Authors' own processed data based on National Bank of Kazakhstan

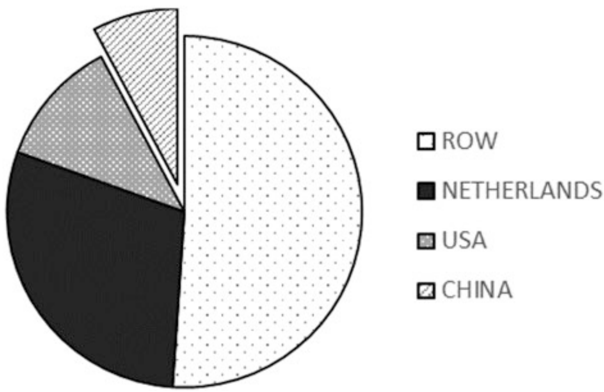

Fig. 6.2 Share of the total amount of FDI (from 2005 to 2017) shares of top investment countries. (Source: Authors' own processed data based on National Bank of Kazakhstan)

(a) Most acquisitions are focused on the energy industry, particularly the O&G sectors. This reflects significant investment imbalance existing between the energy and non-energy sectors.

(b) The interest from Chinese investors in this region is constantly rising, demonstrated in the rapid increasing deal value of M&As (see Fig. 6.3).

Table 6.2 Chinese M&As in Kazakhstan (1997–2018)

Date	Acquirer	Target	Target industry	Value of($mil)
12/11/2018	China Natl Mach Imp & Exp	SaryarkaAvtoProm LLP	Industrials	–
11/22/2018	Xiamen Tungsten Co Ltd	Severnyi Katpar LLP	Materials	40.20
08/30/2018	Xinhuaxia Intl Energy Dvlp Co	TNG Holding LLP	Energy	19.06
04/25/2018	China Nonferrous Metal Industry	KAZ Minerals PLC-Koksay Dep	Materials	70.00
07/28/2017	Schlumberger Holding II Ltd	Soak Oil & Gas LLP	Energy	214.00
05/15/2017	Investor Group	KTZE-Khorgos Gateway-Dry Port	Industrials	–
04/12/2017	CNMIE Co	Gruppa Kompanii Alliur	Retail	–
11/03/2016	Investor Group	Altyn Bank AO	Financials	80.98
01/14/2016	CEFC Natural Gas (Shanghai)	Petroleum TOO	Industrials	100.30
01/07/2015	Investor Group	Galaz & Co LLP	Energy	100.00
01/06/2015	Geo-Jade Petroleum Corp	KoZhaN	Energy	349.49
12/31/2014	Anhui Huaxin Intl Hldg Co Ltd	Dostyk Gas Terminal LLP	Energy	36.00
10/30/2014	Baotou Tomorrow Tech Co Ltd	KoZhaN LLP	Energy	–
04/09/2014	Shanghai Youlong Invest Mgmt	North Caspian Petroleum LLP	Energy	37.50
11/01/2013	SinoHan	Tethys Kazakhstan SPRL	Energy	105.00
09/07/2013	CNPC	Kashagan Oilfield	Energy	5000.00
04/16/2013	PRC	NCOC BV	Energy	–
02/14/2011	Palaeontol BV	Emir Oil LLP	Energy	170.00
09/28/2010	China Petrochemical Corp	Caspian Invest Resources Ltd	Energy	–
04/26/2010	Jinchuan Group Co Ltd	Kazakhmys PLC-Aktogay deposit	Materials	120.00
09/30/2009	Fullbloom Investment Corp	RD KMG AO	Energy	939.00
08/24/2009	Xinjiang Guanghui Ind Co Ltd	Tarbagatay Munai LLP	Energy	–
03/17/2009	CNPC	Mangistaumunaigaz JSC	Energy	–

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Table 6.2 (continued)

Date	Acquirer	Target	Target industry	Value of($mil)
09/30/2008	China Zhenhua Oil Co Ltd	Kuat Hldg Co	Energy	–
11/01/2007	Investor Group	OAO MangistauMunaiGaz	Energy	2603.90
12/30/2003	Shengli Oilfield	Big Sky Energy Kazakhstan Ltd	Energy	2.30
09/19/2003	CNPC	N Buzachi Oilfield, Kazakhstan	Energy	200.00
08/15/2003	CNPC	N Buzachi Oilfield, Kazakhstan	Energy	–
05/07/2003	CNPC	Aurado Expl Ltd-Liman Block	Energy	–
03/11/2003	China Petrochemical Corp	NCOC BV	Energy	615.00
03/07/2003	CNOOC Ltd	NCOC BV	Energy	615.00
06/05/1997	CNPC	Uzenmunaigaz	Energy	–
06/04/1997	CNPC	Aktyubinskmunaygaz	Energy	325.00

Source: Authors based on Thomson One Banker SDC database

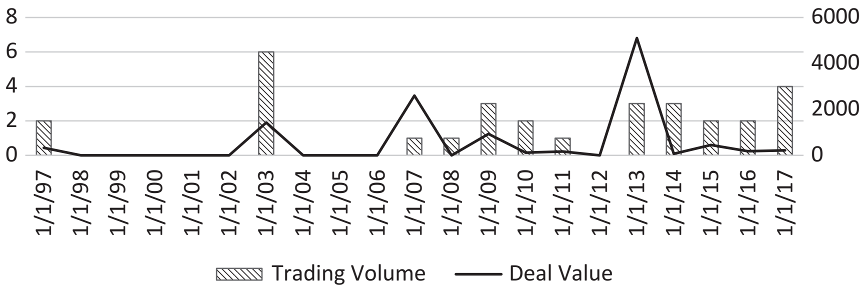

Fig. 6.3 Trading volume and deal value of Chinese M&As in Kazakhstan (1997–2017). (Source: Authors based on Thomson One Banker SDC database)

(c) Recent deals made by Chinese firms indicate a sign of growing interest in the construction area, represented by the deals between industrial firms such as *Gruppa Kompanii Alliur* and *KTZE-Khorgos Gateway* and Chinese firms during 2016–2017.

To sum up, China is among the top investment countries to Kazakhstan. Since 2006, China's investment has steadily increased despite a short-term decline from 2013 to 2016. By looking at the M&As taken by China alone, one could easily find that Chinese investment in Kazakhstan is highly resource-based. However, with more cooperation accompanied with BRI projects, it is highly possible that Chinese investment could rise again and gradually flow to non-resource areas.

BRI and Its Motivations

During the visit to Astana in 2013, the Chinese president Xi Jinping proposed the rudiments of BRI, calling for the joint development of the Silk Road Economic Belt (SREB), and in a later speech made at the congress of Indonesia, he initiates the twenty-first-century Maritime Silk Road. The two initiatives—SREB and twenty-first-century Maritime Silk Road—constitute the grand BRI.

BRI is a joint development proposal rather than a concrete action plan. According to the speech addressed by President Xi at Kazakhstan's Nazarbayev University on September 7th, 2013 (Ministry of Foreign Affairs of the People's Republic of China, n/d), the aims of the BRI include the following "enhancing": enhancing the cooperation on policies and regulations, enhancing the infrastructure and network building, enhancing the trade cooperation, enhancing the currency circulation and enhancing the communication of people, ideas and culture.

Covering 65 countries, 4.6 billion population, with over 1 trillion estimated investment, BRI is the single biggest development plan that ever exists in human history. Since its unveiling, BRI has received enormous attention both in China and from overseas. Domestically, it is listed as one of the most important chapters in the 13th Five-Year Plan, where it particularly emphasizes the importance of developing the SREB and pledges to construct a series of economic cooperation corridors, including China-Mongolia-Russia, China-Middle Asia-West Asia, China-Indochina, New Eurasian Continental Bridge and China-Pakistan (Fig. 6.4). Globally, some view BRI as a new model of international cooperation, and China aims to profit from the long-term prosperity of its

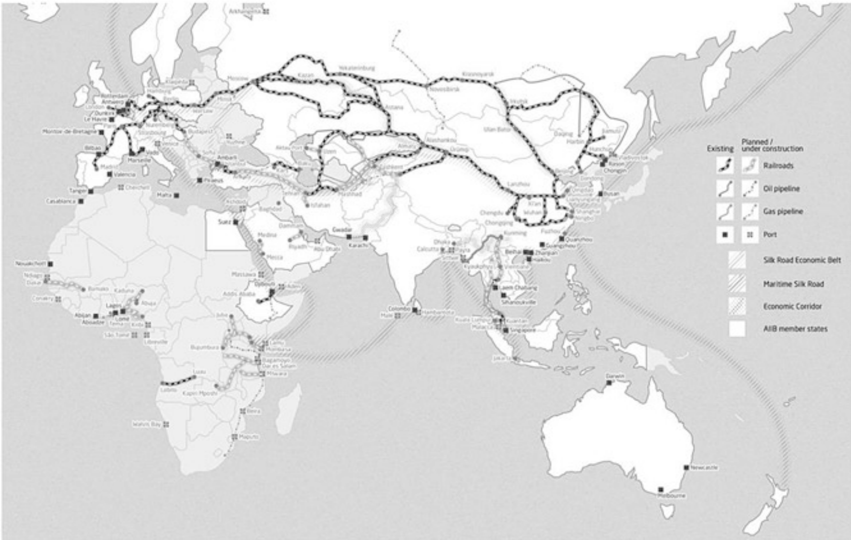

Fig. 6.4 Belt and Road Initiative. (Source: Merics.org., 2018)

neighboring countries. In contrast, others believe it is a mechanism for exporting the *China model*, a clear evidence of Chinese ambition to challenge the incumbent superpower, the US.

Discussion on the motivation of BRI has never stopped, as it fundamentally decides what China intends to gain from other countries and what benefits could be obtained by its cooperating partners. As a strategic node on the SREB, it is of vital importance to Kazakhstan to figure out the motives behind the Chinese grand plan. Thus, in order to achieve a better understanding of why China has formulated BRI at this very moment, it is essential to have a look at what kinds of challenges are faced by the Chinese government. Overall, there are three major challenges of China being the antecedents of BRI.

Overproduction of Infrastructure-Oriented Goods

After decades of infrastructure building and urban modernization, China has built extremely strong raw material production capacity, especially in the cement and steel industry. According to the U.S. Geological Survey

(2018), in 2017, China produced 2.4 billion metric tons of cement, while at the same time, the rest of world combined delivered only 1.7 billion metric tons. It is estimated that the cement used by China from 2011 to 2013 actually surpasses what the US used in the entire twentieth century. The huge capacity for producing raw material was not an issue during economic boom; in many ways, it reflects the strong economic performance and fast-paced development. However, with the economic slowdown as well as the economic transition, the domestic market is losing the appetite to consume the overproduced raw materials. Many European countries alongside the US have already expressed their concern about China's overproduction, as this potentially has a serious impact

Khorgos, the Biggest Dry Port in the World

The New York Times writes that the location of its latest big Chinese foreign investment has given a curious twist to the expanding ambitions of COSCO, the China Ocean Shipping Company (Higgins, 2018). The state-owned Chinese shipping giant became the 49% owner of a railway junction at a place called Khorgos more than 1600 miles away from the nearest ocean, at the border between China and Kazakhstan. According to *Forbes* magazine, on the Chinese side the US $3.25 billion new city of Horgos for 200,000 people is being built (Sheppard, 2018). On the Kazakhstan side is the Khorgos East Gate special economic zone, which includes Khorgos Gateway dry port, the recent Chinese FDI in the economy of Kazakhstan. The International Center for Boundary Cooperation, a duty-free zone, is connecting the two countries. However, this is a part of the country's attempt to diversify the economy through the transport and logistics industry, according to the State Program for Transport Infrastructure Development 2020 and another state program, Nurly Zhol, which puts emphasis on the formation of efficient transport and logistics infrastructure; a new city Nurkent in Kazakhstan with a projected population of 100,000 people is set to be built by 2035 to link together the various transportation and industrial projects of the Khorgos area (Higgins, 2018). According to *Forbes*, Nurkent is one of the five new cities in the world that are designed to challenge the future of how we view the economic potential of inland Eurasia (Perkins, 2015). The entire region around Khorgos is being transformed. According to *The Guardian*, construction will soon begin on an airport. Work is already underway on an industrial center, which will offer a rent holiday and zero taxation until 2035 (Watts, 2018). Eventually the region's

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planners hope to attract IT and robotics companies. By 2025, they aim to create 25,000 jobs (Watts, 2018).

McKinsey suggests that the Belt and Road will remain the flagship international state-to-state collaboration program for building China-sponsored infrastructure around the world (Orr, 2017). Clearly the heads of relevant state-owned infrastructure companies are under strong pressure to deliver real projects, as the central government in Beijing has become frustrated at the slow pace of project realization. McKinsey also proposes that in 2018, multinationals focus more on what business opportunities result from the industrial free-trade zone in Kazakhstan than on gaining a major slice of the construction work (Orr, 2017).

on the global industry, and some countries even have pressured China to reduce the production and export. From China's perspective, however, multiple actions have been taken to eliminate excess capacity; overcapacity is not an issue that can be addressed in a relatively short period.

Pressure of Sustaining Economic Growth

China is a one-party state, the legitimacy of the ruling party—Chinese Communist Party (CPP)—roots in its competency (Li, 2013). Hence a decelerating economy posts a potential risk for the authority and social stability. On record, the CPP has successfully lifted over a billion of people out of poverty, creating one of the biggest economic miracles in history. From 1980 to 2015, the Chinese annual economic growth rate on average was 9.6%. During these 25 years, the GDP per capital significantly improved from US $200 to US $8000. However, after 2012, the economy started to show signs of deceleration; the annual GDP growth decreased to 7.85%, 7.75% and 7.29% in 2012, 2013 and 2014, respectively, and then dropped to 7% after 2015 (World Bank, 2018). While the reason for this is not entirely understood by scholars, most researchers (i.e., Huang, 2016) tend to agree that it is a structural rather than cyclical economic reasons. Perkins (2015) pointed out that the economic growth of China heavily relies on domestic investment led by the government, which is effective but not efficient nor sustainable in the long term. Moreover, despite being the international manufacturing powerhouse for many years, China is gradually losing the strength in manufacturing due to the increase in salaries and the aging society. Considering all these negative factors, it is difficult for China to sustain a relatively high growth rate without seeking new ground for economic growth.

Threat from Protectionism

2017 witnessed a critical turning point for the rise of "isolationism" and "protectionism." In Europe, the British people made a dramatic decision to leave the European Union (EU). In the US, Donald Trump surprisingly beat Hillary Clinton, with his famous slogan—*Make America Great Again*, accusing China and Mexico of taking advantage of the US and playing "unfairly" in trade. From speculation to reality, the *trade war* between China and the US has been escalating sharply since the beginning of 2018. On 25th of September 2018, the tariff imposed by the Trump administration on 200 billion Chinese goods marked a new high state of tensions between the two countries. It is hard to tell now which country could eventually claim victory, but China is under extreme pressure, given the trade imbalance existing between the US and China. To moderate the threat from US protectionism, China needs to build a much closer bilateral relationship with other countries, enhancing international cooperation and advocating globalization.

Challenges bring not only difficulties but also opportunities. To deal with the issues stated above, China needs to seek new markets to consume its overcapacity on raw material production, upgrade its industries, transfer the labor-intensive industries to neighboring countries and expand both trade and business areas with the international community. From Kazakhstan's perspective, it could be a great opportunity to develop its own domestic infrastructure, expand cooperation with China in related industries and build a much more solid partner relationship.

Kazakhstan's Opportunities

China's interest in Kazakhstan is constantly growing. A simple search of Google Trends using the keyword *Kazakhstan*, searched in the Chinese region, shows that the attention paid to Kazakhstan has risen sharply since 2013, the same year as the Chinese President Xi addressed the speech on building SERB (Fig. 6.5).

Being one of the closest neighbors of China, with a large landmass and favorable policies (*Kazakhstan 2050*—see Selmier, 2020, this volume), Kazakhstan is one of the best markets to consume the Chinese excess infrastructure materials; and infrastructure development has always been one of the primary objectives of the Kazakhstan government. Recognized by many economists (Firzli & Bazi, 2011), China's constant investment in infrastructure is one of the major reasons of why it outpaces other emerging countries. During the 1990s and 2000s, around 9% of the GDP was invested in infrastructure by the Chinese government, while the average figure in most emerging economies was 2–5%. This investment created the optimal condition for China's economic growth while "many underdeveloped economies suffered from various development bottlenecks" (ibid.). Since the beginning of the BRI, China has expressed its willingness to help Kazakhstan develop its infrastructure, and there is a great potential of collaboration from the two sides.

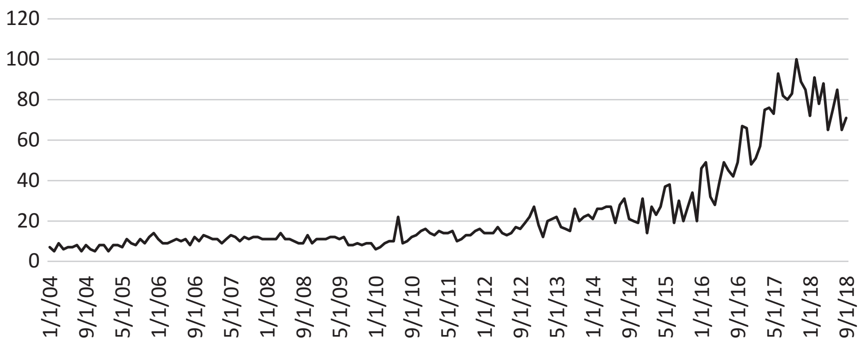

Fig. 6.5 Google Trends on searching "Kazakhstan" in China. (Source: Authors based on Google Trends)

Apart from the infrastructure construction, Kazakhstan could also benefit from the ongoing industrial upgrade of China, for instance, in the manufacturing industry. In order to move beyond the conventional economic development model and achieve sustainable growth, China has determined to move the country's manufacturing up the value chain and develop high-tech fields rather than labor-intensive industries, for which it issued a strategic plan called *Made in China 2025*. Meanwhile, Kazakhstan has robust manufacturing industries. In 2017, the manufacturing industry attracted roughly 5.2 billion gross FDI, ranking second in the FDI list of economic activities (see Table 6.3). Thus, in the processing of transferring the manufacturing industry from China to Kazakhstan,

Table 6.3 Gross FDI in Kazakhstan by economic activities (2015–2017)

Types of economic activities	2015	2016	2017
Agriculture, forestry, and fishing	71.8	50.1	26.1
Mining and quarrying	3485.3	7167.6	10,041.6
Manufacturing	2584.7	4079.6	5187.7
Electricity, gas, steam, and air conditioning supply	12.3	72.0	16.2
Water supply; sewerage, waste management, and remediation activities	–9.5	–1.9	1.1
Construction	791.4	826.9	205.5
Wholesale and retail trade; repair of motor vehicles and motorcycles	1510.8	2290.5	3129.4
Transportation and storage	479.0	504.3	720.1
Accommodation and food service activities	–50.7	12.7	72.7
Information and communication	40.6	391.8	144.8
Financial and insurance activities	470.0	384.5	417.9
Real estate activities	41.0	106.5	150.6
Professional, scientific, and technical activities	5562.7	4806.5	244.0
Administrative and support service activities	69.7	210.5	306.0
Public administration and defense; compulsory social security	0.0	0.0	0.0
Education; human health and social work activities; arts, entertainment, and recreation	20.8	23.3	2.1
Other service activities	89.7	24.5	99.6
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	0.0	0.0	0.0
Activities, N.E.C.	0.0	0.0	0.0
Total	**15,170**	**20,949**	**20,765**

Source: Authors' own processed data based on National Bank of Kazakhstan

Kazakhstan is benefiting from attracting more Chinese companies to invest and set up factories and plants locally. Currently, there are plenty of cooperative projects in the automobile industry between the two countries. For instance, *China National Machinery IMP. & EXP. CORP* (CMC) has signed an agreement with Kazakhstan's local firm *Allur* on several projects at the Kostanay plant. China's *Dongfeng Auto Company* is also planning to set up factories in North Kazakhstan.

The trade dispute between China and the US urges China to expand and enhance its collaborative relationship with the other trading partners. In the foreseeable future, the cooperation between Kazakhstan and China will not only be limited in mining and manufacturing industries. In agriculture for example, there is also huge potential for the Chinese investors to step in.

Despite being the world's eighth largest wheat exporter, Kazakhstan's agriculture industry was largely established in the Soviet time—neither efficient nor advanced enough to support the needs of Kazakhs today. Reported by the *Financial Times* (2016), China had already engaged in talks with Kazakhstan to invest US $1.9 billion in agriculture projects in Kazakhstan in 2016. And according to Kazakhstan's Vice Minister of Agriculture, Gulmira Issayeva, China was planning to use US $40 billion Silk Road Fund on three projects; one of them to move three tomato processing plants from China to Kazakhstan. Other investments include US $1.2 billion in oilseed processing; US $200 million in beef, lamb, and horsemeat production; and US $80 million in tomato processing. Conclusively speaking, China's investment is no longer concentrated on just industrial products; with wider and deeper cooperation between the countries, we are very likely to see an expansion of interest to very diversified sectors.

Last but not least, cooperation in high-tech sectors is also promising. With decades of investment in technology areas, fostered by the dedicated subsidiary and national policies, China owns some of the best technology companies in the world. Among the top ten largest internet companies in the world, China owns four—*JD.com*, *Alibaba*, *Tencent* and *Baidu*. A booming digital economy is quickly happening in this country, reshaping the economic landscape with increasing application of artificial intelligence (AI), cloud computing and big data. Jack Ma, the founder of

Alibaba, stressed at the G20 summit that joining the electronic world trade platform (eWTP) and BRI is highly beneficial for facilitating free trade, enlarging the middle class, promoting social stability and developing the local economy. Recent research (Ambalov & Heim, 2018) suggests that local IT business supported by government participation will benefit from using FDI instruments to team up with a developed IT cluster of a country similar in culture and other parameters determining distance. Therefore, for Kazakhstan, cooperating with China on IT and e-commercial development establishes a new mechanism to improve the existing trade framework.

To sum up, there are many internal and external challenges faced by the Chinese government. Not only addressing these problems, BRI makes it possible to convert these challenges to opportunities, for both China

Huawei, a Pioneer for Digitalizing Kazakhstan's O&G Industry

In collaboration with Accenture, the World Economic Forum (2017) issued a white paper report on the digitalization of O&G industry. According to the report, the maturity of digitalization in the O&G industry is far behind that of other asset-heavy industries such as telecommunications, transportation, banking, and industrial manufacturing. Contrasting with other industries, the data used in the decision-making process of O&G is considerably limited. Assisted with informatic technologies, enterprises would be able to release their potential by providing predictive maintenance, remoting operations centers, establishing dynamic energy selection mode, building retailing channels and connecting service fields.

As a Chinese company, *Huawei Technologies* is a leading global provider of information and communications technology (ICT) equipment and services. It is the largest telecommunications equipment manufacturer in the world, ranked 72nd of Fortune Global 500 in 2018. Previously, *Huawei* provided many customer-tailored integrated solutions on digital upgrading of oilfields and pipelines. Sensing the needs of Kazakhstan's industrial upgrading and the increasing demand of Chinese energy supply, *Huawei* is one of the pioneer companies invested in Kazakhstan and has made a major contribution to deepening the digitalization of the country's O&G industry.

In June 2010, Huawei won the bid in the Kazakhstan natural gas pipeline project. The China-Kazakhstan natural gas pipeline stretches more than 2000 kilometers from the border between Uzbekistan and Turkmenistan, through Uzbekistan and Kazakhstan, and ends in Horgos, Xinjiang, China. Construction of the pipeline is led by *Asia Gas Pipeline* (AGP), a joint ven-

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ture of the *Kazakhstan Oil* (KTO) and the *China National Petroleum Corporation* (CNPC). The entire project is divided into three parts: the pipeline system, station system and communications and control system, with *Huawei* responsible for the communication part.

The Kazakhstan segment of gas pipeline is mainly located in the desert areas, where it is designed to locate more than 60 valve chambers, 5 compressor stations and 2 metering stations. The rugged environment poses a variety of challenges for the implementation of the gas pipeline project. For safety concerns, high-standard explosion-proof grade and enclosure-protection class needed to be applied throughout the construction process. The quality of the projects requires the parameters of the gas pipeline needed to be transmitted in real-time communication without interruption. Also, considering the complexity of integrating various vendor systems and the harsh operating environment, there are technical issues which need to be solved by *Huawei*.

Applying the latest information and communication technology, the company provided an integrated communication system, allowing data, voice, and video to transmit in a backbone network. Building on this, *Huawei* established an open and flexible platform to connect various security and monitoring devices to provide systemic protection to the equipment alongside with the whole pipeline project. For security protection, *Huawei* set up a series of monitoring systems: an intelligent video surveillance (IVS) system, a station access control system, an intrusion detection system and an industrial-grade broadcasting system. This enables the relevant personnel to be alerted to potential problems. In order to ensure the real-time and uninterrupted transmission of supervisory control and data acquisition (SCADA) data, Huawei proposed a solution using optical transmission as the primary channel and satellite transmission as the auxiliary channel.

So far, with the state acceptance of SCADA (Line C), the project is nearly finished. According to the feedback from *AGP*, the communication network built by *Huawei* has made a major leap forward on the path of the digitalization of Kazakhstan's O&G industry.

Dahai Chang, Deputy General Manager of *AGP*, said (AGP, n/d):

> *The remote control and communication system of oil fields and pipelines have been established. With the help of this system site data could be collected and interchanged between sites and control center based in Beijing as well as pipelines are able to be under surveillance by Beijing head office thousand miles away.*

and Kazakhstan. As a strategic partner on SREB, Kazakhstan is a starting point for China to reach out to the world; more importantly, it can benefit from Chinese attention and investment. More Chinese investment into infrastructure, manufacturing, agriculture, and other non-O&G areas gives Kazakhstan the potential ability to upgrade its economy and reduce dependency on the energy sectors and makes concrete steps toward Kazakhstan 2050.

Conclusion

China is a strategic partner with Kazakhstan and a major contributor of FDI. With the fast-developing economy and a population of 1.3 billion people, China has huge demands on energy resources, contributing one of the driving forces of the Chinese investment in Kazakhstan. From the perspective of Kazakhstan, although natural resources played a significant role in economic development, the dependency on a resource-exploiting economy reduces the capacity to deal with the risks from the external environments, accompanied with sustainable issues in the long term. To step out of the O&G-based economic model, it is essential for Kazakhstan's government to attract more foreign investment in non-O&G sectors. Chinese BRI provides a great opportunity for both countries to expand the cooperation in a variety of economic areas, which fits with the vision of *Kazakhstan 2050*.

"If you want to be rich, build road first" is a well-known slogan often quoted by Chinese officials. Based on Chinese experience, transportation and network facilities are the key to achieving prosperity, contributing a main reason why the Chinese government put so much effort into pushing infrastructure construction in BRI-related countries. Although it is difficult to draw any conclusion on the long-term effect of BRI projects, at least at this stage, what China wants—addressing domestic and international challenges, achieving prosperity in the long term—fits with Kazakhstan's strategic goals. Henceforth, it is a win-win for both countries.

But the future cooperation between two countries should not and will not be limited just to infrastructure. What China can provide is not just cement, steel, and funds; the remarkable technological achievement by China opens the door of cooperation in much wider areas. Sectors such as agriculture, manufacturing, information technology, telecommunication and AI have great potential. With more projects like the digitalization of the pipeline led by *Huawei*, Chinese investment will be a major boost to Kazakhstan's economy and help it to integrate into the international trade and business network, enhance digitalization in the asset-heavy sectors and achieve a sustainable economic growth.

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