

**Ideals and Reality in Korean Continental Diplomacy:
A Theoretical and Historical Review on Gas Pipeline Projects
Involving South Korea**

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【Abstract】

Ideas for connecting itself to trans-continental gas pipelines and establishing a regional hub for gas trade market in Northeast Asia and have been popular topics among many policymakers, political leaders, and policy experts in South Korea over the last decades regardless of their ideological gaps. Also, some other infrastructure such as railroads and electricity grid have been envisioned. Other than any other infrastructure, cooperation for trans-continental gas pipelines has made some significant progress over the past decade. Nonetheless, related discussions involving South Korea or led by South Korea have remained largely abstract, normative and declaratory. It would be academically interesting and meaningful to investigate the disparity between South Korea's aspirations for connecting itself to trans-continental gas pipelines and the political economic reality the country actually faces when the newly-inaugurated Moon Jae-in administration considers reviving his predecessors' dreams. This paper begins with an examination of the theoretical background of South Korea's aspiration for connecting itself to trans-continental gas pipelines. After that, it historically reviews South Korea's interests in Russian gas and pipeline projects. Following this review, it will discuss on expected costs and benefits of the relevant projects. Based on this examination, this paper seeks to analyze the reasons why trans-continental pipeline initiatives that involved South Korea were not realized in spite of its long-lasting ambition. Lastly, the paper is aiming for making some policy suggestions for South Korea.

Key Words South Korea, Russian gas, gas pipelines, new continentalism

I. Introduction

From late October 2016 to early March 2017, the South Korean society has passed thorough another ‘politics of vortex.’¹ Park Geun-hye, who had been regarded as the lawful heiress of the developmental dictator, Park Jung-hee, and was honorably elected as the country’s first female president in December 2012, eventually became the first impeached president in its political history. At the end of this political turmoil, on May 10, 2017, the Moon Jae-in administration was newly inaugurated. This was a dramatic power shift from two conservative governments to a nationalistic and progressive one,² which foretells major changes in the country’s national policies.

When he was running as the leading candidate throughout the short and hectic presidential campaign period, Moon Jae-in pledged significant policy changes in many important fields including North Korean issues, *Chaebol* (Korean Conglomerates) reforms, and labor market reforms. Regarding South Korea’s energy policies, he pledged to phase out coal and nuclear energy as responses to increasing public concerns over serious air pollution and nuclear safety respectively. Also, he has set a target to expand the share of renewable energy up to 20 percent of the country’s total power generation by 2030.³ Meanwhile, South Korea pledged a 37 percent reduction of Green House Gas (GHG) emission from its business-as-usual (BAU) level, which is equivalent to 850.6 Metric tons of carbon dioxide equivalent (MtCO₂eq), by 2030 at the 2015 United Nations Climate Change Conference in Paris (also known as the Twenty-first Session of the

¹ Henderson, Gregory, *Korea: The Politics of the Vortex* (Harvard University Press, 1968).

² Lim, Eunjung, “New Leadership in South Korea, U.S. at a Critical Point,” *The Cipher Brief* (May 25, 2017), <https://www.thecipherbrief.com/article/asia/new-leadership-south-korea-us-critical-point-1093>.

³ *The Straight Times*, “South Korea President Moon Jae In’s Main Policy Pledges,” (May 9, 2017), <http://www.straitstimes.com/asia/east-asia/south-korean-presidential-shoo-in-moon-jae-ins-main-policy-pledges>.

Conference of the Parties (COP21)). After his inauguration, the Moon Jae-in administration decided on temporary shut-down of outdated (aged 30 years or over) coal-fired power plants as part of the government's combats against fine dust and air pollution.⁴ In addition, it was decided to permanently shut down Kori nuclear power plant's Unit 1, South Korea's oldest reactor, by the country's nuclear safety regulator.⁵ In order to make up possible shortage of power supply in the future, the Moon Jae-in administration considers expanding import of Russian natural gas and promoting gas pipeline projects that would connect South Korea to Russian gas fields.⁶

Moon's idea for connecting gas pipelines between South Korea and Russia is, however, neither new nor original. Rather, there is continuity between his vision and his predecessors' ones. His immediate predecessor, Park Geun-hye, presented her new vision called "Eurasia Initiatives," at the 2013 International Conference on Global Cooperation in the Era of Eurasia on October 18, 2013.⁷ Eurasia Initiatives, as a concept of South Korea's "network" node or middle power diplomacy in this new era,⁸ was expected to encourage economic integration and peaceful coalitions in the Eurasian Continent through energy cooperation and infrastructure building, which was evaluated as a new

⁴ Kim, Da-sol, "Moon Jae-in Orders Shutdown of Old Coal-fired Power Plant," *The Korea Herald* (May 15, 2017), <http://www.koreaherald.com/view.php?ud=20170515000815>.

⁵ *World Nuclear News*, "Final Shutdown Approaches for Korea's Oldest Reactor," (June 9, 2017), <http://www.world-nuclear-news.org/C-Final-shutdown-approaches-for-Koreas-oldest-reactor-0906175.html>.

⁶ Kang, Kye-man and Su-hyun Oh, "President Moon Unlocks North Korean through 'Russian Gas Pipelines'," *Maeil Kyungje Shinmun* (May 19, 2017), <http://news.mk.co.kr/newsRead.php?year=2017&no=335871>. (In Korean)

⁷ Choi, He-suk, "Park Seeks 'Eurasia Initiative' to Build Energy, Logistics Links," *The Korea Herald* (October 18, 2013), <http://www.koreaherald.com/view.php?ud=20131018000620>.

⁸ As an analysis on Park Geun-hye's diplomatic visions, the following is recommended. Snyder, Scott, "South Korean Identity Under Park Geun-hye: Crosscurrents & Choppy Waters," *Joint U.S. Korea Academic Studies 2016* (Korea Economic Institute of America; October 2016).

Nordpolitik.⁹ Through this approach, first, the Park administration aimed to expand South Korea's market for commodity goods and labors through further economic cooperation in the Eurasian Continent, the largest continent in the world. The Park administration also contended that "Eurasia Initiatives" would provide new opportunities for South Korea that fell into an economic slow-down stage and it would accelerate the country's further economic growth. Second, the Park administration aimed for easing military competition between neighboring countries and eventually relaxing the tensions over the Korean Peninsula through encouraging more economic interdependence in the region.

Park's "Eurasia Initiatives" also has long historical backgrounds. Ideas for connecting itself to trans-continental gas pipelines and establishing a regional hub for gas trade market in Northeast Asia have been popular topics among many policymakers, political leaders, and policy experts in South Korea over the last decades regardless of their ideological gaps. Also, some other infrastructure such as railroads and electricity grid have been envisioned. Electric power grids that connect Northeast Asian countries, for instance, can lower the costs of power generation, mitigate environmental damages, and diversify risks of power shortages, in theory.¹⁰ However, no corresponding governments have officially approved any power grid interconnection due to technological, economic, and political difficulties.

Meanwhile, regional cooperation for gas pipelines has made some significant

⁹ Kim, Taehwan, "Beyond Geopolitics: South Korea's Eurasia Initiative as a New Nordpolitik," *The Asan Forum* (February 16, 2015), <http://www.theasanforum.org/beyond-geopolitics-south-koreas-eurasia-initiative-as-a-new-nordpolitik/>.

¹⁰ Yun, Won-Cheol and Zhong-Xiang Zhang, "Electric power grid interconnection in Northeast Asia," *East West Center Working Paper* 63 (2005), 4-5.

progress over the past decade. Nonetheless, related discussions involving South Korea or initiated by South Korea have remained largely abstract, normative and declaratory. It would be fair to say that there was no substantive outcome to realize transnational gas pipelines involving South Korea until today in spite of its continuous efforts. It would be academically interesting, therefore, to investigate the disparity between South Korea's aspirations for connecting itself to trans-continental gas pipelines and the reality the country actually faces when the newly-inaugurated Moon Jae-in administration considers reviving his predecessors' dreams.

This paper begins with an examination of the theoretical background of South Korea's aspiration for trans-continental gas pipelines. After that, it historically reviews South Korea's interests in Russian gas and transnational pipeline projects. Following this review, it will discuss on expected costs and benefits of the relevant projects. Based on this examination, this paper seeks to analyze the reasons why transnational pipeline initiatives that involved South Korea were not realized in spite of its long-lasting ambition. Lastly, the paper is aiming for making some policy suggestions for South Korea.

II. South Korea's Self-Positioning as a Middle Power

In order to understand South Korea's aspiration in connecting infrastructure, specifically gas pipelines for this paper, to the Eurasian Continent is related to its self-positioning as a middle-power in the region. The concept of middle power originated in academia and examined Australian and Canadian foreign policy in the post-World War II era. Cooper, Higgott, and Nossal explore four approaches in defining middle power. The first approach emphasizes a middle power country's hierarchical position in the world order; a middle power should have a population, economic size, and military in between those of small

and large countries. The second approach highlights the geographic position of a middle power country as located “in the middle” of greater powers. In contrast to the two previous approaches, the third approach emphasizes the normative role of a middle power in the international system. A middle power should be diplomatically softer than superpower countries and pursue more virtuous, trustworthy, and generous ways. The fourth approach focuses on a middle power’s behaviors. A middle power is friendlier to multilateralism and demonstrates “good international citizenship” in international organizations.¹¹ In summary, the first two approaches emphasize a middle power’s material and physical conditions such as resource power and geographic location, while the latter two approaches highlight a middle power’s behavioral tendency, so-called *middlepowermanship*.

Many South Korean experts and policy makers have been inspired by this theory and judge that South Korea meets all of the four criteria in their home region, Northeast Asia. First, South Korea is positioned between larger countries such as China, Russia, and Japan, and the smaller countries like Taiwan, Mongolia, and North Korea. Its population is approximately 50 million, the 28th largest out of 238 countries, with a 1.929 trillion US dollar (USD) of Gross Domestic Product (GDP) in terms of Purchasing Power Parity in 2016, ranking the 14th largest out of 229 countries. South Korea’s GDP per capita was 37,900 USD in 2016, which was the 46nd highest out of 230 countries.¹² In addition, South Korea spent approximately 31.5 billion USD for its defense purposes in 2012,

¹¹ Cooper, Andrew Fenton Richard A. Higgott, and Kim Richard Nossal, eds. *Relocating Middle Powers: Australia and Canada In A Changing World Order* (British Columbia: UBC Press, 1993), 17–19.

¹² All data from to the U.S. Central Intelligence Agency (CIA) World Factbook, <https://www.cia.gov/library/publications/the-world-factbook/geos/ks.html>.

ranking the 12th highest in the world.¹³ All these statistics suggest that the South Korea's position can be put between superpowers and small powers.

Second, South Korea's geographic location matches the second criterion of a middle power. The Korean Peninsula is about 219,140 square kilometer (km²), and is located between the Northeast portion of the Eurasian Continent and the Northwestern rim of the Pacific Ocean, extending from Manchuria to the south for approximately 1,100 kilometer (km). The Korean Peninsula is surrounded by West Sea (or Yellow Sea) to its left and by East Sea (or Sea of Japan) to its right, separated by the Straits of Korea from the Japanese Archipelago. It can be said that its geopolitical position has some parallels with Turkey connecting the Near East and Europe, Pakistan located between the Middle East and South Asia, and Myanmar bordering with giant-size countries, India and China. South Korea's geographic location can be evaluated as a more disadvantaged one than North Korea's because it is surrounded by sea and disconnected from the Eurasian Continent by North Korea. However, it is also true that this island-like geography and the small territorial size¹⁴ of South Korea have encouraged its people to look outward: South Korea's economic development has been driven by export expansion since President Park Chung-hee's era; and more than seven million ethnic Koreans currently live abroad.¹⁵

Regarding the third and fourth criteria, South Korea's statecraft did not correspond with its economic position as a middle power in the past. South Korea has

¹³ Data from MilitaryBudget.Org, <http://militarybudget.org/south-korea/>. In terms of percentage of GDP, South Korea spent 2.3 percent of its total GDP for its defense purpose, which was the 25th highest out of 132 countries according to the CIA World Factbook.

¹⁴ According to data in the CIA World Factbook, South Korea's land territory is 96,920 km², and ranks as the 109th largest out of 252 countries.

¹⁵ Data from E-narajipyo, http://www.index.go.kr/potal/main/EachDtlPageDetail.do?idx_cd=1682.

relatively recently adopted the concept of *middlepowermanship* in its diplomacy.¹⁶ However, South Korea has continuously preferred a multilateral approach since the “Pacific Pact” concept¹⁷ because its resource power was relatively weaker than its larger neighbors. South Korea’s has been enthusiastically trying to build regional institutions since 1966 when Park Jung-hee proposed the Asian-Pacific Council (ASPAC)¹⁸ and his successors have consensually shown strong interests in multilateral approaches for deepening regional cooperation. President Kim Dae-jung, for example, formed the East Asian Vision Group and the East Asian Study Group in 1998 and President Roh Moo-hyun, Kim Dae-jung’s ideological descendent, supported Kim’s ideas.¹⁹

South Korea’s middle power identity has been more solidified by its economic development and the end of the Cold War, and its material and immaterial contributions to global governance have been increasing. South Korea became the 29th member of the Organization for Economic Cooperation and Development (OECD) and became a member of the Group of 20 (G20) in 1999. South Korea hosted the G20 Summit in 2010 as the first non-Western country as well as the Nuclear Security Summit in 2012 at which representatives from 58 countries participated. Moreover, the headquarters of the Trilateral Cooperation Secretariat, composed of South Korea, China, and Japan, is located in the capital city of Seoul. The Green Climate Fund, an international fund based on the framework of the United Nations Framework Convention on Climate Change, is also

¹⁶ Lee, Sook-jong, “South Korea as New Middle Power Seeking Complex Diplomacy,” *East Asia Institute Asia Security Initiative Working Paper* (2012); Cooper, Andrew and Jongryn Mo, “Middle Power Leadership and the Evolution of the G20,” *Global Summitry Journal* 1.1 (2013): 3.

¹⁷ Calder, Kent and Min Ye, “Regionalism and Critical Junctures: Explaining the “Organization Gap” in Northeast Asia,” *Journal of East Asian Studies* 4 (2004): 205.

¹⁸ Calder, Kent and Francis Fukuyama eds., *East Asian Multilateralism: Prospects for Regional Stability* (Baltimore: Johns Hopkins University Press, 2008), 7.

¹⁹ Choi, Young-jong, “South Korea’s Regional Strategy and Middle Power Activism,” *The Journal of East Asian Affairs* 23.1 (2009), 53.

located in Songdo, Incheon. Meanwhile, Ban Ki-moon, a former South Korean career diplomat, became the eighth UN Secretary General in October 2006, and South Korea ranked the 13th largest donor to the United Nations in 2013.²⁰ In addition, South Korea's Official Development Assistance (ODA) has increased substantially in recent years. South Korea spent approximately 1.915 billion USD for its ODA purposes in 2015, which can be evaluated as a big jump compared to 365.9 million USD in 2003.²¹ Also, South Korea had deployed 641 military officers in seven Peacekeeping Operation (PKO) missions, including in India/ Pakistan, South Sudan, and Lebanon, for as of April 2017.²² All of these statistics also prove that South Korea meets the criteria to be a middle power.

Furthermore, it is interesting to see that more South Koreans recognize their country as a middle power and increasingly appreciate their country's role for global governance. According to a public poll by East Asia Institute (EAI) conducted in 2010, 76.8 percent of the respondents recognized South Korea as a middle power, while only 19.9 percent viewed their country as a weak or small power. In addition, 53.1 percent answered that their country, South Korea, should play a bridge-building role between developed countries and developing countries for resolving international problems.²³ The results of this survey suggest that more Koreans are positive to South Korea's middle power role than before. In sum, South Korea has gradually formed its statecraft toward *middlepowermanship* in the global society, which more corresponds to its geographic and political economic position. Also, this middle power identity naturally became a

²⁰ U.N. Secretariat, "Assessment of member states' contributions to the United Nations regular budget for 2013" (2013), http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/67/238.

²¹ Data from ODA Korea, http://www.odakorea.go.kr/ODAPage_2012/T02/L03_S01_01.jsp.

²² Data from Ministry of Foreign Affairs, http://www.mofa.go.kr/ENG/policy/pko/overview/index.jsp?menu=m_20_50_10.

²³ Lee (2012), 20–21.

theoretical support for connecting infrastructure between South Korea and the Eurasian Continent and initiating multilateral cooperation in the region. In the following section, South Korea's approaches to Russian gas and gas pipeline projects will be chronologically reviewed.

III. Historical Review of South Korea's Interest in Russian Gas

Arguably, there are strong complementarities between Russia gas and Northeast Asian energy consumers. Russia ranked the world's largest producer of crude oil (including lease condensate), the third-largest producer of petroleum and other liquids (next to Saudi Arabia and the United States), and the second-largest producer of dry natural gas in 2015.²⁴ Western Siberia where the majority of its gas production comes from has been overly exploited,²⁵ and Russia has been aggressively exploring new regions including the Yamal Peninsula, Eastern Siberia, and Sakhalin Island located in Far East. Following factors also pushed Russia to approach Northeast Asian markets. Europe has been consistently the primary consumer of Russian gas, but it became increasingly necessary for Russia to diversify its markets as European economies slowed down following the 2008–2009 global financial crisis and as Western sanctions on the 2014 Ukraine Crisis damaged the Russian economy. Russia is now greatly interested in Northeast Asia to procure new and reliable customers.

Vice versa, South Korea, China, and Japan also expect that Russian gas would contribute to diversifying their energy mix. All of these Northeast Asian economies are

²⁴ Data from U.S. Energy Information Administration (EIA), <https://www.eia.gov/beta/international/analysis.cfm?iso=RUS>.

²⁵ More than 60 percent of Russian natural gas production was from Western Siberia in 2014 according to the above EIA's data.

heavily dependent on Middle East oil/ gas shipped through the Strait of Malacca, which makes them enormously vulnerable to any external shock from Middle East. Therefore, Russian gas has been regarded as an alternative energy source by these Northeast Asian countries considering their interests in substantial volumes of Russian gas and their geographic proximity to it. In 2015, China imported 852 thousand barrels per day (bpd) of Russian gas, Japan did 288 thousand bpd, and South Korea did 167 thousand bpd, which are equivalent to half of Russia's gas export to OECD Europe.²⁶

South Korea has been long interested in Russian gas as well as the trans-continental pipelines. The first region South Korea seriously considered to invest was the Yakutsk of the Sakha Republic. In 1989, Chung Ju-young, the founder and then-chairman of the Hyundai Group, was interested in Sakha gas development and proposed a pipeline that connects Yakutsk and South Korea through North Korea, and he also suggested to extend it to Japan through the Straits of Korea.²⁷ In July 1992, a South Korean consortium was created by Korea Petroleum Development Corporation (PEDCO)^{28, 29} and Kim Woo-jung, then-chairman of Daewoo Corporation, made the first public announcement confirming that discussions regarding the development of the Yakutsk gas field had been progressing in August 1992.³⁰ The suggested route covered approximately 5,143 km from Yakutsk to South Korea, through Khabarovsk, Vladivostok, and the east

²⁶ Data from EIA.

²⁷ Paik, Keun Wook, *Gas and Oil in Northeast Asia: Policies, Projects and Prospects* (London: Royal Institute of International Affairs, 1995), 229.

²⁸ PEDCO was originally established in 1979 and known as the Korean National Oil Corporation (KNOC) since 1996.

²⁹ Paik, Keun-Wook, "Pipeline Gas Introduction to the Korean Peninsula," *Report to Korea Foundation* (London: Chatham House, 2005), 21.

³⁰ Lee, Kee-hyun, Jang-ho Kim, and Sung-hoon Je, *South Korea-North Korea-Russia Gas Pipeline and Geopolitics of Northeast Asian Energy Cooperation* (Seoul: Korea Institute for National Unification, 2013), 33. (In Korean)

coast of North Korea. In November 1994, South Korea conducted the preliminary feasibility study with Russia and the Sakha Republic, results of which were completed one year later in December 1995. However, the results did not provide an optimistic view primarily because of the poor cost-efficiency of developing such a lengthy pipeline.³¹ Furthermore, this “Yakutsk Line” had other risk factors including the poor infrastructure of the Sakha Republic, unpredictability in Gazprom’s export strategies, and political uncertainties caused by the North Korean regime.³²

Another region of interest to South Korea was the Kovykta gas field in Irkutsk State, located in northwest of Lake Baikal. In mid-1995, a South Korean consortium was established, which included Korea Gas Corporation (KOGAS), PEDCO, Kohap, Halla, LG, Hyosung, Daewoo, and Yukong,³³ and it was restructured in January 2001 with two additional members.³⁴ Under President Kim Dae-jung’s leadership, the South Korean government conducted a feasibility study on the Kovykta gas field in 2001 with a goal of importing seven million tons of Kovykta/ Irkutsk Pipeline Natural Gas (PNG) over the next 30 years with a 20 to 25 percent lowered price than other imported LNG.³⁵

The Kovykta/ Irkutsk project had several pipeline options: Route I was a 4,115 km-long route running through Mongolia and China to South Korea (Angrask – Ulaanbaatar – Beijing – Tianjin – Rizhao – Seoul); Route II included North Korea (Angrask – Ulaanbaatar – Beijing – Shenyang – Pyongyang – Seoul) and was 4,008 km-

³¹ Paik (2005), 21–22.

³² Lee, Sung-gyu, “Economic Effects and Participation Methods of South Korea-North Korea-Russia Gas Pipeline Project,” *North Korean Economic Review* (Seoul: Korea Development Institute, 2011 October), 34–47. (In Korean)

³³ Yukong is now known as SK. It joined the above consortium little later than initial members in April 1996.

³⁴ Paik (2005), 23.

³⁵ Ministry of Commerce, Industry and Energy, *Promotion Plans for the 100 Major Objectives* (2001), 298–300. (In Korean)

long; and Route III excluded Mongolia but included North Korea (Irkutsk – Ulan Ude – Chita – Changchun – Shenyang – Pyongyang – Seoul), and was 4,151 km-long.³⁶ However, multilateral cooperation for the Kovykta/ Irkutsk development project was hampered in January 2004 when Russia altered its stance on the development because it was concerned about losing its monopolistic influence over the gas field.³⁷

Meanwhile, Russia remained interested in the original idea of building the Russia – North Korea – South Korea pipeline (hereafter RNS pipeline) from the strategic calculation's point of view. Based on its historical rivalry with China, Russia has wanted to maintain a good balance with China. President Vladimir Putin proposed the option of delivering Sakhalin gas through North Korea to South Korea in 2002. Roh Moo-hyun, the successor of Kim Dae-jung's *Sunshine Policy*, also supported the idea, and conveyed this agenda during his summit meeting with Putin in Moscow in September 2004. The two leaders agreed on future cooperation for connecting Trans-Korean Railway and Trans-Siberian Railway as well.³⁸ South Korea and Russia accelerated their negotiations on gas cooperation in 2006 when they signed the "Agreement between the Government of the Republic of Korea and the Government of the Russian Federation on Cooperation in Gas Industry," having KOGAS and Gazprom as the trustees of the agreement.³⁹

Despite his different partisanship from his two predecessors, President Lee Myung-bak, who was elected from the conservative Hannara Party in December 2007, succeeded Kim and Roh's visions. Actually, Lee's enthusiasm for the construction of

³⁶ Lee, Bok-jae, Won-woo Lee, and Chang-won Park. *Study on Northeast Asian Energy Cooperation* (Korea Energy Economics Institute, 2002), 216. (In Korean)

³⁷ Paik (2005), 7–8.

³⁸ *Yonhap News*, "South Korea-Russia Summit, Agreed on 'Comprehensive Partnership'," (September 21, 2004). (In Korean)

³⁹ Ministry of Knowledge Economy (MKE), "News Release: Conclusion of South Korea-Russia Gas Cooperation Agreement After Two-Year Negotiations," (October 17, 2006). (In Korean)

transnational pipelines was more widely known than that of his predecessors. Lee has brought up pipeline issues at each summit with the Russian President since 2008. President Lee and President Dimitry Medvedev agreed on a Memorandum of Understanding (MOU) in September 2008, which stated that Russia would supply ten billion cubic meters (bcm) annually to South Korea for the next 30 years after 2015.⁴⁰ The MOU also called for the construction of a pipeline to connect Vladivostok, North Korea (along the east coast), and South Korea (to Sokcho, Gangwon Province). However, this plan was nullified by North Korea's consecutive provocations such as the underground nuclear test in May 2009 resulting in the UN sanctions, the Cheonan sinking in March 2010 resulting in the May 24 measures by the Lee Myung-bak administration, and the bombardment of Yeonpyeong in November 2010. Kim Jung-il's sudden death in December 2011 also became an interrupting factor.

While trilateral cooperation among South Korea, North Korea, and Russia was disintegrated, bilateral cooperation between China and Russia was accelerated. Originally, there were two main gas pipeline projects between China and Russia. The first one was a 3,000 km-long gas pipeline between West Siberia and Xinjiang, known as the "Altai Line." The pipeline was agreed to be constructed in 1996 but did not immediately produce significant outcomes. The second pipeline project was the Kovykta/ Irkutsk gas development project, but it failed in January 2004 as mentioned previously. For several years, no tangible outcome was seen in bilateral cooperation between China and Russia, yet the two countries agreed on "Raw Oil Pipeline Construction and Raw Oil Supply for China" and the "Natural Gas Pipeline Construction and Natural Gas Supply for China"

⁴⁰ MKE, "News Release: Promoting Import of Russian PNG through North Korea," (September 29, 2008). (In Korean)

in October 2008, which was followed by agreements between the China National Petroleum Corporation (CNPC) and Gazprom in June 2009. Almost ten years after the two countries began negotiations on gas cooperation, on May 21, 2014, they finally signed a 30-year, 400 billion USD gas deal despite international controversies surrounding the 2014 Ukraine Crisis. According to the contract, Russia will supply 38 bcm of gas annually to China over 30 years,⁴¹ covering almost 23 percent of China's annual domestic consumption. Simultaneously, Russia considered expanding its gas export to Asia up to 130 bcm per year, which was close to Russia's total gas export to Europe of 162 bcm per year.⁴²

Meanwhile, China was not satisfied with the RNS pipeline project that excluded China. From the China's point of view, the RNS pipeline project appeared to encroach on China's national interests because China also planned to build a regional hub for natural gas trade in Shanghai which can be challenged by the proposed trans-peninsula gas pipeline. Instead, China suggested an additional pipeline as an alternative to the RNS pipeline to South Korea in March 2012, three months after the Kim Jung-il's death.⁴³ The proposed pipeline route connects Russia, China's Shandong Peninsula, and South Korea's west coast. According to the blueprint, the pipeline distance between Weihai (the final destination in China) and Baengnyeong Island (a tentative connecting port) located in West Sea of South Korea would be only 174 km, much shorter than the distance of the RNS pipeline. Jiang Jiemin, then-chairman of CNPC, completed a proposal when he met

⁴¹ Mazneva, Elena and Stepan Kravchenko, "Russia, China Sign \$400 bil Gas Deal After Decade of Talks," *Bloomberg* (May 21, 2014).

⁴² Lee, Jang-hoon, "Global Focus: China-Russia, 'It Couldn't Be Better'," *JoongAng Shisa Magazine* (June 17, 2014). (In Korean)

⁴³ Chung, Yong-hwan, "Unexpected Suggestion by China – Building Korea-Russia Gas Pipeline, Excluding North," *JoongAng Daily* (March 23, 2012). (In Korean)

Kang Young-won, then-CEO of KNOC, in August 2011.⁴⁴ This Russia – China – South Korea (hereafter RCK pipeline) route was likely to be connected to the Eastern route between China and Russia. Russia also encouraged South Korea to join the project because it was afraid that China might monopolize economic and political leverage over the pipelines.⁴⁵

Consequently speaking, however, the South Korean government did not respond promptly, and the RCK pipeline project was not included in the 2013 South Korea-Russia Joint Statement signed by Park Geun-hye and Putin following their summit in Seoul. KOGAS recently tried to reconnect the RCK pipeline while Park was still in the Blue House,⁴⁶ and it was also expected to revive the RNS pipeline project when Park attended Russia-led Eastern Economic Forum in August 2016.⁴⁷ However, together with the political turmoil that resulted in the impeachment of Park Geun-hye, these projects faded away from the table. In the following section, theoretical costs and benefits of gas pipeline projects involving South Korea will be discussed.

IV. Cost and Benefits of Gas Pipeline Projects Involving South Korea

From the point of view of its national interests, the followings can be thought as positive outcomes if South Korea aligns itself to the Eurasian Continent via gas pipelines. First, some economic benefits can be expected: PNG is usually more cost-efficient than

⁴⁴ Chung, Yong-hwan, “China’s Gas Pipeline Project, Handover to Korea,” *JoongAng Daily* (March 29, 2012). (In Korean)

⁴⁵ Park, Tae-hee, “Putin Doesn’t Want China’s Monopoly – Good Timing for Korea to Pursue Its Own Interests,” *JoongAng Daily* (July 6, 2014). (In Korean)

⁴⁶ *The Chosun Biz*, “Korea-China, Promoting Undersea Pipelines in West Sea,” (April 4, 2016), http://biz.chosun.com/site/data/html_dir/2016/04/04/2016040400044.html. (In Korean)

⁴⁷ *Steel Daily*, “Once Again, Russia-North-South Gas Pipeline Project on the Surface,” (August 5, 2016), http://www.steeldaily.co.kr/news/n_view.asp?NewsID=115277&Page=1&T_M_Code=0&D_F_Code=Main. (In Korean)

Liquefied Natural Gas (LNG) because PNG can reduce the cost of liquification and sea transportation; construction of gas pipelines may create jobs and stimulate following construction of related facilities; and it can also boost South Korea's steel-making industry which has been declining in recent decades. The RCK pipeline, more specifically speaking, would be less costly than the RSN pipeline thanks to the shallow depth of the West Sea and the short distance between the connecting harbors of Weihai and Incheon. Also, the idea can be complementary with the South Korean government's vision to build a Northeast Asian oil hub in the Ulsan/ Yosu area, one of the most industrialized zones in the country and adjacent to Busan, the largest port on the country's east coast. Since 2008, the South Korean government has been trying to develop an oil hub complex in the Ulsan/ Yosu area where oil storages of 36.6 million barrels, refinery factories, and related manufacturing facilities are to be constructed by 2020. The South Korean expected that oil and gas trade or related financial markets can be developed by attracting more foreign investors who would be favorable to deregulation in this area.⁴⁸ Petroleum and Petroleum Substitute Fuel Business Act was passed by the National Assembly after the Moon Jae-in administration was inaugurated, on May 24, 2017, which is expected to speed up the project.⁴⁹

The second positive impact to be expected from gas pipeline projects involving South Korea is its contribution to diversifications of South Korea's imported energy sources. South Korea has been heavily dependent on Middle East oil and gas,⁵⁰ which

⁴⁸ Ministry of Trade, Industry and Energy Knowledge Economy, "News Release: Jumping to the Center of Northeast Asian Energy and Finance Market Through Constructing the Fourth Oil Hub," (March 12, 2014). (In Korean)

⁴⁹ *Maeil Kyungje Shinmun*, "Petroleum and Petroleum Substitute Fuel Business Act Passed by the National Assembly, Northeast Asia Oil Hub Likely to Gather Momentum," (May 19, 2017), <http://news.mk.co.kr/newsRead.php?year=2017&no=345408>. (In Korean)

⁵⁰ In 2015, more than 80 percent of South Korea's imported crude oil was from Middle East, and

has been continuously a nuisance to the country since the two oil crises in 1970s. Trans-continental gas pipelines that connect South Korea can offer alternative options to supply energy sources directly from the Eurasian Continent to South Korea. The RCK pipeline, for example, can provide better accessibility to Central Asian gas fields developed by South Korean companies, such as the Surgil gas field near the Aral Sea in Uzbekistan.⁵¹ Also, a gas-swap agreement with China may be viable; South Korea sells Central Asian gas produced by Korean companies to China and instead purchases Russian gas from China via the pipeline, which is likely to be mutually beneficial both to South Korea and China considering cost of transportation.⁵² Furthermore, South Korea can expect to attain a stronger position in price bargaining with Middle East oil-sellers or other conventional LNG exporters to South Korea if it is linked to the Eurasian Continent through pipelines because their monopolistic leverages over South Korea will be diminishing by South Korea's alternative routes. All of these factors would ensure that gas pipelines involving South Korea would improve the country's energy security.

The third positive impact to be expected from connecting South Korea to trans-continental gas pipelines is that it can enhance economic cooperation between continental countries and South Korea that has been eager to escape from its island-like situation, surrounded by inland sea and disconnected from the Eurasian Continent by North Korea. In addition to gas pipelines, South Korea could promote construction of other overland transportation, such as railroads, following the construction of gas pipelines. Kim Dae-

almost 50 percent of its imported natural gas was also from Middle East. Refer to EIA's data, <https://www.eia.gov/beta/international/analysis.cfm?iso=KOR>.

⁵¹ Ryu, Jin, "Korea, Uzbekistan to Develop Gas Field," *The Korea Times* (February 22, 2008); Chun, Byung-yoon, "'Miracle of Dessert' - \$2.1 bil Out of Harsh Sandstorm," *Money Today* (November 21, 2012). (In Korean)

⁵² *JoongAng Daily*, "Interview with Keun Wook Paik: China-Russia Gas Pipeline Construction Will Take Four Years... South Korea Should Jump on Now," (May 25, 2014). (In Korean)

jung used to suggest the constriction of trans-peninsular railroad and contended that the era of “Steel Silk Road” would be coming soon.⁵³ Through this kind of infrastructure-related projects, South Korea and its continental neighbors including China and Russia can deepen and expand other economic cooperation as well.

Fourth, gas pipeline projects could assist inter-Korea rapprochement. The RSN that the Moon Jae-in administration considers reviving definitely requires dialogues and negotiations with North Korea. Meanwhile, the RCK pipeline that does not involve North Korea could be extended later to Kaesong or to Pyongyang, for instance, which can be conducive to North Korea’s energy security as well. Accordingly, South Korea could take a diplomatic advantage of this pipeline when it needs to negotiate with North Korea for future inter-Korean economic partnership. Moreover, through intimate cooperation with China and Russia, South Korea could strengthen its deterrence capability vis-à-vis North Korea because these countries have political economic leverages on North Korea.

Finally, positioning itself as the geopolitical middle power of interconnections for gas trade in the region, South Korea could achieve stronger leverage over its neighbors. For instance, the RCK pipeline could be utilized for expanding energy cooperation with Japan as well. It may be possible to build additional pipelines connecting Incheon and Busan as well as connecting Busan and Kyushu. If realized, this can strengthen South Korea’s diplomatic leverage over Japan too.⁵⁴

At the same time, however, South Korea should contemplate following things as costs or risks of connecting itself to the Eurasia Continent via gas pipelines. First, cost

⁵³ Kim, Hong-kyun and Ki-hong Han, *Kim Dae-jung, Travel to Hope* (Gozuwin, 2006). (In Korean)

⁵⁴ *JoongAng Sunday*, “The South Korean Government, Sitting Idly in Spite of Lots of Benefits of the China-Russia Gas Pipeline,” (March 30, 2014). (In Korean)

advantages of PNG can be challenged by shale gas imports from North America. PNG generally tends to be more cost-efficient than LNG, but gas prices have declined and become more unpredictable than before mainly because of increasing production of shale gas in North America and the on-going rivalry between the Organization of the Petroleum Exporting Countries (OPEC) and the United States.

South Korea already joined shale gas development in Canada,⁵⁵ and more South Korean companies would expand their investment in shale gas development in the U.S. as well because it is expected to increase natural gas consumption for power generation in South Korea while reducing use of coal and nuclear power under the Moon Jae-in leadership. Moreover, the Trump administration is trying to revive America's economy through stimulating conventional energy industries and infrastructure reconstruction. Needless to say, the U.S. is the South Korea's special ally with having the Korea-U.S. Free Trade Agreement (KORUS FTA) effective since 2011, which indicates that there can be good complementarities between Trump's economic policies and Korean energy industry's demand. For instance, Atinum Invest purchased approximately 500 million USD-worth development rights of shale gas in Mississippi from Sand Ridge Energy Inc.,⁵⁶ and the gas-powered plant of Paju Energy Service that firstly uses shale gas from Louisiana started its operation in May 2017.⁵⁷ Although China also possesses a substantial amount of shale gas (approximately 1,115 trillion cubic feet (Tcf)), the

⁵⁵ Kim, Yeon-sook, "Korea-Canada, Dramatic Progress in Development of Canadian Shale Gas," *Energy News* (September 23, 2014). (In Korean)

⁵⁶ Oh, Hee-na, "Stocks of Atinum Invest Rising Thanks to Expectation on Korea-US Cooperation for Shale Gas Development," (May 18, 2017), <http://www.edaily.co.kr/news/NewsRead.edy?SCD=JB31&newsid=02197606615930232&DCD=A10103>. (In Korean)

⁵⁷ *Today Energy*, "SK E&S, Firstly Starting Shale Gas-powered Plant" (May 10, 2017), <http://www.todayenergy.kr/news/articleView.html?idxno=123375>.

locations of the reserves reside in the Sichuan and Tarim basins and are remote from major harbors.⁵⁸ In addition, China faces technological and legal difficulties in rapid and extensive shale gas development, discouraging its optimism on a shale gas boom in China. If shale gas from North America could be sustainably provided at a reasonable price in the coming years, which looks pretty likely as of now, economic benefits to be expected from connecting gas pipelines between South Korea and the Eurasian Continent can be off-set.

Second, constructing key infrastructure with the continental powers of China and Russia could cause political controversies within South Korea. Politically conservative groups who prioritize the military alliance with the U.S. over any other relationship tend to be agitated by that kind of idea because they are afraid that Russia and China can have strong leverages over South Korea with those pipelines. They conceive historically deep-rooted doubts and mistrust of China and Russia, and would recommend that South Korea should not rely on those countries for its energy security. They did not hesitate to criticize the Park Geun-hye administration's China-leaning foreign policies,⁵⁹ and would contend that South Korea should be more prudent in building key infrastructure such as gas/oil pipelines, railroads, or electricity grids in conjunction with countries that cannot be completely trusted. Lee, for example, has warned that the RSN pipeline project could harm South Korea's energy security by connecting itself with unreliable and unpredictable partners, particularly North Korea.⁶⁰ Although Lee's skepticism was more

⁵⁸ Data from EIA, <http://www.eia.gov/countries/cab.cfm?fips=RS>.

⁵⁹ Lee, Jung-hoon, "Criticizing Park's 'Balanced Diplomacy', it is Just Overly China-leaning," *Shin Donga* (2014 August). (In Korean.)

⁶⁰ Lee, Yusin, "Potential Risks of the Russia-North Korea-South Korea Gas Pipeline: Is There Any Lesson Seoul Can Learn from the Russia-Ukraine Gas Disputes?" *Asian Survey* 53.3 (2013): 584–606.

focused on North Korea than on Russia, conservative opinion leaders prefer shale gas import from the U.S. or Canada to PNG imports for diversification of South Korea's energy sources from the point of view of strategic interests.

Third, gas pipeline projects may bring some other international political risks as long as North Korea's provocations are continuous. North Korea's continental relationships remain important variables in determining South Korea's relationships with their Pacific neighbors, namely the U.S. and Japan. The antagonistic relationship between two Koreas and potential tensions between Continental powers and Pacific powers have been the strongest rationale for the ROK-US alliance and so-called trilateral "virtual alliance" among South Korea, Japan, and the U.S. However, as the Cold War ended and globalization processes grew, the traditional relationship between South Korea and Pacific powers has been challenged by South Korea's increasing trade and interactions with continental neighbors as well as the rising trend of "new continentalism."⁶¹ Furthermore, regardless of common security concerns, the bilateral relationship between South Korea and Japan has been pretty much shaky during the Park Geun-hye administration. On the other hand, the honeymoon between Seoul and Beijing as well as the congenial relationship between President Park and President Xi Jin-ping, both of which are empirically unusual, led Tokyo and Washington to doubt Seoul's real intentions. Japanese conservative opinion leaders had skeptical attitudes towards the cordial relationship between Seoul and Beijing, and have cynically reported on the bilateral relationship between South Korea and China.⁶² In sum, it can be said that the dynamics

⁶¹ Calder, Kent, *The New Continentalism: Energy and Twenty-first-century Eurasian Geopolitics* (Cambridge: Yale University Press, 2012).

⁶² For example, the following article is about President Xi Jin-ping's visit to Seoul in July 2014, which reflects Japanese cynical reactions: Maeda, Hiroko, "President Xi Visited South Prior to His

among regional members are becoming more multi-faceted while the Cold War-structured rivalry between Continental powers and Pacific powers have continued. However, it is still truly important that South Korea should maintain military cooperation with the U.S. and Japan as long as nuclear-armed North Korea threatens the regional peace. If the trilateral cooperation among South Korea, Japan, and the U.S. is unnecessarily complicated by deepening continental relations, South Korea may be exposed to real military threats from North Korea and its diplomatic position in the region can be weakened.

V. Conclusion

The above analysis on cost and benefits of connecting gas pipelines between continental partners and South Korea suggest the following conclusion.; it is very difficult to precisely judge whether or not benefits of it to be will be greater than costs of it especially when international circumstances are unpredictable like today. Before suggesting some policy recommendations for the newly inaugurated Moon Jae-in administration that considers reviving the 2004 agreement between Roh Moo-hyun and Vladimir Putin, it would be helpful to understand the following political economic factors that make it difficult to realize gas pipeline projects involving South Korea.

First, the South Korea's political system often bothers this kind of long-term projects. South Korean president only has a five-year single term, and cannot be reelected under the current constitution since the country's democratization in 1987. Also, South Korean president's limited time is interrupted by other important elections including

Visit to North, What Is the China's Real Intention of Prioritizing South Korea?" *The Page* (July 18, 2014). (In Japanese)

general election for the National Assembly and municipal election for local governments. While he is in the Blue House, Moon will experience two national-scale elections; municipal election in June 2018 and general election in April 2020. These elections can be opportunities for the incumbent government, but it can bring a lame-duck earlier if his party is not doing well. The cycle of Korean elections is one important factor to disturb the government's long-term projects. Furthermore, if the ruling party does not have enough seats for legislation, South Korean president can be checked and balanced by the National Assembly that can decide on budgeting. The Minjoo Party, the current ruling party, is the majority party at the National Assembly as well, but it has only 120 seats out of 300. Also, the National Assembly Advancement Act prevents the majority party from forcing through legislation without agreement of 60% of the house (180 votes).⁶³ Without consent of the National Assembly, it would be less feasible to complete long-term and costly projects such as constructing gas pipelines.

Secondly, as explained in the previous section, South Korea cannot be free from Cold War-structured tensions in the region. Especially, the situations of the Korean Peninsula have changed substantially from the Kim Dae-jung and Roh Moo-hyun era. Since Kim Jung-un grabbed the power, North Korea has conducted three more nuclear tests resulting in the historically toughest sanctions of international society. While having these sanctions, it would be unlikely that international society would welcome South Korea's initiative to connect gas pipelines with North Korea. Furthermore, it would be unlikely to see positive reactions from North Korea too. North Korea recently refused aid

⁶³ Lim, Eunjung, "South Korea's New President Will Face Challenges from All Directions," *The Conversation* (May 8, 2017), <https://theconversation.com/south-koreas-new-president-will-face-challenges-from-all-directions-7639>.

from South Korea and it mentioned about the UN sanctions against North Korea.⁶⁴ Without congenial mood, South Korea alone cannot promote that kind of politically controversial project, and it might not be even desirable.

Third, South Korea's geoeconomic situations might not be attractive enough to have transnational gas pipelines either because of the relatively smaller size of its market and its geographic location. South Korea consumed an estimated 1.6 Tcf of dry natural gas in 2015, which makes it the second-largest importer of LNG in the world behind Japan.⁶⁵ However, Japan's natural gas consumption has been rapidly rising especially after the Fukushima Nuclear Accident in 2011 and it reached 4.4 trillion cubic feet per year (Tcf/y), which is almost three times larger than Korea's consumption in 2015.⁶⁶ As long as Japan's market size is much larger than South Korea's market size or purchasing power, it can be less plausible to see stronger gravity from South Korea than from Japan. Furthermore, South Korea is not naturally located at an 'Obligatory Passage Point.'⁶⁷ It is surrounded by inland sea, which means its neighbors have their direct access to ocean and they do not need to pass through South Korea to get access to ocean.

Therefore, it can be concluded that connecting South Korea to the Eurasian Continent via gas pipelines is less likely to happen in the near future; especially the RSN pipeline looks almost infeasible. South Korea might need to disentangle its political and ideological vision from its real economic interests. Of course, South Korea needs to diversify its energy sources and Russian gas can be an attractive enough option. However,

⁶⁴ Lee, Rachel, "NK's Refusal of Aid Dims Relations with South," *The Korea Times* (June 10, 2017), http://www.koreatimes.co.kr/www/nation/2017/06/103_230707.html.

⁶⁵ Data from EIA, <https://www.eia.gov/beta/international/analysis.cfm?iso=KOR>.

⁶⁶ Data from EIA, <https://www.eia.gov/beta/international/analysis.cfm?iso=JPN>.

⁶⁷ Kim, Sang-bae, "South Korea's Network Diplomacy: Application of Actor-Network Theory," *National Strategy* Vol. 17, No. 3 (2011). (In Korean)

it might not be necessary and viable enough to connect pipelines between South Korea and Russia. Rather, direct shipping from Russian ports like Kozmino or Vladivostok to South Korea's ports in east coast seems more reasonable as of now. Natural gas is an increasingly important energy source for all three Northeast Asian countries, China, Japan, and South Korea; and when the market is ready, regional cooperation can be speeded up. If South Korea wants to facilitate regional cooperation for gas trade, it needs to show better performance in terms of its behavior as a middle power or to make itself market-friendly that can induce further foreign investment rather than being obsessed with connecting infrastructure with the Eurasian Continent that have other risks.
