



## Economic Perspectives on North Korea

December 20, 2018

### A BRIEF ECONOMIC HISTORY

At the end of World War II, the Korean Peninsula was divided into two. The Soviet Union became the principal sponsor of communist North Korea, with which it shares an 11-mile border (see map, upper-right corner). Initially, most of the Peninsula’s industry, mining, and power generation was in the North, but during the 1970s South Korea began to surpass North Korea economically. North Korea’s economy deteriorated markedly in the late 1980s as Soviet aid and trade diminished and as the Soviet Union dissolved in 1991. The Soviet (later Russian) share of North Korea’s total trade fell from nearly half in 1985 to less than 8 percent in 1994.<sup>1</sup> In 1987, the Soviet Union accounted for half of North Korean food imports; in 1988, only for a quarter; and after dissolution of the Soviet Union, Russia supplied none at all during some years.<sup>2</sup> From 1994 to the end of the decade, famine took 600,000 to one million North Korean lives.<sup>3</sup>

North Korea focused on heavy industry and diverted resources to a large military in favor of light industry and agriculture despite a scarcity of arable land. It also accumulated large external debts over the decades that it has been unable to service.<sup>4</sup> After 2000, the country became critically dependent on China as a trading partner and source of aid. Other countries, including the United States and South Korea, also repeatedly came to North Korea’s aid with emergency food and energy supplies. (See Box 1 for a brief political history.)

Although it agreed to halt development at various times, Pyongyang for six decades continued to advance nuclear and missile programs. While the economy languished, the North Korean regime successfully developed nuclear weapons in addition to a range of ballistic missiles, some of which are believed capable of reaching the U.S. mainland.



<sup>1</sup> Soviet and other support for North Korea began to erode partially in response to Seoul’s *Nordpolitik* (diplomatic and economic normalization with the traditional allies of North Korea) leading up to its 1988 Olympics.  
<sup>2</sup> Eberstadt, Nicholas. *The North Korean Economy: Between Crisis and Catastrophe*. New Brunswick, N.J., Transaction Publishers, 2007. P.105-106.  
<sup>3</sup> This is the most likely in a wider range of estimates. “Famine and Reform in North Korea,” Marcus Noland, *Asian Economic Papers*, Vol. 3, No. 2, The Earth Institute at Columbia University and MIT, 2005.  
<sup>4</sup> Cha, Victor D. 2012. *The Impossible State: North Korea, Past and Future*. New York: Ecco. (p. 112-122).

## NORTH KOREA’S ECONOMIC ASPIRATIONS

As was characteristic for communist states, North Korea had a nationalized, centrally planned economy. The government did not follow the path of economic liberalization taken by China in the 1980s and later by Russia. During the great famine of the mid-1990s, the government’s central distribution system failed to supply large parts of the country, which allowed black market activity to expand. The government at first episodically turned a blind eye but eventually endorsed selected market activities including through amendments to its constitution such as the 2012 *Enterprise Act*, the *Farmland Responsibility Act (2013)*, and the 2015 *People’s Economic Planning Act (PEPA)*.<sup>5</sup> Quasi-private farms supplement the output of collectivized farms but still cannot assure an adequate food supply. Beginning in 2002, North Korea also opened so-called “special economic zones” (SEZ) that include joint ventures with foreign private and public firms. North Korea now appears to rely on regulated market activity for a significant share of its GDP, which by some estimates grew close to 4 percent in 2016 although it reportedly declined in 2017.<sup>6</sup>

### Box 1: A Brief Political History of the Korean Peninsula

Regional competition among China, Japan, and the Soviet Union shaped much of Korea’s history. For centuries, Korea was simultaneously an independent entity—one of the world’s oldest—and a tributary state to China until Japan entered the peninsula and eventually brought it fully under its influence. After defeating Russia in 1905, Japan annexed the peninsula in 1910. Japanese colonial rule brought some industrialization and social change, but Korea’s economy remained mostly agrarian and primarily served the Japanese mainland.

After Japan surrendered to end World War II, the United States and the Soviet Union divided Korea’s administration provisionally along the 38<sup>th</sup> parallel. However, the Soviet Union proceeded to install a Stalinist-style communist government. Joseph Stalin appointed Kim Il-Sung as leader to what became the Democratic People’s Republic of Korea (DPRK). In 1948, a technically democratically elected government came to power in the South, named the Republic of Korea (ROK).

On June 25, 1950, the North Korean People’s Army invaded the South. By November, U.S. and allied troops had repelled the attack and controlled most of Korean territory, but then the Chinese army attacked. After repeated offensives by the communists and counteroffensives by the allied forces, the conflict stalemated at the 38<sup>th</sup> parallel and a cease-fire agreement was signed in July 1953. The armistice remains in place to this day; the war never officially ended.

A succession of dictators governed the South but not as repressively as Kim Il Sung in the totalitarian North. While the North maintained a nationalized, centrally planned economy, Park Chung-hee, who ruled from 1961 until his assassination in 1979, orchestrated the industrialization of South Korea through export-oriented growth and the protection of key sectors from foreign imports. There was repeated social unrest due to military rule in the South, but by the late 1980s, South Korea held genuinely democratic elections, started to deregulate industry, and

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<sup>5</sup> Kelly, Robert. “A New Economy for North Korea.” Centre for International Governance Innovation. August 3, 2018.

<https://www.cigionline.org/articles/new-economy-north-korea>

Pak Pong Ju, Premier of the Workers’ Party of Korea, initiated regulated market reforms in 2003 but a backlash set him back until passage of subsequent acts in his second term from 2013-present. Expanded rights include granting select firms the ability to raise investment funds from individuals and private markets; however, all firms remain officially state-owned enterprises. Amendments prohibit firms from renting equipment in which the government had invested to private citizens, and private trading remains illegal although this is no longer strictly enforced.

<sup>6</sup> “Gross Domestic Product Estimates for North Korea in 2017,” The Bank of Korea, July 22, 2017.

reduced restrictions on foreign competition. South Korea became a prosperous nation and joined the OECD in 1996.

After his succession to power in 2011, Kim Jong-un announced the goal of a “dual advance” of nuclear weapons and the economy. In a break from traditional socialist priorities, he is promoting the image of a western consumer society.<sup>7</sup> However, North Korea’s official state ideology of *juche* sets political, economic, and military self-reliance as the top priority, which may mean that overtures to the West are merely to attract tourists (most have been Chinese) and foreign investment. Tourism is an important source of foreign currency for the regime and a way to shape foreign perceptions of North Korean life. Visitors, who must be accompanied at all times, are shown the capital city of Pyongyang with about three million inhabitants, where the most fortunate North Koreans enjoy the best of what the country has to offer.

But accounts of urban dwellers enjoying consumer products convey nothing about the living standard of the other 22 million citizens outside Pyongyang. Economic growth estimates are based on tenuous inferences, not verifiable data.<sup>8</sup> Indications are that the country’s roads and the electrical grid are crumbling (see satellite photo), which well obviously limits how much the economy can produce and how people can live. In 1948, North Korea had no shortage of electricity supply and a hydroelectric power plant was its national emblem; however, since the 1990s, power outages are a recurring not problem.<sup>9</sup> Despite its nuclear weapons program, North Korea does possess civilian nuclear power reactors.<sup>10</sup>



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Kim Jong-un’s observations about Singapore’s economic development, attractiveness, and “stylish buildings” suggest that the western-educated leader is well aware of the quality of life in surrounding countries.<sup>11</sup> He may also realize that his country is largely excluded from the rapid technological progress of advanced market economies. North Korea has systematically built up a cyberwar capability,<sup>12</sup> but absorbing varied new foreign technology constructively is difficult. By opening its economy to foreign participation, China has vastly expanded the methods of technology transfers and extended the scope of the kinds of foreign knowhow it can obtain.<sup>13</sup> Acquiring foreign technology and knowhow as China is doing may be appealing to Kim Jong-un.

<sup>7</sup> “A Consumer Class Wields New Power in North Korea,” *The Wall Street Journal*, June 1, 2018.

<sup>8</sup> The CIA estimated North Korean per capita GDP at \$1,700 for 2015; South Korea’s central bank, *The Bank of Korea*, reported \$1,314.6 in 2016 compared with \$27,681 for South Korea (<https://www.cia.gov/library/publications/the-world-factbook/geos/kn.html>; [http://www.nkeconwatch.com/nk-uploads/GDP\\_of\\_North\\_Korea\\_in\\_2016\\_f.pdf](http://www.nkeconwatch.com/nk-uploads/GDP_of_North_Korea_in_2016_f.pdf)).

“Best Guesses: How to Measure North Korea’s Economy.” *The Economist*. February 09, 2017. Accessed August 13, 2018. <https://www.economist.com/finance-and-economics/2017/02/09/how-to-measure-north-koreas-economy>.

<sup>9</sup> Fyodor Tertitskiy (September 23, 2014). “The Evolution of North Korea’s Coat of Arms”. *DailyNK*.

<sup>10</sup> During the Six-Party Talks the United States, South Korea, Japan, China, and Russia offered light water reactor power plants (proliferation resistant) and aid in exchange for North abandoning the nuclear weapons program in the 1994 Agreed Framework, but North Korea failed to comply and the agreement broke down in the implementation phase, North Korea formally withdrew from talks in 2009; <https://2001-2009.state.gov/t/ac/rls/or/2004/31009.htm>

<sup>11</sup> Cheng, Jonathan. “North Koreans Schooled in Business Basic,” *The Wall Street Journal*, 6/20/2018.

<sup>12</sup> Ha, Mathew. “U.S. Government Warns of Continued North Korean Cyber Activities.” *Foundation for Defense of Democracies*. November 21, 2017. <http://www.defenddemocracy.org/media-hit/anthony-ruggiero-us-government-warns-of-continued-north-korean-cyber-activities/>

<sup>13</sup> “Findings of the Investigation into China’s Acts, Policies, and Practices related to Technology Transfer, intellectual Property, and Innovation under Section 301 of the Trade Act of 1974.” Office of the United States Trade Representative, March 22, 2018. <https://ustr.gov/sites/default/files/Section%20301%20FINAL.PDF>

**International sanctions.** Since North Korea's first test of a nuclear weapon in 2006, the United States and the international community, including China, have repeatedly imposed economic sanctions on the country, yet these did not prevent it from achieving the capability to launch intercontinental missiles armed with nuclear warheads, according to some analysts. The recent U.N. economic sanctions are in response to the most disconcerting threats so far from North Korea. While Kim Jong-un's father and grandfather would concede just enough from time to time to get foreign aid but never truly took leave of their arms development, Kim Jong-un may believe he can now offer some military concessions in return for sanctions relief and access to foreign technology and investment. But it is doubtful that the leadership would follow through with denuclearization, having relentlessly pursued nuclear weapons capability for 60 years.

China accounts for over 90 percent of North Korea's exports and imports, the curtailment of which could do severe harm to the economy. However, because China has conflicting motivations, as discussed below, the extent to which China adheres to the sanctions is a recurring question. In the past, North Korea's regime always managed—possibly with China's help—to continue a volume of trading despite sanctions and distribute imports to keep the leading class well supplied.

**Box 2: North Korea's Economic Ties to China**

China is the destination for virtually all of North Korea's exports, 40 percent of which consist of coal. China invested extensively in the northern part of North Korea's mining and transportation sectors to facilitate trans-border shipments. North Korea was the world's eighth largest exporter of coal as of 2016, with a value of \$1.06 billion annually.<sup>14</sup> Textiles are its second-largest export category at approximately 25 percent, and other mineral products such as refined petroleum, iron ore, and lead ore are third with 9.5 percent.<sup>15</sup>

**Attracting private investment.** Businesses find ways to invest under politically challenging circumstances. International oil and mining companies are examples. The government sets conditions for their presence in a country and they pay royalties to the government for the right to develop and sell state-controlled natural resources. Foreign investment outside of special projects and zones could pose a challenge to the *juche* doctrine, but foreigners could invest in projects where foreign influence is contained, such as in coal mining, road construction, and building power plants. About a decade ago, Chinese investment transformed North Korea's mining sector into the DPRK's largest generator of export revenue, and over the past several years Russian enterprises have been upgrading some North Korean ports.

SEZs are another option. A number of them are in isolated areas near the Chinese/Russian border involving largely cross-border Chinese road and bridge projects. The experience with SEZs is mixed. The government has been slow to make commensurate investments with its partners, or has changed the stated goals, plans, and footprints of SEZs after they have been established. Several zones are oriented to tourism, not manufacturing. Kaesong is located just north of the DMZ and was negotiated with the South Korean conglomerate Hyundai in 2000. The industrial complex opened in 2003 and expanded to over 120 South Korean companies employing over 50,000 North Korean workers. However, there were intermittent tensions between the two countries over access and conditions at the complex. Kaesong was closed in 2016 after North Korea's fourth nuclear test earlier that year.

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<sup>14</sup> *The Observatory of Economic Complexity*. [https://atlas.media.mit.edu/en/visualize/tree\\_map/hs92/export/show/all/2701/2016/](https://atlas.media.mit.edu/en/visualize/tree_map/hs92/export/show/all/2701/2016/)

<sup>15</sup> *Ibid.* [https://atlas.media.mit.edu/en/visualize/tree\\_map/hs92/export/prk/all/show/2016/](https://atlas.media.mit.edu/en/visualize/tree_map/hs92/export/prk/all/show/2016/), Depth: HS2

## COMPARING NORTH KOREA TO CHINA AND RUSSIA

In China and the Soviet Union, economic reformers Deng Xiaoping and Mikhail Gorbachev came to power after the death of long-time, dominant personalities Mao Zedong (Chairman of the Central Committee) and Leonid Brezhnev (General Secretary).<sup>16</sup> Neither Deng Xiaoping nor Mikhail Gorbachev were related to their predecessors and they rose to power through a governmental process that conveyed some semblance of legitimacy and broader support for a new direction (Box 3). The new leaders could point to economic liberalization in South Korea and other East Asian “Tigers”—Taiwan, Hong Kong, and Singapore—that brought about rapid economic development.<sup>17</sup> Thus, market reforms were not likely to be quickly or completely reversed, even though the rule of law was not assured in either country. By contrast, in North Korea, power has rested with the Kim family since the country’s founding and has been passed on without rules of succession or a formal selection process. The concentration of power in a single person and his family may explain why North Korea did not follow the economic reforms that took place in neighboring communist China and Russia. Any significant loosening of central control might have threatened the Kim family. That problem still exists today. What has changed is that North Korea’s nuclear arms now pose a much greater threat to the world and the government shows a greater desire for upgrading the economy. Kim Jong-un thus could lower the threat level in return for some foreign investment, but an economic opening on the scale that Deng Xiaoping ushered in seems remote without institutional changes.

### Box 3: The Communist Political System

In theory, communist countries are ruled by the Communist party, which periodically holds a party congress that selects a central committee (akin to a board of directors). The central committee, in turn, chooses a chief executive called the general secretary and a cabinet called the politbureau. In theory, the general secretary and the politbureau derive legitimacy from and are accountable to the central committee and the party congress, although in practice the communist system tends toward dictatorships and personality cults as with Stalin, Mao, Castro, Pol Pot, Kim II Sung, and now Xi Jinping. North Korea held a party congress in 2016 for the first time since 1980.

## CHINA’S ROLE

For China, normalizing North Korea’s relations with the outside world raises the possibility of competing foreign commercial and political influence. No other country currently has a substantial commercial presence in North Korea besides China, which lends economic support through subsidies, trade, and by employing North Korean laborers. The Kim regime rents out workers, to other countries, mostly China and Russia, garnishing a large portion of their wages.<sup>18</sup> A common belief is that because North Korea owes its existence to Chinese intervention in the Korean War and could not survive economically without it (Box 2), China has a major say in North Korean affairs. However, there are countervailing considerations:

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<sup>16</sup> Gorbachev came to power after two previous successors to Brezhnev, Yuri Andropov and Konstantin Chernenko each died shortly after taking office.

<sup>17</sup> After World War II until the 1970s, economic development models recommended massive foreign aid, protecting and subsidizing “infant industries,” and even endorsing state-owned enterprises. In the 1970s, faith in import substitution and industrial policy as ways to achieve economic development began to wane. Privatization and exports fueled the East Asian economic “miracle” (see “Trade Policy and Economic Development: How We Learn,” by Anne O. Kruger, *The American Economic Review*, March 1997; 87, 1, esp. pp. 9, 10). Deng Xiaoping in the late 1970s started to liberalize the economy and Mikhail Gorbachev later set out to emulate China.

<sup>18</sup> “Prohibition of Forced or Compulsory Labor.” Section 7. Part B. *U.S. Department of State*.  
<https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/index.htm?year=2017&dldid=277089#wrapper>.

- North Korea's government is no puppet regime like those in Eastern European countries when Soviet troops occupied them, for example. No foreign troops are stationed in North Korea. The Soviet Union and China withdrew their troops from North Korea in 1948 and, after intervening in the Korean War, China again withdrew in 1958.
- For a country the size of Mississippi with a population of 25 million, North Korea has an enormous army—the fourth largest in the world. Its military averaged 1.2 million personnel between 2004 and 2014, which compares with 2.1 million in China, 1.4 million in the United States, and 1 million in Russia. South Korea's armed forces number 700,000 members.<sup>19</sup>
- While China views North Korea as a security buffer to Western-aligned South Korea and the 28,500 U.S. troops stationed there, media commentary about North Korea's missiles generally disregards the fact that China too is within their range.
- China has become openly concerned over radiation fallout from North Korea's nuclear tests and a possible flood of Korean refugees crossing its border in the event of war or North Korea's economic collapse.<sup>20</sup>
- North Korea's nuclear ambition induces surrounding countries to deploy defensive missile shields and take other steps that may counteract China's ability to project power as well.<sup>21</sup>
- Despite hundreds of thousands of deaths from starvation in the mid-1990s, the population did not revolt against the government, much less overthrow it. The Kim family exercises extraordinarily control over the population, evident in the history of human rights abuses including gulag political and labor camps, apparently suppressing any opposition.<sup>22</sup>

## CONCLUSION

North Korea may believe that it has achieved a nuclear threat capability from which it can parlay economic benefits, including relief from international sanctions, more foreign trade, and inward direct investment. The government has ceded room for private domestic market activity, prompted by the challenges it has faced to feed the population and Kim Jong-un's desire to foster economic development. The foreign educated Kim Jong-un also shows interest in wider availability of consumer goods. However, after working so long to achieve nuclear weapons capability, the leadership is not likely to abandon it,<sup>23</sup> even less so to the extent it can evade the sanctions that depend critically on China's commitment to them.

Moreover, free enterprise reforms on the scale initiated by Deng Xiaoping in China or of Mikhail Gorbachev's *perestroika* in Russia would create deep conflict with North Korea's *juche* doctrine that places the highest priority

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<sup>19</sup> <https://www.state.gov/t/avc/rls/rpt/wmeat/2016/index.htm>. Geographically, South Korea is about the size of Indiana, but has a population of 51 million people.

<sup>20</sup> Mutual historical resentments linger as well from China's long domination of the peninsula prior to Japan's occupation, and China's memory of its heavy losses during the Korean War. Mainland Chinese believe that their costly military intervention in Korea prevented the Communists from defeating the Nationalists in Taiwan.

<sup>21</sup> What is contested is that the South Korean THAAD capabilities could respond to missiles launched not just by North Korea but China as well and its surveillance capabilities extend into Chinese territory.

<sup>22</sup> See, "Human Rights in North Korea," *Human Rights Watch*, June, 2018.

<https://www.hrw.org/news/2018/06/05/human-rights-north-korea> and/or "Light through the Darkness." George W. Bush Institute. <https://www.bushcenter.org/reports/northkorea/> for first hand accounts of life in North Korean Gulap prison camps.

<sup>23</sup> "North Korea Is Rapidly Upgrading Nuclear Site Despite Summit Vow," *Wall Street Journal*, 6/27/2018;

<https://www.wsj.com/articles/north-korea-still-building-at-nuclear-research-facility-despite-summit-diplomacy-1530100351> and "North Korea Expands Key Missile-Manufacturing Plant," 7/1/2018,

<https://www.wsj.com/articles/north-korea-expands-key-missile-manufacturing-plant-1530486907>

on national self-reliance and military strength. The *juche* doctrine facilitates the rule of the Kim family and the elites it chooses to empower.

Nevertheless, foreign private investment could take place under controlled conditions in SEZs and other venues where the government can contain foreign influence.