Impacts of North Korea Risk on South Korean Financial Markets

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'North Korea risk' recently has affected South Korea's exchange rates, stock prices and CDS premium, but does not seem to pose a serious threat to financial stability for the moment. Still, a cool-headed approach to North Korea should be taken, given the severity and frequency of the North's provocations, signs of their prolonging negative impacts on the South Korean financial markets, and possible overreaction of foreign investors. We should be wary of excessive optimism, based on lessons learned from dealing with the North's provocations. Rather than having undue worries and anxieties about the current situation, we should make efforts to sustain investor confidence in South Korea's economy. Moreover, we need to convince the financial markets and investors that new opportunities could arise if the geopolitical risk is reduced substantially. This will help make the Korean economy more resilient in the face of geopolitical risks.

This year's missile launches and sixth nuclear test conducted by North Korea have led to ever-escalating geopolitical risks on the Korean Peninsula, prompting concerns about their negative impacts on South Korea's financial markets. This article explores the impacts recent North Korean provocations have had on the domestic financial markets, with the focus on the foreign exchange market, the stock market, and the credit default swap (CDS) premium. Also, it compares each market's reactions in the wake of six nuclear tests conducted by North Korea since 2006, with the aim of identifying any noteworthy effects of the North's sixth nuclear test

* All opinions expressed in this paper represent the author's personal views and thus should not be interpreted as Korea Capital Market Institute's official position.

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on the financial markets. Based on the resultant findings, this article provides a comprehensive analysis of ‘North Korea risk’ and derives its implications.

Recent key North Korea-related events and financial market reactions

North Korea’s provocative actions have become more frequent and severe lately. The North launched two ballistic missiles in May 2017 and tested intercontinental ballistic missiles on July 4 and 28 in the same year. In August, it announced a detailed plan to fire missiles toward the US Pacific territory of Guam, triggering tensions. In late August, it launched a missile over Japanese airspace. In September, North Korea carried out its sixth nuclear test and escalated a war of words with the US at the United Nations (UN) General Assembly.

Key NK-related Events

Date	Description
May 14	North Korea launched a Hwasong-12 intermediate-range ballistic missile (IRBM).
May 21	North Korea fired a Pukguksong-2 IRBM.
July 4	The North test-fired its first Hwasong-14 intercontinental ballistic missile (ICBM).
July 28	The North test-fired its second Hwasong-14 ICBM.
August 8	President Donald Trump warned North Korea about facing “fire and fury”.
August 9	North Korea considered a missile strike on Guam
August 29	The North Korean Hwasong-12 IRBM flew over Japan.
September 3	North Korea conducted its sixth nuclear test.
September 15	The North launched another Hwasong-12 IRBM over Japan.
September 20	President Trump gave his speech to the UN General Assembly (threatening total destruction of North Korea).
September 25	North Korea’s Foreign Minister Ri Yong Ho claimed its right to shoot down US bombers outside of North Korean airspace.

Such increased geopolitical risk adversely impacts the South Korean financial markets. The possible outbreak of war on the Korean Peninsula heightens anxiety among market participants, leading to rising investors’ risk aversion. Not only that, the higher geopolitical risk on the peninsula increases uncertainty in the financial markets. The intensified anxiety has asymmetric effects on financial asset prices, thereby increasing volatility in main financial prices.

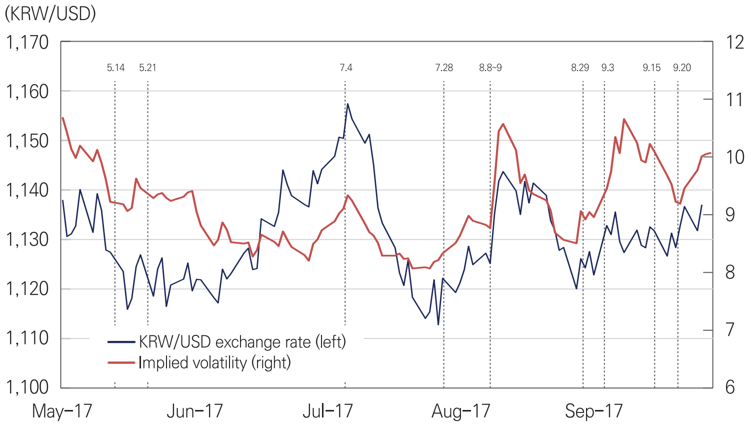
When looking at the won-dollar exchange rate movements since last May, the downward trend, which had continued through the early months of 2017, turned back up after the North’s missile launch in July. The exchange rate soared in early August owing to the North's intensified threat to launch missiles toward Guam. North Korea's nuclear test in early September and the heated exchange of rhetoric between the US and North Korea pushed up the exchange rate to 1,149 won per dollar as of September 28. The exchange rate's implied volatility increased accordingly, reflecting nervousness among market participants.[1)] This rate hike was due mainly to the mounting geopolitical risk related to North Korea, given the persistent current account surplus of South Korea and the causes of the exchange rate declines, such as the dollar's weakness during the year.

The stock market, which had been on the rise during the first half of 2017, turned downward between North Korea's missile test in late July and its threat to fire missiles toward Guam in early August. The market went down for three consecutive days in early September when the sixth nuclear test was conducted by the North. Then, stock prices seemed to stabilize, but fell again. After the continued fluctuations, stock prices trended upward in October. In the meantime, foreign investors have turned net sellers in the KOSPI market since July. Their net selling amounted to KRW 524.7 billion in July and KRW 1,875.1 billion in August. For the period September 1 through 28, massive net selling by foreign investors continued, reaching KRW 1,621.7 billion. This contrasts with their huge net buying of KRW 9,249.5 billion for the first six months of 2017. On top of that, foreign investors turned net sellers of Korean bonds with the net selling of about KRW 2,600 billion in September. These were closely related to the heightened North Korean risk.

In addition, South Korean CDS premium in offshore markets trended upward from early July 2017 onwards. The CDS premium skyrocketed in the wake of the early July missile launch, the announcement of the August plan for a missile strike on Guam, and the sixth nuclear weapons test. As a result, the CDS premium rose steeply from 52.7 basis points in late June to 75.4 basis points on September 28.

1) The exception was a decline in the won-dollar exchange rate by 10 won per dollar from the prior-day closing price on October 10, 2017 immediately after the traditional Korean holiday of Chuseok.

Won-dollar exchange rate and implied volatility



Source: Bloomberg

KOSPI index and foreign investors' net sales

Note: Foreigners' net selling above represents the amount of foreign investors' buying minus selling of KOSPI stocks.

Source: Bloomberg, KRX

South Korean CDS premium

Source: Bloomberg

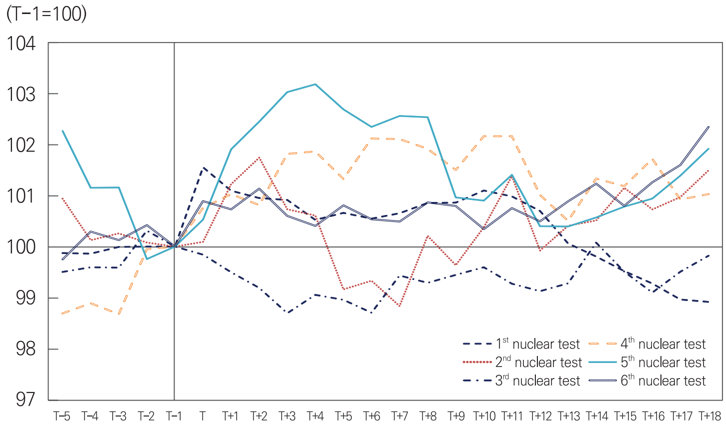
Comparing the financial market reactions to the North's previous nuclear tests

The following section discusses the results of comparing and analyzing how the South Korean financial markets responded to each of six nuclear tests carried out by North Korea since 2006. For the foreign exchange market, the won-dollar exchange rate was up by 1.5% on the day of the first nuclear test (October 9, 2006) conducted by the North. This one-day decline displayed the biggest shock to the market. But the exchange rate stabilized rapidly. On the other hand, the exchange rate rose about 2% and 3% in the wake of the fourth and fifth nuclear tests (January 6 and September 9, 2016), respectively, reflecting that the impacts of the tests on the market were greater and lasted longer for five to six days. The sixth nuclear weapons test resulted in a mere 1% increase in the exchange rate on the day of the test. Later, the effect of the North's nuclear test increased slowly as the shock gradually spread across the market.

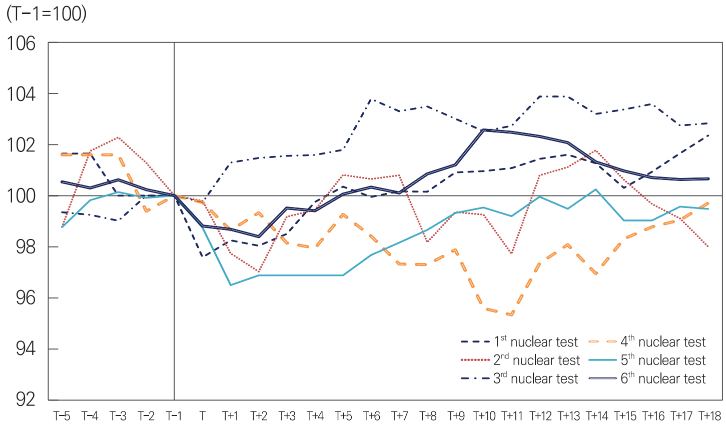
For the stock market, short-term declines in stock prices were relatively large in the aftermath of the first and fifth nuclear tests. The stock market stumbled for nearly ten days after the fourth nuclear test, leading to the largest-ever drop of approximately 5%. In the wake of the sixth nuclear test, stock prices dwindled by 1.6% for three days after the test and then stabilized. As in the foreign exchange market, the adverse impact on the stock market lingered for a considerable period of time, making the market take longer to recover and stabilize than it did in the past.

For South Korea's CDS premium, which most directly reflects the reaction of foreign investors in offshore financial markets, the sixth nuclear test appears to have a relatively significant impact on the CDS premium compared to the previous nuclear tests, except the second test. In other words, the CDS premium jumped to 65.6 basis points on the day of the sixth nuclear test from 60.5 basis points before the test, and rose again to 71.7 basis points three days later. Furthermore, the upturn in the CDS premium lasted for more than 18 business days after the nuclear test. The market reaction differed markedly from previous, suggesting that the offshore markets reacted sensitively to North Korea's latest nuclear test for a longer period than they did in the past because of prolonged geopolitical uncertainty over the Korean Peninsula.

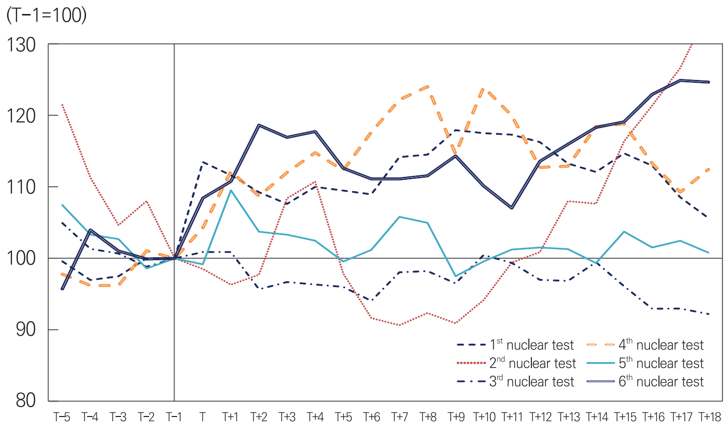
Won-dollar exchange rate



Stock index



CDS premium



Source: Bloomberg and the author's calculation

Assessing 'North Korea risk' and presenting its implications

To sum up the discussion so far, the impacts of 'North Korea risk' have still remained in or have spread to South Korea's exchange rates, stock prices and CDS premium, which poses potential risks to the financial markets. Up until now, however, South Korea's financial stability is not seriously threatened by the recently heightened geopolitical risk, given lessons learned from dealing with North Korea's previous provocations as well as shared understanding that the possibility of war actually breaking out on the Korean Peninsula remains low. The foreign exchange market has seen its implied volatility increasing with the weak won-dollar exchange rate. This exchange rate, however, is similar to the rate levels in the wake of previous nuclear tests. The stock market has rebounded in October 2017 despite the stock prices decline and the net selling by foreign investors. As yet, it is hard to say that the upward trend in stock prices is switched. In the offshore markets, the Korean CDS premium continued on the upward trend. So far, unusual behaviors by foreign investors are not yet observed.

Nonetheless, it should be noted that North Korea's latest provocative actions are unprecedented both in severity and frequency; there are signs of the prolonging negative impacts on the financial markets; foreigners are likely to react sensitively to geopolitical risks on the Korean Peninsula. With these in mind, we should take a cool-headed approach to tensions with North Korea. First, we should be wary of excessive optimism based on the lessons learned from North Korea, and intentional underestimation of geopolitical risks. Unlike in the past, there is lingering uncertainty that the North's provocation would not be a one-time event but last much longer, further exacerbating the situation. For now, the conditions surrounding the peninsula are less likely to evolve into a worst-case scenario. If this unfolds, there is no point in trying to analyze and predict the financial markets based on past experience. Hence, geopolitical developments should be closely monitored, and a conservative approach should be taken by market participants, until the risk is addressed significantly.

Second, we should not unduly worry about the current situation. We need to double our efforts to sustain investor confidence in the Korean economy. In the midst of the rising Korean CDS premium, herd behavior in the financial markets driven by irrational anxiety could prompt overreaction among foreign investors. What is important at this juncture is financial authorities' efforts to prevent irrational herding behavior. It is unwavering investor confidence and trust in the Korean economy that have underpinned the continued stability of the financial markets in spite of the North's persistent provocations. Given that, promoting the Korean economy or providing sufficient explanation of geopolitical risks on the peninsula would help maintain and improve such investor confidence. We should stay level-headed in the domestic financial markets while making proactive efforts in the offshore markets to sustain investor confidence in Korea.

Third, it is necessary to stress that the financial markets and investors could benefit from new opportunities arising when North Korea-related risks are reduced substantially. Due to continuous surplus in balance of payments, the strong Korean won weighs down the foreign exchange market. And the upward trend in the stock market is highly likely to continue if there is no geopolitical risk posed by North Korea. With these points, we need to pitch Korea as a still highly attractive investment destination. These expectations and projections would help contain the overreaction of foreign investors and make the Korean economy more resilient in the face of geopolitical risks.