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Socially Stable Path of Unification in the Korean Peninsula[1]

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Along with a heightened hope of a large payback from unification, there is also concern about the huge cost that might arise in the process of unification in the Korean peninsula. Benefits are expected to be large not only to Korea but also to all surrounding nations. Based on the studies conducted by researchers in the respective countries, benefits would range from an output increase of USD 300 billion in China to as low as USD 14 billion in Russia arising largely from trade.[2] These estimates do not include, however, the economic windfall from lifting the physical bottleneck of free flow of trade and people in Northeast Asia, i.e., the Northern 3 provinces of China, the Russian Far East, and Korea. The largest beneficiary understandably will be Korea;[3] some optimistic projection puts North Korea's GDP growth as high as 16% per annum during 2016-30 while others have more modest outlook. However, all agree that one of the main benefits will be the peace dividend in the Peninsula and the savings from substantial reduction in military confrontation.

Estimates on the cost of unification vary between US$50 billion to US$600 billion depending on the objectives set: usually the attainment of a certain level of GDP (or GDP per capita) in the North within a specified time period. These studies indicate that the amount rises with the pace of unification. Costs are associated with transfer payments to the North for social welfare (i.e., unemployment benefit and subsidies for medical expenses) and investment in infrastructure, housing and education.

[1] This paper was presented at the New Daily Media Group 10th Anniversary International Symposium, May 2015.

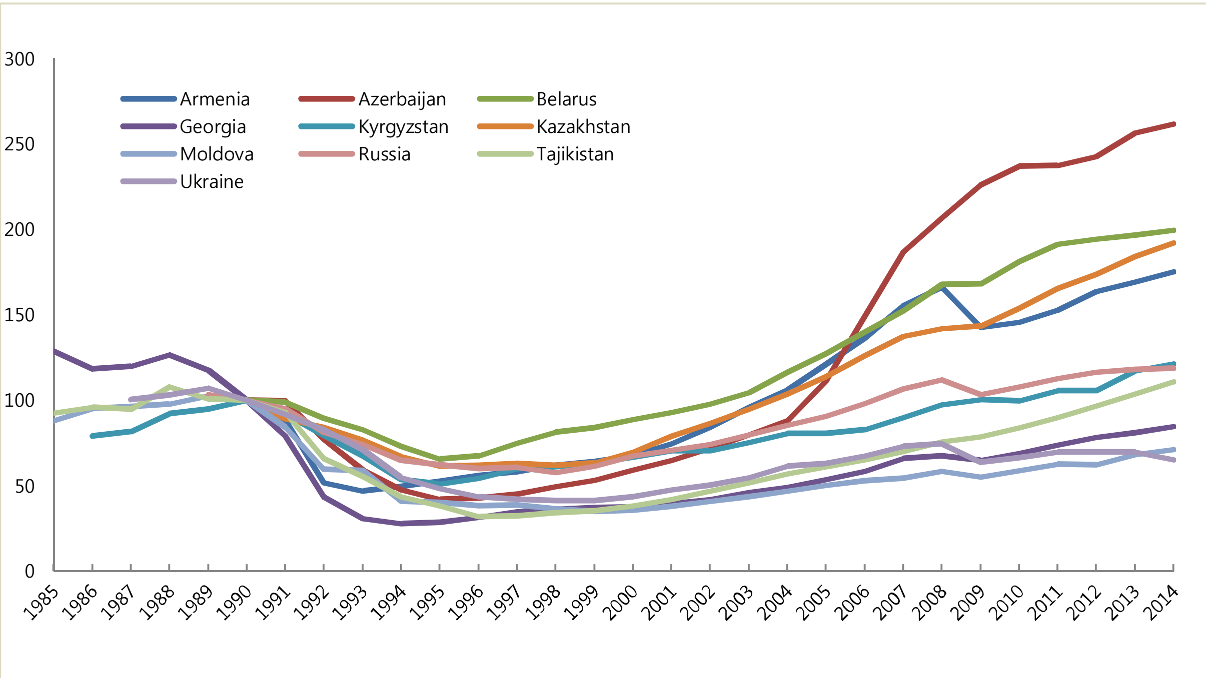
[2] Cost-Benefit Analysis of Unification and Economic Integration Strategies of the Koran Peninsula, Korea Institute for International Economic Policy, December 19, 2014 (ISBN 978-89-0108-5 93320).

[3] Conference on "The Economic Integration of the Korean Peninsula and Northeast Asian Economic Cooperation," Lotte Hotel, Seoul, November 4, 2015.

As the inclusion of social transfer payments in the various estimates indicate, maintaining social stability during and after unification has been a key concern to all researchers. There is also general acceptance that simply transferring subsidies to the North will not be able to address this problem. Two Koreas have been apart for 70 years under very different political regimes and economic systems. A shift from a totalitarian regime to a democratic system would require a complete different set of skills for people to survive and to ensure that their interests are reflected in the national decision making process. Making a living would in particular require acquiring entrepreneurship and knowledge of how to run a business in a market based system, as well as getting used to ownership and property rights. If these skills are absent, people from the North are likely to fall into the lower economic class echelon with many unemployed and losing whatever land they may have possessed before.

There is no evidence to argue one way or the other how long it would take for people to learn to live under a different political and economic system. However, transition experiences could provide some guidance. On average, the Former Soviet Union (FSU) countries have taken about 15-20 years to achieve the transition from a planned economy to a market based system (Figure 1). In FSU countries, the whole 1990s was spent on stabilizing the negative impact of the dismantlement of the planned system apparatus and most of the 2000s were spent in making the market economy work. In Asia, for example, the agricultural reform in China that signaled the beginning of the transition started in the early 1980s and the major restructuring of the public enterprises, the backbone of the economy, which could be interpreted as the major last step of the transition, was undertaken in the early 2000s.

Figure 1. Real GDP (1990=100)



Sources: CEIC and author's calculation.

The Basic Steps of Phased Integration

Taking the above considerations into account, a preferable approach would be to allow both Koreas to remain independent states for about 20 years after an agreement is reached on gradual integration. Such an agreement can take any shape and form as long as there is a guaranteed commitment to denuclearize the Peninsula and the unified Korea's constitution will be based on upholding human rights, democracy, and a market based economic system that respects property rights. The key objective of the 20 year period is to provide an opportunity for the people in the North to adjust and to learn the skills to operate in a new system, i.e., to ensure they will not be marginalized.

The government in the North is expected to undertake ambitious economic reform and liberalization similar to that of China and Vietnam a few decades ago. During this period, investment from the South can take place but with no preferential treatment relative to investment from any other country. But rather, the North should aim to attract foreign investment and external assistance on its own account, including from international financial institutions. Labor mobility should be limited. During this period, the North will also have a chance to develop its own comparative advantages in trade and business. As for the South, it will be business as usual except for greater opportunity to expand trade and investment with the North and making the necessary preparations for an eventual integration.

After the initial 20 years of independent development, another 20 years should be allocated for gradual integration centered on labor mobility. The two Koreas should remain independent states but agree on a timetable to merge the two political and economic systems into one. Preparations should begin on crafting a unified legal framework for the Korean Peninsula. One key aspect would be land reform in the North: it should not allow outright sales of any land at least for the first 50 years after full integration, but only leases for business purposes to protect the wealth of the people in the North.

Baseline Scenario for the 1st Phase of Integration

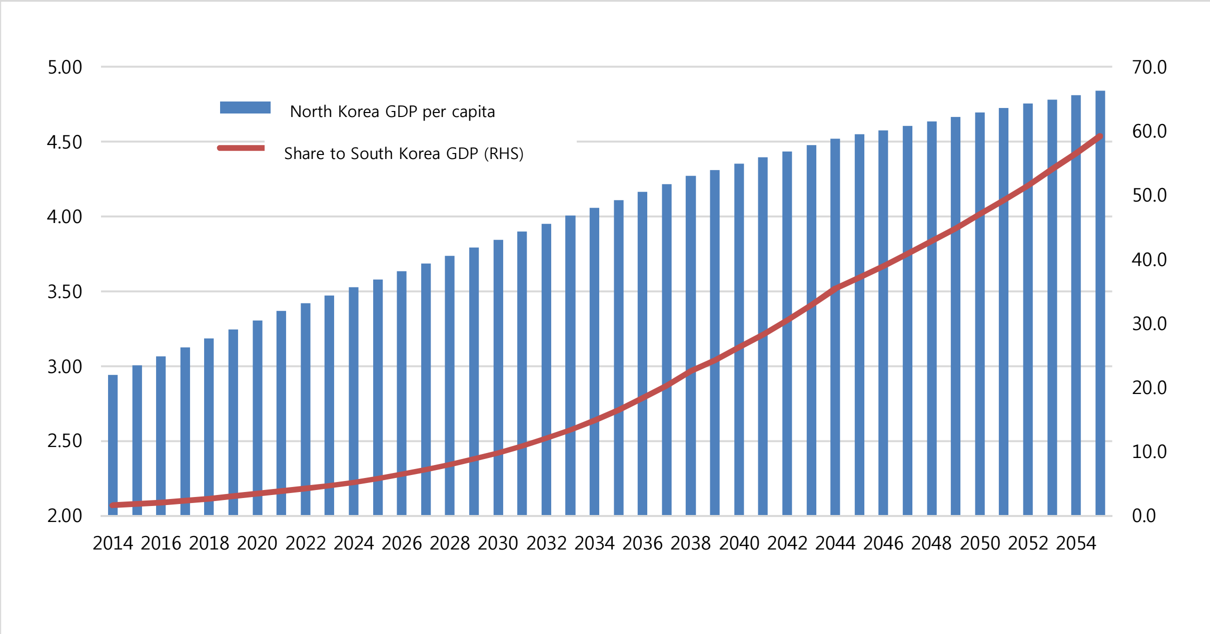
Basic assumptions underlying the simulation for a baseline scenario in the North are obtained from a variety of sources:[4] GDP per capita is assumed to be US$850 with population about 25 million. This means that in the base year 2014, North Korea's GDP is about 1.6% of that of the South. For the next 20 years, North Korean economy is expected to grow at a similar pace as South Korea during 1960-80s. This requires large gains from Total Factor Productivity (TFP) and accumulation of capital stock. The size of the labor in the North is likely to grow only modestly. In the South, the size of labor force will start declining from 2016 onwards for the next few decades by 1.2 percent per year. For illustrative purpose, it is assumed that GDP growth will stabilize at 3 percent, which will require a very strong factor productivity increase. Even with added gains from trade with the North and an accessible Northeast Asia, a new economic front, South Korean economy's growth at that level will likely be upward biased, as it requires TFP growth of about 4.5% per annum throughout

[4] North Korea's GDP per capita from Hyundai Economic Research Institute; the size of North Korea Labor force from Trading Economics and North Korea's population projection from the UN medium growth scenario for the non-specified part of the World, Fiscal outlays and Social Security Fund in South Korea from CEIC, and South Korea's Balance of payments from CEIC.

this period. A reduction in the growth rate will reduce the scale but not change the substance of the argument presented in this paper.

Even this highly simplified illustrative framework provides useful insight. The North's GDP will reach 17 percent of that of the South by 2035 (Figure 2). Its GDP per capita will be close to US$13,000. These results are within the boundaries of reasonable expectations not only when compared with the growth of South Korea during the 1970s and 1980s but also with China's growth in the East coastal area during the 2000s and 2010s.

Figure 2. North Korea GDP per capita (log) and GDP to South Korea



Sources: See footnote 3; and author's calculation.

North Korea's economic growth in the next 20 years, i.e., 2036-2055, is expected to slow moderately to about 7 percent, with TFP growth falling gradually to that of the South. Investment will remain at around 30% of GDP, a decline from an average of 35% in the previous 20 years. These levels are not out of line with international experiences.[5] Under a "no labor mobility" scenario, GDP in the North will reach just under 60% of that of the South. This gap is similar to the gap between the richest and the poorest provinces in Korea today, indicating a full merge at that time would not induce a shock to threaten social stability.

A more serious challenge for South Korea will arise in its fiscal position and social security fund (SSF) due to its population dynamics. Assuming constant buoyancy on key components of the fiscal revenue side, and constant to GDP spending for all items except for those related to the size of the population, i.e., social security contribution, and subsidies and transfers and interest payments that is endogenized by the size of the public debt, fiscal balance will start to deteriorate sharply from 2021 onwards, and reach -3 percent of GDP by 2035.

[5] See Choi Jiyoung: presentation at the conference on "Asia and G20 Going Forward", EABER, Crawford School ANU and Ministry of Finance, Japan Roundtable, Tokyo, 3 March 2014.

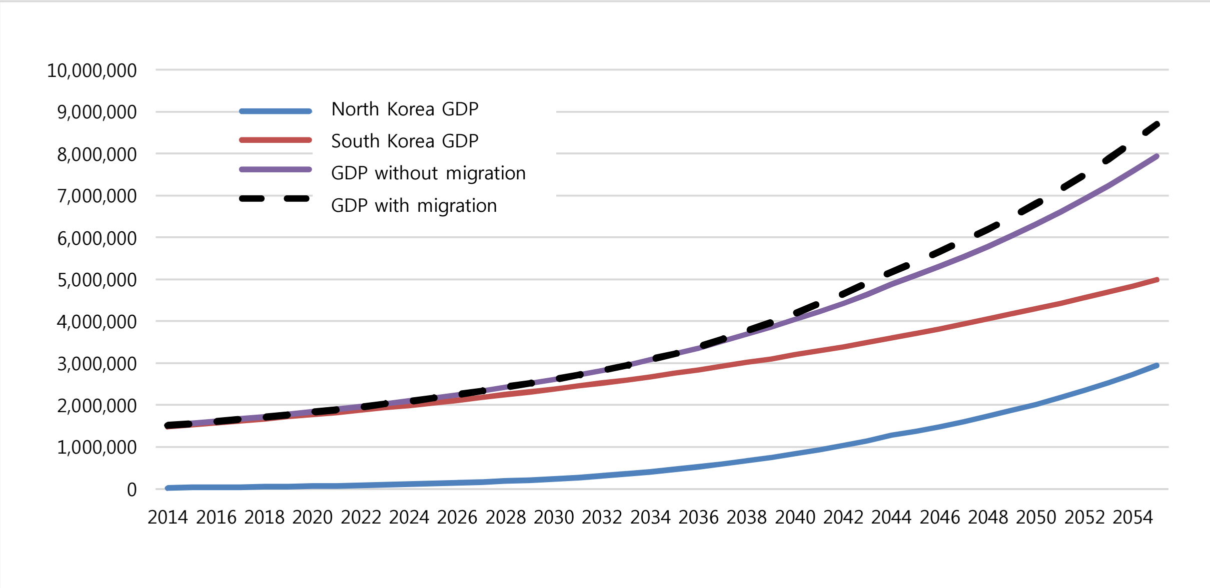
In this highly simplified illustrative scenario, fiscal balance will exceed -8 percent of GDP by 2055, making the situation unsustainable. A similar path will emerge for the SSF: it will be depleted by 2032 and reach an unfunded gap of 4 percent of GDP every year.

Allowing Labor Mobility During the 2nd Phase of Integration

This scenario considers one of many possible ways of collaboration between the two Koreas during the 2nd phase of integration, i.e., allowing labor mobility. As a benchmark, it is assumed that the amount of labor from the North moving to the South is identical to the amount of labor decline in the latter. Under this scenario, maintaining the same TFP assumption in the South is plausible because the total size of labor remains constant. The benefits from this mobility are many.

First, it raises the combined GDP of the two Koreas by transferring a portion of labor from a lower to a higher income level society. At constant price, the average gain from one migrant worker from the North to the South is more than twice the loss of output in the North. Even if only a half of the income earned by a migrant worker is sent back to dependent families living in the North, the loss is more than compensated. The combined GDP will start to widen (Figure 3) and will be 15% higher than under no migration scenario by 2055.

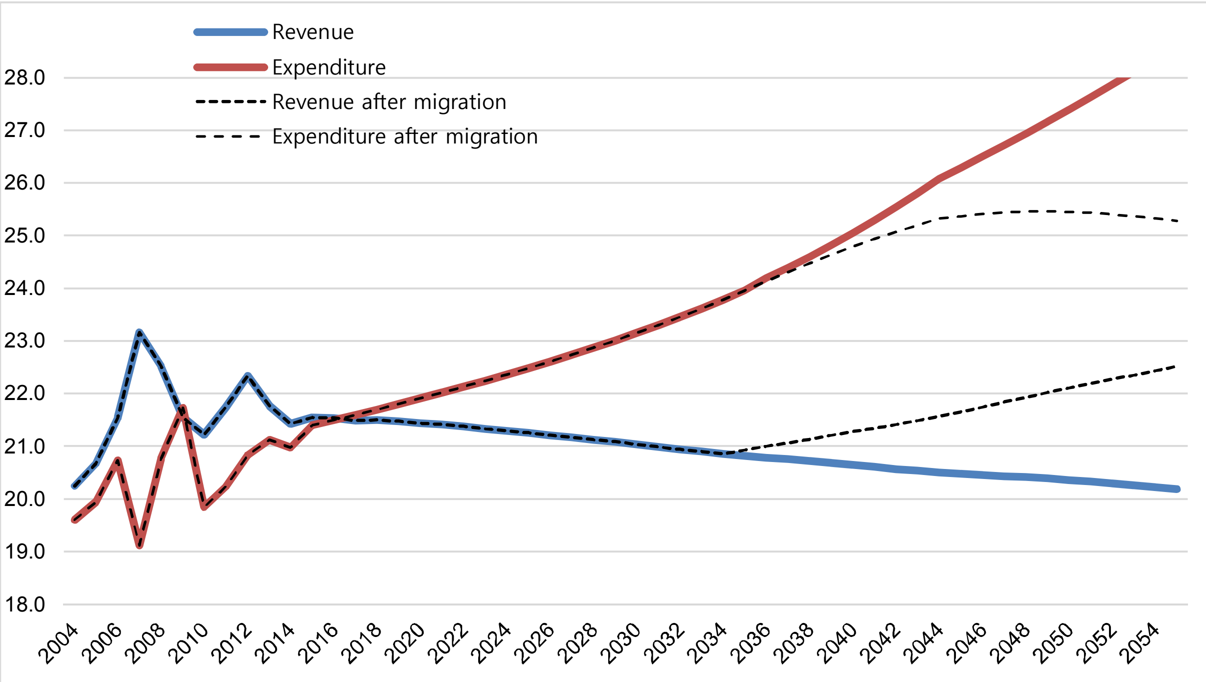
Figure 3: Korea GDP in 2015 price In Won bn



Sources: See footnote 3; and author's calculation.

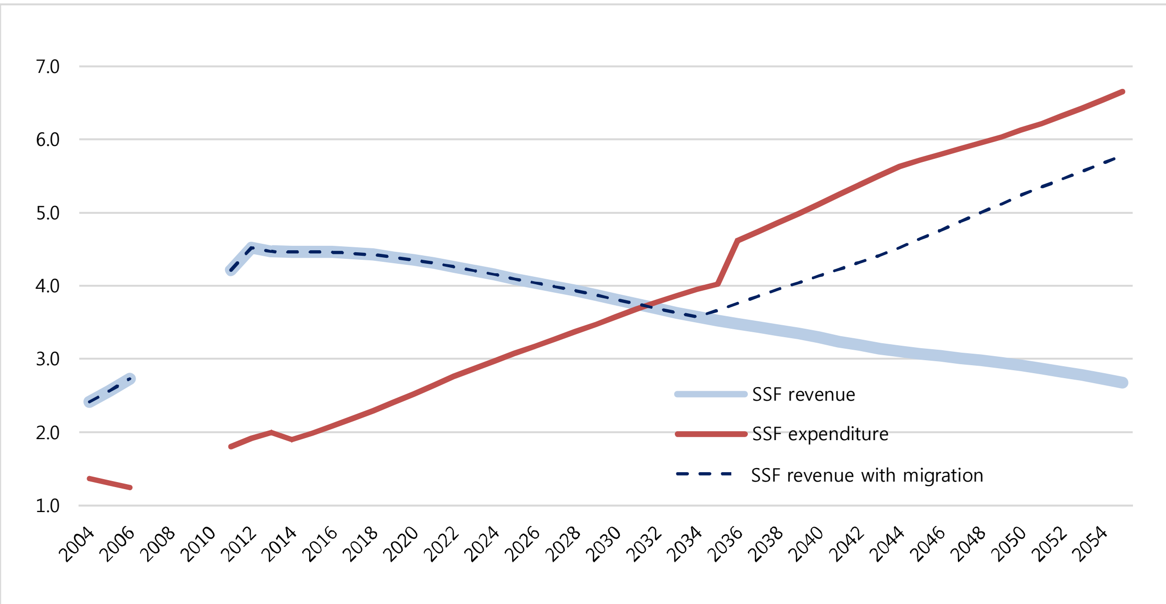
Second, the extra income generated in the South can help stabilize the widening fiscal deficit and the SSF. Due to the projected increase in the number of dependent families per worker in the South, subsidies and transfer payments and interest on public debt are projected to increase at an increasing rate, much faster than the decline in revenue from falling number of people paying taxes. Once migration begins, it will stabilize revenue and also spending through lower interest payments (Figure 4). Same argument also applies to SSF (Figure 5). The different paths in these figures show only the direct impact from the migration to the South.

Figure 4. South Korea: Government Account In percent of GDP



Sources: CEIC and author's calculation.

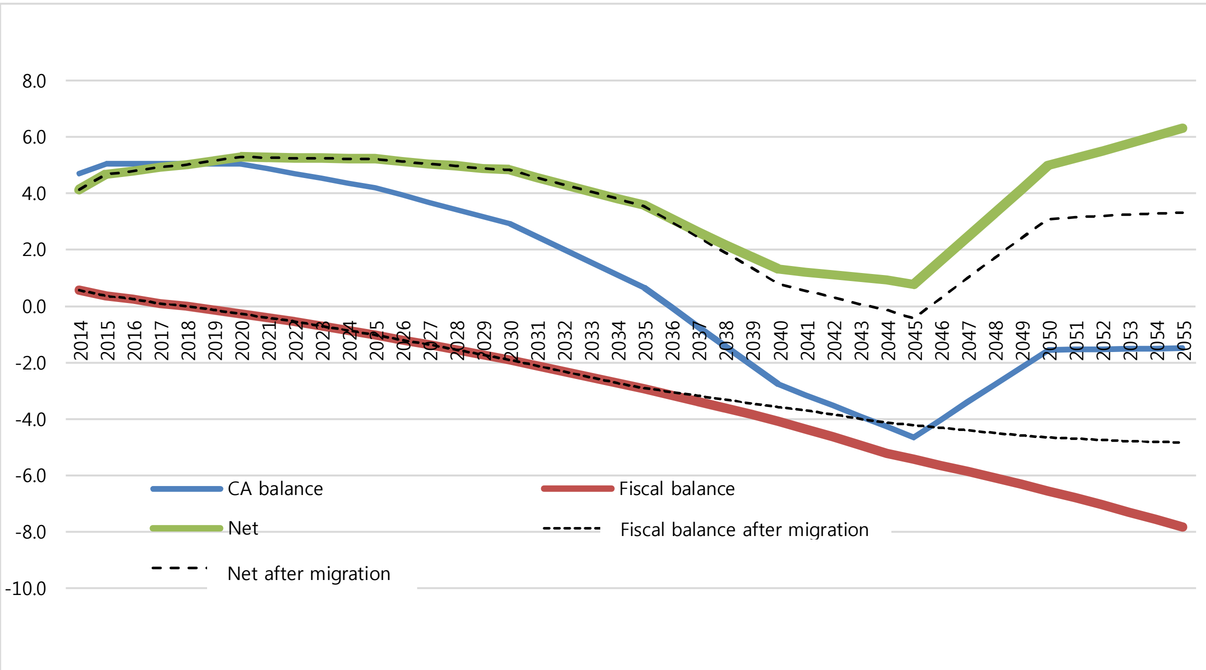
Figure 5. South Korea: SSF Balance In percent of GDP



Sources: CEIC and author's calculation.

Third, the extra net savings (savings minus investment) generated in the South can be transferred to the North as additional investment, which in turn will raise income further. The current account balance before migration is obtained by assuming that South Korea, along with all other countries in the world, optimize their consumption over a long horizon. This means that during low dependency ratio period, countries will save and invest abroad (i.e., S-I) and draw down this saving during high dependency ratio period.[6] Given that the fiscal balance will turn negative starting in the late 2020s, the non-government sector has to save even more in order to attain the desired level of net saving (Figure 6). To the extent that fiscal balance will turn sharply negative, even during the drawdown of net savings from abroad, i.e., starting from around 2036, the non-government sector has to remain a net saver to support the widening fiscal deficit. After migration, reduction in the fiscal deficit will provide relief to the non-government sector, but only to a certain degree. More importantly, however, it will help stabilize the situation which otherwise would become unsustainable as the non-government sector has to generate a net savings of more than 6 percent of GDP in 2050 on a net basis.

Figure 6. South Korea: CA and Fiscal Balance In percent of GDP



Sources: CEIC and author's calculation.

6 See Lee I.H., Xu Q. and M. Syed, "China's Demography and its Implications" IMF Working Paper (WP/13/82) March 2013; the actual data in figure 6 calculated using the same methodology but with expanded sample covering all countries by the author.

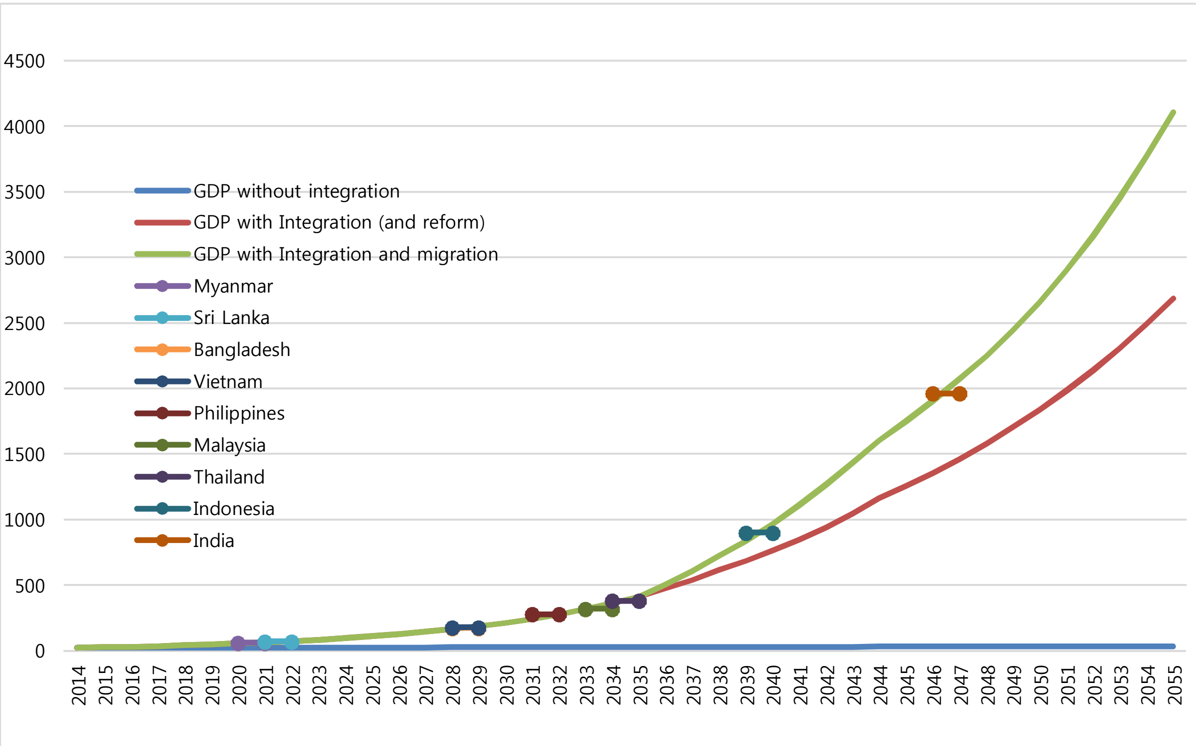
Benefits to North Korea

North Korea's GDP growth averaged about 1.2 percent during 2011-14 (or 1.9% during 2000-14). If North Korea would remain a closed economy without reform, its economic growth will likely trod along at the same 1-2% growth over the next few decades and remain at the bottom of Asian economies in term of GDP size. If it were to open up and implement strong reforms within an agreed integration framework with the South as suggested above, it has the potential to surpass many other Asian economies. It could surpass most ASEAN economies by 2035 and Indonesia by 2040 (Figure 7). It could even reach the size of the Indian economy by 2050.[7]

After full integration in 2055, the unified Korea could reach GDP of US$8.7 trillion (2014 price), about 1.7 times of what South Korea would have been in the absence of integration. It would benefit not only the Peninsula, but also all surrounding economies. Nor would it cost the South any more than the risk of investing in a rapidly growing economy. Moreover, there is no risk of North Korea succumbing to the South.

Figure 7. North Korea: Reform Scenarios

In USD bn 2014 prices Other countries' GDP avg 2013-14



Source: World Economic Outlook, IMF.

[7] Comparison based on all countries' GDP at 2013-14; North Korean GDP for 2013-14 based on USD880 per capita, multiplied by a population of 25.9 million.

Conclusion

The above illustration shows that if unification of the two Koreas were to take sufficient long time such as 40 years, it will likely achieve a smooth transition without unduly disrupting social stability. Although the framework is simple, it uses realistic assumptions and the essential messages are relatively robust. Such a phased integration will ensure people in the North will have a chance to learn the skills needed to do business in a market economy. Furthermore, there will be no unification costs involved since rebuilding the North during the first 20 years will be a combined effort by the international community who in return will benefit from their investment, including the South. Other studies show that the spillover to the rest of the world, especially in Northeast Asia, will be large in addition to the huge savings from reduced military tension. Most of all, it will bring to an end a useless bottleneck to peace and stability that was set up by unfortunate sequence of events of the past. KIEP