

Study Series 16-03

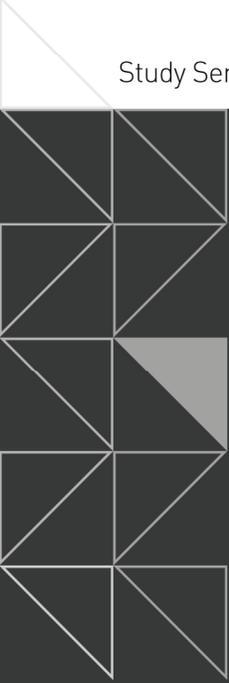


# The Costs and Benefits of Unification on the Korean Peninsula: in the Political, Social, and Economic Areas

Cho, Han-Bum  
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**Telephone** (82-2) 2023-8038

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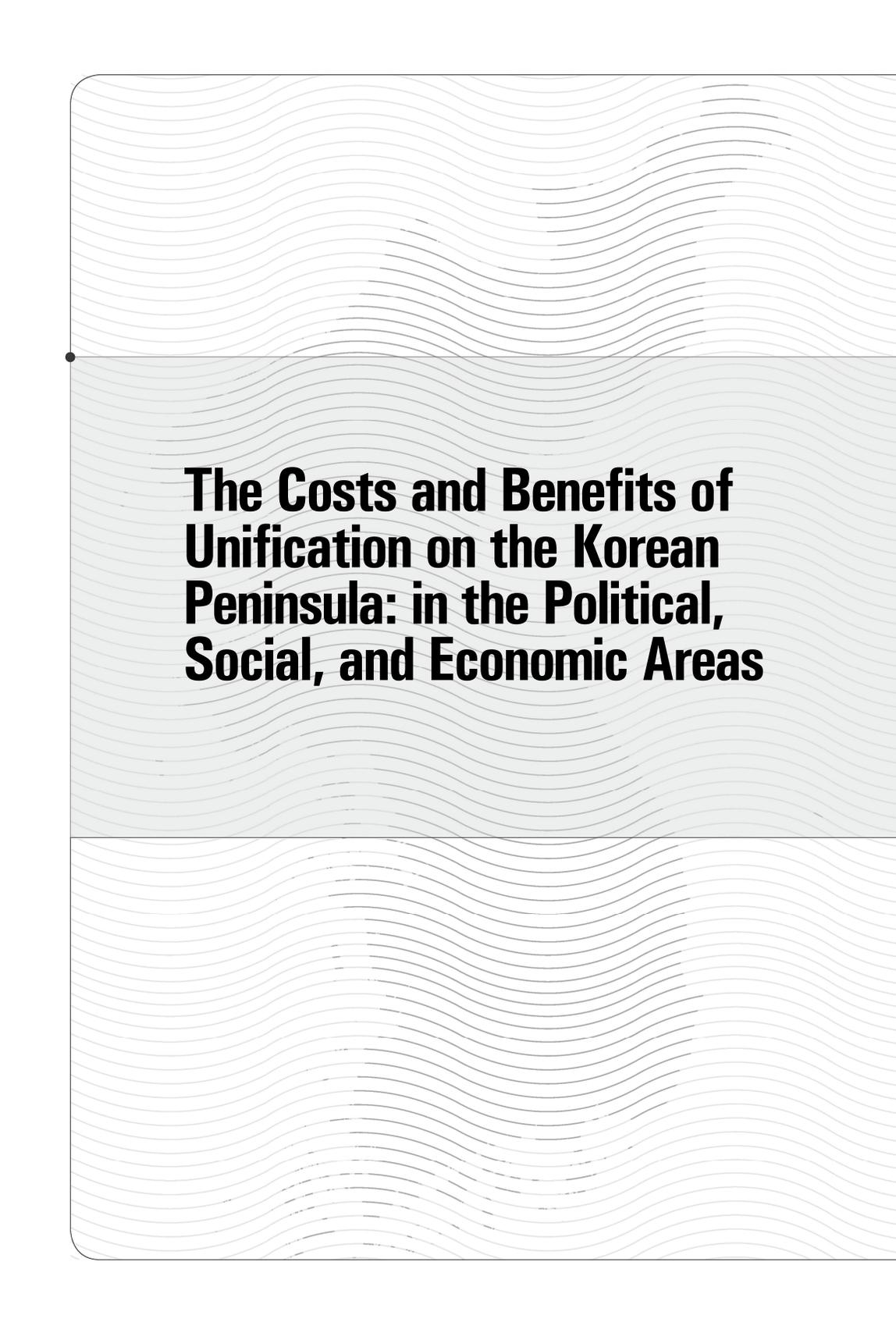
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# **The Costs and Benefits of Unification on the Korean Peninsula: in the Political, Social, and Economic Areas**

This is a translated version of the Korean report published in January 2015. The analyses, comments and other opinions contained in this paper are those of the authors' and do not necessarily represent the views of the Korea Institute for National Unification.

The background of the page features a pattern of thin, wavy, horizontal lines in a light grey color. A solid, medium-grey horizontal band runs across the middle of the page, serving as a backdrop for the title text. The top-left corner of the page is rounded, and a small black dot is positioned on the left edge of the central grey band.

**The Costs and Benefits of  
Unification on the Korean  
Peninsula: in the Political,  
Social, and Economic Areas**

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# Introduction

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# 1. Introduction

At the New Year's press conference in January 2014, President Park Geun-hye coined the term "unification bonanza" and launched the Presidential Committee for Unification Preparation (PCUP) as a follow-up measure to Dresden Initiative. The notion of unification bonanza and a series of steps taken afterward have significant implications since those measures are not just about partial policy adjustments but are a reflection of the paradigm shift from policy toward North Korea to unification. The previous governments' policy on North Korea and unification attempted to modify inter-Korean relations with the reflection of the circumstantial changes, namely the deconstruction of the Cold War regime, and eventually, is evaluated to have made progress in inter-Korean relations in various aspects.

Based on the directionality of inter-Korean reconciliation and cooperation, the Kim Dae-jung administration's engagement policy toward North Korea sought feasible means to improve inter-Korean relations. Such attempts could be assessed as having made the turning point to transform inter-Korean relations dominated by the Cold

War-type paradigm.<sup>1)</sup> The Roh Moo-hyun administration's peace and prosperity policy, also grounded on engagement policy, has the identical directionality with the previous administration's policy at its core. Its policy on North Korea had the realistic goal of building a foundation for peaceful unification and focused on preparing the means to realize such goal.<sup>2)</sup> The direction taken by the Lee Myung-bak administration differed from that of 'the Participatory Government' as the power shifted to the conservative side. Resolving the issues raised in the North Korea policy implementation process of the past was set as the major policy objective since the directionality of the policy toward the North of the Lee administration was somewhat different from that of the previous governments. Especially, the Lee administration set inducing North Korea to change its attitude as the major policy direction toward North Korea based on ROK-U.S. alliance. Accordingly, the inauguration of the Lee administration signaled a switch of the policy direction to some degree based on the critical assessment of the policy on North Korea for 10 years since the Kim Dae-jung administration.<sup>3)</sup> However, despite the shift of the Cold War paradigm, the undismantled Cold War framework and the culture defined by the notion of the Cold War on the Korean Peninsula

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1) Han-bum Cho, "From Divided Society to Unified Society: Focusing on the Change in Unification Policy" (in Korean), in *Social Change in the Sixty Years of Republic of Korea: Reflections, Achievements, and Tasks*, Korean Sociological Association ed. (Seoul: Ingansarang, 2009), p. 511.

2) Ibid., p. 515.

3) Ibid., pp. 518~519.

resulted in an increasing fatigue over the North Korean issue and became a barrier to improving inter-Korean relations.

From the Kim Dae-jung administration to the Lee Myung-bak administration, Seoul's policy principles on North Korea and unification had its roots grounded on the paradigm of the policy toward North Korea. That is attributable to the fact that the stable management and improvement of inter-Korean relations and preparations for building the foundations of unification were set as the main policy objective rather than the achievement of unification. Unification was set as a long-term goal, which had led to act as constraints in formulating an active discourse on unification to some degree. The incumbent Park Geun-hye administration distinguishes itself from the previous ones by setting the unification as the direct objective, which is confirmed by its suggestion of "unification bonanza" and the launch of PCUP.

As the policy orientation has shifted to unification paradigm, the establishment of a practical foundation for unification has been set as the main goal of the Trust-building Process on the Korean Peninsula along with the improvement of inter-Korean relations and settlement of peace on the Korean Peninsula.<sup>4)</sup> Under the Park administration, unification has been set as the policy goal moving beyond a mere slogan. And the need for actual preparations for unification has

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4) Ministry of Unification, "Trust-building Process on the Korean Peninsula," 2013. 8, p. 10.

become the administration's major policy task. Hence, there have been improved interests in unification among the public. And various venues for discussions have been created to forge unification discourse under Park's presidency.

In spite of the shift to the unification policy paradigm, it is difficult to state that the perceptions on unification have been radically upgraded within the South Korean society. The development of the South Korean society, its incorporation into the capitalist system, and the advancement of globalization have resulted in the weakening of the nationalistic particularity, including unification and North Korea issues and the advent of stronger behavioral norms of universality. The weakening unification discourse is hardly a temporary phenomenon, which is attributable to the structural change in the environment. What gets in the way of improving the perception toward the North is this structural background that has a negative influence on forming the positive unification discourse along with the South-South conflicts and the fixated framework of the unification issues as a politicized debate.<sup>5)</sup>

Above all, the concern over the uncertainty of unification in the future becomes a barrier in raising awareness of unification. The South Korean society has already witnessed the limits of the compressive growth model and faces various issues, such as weakening growth engine, increasing youth unemployment, and vulnerable welfare

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5) Han-bum Cho, "Seeking Reflective View of Unification" (in Korean), *Future of Korean Sociology: Diagnosis of Crisis in Sociology and Future Prospects* (Seoul: Nanam, 2015), p. 285.

system as it has entered an aging society with the low economic growth. Such circumstances act as a breeding ground for expanding the concern over the uncertainty of future unification. Especially, the issue of unification costs, as observed in German unification, is also seen as a negative factor that acts as a hinderance to raising the awareness on Korean unification.

Therefore, presenting the optimistic vision on the future unification and promoting a clear understanding of the unification costs and benefits are necessary in increasing the awareness of unification. The division on the Korean Peninsula is problematic in a sense that it incurs the astronomical costs coupled with imposing various opportunity costs. The division on the Korean Peninsula has negatively affected the South Korea's development in a sense that it has fundamentally hindered the transportation and logistics system of export-dependent Korean economy. The division has made both Koreas to annually spend the astronomical costs out of their budget on defense and 2 million North Korean youth are bound to compulsorily serve in the military from two to ten years. On the other hand, unified Korea will give a birth to a vast single market of 75 million people and the Korean Peninsula could function as a hub in the global transportation and logistics system that links the integrating Eurasian economic bloc and the Pacific. Unification not only can bring us the economic benefits but also give us the opportunity for new changes in politics and society. The current divided state has served as a

hindrance in the political and social realms in the South Korean society. Acute military confrontations on the Korean Peninsula, including the North's nuclear threat have made people of both Koreas carry the fear for war with them all the time and served as a main reason for the so-called Korean discount – the notion that international investors undervalue the Korean stocks to some extent due to the existing possibility of war. In particular, the structure of incurring a high cost in the Korean society has been formulated due to the structure of the severe social conflict in the South, including a South-South discord, the confrontational political culture, and ideological rigidity. To this end, it is worthy to note that the subdual of division system eventuates in the completion of one Korean state, together with a myriad of economic, political, and social benefits.

The comprehensive research on unification costs and benefits emphasizes that having a clear and objective recognition on unification is the starting point for unification preparation. This paper describes the research findings from the final year of the comprehensive research on unification costs and benefits that began in 2011. The research was initiated with the aim to: 1) objectively and accurately analyze the efforts and benefits for realizing the unification - the national task - 2) and to make the actual preparations for it. The study has been continuously carried out as a five-year project to overcome the limitation of the past that the numerous studies on unification costs and benefits has lacked systemic and comprehensive elements without

promoting any continuity or integration with other researches.

For the systematic analysis, the study categorizes the unification costs and benefits by each area, applies a category to each stage of unification, analyzes the areas, in which the unification costs and benefits will be created, and divides them into domestic and international realms. The study attempts to systematically classify the unification cost as a unification task and the unification benefit as a unification effect by categorizing the areas, subject to unification costs and benefits, into three parts - politics, society, and economy. This research seeks to overcome the limits of existing fragmented studies on unification costs and benefits through a temporal and spatial approach to unification costs and benefits depending on the three stages of unification - stage of resolving the division, stage of integrating the system, and the completion stage of building the nation. To this end, the research aims at taking a multidimensional approach through a multidisciplinary research spanning across the various academic fields, such as politics, sociology, and economics. Moreover, the study seeks to broaden the horizons of research through domestic and international collaborative researches on the topic. In particular, the meaningful results have come out to help widen the scope of understanding of each country on Korean unification costs and benefits by building a research cooperation system not just with the four neighboring states but also with G20 states.

As the final stage of the comprehensive research on unification

costs and benefits that began in 2011, the study in 2015 aims to derive an objective outcome on unification costs and benefits by analyzing and summarizing the studies conducted at home and abroad up until now. The significance of the study lies in its approach to a comprehensive and systematic research on Korean unification costs and benefits through consultations and intensive debates with relevant scholars and experts centering around the joint research group of political, sociological, and economic experts.

The political area, composed of four sectors - political, administrative, security, and diplomatic sectors - mainly examines the conceptual components of unification costs and benefits. Then, unification costs and benefits in the political sector are categorized into different elements, such as the settlement of democratic institutions and culture, the market economy for economic prosperity and distribution, pacifism, and internationalism based on human rights and human security, etc. The administrative sector is divided into government effectiveness, the quality of regulations, the rule of law, and control of corruption, etc. And the integration indexes of the administrative integration are categorized based on those sections. The unification costs and benefits indexes have been evaluated in the security sector after having been divided based on agenda and areas and categorized into traditional internal security, traditional external security, non-traditional internal security, and non-traditional external security. The diplomatic sector analyzes the indexes of unification

costs and benefits in the context of the reputation for national development that comes with achieving democracy and universal values, influence in international organizations, and the capacity to diplomatically mobilize the power.

The costs and benefits in the social area that can stem from the unification process are divided into the four sectors (civil society, education, health-welfare, and culture-sports-tourism). Exemplary indexes are chosen for each sector to discuss the possible costs and benefits based on the existing studies. And quantitative estimates are roughly calculated. The timing and the volume of unification costs and benefits in the social area are analyzed. And the areas falling into the category are reviewed. Furthermore, the study reflects a demographic point of view into evaluating the effects of unification and the need for investment in improving the quality of life in the North Korean population. This research also evaluates the methodological difference between deducing costs and benefits in the social area, the discrepancy in timing between costs and benefits, and the necessity for investment prior to unification given the characteristics of the social area.

Regarding the economic area, an analysis is made using a macroeconomic model on the unification costs and benefits that will be created in each stage of unification as presented in the path of leading-type unification. The model used in the analysis is the expanded Dynamic Stochastic General Equilibrium, which is widely used in the study of macroeconomics. The analytic model consists of

the two regions - South Korea and North Korea - and each region includes the households, corporations, and the government. Reflecting the realistic assumption, the model tracks the changes in the South and North Korean economy before and after the unification. Taking into account the fact that the macroeconomics in post-unified South and North Korea will take different shapes depending on the types of aid programs to North Korea, the study tracks the changes of the total output in the two regions after unification with the consideration for various aid programs and calculates the net profits of unification based on these changes.

The comprehensive study on unification costs and benefits is characterized by comprehensiveness in its approach as it looks into the costs and benefits associated with the unification by sector, stage of unification and the region - local and international. Therefore, this study is expected to contribute to preparing for unification and forming an objective perception on unification. The diverse analytical tools used in this study and research findings are expected to find its use in the future research. Also, this research is expected to contribute to forming and expanding the shared awareness at home and abroad by presenting the objective analysis on unification costs and benefits on the Korean Peninsula. Nonetheless, unification is more than the subject of the short-term study given the fact that achieving unification requires a complex process encompassing a whole range of tangible and intangible resources and will exert the influence in the Korean

society as a whole. Korean unification could unfold in various ways depending on the situation and scenario and the costs and benefits especially will be changed depending on the types of unification. Hence, follow-up researches should be conducted based on this study's findings to analyze the changes in the costs and benefits of unification depending on different unification scenarios and to develop the model for calculating the optimal unification costs and benefits. The continuous study on unification costs and benefits at the international level should be followed given the fact that the Korean unification requires support and cooperation from the international community and that the unification process itself will bring about a fundamental change in the international order in Northeast Asia.



**2**

**Area of Politics**

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## 2. Area of Politics

How could one empirically evaluate the costs and benefits incurred in the process of unification in the area of politics? This question garnered a lot of attention as it will provide the vital standards in reviewing the viability of unification policy. And existing studies on potential unification costs and benefits have carried out to evaluate the effectuality of unification by calculating the value of unification in currency values. However, costs and benefits in politics usually embody an intangible form unlike the area of economics, which makes it difficult to translate them into currency values. Despite the “cost” and “benefit” included in the components of currency value concept, the unification costs and benefits in politics should be explained in terms of the nominal indicator or index rather than currency value due to the complexness in quantification. In other words, the countless agendas that South Korea alone or both Koreas will jointly face in the political integration process, which is inevitably accompanied by the unification process, may either impose costs for both Koreas or raise socially expected benefits by appropriately tackling such agendas.

The comprehensive study on unification costs and benefits

commenced in order to; 1) overcome the limits of existing studies that only focused on unification costs for the last four years and that calculated the effects of unification relying on costs; 2) and to develop a long-term research model to expand the scope of research and strengthen the analytical capability of methods. To build the foundation for the comprehensive study of unification costs and benefits in politics, the study first identifies the indexes for political costs and benefits by analyzing the case studies on effects of German and European integration<sup>6)</sup> and the costs and benefits created by the regime transition. However, the development of indicators and indexes requires the assumption on the unification process and post-unification political system.<sup>7)</sup> Therefore, the study has put forth the leading-type unification as the basic model, in which unification is swiftly and smoothly achieved by South Korea taking the lead and strengthening North Korea's societal capabilities, considering the asymmetrical development gap in the political, economic, and social sector between South and North Korea.<sup>8)</sup> Other study was performed to develop the indicator and model of unification costs and benefits based on the leading-type unification. A comprehensive study was followed to

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6) See Kyuryoon Kim et al., *New Approach to the Costs/Benefits of Korean Unification: Adopting Comprehensive Research Factors and Seeking Alternatives* (in Korean) (Seoul: KINU, 2011).

7) See Han-bum Cho et al., *Case Study on System Transition Costs/Benefits* (in Korean) (Seoul: KINU, 2011).

8) See Kyuryoon Kim et al., *Leading-Type of Unification: The Route and Tasks* (in Korean) (Seoul: KINU, 2012).

translate the experimentally-formulated indicators into indexes.<sup>9)</sup>

As the fifth-year overview on unification costs and benefits in politics, this study postulates the leading-type unification model - the basis of the preceding research. On top of it, the study aims to organize the findings of previous studies and supplement the components of unification costs and benefits in the political area that the existing studies overlooked. According to the leading-type unification, political integration between the South and the North is divided into the following three stages: 1) stage of resolving the division that requires proclamation of unification and negotiations for unification to establish the principles for forming the government; 2) stage of integrating the system, in which both Koreas actually establish and operate the government through procedures, such as elections; 3) and the completion stage of building the nation, in which the unified Korea pace toward a single state striving to reach the current level of political development in South Korea.

The hypothesis of political costs and benefits put forth by the leading-type unification model omits a crucial premise on how the two Koreas should prepare for unification toward the stage of resolving the division. The lack of the detailed measure makes it difficult to evaluate the costs and benefits after the stage of resolving the division under the assumption that the current inter-Korean relations maintain the status

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9) See Han-bum Cho et al., *A Research on the Costs and Benefits of Korean Unification: Political, Social, and Economic areas* (in Korean) (Seoul: KINU, 2013).

quo. As for the political integration in particular, sources of conflict may be removed, or they may be transferred to the future, incurring considerable amount of costs in the stage of resolving the division depending on the condition and the level of unification preparation. To maintain the consistency with the previous studies, this research focuses on analyzing the indicators and indexes of the costs and benefits after the stage of resolving the division as well as proposing the tasks that need to be prepared in order to minimize the costs in the stage of resolving the division.

Analysis of unification costs and benefits in politics is carried out in four different sectors - political, administrative, security, and diplomacy -, all of which were used in the previous studies. While the settlement of past affairs may be a significant political agenda in the process of political integration,<sup>10)</sup> the issue of settling the past affairs is exempted from the political area since the full-blown discussion on resolving the past issues is more of a social agenda rather than limited to politics. Nevertheless, various agendas related to the settlement of past history are included as the index of unification costs and benefits in four sectors. Internationally used indexes are utilized to explain the importance, ground, and influence of indexes of unification costs and benefits in the four sectors.

The reason why the current index of political development is

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10) See Kyuryoon Kim et al., *Leading-type of Unification: The Route and Tasks* (in Korean)

utilized in the process of modelizing the political integration is because unified Korea: 1) should achieve the political integration that reflects the historical aspects characterized by the division and war on the Korean Peninsula, the current status of the Korean Peninsula in the international order, and the common directionality toward the future social value; 2) and should not be completely different from the current Korean society. Unification costs and benefits can differ depending on what is the nature of the ideal state that the integration of each sector in politics intends to achieve and what are the necessary procedures to reach this state. The inter-Korean political integration will not be achieved if we fail to go beyond the historical framework or only attempt an excessive rhetorical approach toward the future value. The adequate assessment on the dependant path of time and space in the past, present, and future should be preceded in order to deduce the implications for developing the strategy that lower the unification costs and increase the unification benefits in the political integration process.

This study delved into unification costs and benefits under the assumption of the leading-type unification model. This model 1) recognizes the asymmetry of the development level between the South and the North; 2) and assumes the complete unification achieved through three stages - stage of resolving the division, stage of integrating the system, and the completion stage of building the nation after 2030 if the current circumstances continue. Such approach

emphasizes that although the developed system does not completely absorb the underdeveloped system, it should play a major role in providing the guidelines to the underdeveloped in the process of future development. It is in this recognition that South Korea-led unification process differs from unification by absorption and that unification costs and benefits will be created not just in North Korea but on the whole Korean Peninsula.

However, the unification process in the political area is a process of negotiations and policy coordination over whether the value will be set in line with the direction of what the unified Korean society aims to pursue. What should be preceded is overcoming the division costs incurred by the division system and understanding the development direction and pursuing values in the Korean society since the unification process is about building the foundation of the long-term development in the society. In other words, unification can be achieved by; 1) overcoming the historical aspects in which the division system was born and continues to live on; 2) understanding the current status in which the Korean Peninsula finds itself under the rapidly-changing regional and international order; 3) and realizing the future values that the Korean society constantly longs to pursue and achieve. Based on such understanding, it is required to establish and implement policies that minimize the unification costs and maximize the unification benefits.

The unification costs and benefits in the political sector is

categorized in subdivisions, such as the settlement of democratic institutions and culture, the market economy for economic prosperity and distribution, pacifism, and internationalism based on human rights and human security, etc. In the administrative sector, the integration indexes in the administrative integration are categorized into the government effectiveness, the quality of regulations, the rule of law, and the control of corruption. Such principles of unification should not be construed as being only applied to North Korea. The whole process should apply to both South and North Koreans. The over-representation or under-representation should be minimized and the fair competition in the recruitment and election process should be guaranteed in the course of establishing the national organizations such as the National Assembly. In the short term, a regional quota system could be adopted in an attempt to give North Koreans a head-start who otherwise might have relatively weaker competitive capabilities. In the long term, policies should be formulated in a way that does not enforce the regional limits. Sufficient preparatory measures should be put in place for North Korean elites regarding the scope and procedures of their re-education and re-employment since it is impossible to exclude all North Korean elites from the process of unification. Without a national consensus on the settlement of past affairs, the issue on the treatment of North Korean elites could be built up as a huge barrier to the future political development. Such political development ultimately aims to achieve the universal values, such as prosperity, human rights, and

human security. And post-unification policies need not to be constrained by the nationalistic integration policies.

In the administrative sector, the integration indexes of the administrative integration are categorized into government effectiveness, the quality of regulations, the rule of law, and control of corruption. It could be said that the integration of the administrative system and the maintenance of the social order are the crucial agenda for the integration of the administrative sector. Notwithstanding, the integration of organizations and human resources should take place in a way that enables the government to professionally and effectively provide the public services at the various levels. The integration should be pursued in a way that contributes to fostering the conditions for foreign direct investment in the North Korean region by ensuring the transparency in the private trade for international actors rather than providing the services only to domestic players. And when the costs and benefits of maintaining the social order are overemphasized, it will be easy to make the blunder of perceiving North Korean people as potential criminals. Hence, policy considerations are required to transform the organizational system catered to managing the social order, political surveillance, and the public service. The strengthened rule of law in the administrative bodies will pave the way for better conditions to eradicate the corruption within these agencies and the collusion between the administrative organs and the corporate sector.

The indexes on unification costs and benefits are evaluated in the

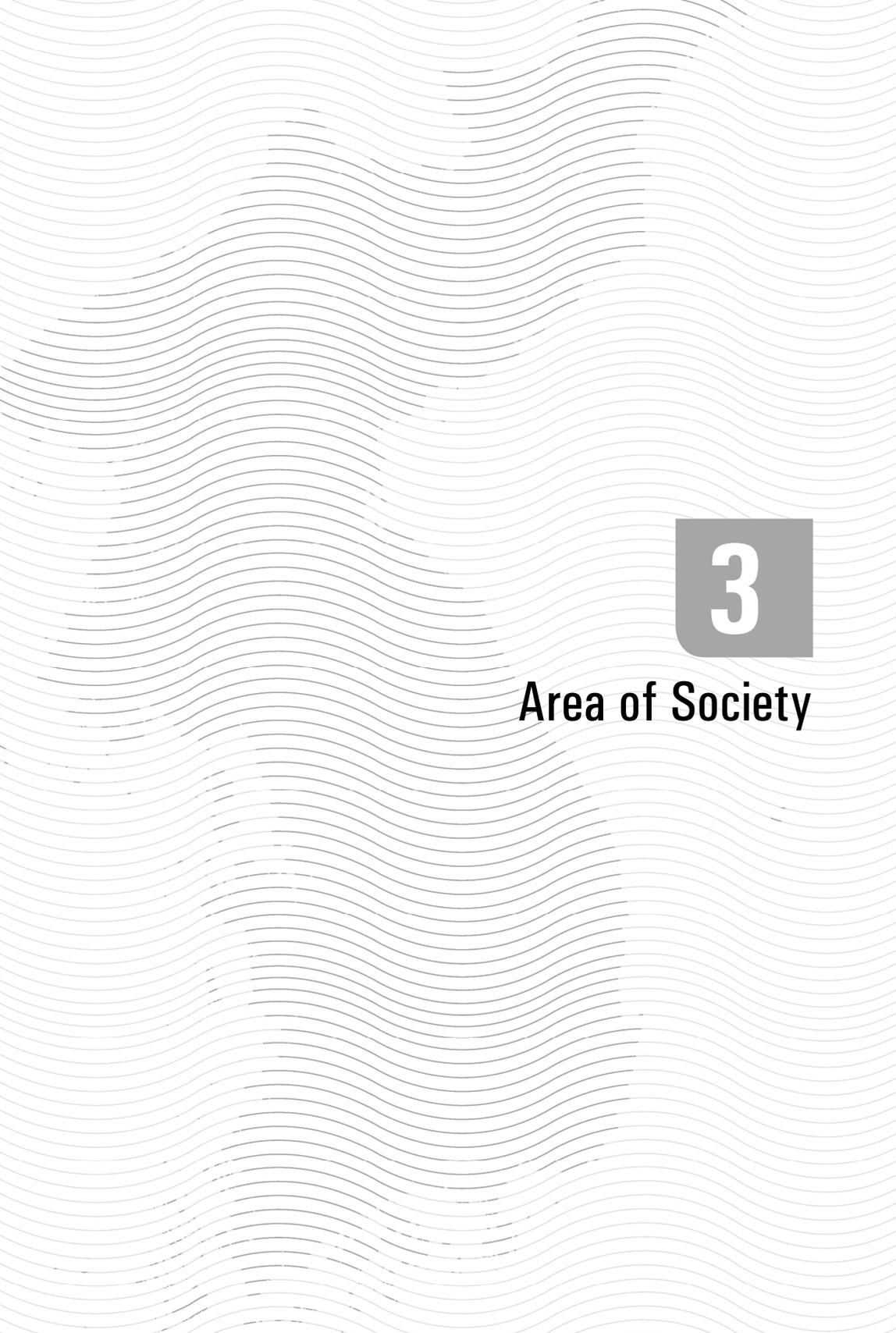
security sector, which is categorized based on the agenda and area into traditional internal security, traditional external security, non-traditional internal security, and non-traditional external security. The security sector has a lot at stake more than any other sector in terms of reducing the division costs and maximizing the unification benefits. From the perspective of traditional security, unification benefits will be created with the removal of the division system in terms of the costs required for maintaining defense capabilities and security in Northeast Asia. And From the perspective of the non-traditional security, tackling the militaristic culture is clearly a benefit and re-setting the civil-military relations yields both costs and benefits. The control of weapons of mass destruction and the regulation of possible mass refugees should be dealt with in cooperation with neighbors. In the security sector, the military should internally aspire to develop the relations with the civil society that can have a positive effect on the regional and national development as North Korea is no longer a hostile force. And externally the policies should be developed and formulated that allow Korea to have the defensive deterrence capabilities and build the active cooperation on transnational agendas.

In the diplomacy sector, the indexes of unification costs and benefits are analyzed in the terms of the reputation of the national development - a result from achieving democracy and universal values -, influence in international organizations, and diplomatic mobilization capacity. When analyzing these indexes at the policy level, unified

Korea's diplomacy will cover the agendas, such as strengthening the democracy at home, improving the national image and leading the global agenda in international organizations including the UN, and re-setting the alliances with the U.S. and China, etc. The hostile inter-Korean rivalry has put a constrain on the multilateral and bilateral diplomacy of both Seoul and Pyongyang. And the concentration of capabilities in the security diplomacy has caused the lack of diplomatic capabilities that otherwise would have been invested in the multilateral diplomacy. Accordingly, unified Korea should establish and deploy a prudent diplomatic strategy in the alliance diplomacy that strikes a balance between the U.S. and China depending on the issue. It should stop accepting the diplomatic losses caused by security issues in the economic and social aspects.

Various indexes of the four sectors in politics have close interconnections with the settlement of division costs, which demonstrates that the foresighted preparations for unification are required to prevent the division costs from being transferred to the unification costs. The five-year study has been conducted under the assumption that the current situation continues until the point of negotiations for unification. It has also been successful in presenting the short-term policy tasks through identifying indicators and indexes for the unification costs and benefits analysis. These policy tasks will appear differently depending on the path of unification. That is why additional projects are required to develop indexes and indicators,

categorize and restructure them in line with the values and directions that South Korea should pursue after unification. Only then the practical preparations prior to negotiations for unification will minimize the costs and maximize the benefits.



**3**

**Area of Society**

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### 3. Area of Society

The division between the North and the South and unification have always been the issues of the past, present, and future on the Korean Peninsula. The active discussions on Korean unification have gained the momentum and the probability of realizing unification exists to some degree in the current year of 2015, in which 70 years have passed since the liberation and division. However, division and unification still remain as unresolved issues and are likely to stay that way for some time. If instability deepens within South Korea and North Korea or between the two Koreas like now, the timing of realizing the unification will be delayed than previously thought. If the growing instability continues for the long term, Korea might be left with the unification issue for the sake of discussion rather than the genuine discussion for unification.

While there are plenty of obstacles getting in the way of achieving Korean unification early, one of them will be the question of the utility and necessity in the unification itself. It is difficult to even imagine that the two groups of the divergent political, economic, social, and cultural system established through the different historical path due to

the prolonged and solidified division could be bound to one unified system in one day. Furthermore, the view that the utility of the current division system outweighs the one of unification has become dominant with the passing of generations.

At this point, it is imperative to thoroughly probe into the unification costs and benefits and to gradually prepare and achieve unification over time. In other words, the efforts should be put forth to contemplate the various costs and benefits that might be created in the process and the aftermath of unification. And the efforts to actualize the abstract concept of “Korean unification” as a tangible subject should be followed through the process to make the lists and details of the findings more specific. As the costs and benefits may differ depending on the issue and the period, the task is required to categorize the lists of these costs and benefits into the appropriate areas and divide them again by period.

This study has evaluated the unification costs and benefits in three different areas - politics, economy, and society. Through the multifaceted analysis of unification costs and benefits emerging throughout the inter-Korean integration, the study mainly aims to draw a detailed blueprint of unified Korea and its effects. With its focus on unification costs and benefits in the area of society, this chapter looks into the effects by grouping the sectors, such as civil society, education, health and welfare, and culture and leisure. In addition, the chapter specifies how the relative importance of costs and benefits in

each sector can be changed depending on each stage of unification – consisting of three stages: stage of resolving the division; stage of integrating the system; and the completion stage of building the nation. Chapter III is organized as follows.

Chapter 3 first collects the findings of the comprehensive study on unification costs and benefits of the past and presents the detailed lists of unification costs and benefits in the social area divided by each sector. It then attempts to have a quantified estimate of the effects of costs and benefits by selecting the representative item in each sector. The analysis is carried out with the consideration that estimating the unification costs and benefits that might be created in the social sector might be less empirical and have a broader margin of error unlike the economic area. Next, to directly and realistically gauge the unification costs and benefits from the perspective of South Korea, the unification costs and benefits estimates are made based on one specific case. Particularly, one of the biggest socio-economic challenges that South Korean society faces is the issue of sustainability characterized by the low birth rate, the aging population, and the low economic growth. This research examines the effects and ramifications of unification on South Korea's socio-economic sustainability in the context of demographic costs and benefits. The conclusion part summarizes the compounding research outcomes and makes a feasible policy suggestion.

The study divides the possible costs and benefits in the social area

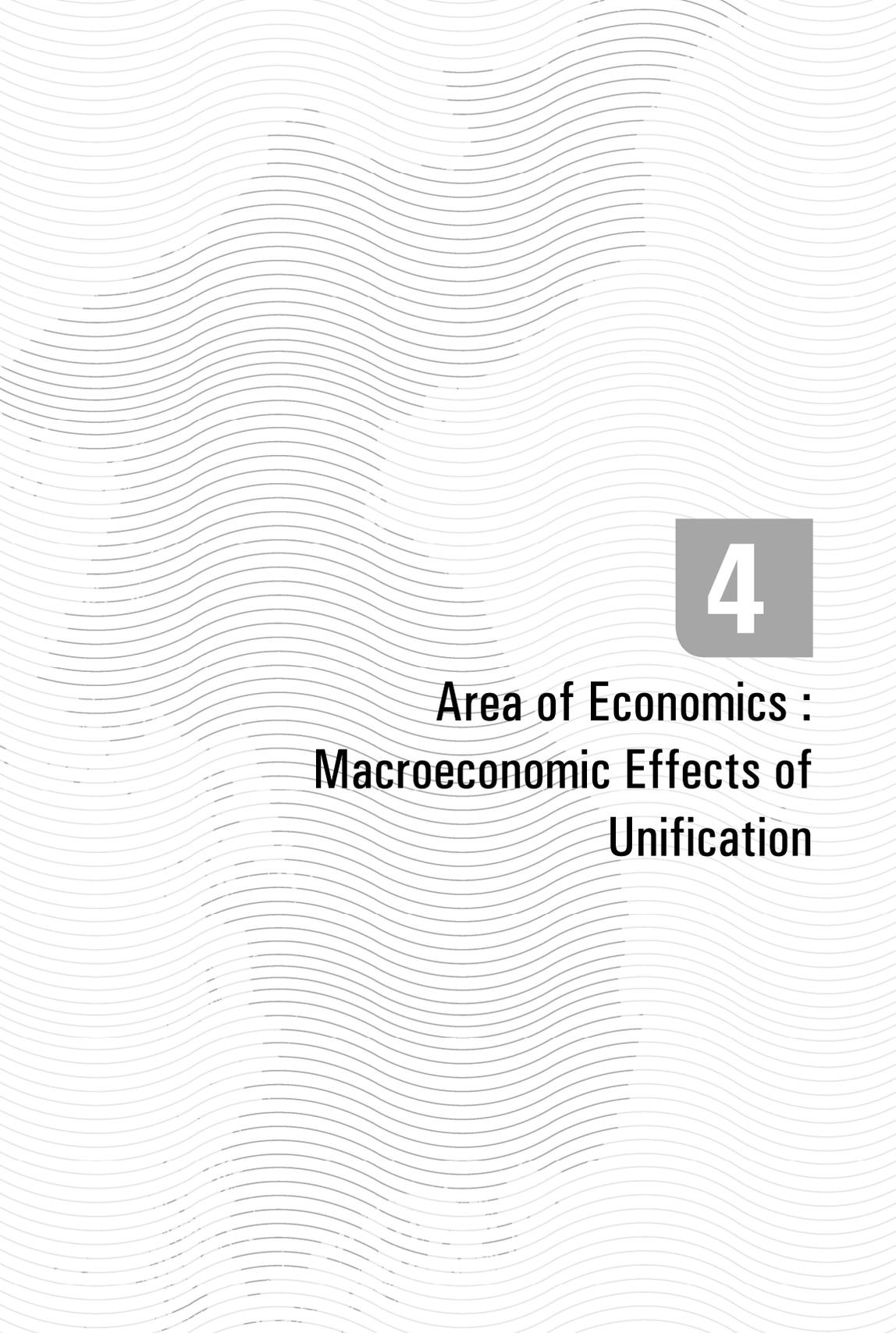
that might be generated in the unification process into four different sectors - civil society, education, health and welfare, and culture, sports, and tourism. Based on previous studies, chapter III discusses the possibility of costs and benefits using the representative indexes of each sector and makes a rough quantified estimate. The research findings suggest that the costs will be primarily incurred in the societal sector at the early stage of the unification process, while the benefits will be reaped at the final stage of the unification process or even beyond. Also, the cost is expected to be huge similar to that of the area of economics. And the types and areas of the relevant projects will also be diverse.

Moreover, the study reflects the demographic aspect into deriving the costs and benefits that unification will bring to the Korean society which faces the complex crises in the form of the low birth rate, the aging population, and the low economic growth. Those findings have contributed to drawing a more detailed picture of costs and benefits that unification will bring to South Korea and deriving the implications for a policy response. According to this research outcome, the costs and benefits generated by the population integration between the South and the North are not as simple as it looks and require a re-evaluation by adopting various standards - quantitative demographic aspect and qualitative demographic aspect, short-term and long-term perspective, and opportunity and crisis. In other words, Korean unification should be viewed as both opportunity and crisis for the following reasons; 1)

although Korean unification could contribute to solving the issues of South Korea's low birth rate, aging population, and low economic growth with the demographic advantages in the short run, benefits are highly likely to be temporary; 2) developing these benefits in a sustainable way requires considerable amount of costs for the qualitative improvement of the North Korean population.

Therefore, the study emphasizes that the issue of the costs and benefits in the population integration should take a far-sighted and prudent approach and that the required policy and investment should be made in the early stage of the unification process or even before that.

In conclusion, when discussing the unification costs and benefits in the social sector, it is not easy to calculate the specific benefits compared to the visible costs. And the temporal discrepancy between the costs and benefits is expected to become a significant issue. While the nature of the social area calls for a preemptive and invigorating investment prior to the discussions over unification, making the investment costs incurred in the process politically rationalized and legitimate will not be easy since the benefits are nebulous and generated over time. However, what is clear is that the investment in the social area should be actively and persistently considered the most amid the challenges as the social investments generally have great impacts and are considered the constructive costs that will induce an immense and fundamental change.

The background of the entire page is a pattern of thin, wavy, horizontal lines that create a sense of movement and depth. The lines are light gray and vary in frequency and amplitude, creating a subtle, textured effect.

# 4

## **Area of Economics : Macroeconomic Effects of Unification**

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## 4. Area of Economics : Macroeconomic Effects of Unification

The study of unification costs and benefits has been the research subject that many scholars have analyzed for a long time with various perspectives and research methods. Especially, "Comprehensive Study on Unification Costs and benefits" conducted over the past several years is an invaluable research outcome, which comprehensively approaches the issue of unification from every area - politics, culture, economics, diplomacy, and security, etc.<sup>11)</sup>

This section of the study includes the five-year analysis result in the economic sector from the comprehensive study on unification costs and benefits. Inheriting the previous research findings that proposed the path for the leading-type unification, Chapter IV takes the expanded Dynamic Stochastic General Equilibrium, which has been widely used in the macroeconomic studies and analyzes the macroeconomic effects based on the leading-type unification model and estimates the unification costs and (net) benefits.

Using the general equilibrium model of the overlapping generations,

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11) Such outcomes include Kyuryoon Kim et al. (2012a, 2012b, 2014) and Han-bum Cho et al. (2013).

the study analyzes the effects of operating the single integrated economy - initially two regional economies that had been separated for a long time. This study defines such integration process as unification itself. And several fiscal policies are considered in this research that the government can implement when unified. The research concentrates on humanitarian assistance to North Korea, investment support to expand social overhead capital in the North Korean region, and the wage subsidy to supplement the income of unskilled laborers in the North among the government policies suggested in the leading-type unification.

The most concerning issue in the unification process is the influx of North Korean labor to South Korea. If this phenomenon emerges as a serious concern, institutional measures could be considered to prevent this from happening. However, once entered the stage of integrating the system of the leading-type unification, it is virtually impossible to place different restrictions on the fundamental rights of North Korean and South Korean. This concern casts a doubt on whether the government could formulate a legally-binding institution within the scope that does not violate the constitution. In this respect, this study seeks a unified Korea, in which labor and capital mobility are guaranteed without barriers.

One of the characteristics of this research is that it estimates the unification net benefits based on the calculation of GDP in unified Korea derived from the model economy. The previous cost-benefit

researches calculated the net benefits through the partial equilibrium analysis by adequately distinguishing the cost category from the benefit category. The limit of this analytical method lies in the partial equilibrium analysis per se. In short, this type of analysis cannot consistently track the changes in macroeconomic variables when institutional or policy changes occur. For example, when the government raises the income tax to finance unification, this analytical method is unable to trace the change in the capital stock or labor supply. On the other hand, the general equilibrium model adopted in this research can overcome the limits of the partial equilibrium analysis as it is designed for all macro-variables to respond to institutional or policy changes.

With regard to the estimation of unification net benefits, the study considers other elements, such as humanitarian aid to North Korea, the expansion of the social overhead capital, and the wage subsidy. In fact, unification net benefits of 20 years are estimated from 2031, when the unification is achieved, to 2050. Net benefit is defined as GDP net increase generated as a result of unification. According to the analysis result, the net benefit produced by unification is estimated to be approximately 3.5-4.0 quadrillion based on the 2016 currency value.

The net benefit of the leading-type unification is estimated based on the GDP value of the model economy, which is the subtraction of total cost from total benefit. The crucial assumption and estimation process in calculating the net benefit are as follows.

As South Korea's GDP in 2015 is yet to be tallied, GDP in 2016 has been calculated by applying 2% of the nominal economic growth per year to nominal GDP in 2014. Nominal GDP in 2014 was 1.485 quadrillion won and the estimated nominal GDP in 2016 is 1.545 quadrillion won when applying 2% nominal economic growth annually.

In the benchmark unification model, South Korean GDP is estimated to be at 1 and for North Korean GDP, 0.025 in 2016 - the first year of unification preparation. The total GDP on the Korean Peninsula can be calculated in won by multiplying 1.025 by South Korea's nominal GDP of 1.545 quadrillion won in 2016. The combined GDP of both South and North Korea will be roughly 1.583 quadrillion won.

The study calculates the unified Korea's GDP from 2031 - the first year of the system integration stage - to 2050 and converts it into the currency value reflecting the total GDP in 2016 (approximately 1.583 quadrillion won). Then, it subtracts the unified Korea's GDP from the total Korean GDP in 2016. The difference in GDP is calculated to obtain the net benefit derived from unification. Finally, it calculates the net benefit of unification reflecting the 2016 values by applying the discounted interest rate derived from the model. <sup>12)</sup> The following estimates of unification net benefit is the GDP increase reflecting the 2016 values, an increase prompted by unification from 2031 to 2050.

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12) The South Korean interest rate was applied in a calculation in the post-unification period.

<The current values of net benefit in leading-type unification>

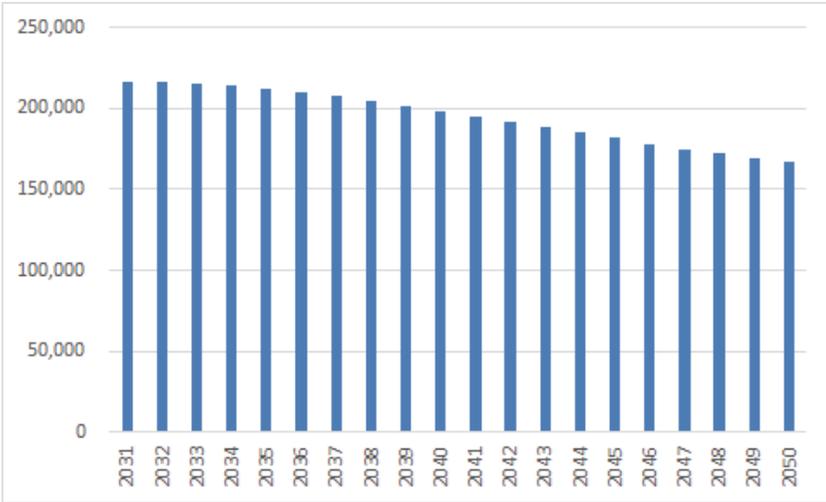
(in trillion won)

	Benchmark unification model	Humanitarian assistance	Investment support for social overhead capital	Wage subsidy
Current values of net benefits in 2031-2050	3,904.8	3,891.5	3,571.2	3,996.6

The table above shows the GDP increase prompted by unification calculated in the current values. In the case of the benchmark unification model, the net increase in GDP from 2031 to 2050 is 3.905 quadrillion won. This net benefit is generated purely by the integration of the two regional economies even without implementing the policies such as humanitarian assistance, investment support for social overhead capital, and wage subsidy. Those net benefits are derived under the assumption that the total factor productivity in North Korea gradually increases and that the production factors, such as labor and capital are used more efficiently when the two regional economies are integrated.

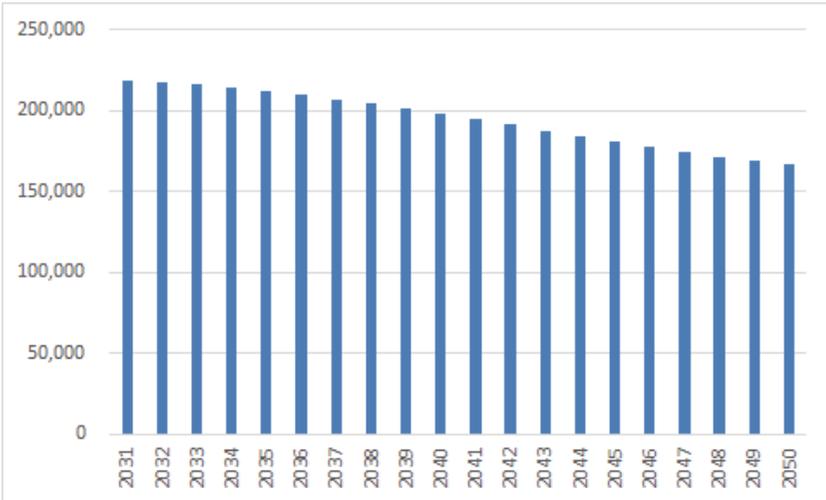
The following four graphs show the net benefits generated by the GDP increase from 2031 to 2050 reflecting the 2016 values.

<Net benefit of benchmark unification model>



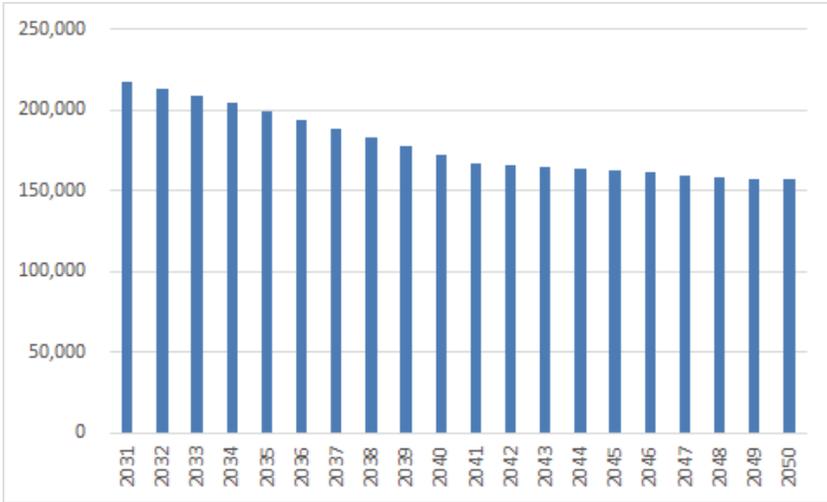
The units are in billion won in the 2016 value.

<Net benefit of unification model including humanitarian assistance>



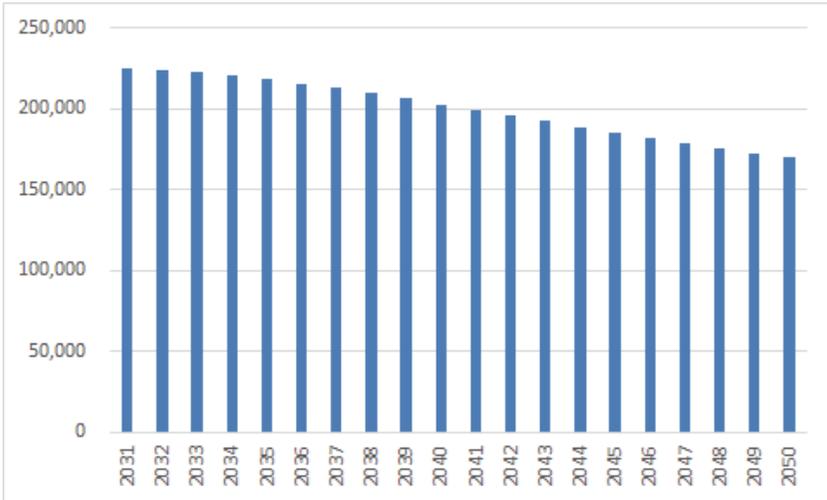
The units are in billion won in the 2016 value.

<Net benefit of unification model including investment support for social overhead capital>



The units are in billion won in the 2016 value.

<Net benefit of unification model including wage subsidy>



The units are in billion won in the 2016 value.



**5**

**Conclusion**

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## 5. Conclusion

The significance of this research lies in the fact that it aims at the comprehensive study of the unification costs and benefits through the consultations and intense discussions with relevant experts and scholars, led by the joint research team consisting of experts in the area of politics, society, and economy. The research outcome on unification costs and benefits in politics, society, and economy derived from this study will lay the foundation for the follow-up study in the future and is expected to contribute to forming an objective perception of unification and presenting the positive vision for the future. Through raising the realistic perception on unification, this study is especially expected to contribute to correcting the negative views on unification and alleviating the feeling of burden.

In the area of politics, the research looks into the conceptual components of unification costs and benefits in four different sectors - political, administrative, security, and diplomacy - just like the previous study. The costs and benefits that could arise in the social area during the unification process are divided into the four sectors (civil society, education, health and welfare, and culture, sports and

tourism). Based on the existing studies, representative indexes are chosen for each sector to discuss the possible costs and benefits. And attempts are made to come up with the rough quantitative estimates. Regarding the area of economy, unification costs and benefits are analyzed using a macroeconomic model for each stage of unification presented by the path of the leading-type unification. The model used in the analysis is the expanded Dynamic Stochastic General Equilibrium, which is widely used in the study of macroeconomics. The comprehensive study on unification costs and benefits is characterized by the comprehensiveness in its research approach as it looks into the costs and benefits associated with the unification by sector, stage of unification, and the region (local and international). Therefore, this research is expected to contribute to preparing for and forming an objective perception on unification.

The implications and policy considerations could be organized as follows.

First, the study has widened the scope of research by conducting the comprehensive study on unification costs and benefits by sector in three different areas - politics, society, and economy. Given the fact that the previous studies on unification costs held the economic perspective and were led by the economic community, this study broadens the horizon of research through consilience of social science theories, such as political science and sociology. The research's aim and direction are valid judging by the fact that unification will prompt

the fundamental changes that affect every aspect in the lives of South Korean and thus, unification costs and benefits will not only be generated in the limited area of economy. However, this research has its limits in the following aspect that while it is relatively straightforward to quantify the unification costs and benefits at the economic level, it is rather difficult to numerically quantify the costs and benefits in the political and social areas that exist beyond the category. Hence, it is required to make continuous efforts to develop the economic analysis of unification costs and benefits proposed in this study and to discover the quantification model in the areas of politics and society.

Second, the researchers should move beyond the static study on unification costs and benefits. The efficiency of unification costs and benefits will be strengthened by taking on the optimal path for unification since unification is the process unfolded by the decision of political determination, not the objective future. Also, the standing of the unified Korea and the volume of unification costs are not predetermined but will be decided by national consensus and political decision. Therefore, the forward-looking proactive studies are necessary to minimize the unification costs and maximize the unification benefits rather than the unification cost-benefit analysis conducted only on a given situation.

Third, the study has its significance in the fact that it takes account of both benefits and costs while most of the previous studies

concentrated only on analyzing the unification costs. The studies only limited to unification costs have the tendency to cause the negative effect on raising the awareness on unification as they focus only on the costs incurred. However, active analysis of unification benefits will have a positive impact on building the consensus on unification as it alleviates the sense of burden over the costs. Nevertheless, this type of study has constraints in categorization and quantification of the benefits while it is relatively simple to categorize and quantify the sectors where unification costs incur. Follow-up studies should continue to establish a creative model to objectively calculate the unification benefits.

Fourth, it should be noted that the calculation of unification costs and benefits is not just the subject of objective research but has a direct influence on the formation of national consensus on unification. Despite unification being a corollary, the burden of unification costs and the uncertainty over benefits function as negative factors in raising the awareness on unification. Hence, it is necessary to actively analyze the costs caused by the division system and the loss of opportunity costs. Therefore, a more concentrated study is required on the stage of resolving the division, which is set as the first stage of unification in this research. The benefits of unification will outweigh the unification costs that will be imposed only for a limited time judging by the fact that they will be no astronomical division costs and that sustainable benefits will be newly created in the long term. Also, studies that find

a linkage between presenting a positive vision for unification and building the national consensus should be sought based on the objective study of unification costs and benefits.

Fifth, given the comprehensive nature of the research on unification costs and benefits, the boundary of relevant studies needs to be expanded and more convergent studies should continue by creating the inter-disciplinary network. Particularly, it is vital to sustain the research network created during the five-year project and establish an institutional framework to build an inter-disciplinary research governance with the relevant academic communities. To this end, the efficient research cooperation system should to be established along with the sharing of research outcomes with scholars and experts by managing inter-disciplinary forums on the study of unification costs and benefits. Considering the fact that unification is an issue that sparks the changes both on the Korean Peninsula and the whole of Northeast Asia, one should keenly seek the measures to build the international research network on the issue of the Korean unification costs and benefits. And those measures need to be linked with public diplomacy. The burden and concerns over unification could be relieved and unification benefit and effects could be actively presented by disseminating the objective study of the unification costs and benefits based on the established collaborative research system at home and abroad.

Sixth, it is notable that the calculation of unification costs and

benefits derived from this study is based on the assumptions set by the researchers. The unification costs and benefits suggested by the research findings vary depending on the unification process and scenario. In particular, the unification costs and benefits suggested in this study are only applicable to a specific situation since it is impossible to accurately predict how the unification will unfold. Although Germany's case provides implications throughout the whole research process, it differs from that of the Korean Peninsula. And it is unlikely that the Korean unification will follow the path of German unification. This is attested by the fact that Germany still finds it difficult to accurately calculate the unification costs and benefits even in the current stage, in which the unification process is thought to have been completed and that each institute has come up with different numbers of costs and benefits. Despite these limitations, the comprehensive study of unification costs and benefits carries its significance as it presents the specific starting point for Korean unification.

The topic of unification deserves a research that shows a distinct difference in its nature from the short-term analytical studies since unification is a complex process that encompasses diverse aspects - tangible and intangible - and prompts critical changes in the overall Korean society. Unification costs and benefits may be created differently depending on the progress of unification and therefore, continuous research on costs and benefits is required that can be

applicable to varying unification scenarios. Hence, follow-up studies should be carried out on: 1) the variation of unification costs and benefits depending on the different unification scenarios; 2) and the optimal unification model for unification costs and benefits. The study on unification costs and benefits reflecting the global perspective should be continually pursued considering that the international support is an essential precondition in achieving Korean unification.

Especially, since the Korean unification fundamentally changes the international order in Northeast Asia, a comprehensive and in-depth study on the role and stance of the international community regarding unification costs and benefits should be followed, including the four neighbors and G20 states. South Korea should make a commitment to laying the substantive foundation for unification through the continuous and comprehensive study of unification costs and benefits.

# The Costs and Benefits of Unification on the Korean Peninsula: in the Political, Social, and Economic Areas

2015 is the final and the fifth year of systematic review on unification cost and benefit that began in 2011, and aims to derive objective outcome for unification cost and benefit by way of putting together and summarizing studies conducted at home and abroad up until now. The study results on the unification cost and benefit in political, social and economic sectors will serve as foundation for the follow-up studies down the road and is expected to contribute to forming objective perception of unification and presenting positive vision for the future. As in the previous studies, the political sector is composed of 4 areas such as political, administrative and security and is analysed focusing on conceptual components of unification cost and benefit. The cost and benefit that can occur in the unification process of the Korean Peninsula in the social sector are divided into 4 areas (civil society, education, health and welfare, and culture, sports and tourism). Representative indicators are selected for each area based on the existing studies to discuss the possible cost and benefit, and attempts are made to come up with rough quantitative estimates. The unification cost and benefit analysis in economic sector is carried out using a macro economic model for the stages of unification presented in the route of guiding type unification. The model used in the analysis is the expanded Dynamic Stochastic General Equilibrium which is widely used in macro economic studies. The systematic review is characterized by comprehensiveness in its approach as it looks into the cost and benefit associated with the unification by sector, stage of unification and region (local and international). Therefore, it is expected to contribute to preparing for and forming objective perception of unification.