Knowledge Sharing Program

2016/17 Knowledge Sharing Program with Kazakhstan:

Improving Quality of Life in Kazakhstan: Focusing on the Housing Guarantee System and the National Health Insurance System

Ministry of Strategy and Finance

KDI Korea Development Institute

2016/17 Knowledge Sharing Program with Kazakhstan

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Preface

Knowledge is a pivotal driver of growth and the fruit of all endeavors dedicated to socio-economic development. Accordingly, knowledge sharing has become an essential tool in strengthening nations' capacity to design and execute policies and programs. On the global front, the UN is making efforts through its Sustainable Development Goals (SDGs) to underscore the role of both knowledge and knowledge sharing in tackling sustainable development issues and in establishing and enhancing global partnerships.

Indeed, knowledge laid the foundations for Korea's remarkable transformation from a poor agro-based economy into an industrialized nation with an open and democratic society. And the process, though arduous, has enabled Korea to accumulate invaluable and practical lessons not found in conventional textbooks. Now, as a global economic leader, Korea is working with the international development community and partner countries to identify key development challenges and solutions by sharing its tangible know-how and experience.

The Knowledge Sharing Program (KSP) was initiated in 2004 by the Ministry of Strategy and Finance (MOSF) and is implemented by Korea Development Institute (KDI). The program plays a vital role in further expanding knowledge sharing as well as in strengthening government partnerships with low to high income economies. As of this year, 940 research studies have been conducted with 59 partner countries. And in 2016, KSP policy consultations and capacity building workshops were organized with 28 partner countries including new partner countries such as Jordan and the Sub-Saharan Africa Partnership for Skills in Applied Sciences, Engineering and Technology (PASET).

The 2016/17 KSP with Kazakhstan was undertaken by MOSF and the Ministry of National Economy (MoNE) of the Republic of Kazakhstan to support "Improving Quality of Life in Kazakhstan: Focusing on the Housing Guarantee System and the National Health Insurance System." To that end, KSP and Kazakhstan engaged in a range of collaborative efforts including exchanging development experiences, conducting joint studies, and designing a policy action plan in line with the country's development targets.

It is with great optimism for the future of Kazakhstan that the results of the 2016/17 KSP are presented. I firmly believe that KSP will serve as a stepping stone to further elevate the mutual learning and economic cooperation between both our countries, and hope it will positively impact Kazakhstan's attainment of its goals for sustainable development.

I wish to convey my sincere gratitude to Senior Advisor Mr. Yong-Duk Kim, Principal Investigator Prof. Jae-young Son as well as project consultant Prof. Tae Hyun Kim for their extensive contributions. I am also grateful to Executive Director Dr. Kwangeon Sul, Project Manager Dr. Kyoungdoug Kwon, Project Officer Mr. Hoon Heo and all members of the Center for International Development (CID) for their hard work and dedication to this program. Lastly, I extend my warmest thanks to the Kazakhstan collaborates, Ministry of National Economy of the Republic of Kazakhstan (MoNE), Ministry for Investments and Development of the Republic of Kazakhstan (MoID), Ministry of Healthcare of the Republic of Kazakhstan (MoH), Committee for Construction, Housing and Utility Infrastructure of the MoID, Housing Guarantee Fund (HGF), Republican Center for Health Development of MoH and related agencies, project coordinators, and participants for their steadfast effort and support.

Joon-Kyung Kim
President
Korea Development Institute (KDI)

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2016/17 KSP with Kazakhstan

Hoon Heo (Project Officer, Korea Development Institute)

In keeping with the global recognition of knowledge as a vehicle for effective development policies, as well as based on its own experience of learning from advanced economies, Korea has actively advocated knowledge sharing in its development cooperation endeavors.

The Knowledge Sharing Program (KSP) with Kazakhstan was first launched in 2009 under the central theme of an Industrial-Innovative Development Plan for Kazakhstan. As a comprehensive policy consultation program, the KSP shared Korea's development experience with Kazakhstan in various socio-economic areas such as SMEs development strategies, credit guarantee and evaluation systems, innovation promotion strategies, trade promotion policies, financial policies covering NPL resolutions to promote sustainable socio-economic development, and co-prosperity.

In its eighth year of close knowledge cooperation between the governments of Korea and Kazakhstan, the 2016/17 KSP with Kazakhstan operated under the main theme of "Improving the Quality of Life in Kazakhstan: Focusing on the Housing Guarantee System and the National Health Insurance System". The following gives a brief overview of this year's program, including its topics, team of researchers and the overall timeline of the program.

Overview of 2016/17 KSP with Kazakhstan

Improving Quality of Life in Kazakhstan: Focusing on the Housing Guarantee System and the National Health Insurance System

KSP Topics (Relevant Organization)	Korean Researcher	Kazakh Local Consultants
Studying Korea's Experience in Residential Construction Development through Mechanisms of Guaranteeing Housing Completion	**Jae-young Son** Konkuk University	**Kanat Ibrayev** Housing Guarantee Fund
The Introduction of Mandatory Social Health Insurance	**Tae Hyun Kim** Yonsei University	**Marat Mamayev** Social Health Insurance Fund **Ali Nurgozhayev** Republican Center for Healthcare Development

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Project Manager: Kyoungdoug Kwon, Director, CID, KDI
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Youjin Jeong, Research Associate, CID, KDI
Young KSPians (YKSP): Juyeon Maeng, Student, Handong University
Da Sul Kim, Student, Chung-Ang University

At the first stage of the 2016/17 KSP with Kazakhstan, the Korean delegation headed by Mr. Yong-Duk Kim conducted the High-level Demand Survey and Pilot Study in Astana, Republic of Kazakhstan from August 16th to 20th, 2016. The KSP Kick-off Seminar was held on August 18th at the Ministry of National Economy of the Republic of Kazakhstan, attended by representatives of the government of the Republic of Kazakhstan and related organizations. Through high-level policy dialogues held with H.E. Birtanov Elzhan Amantaevich, Vice Minister (currently Minister of Health) of the Ministry of Healthcare and Social Development of the Republic of Kazakhstan ('MoHSD') and Mr. Nurym Ayazbayev, Director of the Ministry of National Economy of the Republic of Kazakhstan ('MoNE'), the Korean delegation not only confirmed the support of these ministries, but also discussed the details and direction of this year's KSP. In addition, pilot studies were conducted with the help of the MoNE, MoHSD, and the Committee for Construction, Housing and Utilities and Land Resources of the MoNE to collect the necessary information and data with which to conduct research, where Korean experts met with local consultants to conduct joint research throughout the year.

At the second stage of the KSP, the Korean delegation, headed by the Principal Investigator Professor Jae-young Son, visited Kazakhstan from October 21st to 26th, 2016 in order to obtain additional data for an in-depth analysis. The Korean experts visited relevant organizations such as the Housing Guarantee Fund, Baiterec National Management Holdings, the Kazakhstan Association of Construction Companies, the Astana Mayor's Administration Office, and Dongil Highvill. They also met with local consultants to discuss the details of research in progress and to delegate specific responsibilities.

At the third stage, from January 21st to 26th, 2017, a total of eight Kazakhstan delegates headed by Mr. Nurym Ayazbayev visited Korea to participate in the Interim Reporting and Policy Practitioners' Workshop. During the Interim Reporting Workshop held on January 23rd, the Korean researchers and their Kazakh counterparts presented their interim research findings, shared views, and received feedback on consolidating their KSP research. Furthermore, as part of the Policy Practitioners' Workshop, the delegation was able to gain first-hand experience by visiting relevant organizations and attending lectures from the Ministry of Land, Infrastructure and Transport of the Republic of Koera, Dongil Construction Co. Ltd., Severance Hospital, the National Health Insurance Service of the Republic of Korea, and the Health Insurance Review & Assessment Service of the Republic of Korea, as well as listening to lectures by experts from the Korea Institute of Civil Engineering and Building Technology, Korea Housing & Urban Guarantee Corporation, Asia Trust Co. Ltd., Korea Institute for Health and Social Affairs, and the Ministry of Health and Welfare of the Republic of Korea.

At the final stage of the 2016/17 KSP with Kazakhstan, the Final Reporting Workshop and Senior Policy Dialogue was conducted from April 18th to 22nd, where the Korean research team headed by H.E. Yong-Duk Kim presented its final research findings and policy recommendations to high-level policymakers, policy practitioners, and other stakeholders of Kazakhstan. The Final Reporting Workshop was held in Astana on April 19th, 2017, with approximately 60 government officials and experts in attendance. In addition, end-of-project evaluation surveys and interviews were conducted, aimed at receiving feedback on the year-long project.

Executive Summary

Jae-young Son (Konkuk University)

Upon the request of the Republic of Kazakhstan, the 2016/17 KSP with Kazakhstan was conducted with two overarching themes: "Studying Korea's Experience in Residential Construction Development through Mechanisms of Guaranteeing Housing Construction" and "Policy Consultation for Effective Management of the Health Insurance System". Research on these two themes of the 2016/17 KSP focused on improving quality of life as housing and health care are two of the most important elements of a good life in any country. At the start of the KSP study, the Kazakhstan government had already launched a major policy drive to reform the housing development system and introduce a universal health insurance system.

In pursuit of these objectives, the research team studied the history and current state of relevant markets and policies and provided custom-tailored and feasible measures drawn from best development practices of Korea. This KSP output is expected to contribute to the reforms in Kazakhstan aimed at improving quality of life. The recommended measures in the report include roadmaps and steps for implementation that are supposed to engender key initiatives in pursuit of a relevant agenda that supports the country's development and reform.

In terms of the housing guarantee, the following policy recommendations were made. First, for good governance, the decision making process of the guarantor, such as the Korea Housing and Urban Guarantee Corporation in Korea or the Housing Guarantee Fund in Kazakhstan, must not be swayed by the interests of the risk generators (clients, members of the cooperative, politicians, etc.). Second,

the guarantor must be able to assess the credit worthiness of clients as well as the prospects of projects covered by a guarantee. Different fees and procedures should be applied to different clients depending on credit ratings. Regarding the range of business, a guarantee product must not be offered if relevant risks cannot be correctly assessed and priced.

Third, and perhaps most importantly, securing land ownership must be a prerequisite for housing pre-sales. Land ownership should then be legally encumbered so that it cannot be infringed upon in any way during housing development. Fourth, the guarantor must monitor a project's progress regularly. If there is any doubt regarding the project, the guarantor must intervene and, if necessary, immediately take over the project. Guarantee contract documents must contain agreements between all relevant parties regarding such an intervention. And last, there should be a balance between risk management and housing supply. If fees are too high and procedures too stringent, then the housing guarantee system hinders rather than stimulates housing supply. There must be a balance between risk management and housing supply.

For health insurance, the following recommendations were made. First, the operating body of Social Health Insurance ('SHI') should become financially and administratively sustainable. The role of the MoHSD in implementing regulations and monitoring the overall progress of SHI needs to be strengthened. Also, the government should develop an institution or governing body which represents the various stakeholders such as the government, workers and employers. In addition, public relations work such as marketing campaigns regarding SHI and sharing early results with the general public and health service providers (e.g., survey results regarding satisfaction, acceptability, etc.) will be necessary.

Second, in order to cover the entire population all at once, it is important to use mechanisms that simplify registration, collection, and service provision. Establishing a collective system for registration and collection through a joint effort with tax and social security authorities would be helpful.

Third, from the perspective of fiscal revenue, it is necessary to adhere to the 'ability-to-pay principle'.

Fourth, regarding insurance coverage, it will be critical to establish a roadmap and strategies to expand public health care coverage to private hospitals, clinics, and pharmacies. To foster improvements to the quality of health care, the government should implement annual cost agreements between insurers and the medical community, and verify that the costs can cover the benefit service package and maintain the revenues of private health care providers.

Fifth, support plans need to be established in order to enhance the skills of medical personnel, particularly in the area of making accurate diagnoses. As this cannot be achieved quickly, long-term planning is required. It is especially urgent to substantially increase the income levels of medical personnel. And last, health care organizations should have the right to determine their own goals and identify indicators of performance. In order to provide more sophisticated health services, financial incentives should be complemented by the support of local health authorities. Information and communication systems that support monitoring and improving the quality of care need to be prepared and continuously upgraded.

2016/17 Knowledge Sharing Program with Kazakhstan:
Improving Quality of Life in Kazakhstan:
Focusing on the Housing Guarantee System
and the National Health Insurance System

Chapter 1

Studying Korea's Experience in Residential Construction Development through the Mechanisms of Guaranteeing Housing Completion

Studying Korea's Experience in Residential Construction Development through the Mechanisms of Guaranteeing Housing Completion

Jae-young Son (Konkuk University)
Kanat Ibrayev (Housing Guarantee Fund)

Summary

Kazakhstan construction companies have customarily relied on housing pre-sales (also called equity participation) where home buyers in effect provide construction financing that is repaid with a house. However, during the recession of 2007-2008 many housing developers went bankrupt and about 65,000 pre-paying consumers (i.e., equity participants) were affected in turn. The government had to allocate 464.3 billion KZT (about 3 billion USD) to complete housing construction in order to avert a major crisis.

In 2006, the government introduced regulation on equity participation that was so stringent only one license was issued between 2010 and 2016. As a result, the new Law on Housing Sharing of 2016 aims to balance the goals of providing construction financing for housing developers and protecting pre-paying home buyers. The housing guarantee system is essential to these goals, since consumers would be exposed to undue risks without an appropriate guarantee.

The 2016/17 KSP report intends to share Korea's experience with housing pre-sales and housing guarantee systems so that Kazakhstan may establish a stable and efficient housing guarantee system with minimal socio-economic costs. Great improvements in Korean housing conditions are due in large part to the mass production of apartments, which in turn rely heavily on the housing pre-sale system. Without a functioning housing guarantee system, home buyers are exposed to excessive risks and housing pre-sales cannot work.

The guarantor of housing pre-sales must understand the sources and nature of risks involved in the housing development, in addition to being capable of handling such risks. Governance structure, organization and staffing, funding, range of business, business procedures, selection of clients, fees, and measures for legal protection must all be geared to appropriately cover such risks. In Korea, the spectacular failure of the Housing Construction Financial Cooperative in 1997 revealed a clear direction for reorganizing the housing pre-sale system and the related guarantee system.

- Governance: Decision making must not be swayed by the interests of the risk generators (clients, members of cooperative, politicians, etc.).
- Credit evaluation: The Guarantor must be able to assess the credit worthiness of clients as well as the prospects of a project covered by a guarantee. Different fees and procedures should be applied to different clients depending on credit rating.
- Range of business: A guarantee product must not be offered if the relevant risks cannot be correctly assessed and priced.
- Land: Securing land ownership must be a prerequisite for housing pre-sale. Land ownership should then be legally encumbered so that it cannot be infringed upon in any way during housing development.
- Intervention: The Guarantor must regularly monitor project progress. If there is any doubt about the project, the guarantor must intervene and, if necessary, immediately take over the project. Guarantee contract documents must contain agreements between all relevant parties regarding such interventions.
- Balance between risk management and housing supply: If fees are too high and procedures too stringent, then the housing guarantee system hinders rather than stimulates housing supply. There must be a balance between risk management and housing supply.

Policy suggestions are provided regarding each of these aspects. In addition, we note that the guarantee fee is proportional to the risks involved in guarantee provisioning. Korea's housing pre-sale guarantee fee is relatively low because a good risk management system is in place regarding a client's credit evaluation, project monitoring and management, and the recovery of payments by subrogation. The Kazakhstan Housing Guarantee Fund fee is very high since there is much uncertainty regarding the risks of providing house pre-sale guarantees. As data and experience accumulates, the fee in turn should be lowered as fast as possible, since the current fee rate may be too high for normal housing development. Also, there should be measures to smooth out the transition to the new system. Industry participation in the evolution of the housing guarantee system should be encouraged.

1. Introduction

Since its independence in 1991, housing welfare has been a priority policy goal of Kazakhstan, but progress in this area has fallen short of government expectations. One of the bottlenecks in housing supply is construction financing. As in many other countries, Kazakhstan construction companies, which are usually developers as well as contractors, rely on pre-selling houses (also called equity participation in Kazakhstan) before they are built. Under a pre-sale arrangement, home buyers in effect provide construction financing that is repaid with a house.

Unfortunately, many housing developers went bankrupt during the recession of 2007-2008, affecting roughly 65,000 pre-paying consumers (i.e., equity participants). The government had to allocate 464.3 billion KZT (about 3 billion USD) to complete housing construction in order to avert a major crisis. This incident caused consumer confidence in residential development equity participation to plummet. In response, the government introduced regulations on equity participation that were so stringent only one license was issued between 2010 and 2016. Because of this, developers have instead evaded regulations through co-investment agreements, contribution agreements, and the creation of housing and building cooperatives (HBC), etc., once again exposing consumers to potential risks.

To solve this problem, on April 7, 2016 the government enacted the Law on Housing Sharing, which came into effect on October 10, 2016. This new law aims to balance the goals of providing construction financing for housing developers and protecting pre-paying home buyers. The housing guarantee system is essential for these goals, since consumers are exposed to undue risks in the absence of appropriate guarantees.

This 2016/17 KSP with Kazakhstan intends to share Korea's experiences with housing pre-sales and housing guarantee systems so that Kazakhstan may establish a stable and efficient housing guarantee system with minimal socio-economic costs. Section 1 reviews economic and demographic trends in Kazakhstan to understand and predict the housing market. Section 2 describes the newly introduced Kazakhstan housing guarantee system. Section 3 gives a detailed account of the Korean housing guarantee system in the broader context of housing market trends and housing policies. And Section 4 offers policy suggestions for the development of Kazakhstan's housing guarantee system, based on Korean experiences.

2. Kazakhstan's Economy and the Housing Market

2.1. Historical Overview

Kazakhstan has a land area equal to that of Western Europe but its population density is among the lowest in the world. Strategically, the country links the large and fast-growing markets of China and South-East Asia with those of Russia and Western Europe. Kazakhstan also possesses enormous reserves of oil, minerals, and metals. The country's proven oil reserve is the ninth largest in the world, and its hydrocarbon output accounts for nearly 18% of its GDP and 60% of exports. It also has considerable agricultural potential with its vast steppe lands that accommodates both livestock and grain production.

Kazakhstan has transformed itself from lower-middle income to upper-middle income status in less than two decades. From 2000 to 2007, rising prices of oil and other natural resources caused a flood of investments that led increases in wages and a higher overall standard of living. In the housing market, there were many large-scale housing construction projects as mortgage lending also proliferated. From 2004 to mid-2007, 200,000 mortgages amounting to 1.2 trillion KZT were issued in Kazakhstan. Banks offered loans to home buyers with little security: no down payment, minimum requirements for the borrower, and little collateral. However, the boom did not create a lasting economic foundation, such as developing a construction material industry. It is fair to say this period was the years of obesity, as some economists say. And this boom during the mid-2000s generated a bubble in the real estate market. Houses were subject to speculation and constant resale, causing housing prices to multiply several times over a short period of time. For example, a one room apartment in Almaty cost 10,000 USD in 2003, 22,000 in 2004, 33,000 USD in 2005, 47,000 USD in 2006, and 101,000 USD in 2007.

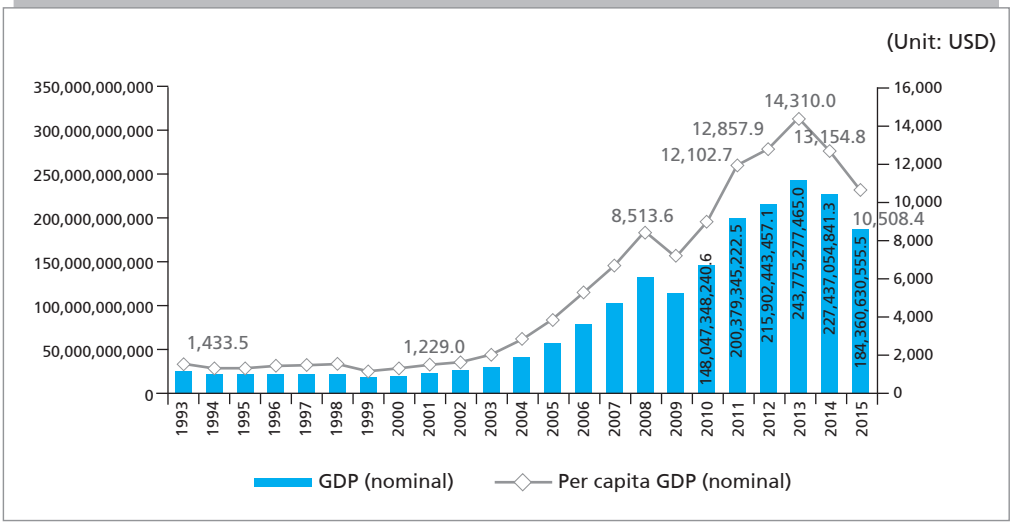
Kazakhstan was seriously affected by external shocks, including a fall in oil prices in 2007. In addition to falling oil prices, China's growth slowed and Russia's recession continued, weakening two sources of external demand for Kazakhstan exports. Such incidents led to a large shock to the terms-of-trade. In addition, the housing bubble burst. In 2007, when the US subprime mortgage crisis broke out and a global financial crisis unfolded, local banks that depended on foreign capital could not continue to make housing loans. Mortgage interest rates rose sharply from 10% to 25%. Banks began to demand a down payment of up to 50% of a house's purchase price, instead of the 10% that was previously required. All across the country many housing construction projects were frozen, and developers could no longer fulfill their obligations to equity holders. From 2008 to 2010, the housing market stagnated and housing prices once again came down to affordable levels. Mortgages became expensive and hard to obtain for most people, so house

transactions greatly decreased. The bursting bubble sobered up the nation.

2.2. Economic Growth

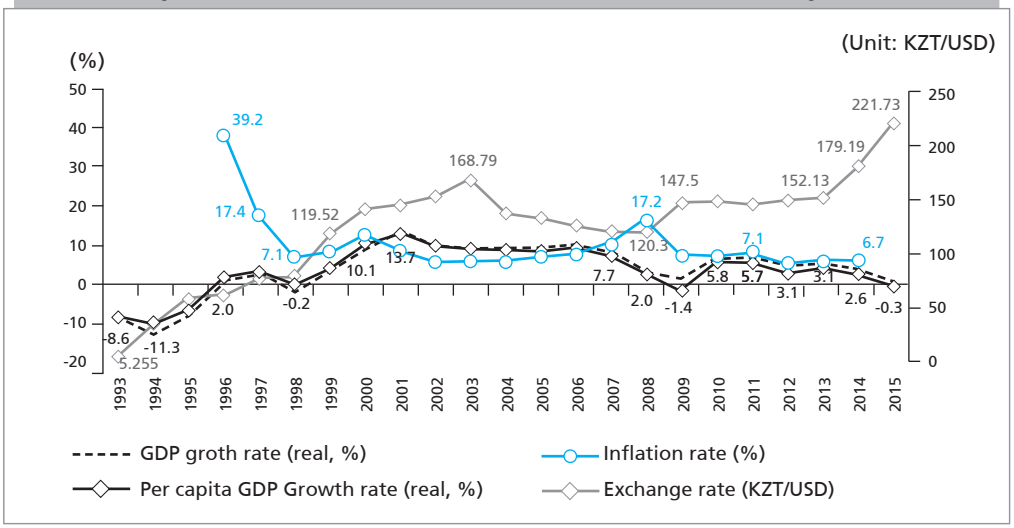
Kazakhstan's economy showed remarkable growth in the 2000s, but there has been volatility due to a heavy reliance on resource exports. After rapid growth in the early 2000s, the economy went into recession in 2007 and is currently experiencing another downturn (see Figure 1-1). A large loss in per capita GDP in terms of USD is partly due to devaluations of the KZT in February 2014 and August 2015 (see Figure 1-2).

[Figure 1-1] Trends in GDP and Per Capita GDP



Source: World Bank.

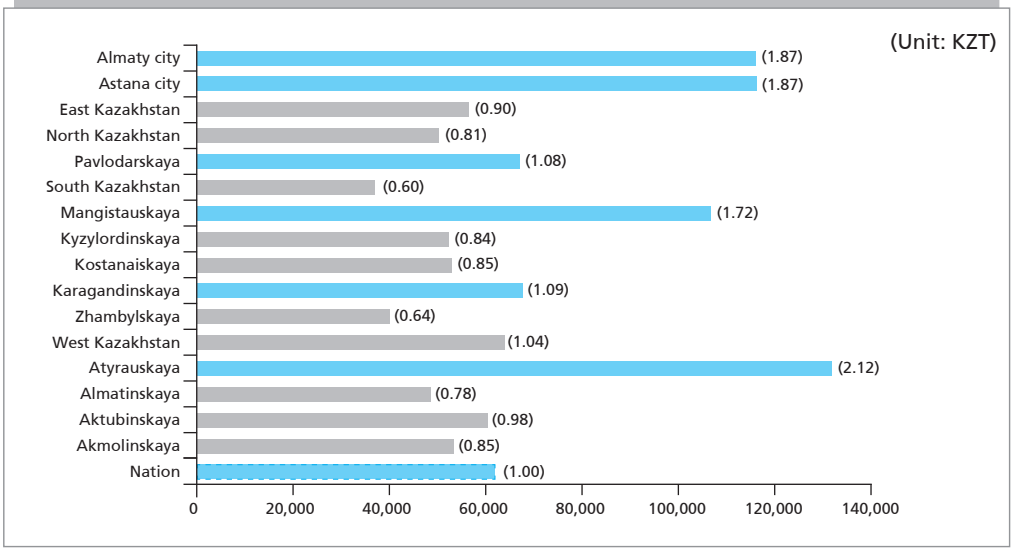
[Figure 1-2] Trends in Economic Growth Rate, Inflation, and Exchange Rate



Source: World Bank.

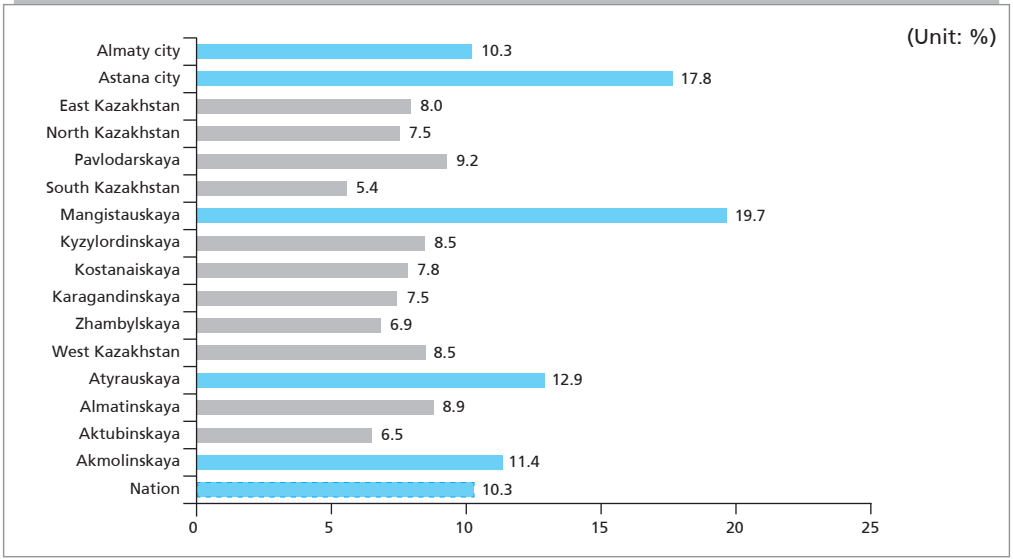
The regions of Kazakhstan have a diverse set of socio-economic characteristics. Income disparity is unfortunately one of them. The average income in Almaty and Astana is 87% higher than the national average, while some regions show an almost 40% lower average income (see Figure 1-3). Regions with high average income also show higher rates of growth (see Figure 1-4), and these regional disparities seem to be growing.

[Figure 1-3] Average Income by Region (2014)



Note: Numbers in parentheses are ratios to the national average.
Source: World Bank.

[Figure 1-4] Income Growth between 2013 and 2014 by Region



Source: Committee on Statistics, Ministry of National Economy of the Republic of Kazakhstan.

Despite these ups and downs, Kazakhstan continues to progress each year in terms of important indicators regarding conditions favorable for foreign investment, conducting business, and human development (see Table 1-1).

〈Table 1-1〉 Kazakhstan's Rankings in Major Socio-economic Indicators

Measure	Ranking	Improvement from the previous year
Ease of Doing Business, 2016	41	12 steps
Global Competitiveness Index, WEF, 2016	42	8 steps
Human Development Index, 2016	56	14 steps
Index of Economic Freedom, Heritage Foundation, 2016	68	8 steps

Source: Heritage Foundations.

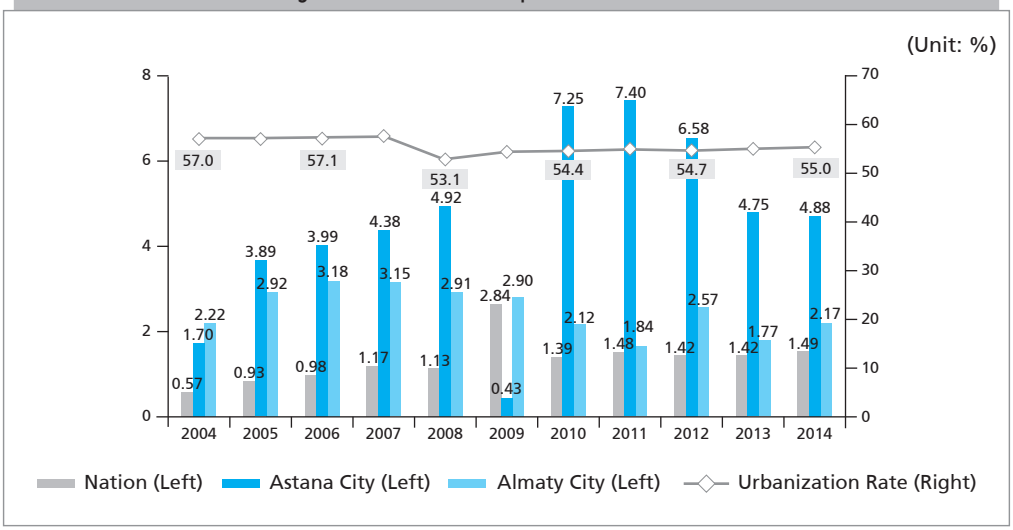
Kazakhstan's long-term development policy challenge is to transform its growth model away from reliance on natural resource extraction and towards a more diversified, competitive economy. Although official development strategies such as Kazakhstan 2050 have all embraced this goal, economic diversification has proven difficult, especially up until mid-2000s when oil prices were high. The country needs to upgrade many aspects of its economy related to governance, infrastructure, institutions, investment climate, rule of law, and incentives for investment in physical capital and new technologies.

Also, a number of recent trends call for the urgent development and modernization of infrastructure. First, population growth and urbanization require the development of urban infrastructure. Second, economic growth and an increase in economic ties among regions require larger and better infrastructure capacity. The formation of a single internal market in Kazakhstan is impeded by high transportation costs caused by a lack of transportation channels between regions, disparity in the industrial development of various regions and resulting regional imbalances, mismatches between labor demand and supply (i.e., labor shortages in the north and job shortages in the south), and insufficient development in the housing, community, and social spheres.

2.3. Demographics

The population of Kazakhstan, estimated at 17.4 million people as of 2015, represents 0.24% of the world's population. The administrative-territorial structure of the republic includes 14 areas, 2 cities of republican status, 175 administrative areas, 87 cities, 34 settlements and 6,904 rural settlements. Of the entire population, 10.1 million live in urban areas and 7.6 million in rural areas. Kazakhstan's population growth rate has risen from under 1% per year in the first half of the 2000s to 1.4-1.5% per year in the 2010s (see Figure 1-5). The growth rate for Astana's population is about three times that of the nation, and went above 7% in 2010 and 2011. Almaty's growth rate is high as well. In 2014, Astana made up 4.7% of the nation's growth and Almaty 8.8%.

[Figure 1-5] Trends in Population Growth Rates



Source: Committee on Statistics, MoNE.

[Figure 1-5] also shows that the urbanization rate decreased in the past 10 years, going from 57.1% to 55%, and no major rural-to-urban mass migration is taking place. Considering that most industrialized countries show urbanization rates over 80%, Kazakhstan has a relatively large rural population. In the future, as reliance on the manufacturing and service sectors increases, the movement of people from rural to urban areas will be inevitable. Also, if the regional income disparity mentioned earlier persists, then this may prompt such a migration. According to the Program for the Territorial Development of Kazakhstan till 2020, urbanization is expected grow to 70% by 2050, with more than 35% of the urban population living in hub cities with a population of over 2 million people, such as Almaty, Astana, Shymkent, and Ust-Kamenogorsk.

Household size has changed little in the past 10 years (see Table 1-2). In 2014, the rural average is 3.9 persons per household, while the size of urban household is 3.1 persons.

〈Table 1-2〉 Trends in Household Size

(Unit: individuals, per 100,000 people)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Nation	3.6	3.5	3.5	3.4	3.4	3.3	3.4	3.4	3.5	3.5	3.4	3.4	3.4
Urban	3.1	3.1	3.0	3.0	2.9	2.9	3.0	3.0	3.2	3.1	3.1	3.1	3.1
Rural	4.3	4.3	4.2	4.1	3.9	3.9	4.0	4.0	4.2	4.1	4.0	3.9	3.9

Source: Committee on Statistics, MoNE.

Overall, Kazakhstan seems to have a very stable and strong social structure. Despite a large income gap among regions, as of yet there is little sign of major rural-to-urban migration, and population growth is respectable at around 1.5% per year. A sudden, nationwide surge in housing demand is not expected in near future. However, the population grows fast in Astana and Almaty, and as a result, housing demand in the two cities is growing fast. For now, the government needs to pay attention to housing conditions in regions of growth such as these large cities. If regional income disparity persists and/or when the economy transforms itself into an industrial and service based economy, regional migration in search of jobs and higher incomes may start in earnest. Then the housing problem will intensify in many economic centers, which will call for a more comprehensive response from the government.

2.4. Overview of Housing Market and Policies

The construction industry is one of the fastest growing sectors of the Kazakhstan economy, and its share of the gross domestic product now stands at 6.2%. Over the last decade, housing investment volume increased from 254 billion to 740 billion KZT. This investment produced 74 million m^2 in new housing.

To support the pace of housing construction and supply, the government adopted several comprehensive programs. One of them was constructing credit housing within the system of housing construction savings. Communal housing was developed, and the rental housing sector was introduced. Construction of commercial housing by private developers was supported by the provision of infrastructure. In order to solve the complex problem of individual housing construction, measures were taken to improve the procedures for granting land plots and to provide housing development areas with engineering and communications infrastructure. The government provides 10 acres of land for those individuals who are registered as in need of land for the purpose of constructing individual housing, with the state providing connections to all utility and communications infrastructure for these specified plots.

The new housing program "Nurlyjer" was introduced to stimulate housing construction and improve housing availability by integrating all existing programs into a single program. The focus of housing policy will move from direct funding to the development of mortgage lending and the stimulation of affordable housing construction by commercial developers. Thanks to state support in the last decade (from 2006 to 2015), the annual volume of housing construction exceeded 8 million m^2. The housing construction sector forms the basis of housing provision, housing renewal, and the growth of real estate market. The financial crisis in 2008-2010 led to a decline in funding for this sector and stagnation in the primary housing market, but growth has since resumed.

2.5. Housing Construction and Investment

Kazakhstan housing construction showed explosive growth in 2005 and 2006 (see Table 1-3), reflecting the economic boom at the time. Building activity slumped between 2008 and 2012, after which came a spectacular recovery in 2013. Between 2006 and 2012, Kazakhstan built on average 55,000 apartments annually, of which roughly 40-50% is by independent builders. Since 2013, more than 100,000 units have been built annually, and almost all of them were by independent builders.

Housing construction indicators rose again in 2016. Construction volume in 2016 was 16% higher than in 2015. During the first 10 months of 2016, 8 million m^2

of new housing, or 68,354 apartments, was constructed. Most of the housing (7 million m^2 or 87.5% of total construction) was constructed by private developers; unfortunately, the share of private developers may be too high. It is natural for the private sector to increase its role in housing supply as in other sectors in the economy, but the government must play a role in ensuring minimum housing welfare for the people. The question of whether the public sector is fulfilling such a responsibility should be examined.

〈Table 1-3〉 Housing Construction Trends

	Volume of Contract Works (mil. KZT)	Total Residential Bldg. Construction		Construction by Independent Builders	
		Area (1,000 m^2)	No. of Apts. (1,000)	Area (1,000 m^2)	No. of Apts. (1,000)
1993	3,058	3,856	48.4	1,057	9.4
1994	41,546	2,322	28.8	764	6.7
1995	77,624	1,663	20.4	628	5.2
1996	61,965	1,407	15.7	699	6.1
1997	65,454	1,344	13.9	851	7.0
1998	78,161	1,132	10.5	803	6.7
1999	72,298	1,105	9.6	843	6.6
2000	151,427	1,218	10.9	910	7.4
2001	254,586	1,506	12.5	1,094	8.5
2002	390,317	1,552	12.6	1,159	8.8
2003	425,315	2,111	18.2	1,432	11.3
2004	528,846	2,591	21.9	1,781	13.5
2005	1,069,505	4,992	43.8	2,505	19.3
2006	1,442,998	6,245	54.5	3,680	29.6
2007	1,622,706	6,679	57.5	3,856	31.3
2008	1,787,634	6,848	58.8	3,527	27.7
2009	1,821,819	6,403	54.1	3,089	23.4
2010	1,943,960	6,409	54.7	2,973	20.5
2011	2,085,137	6,531	55.0	3,570	24.3
2012	2,266,803	6,742	58.5	3,339	23.4
2013	2,439,390	6,844	101.5	3,587	107.4
2014	2,667,182	7,516	109.8	3,785	105.5
2015	2,861,013	8 940	118.9	4,400	116.2
2016 (Jan~Oct)	2,429,691	8,014	68.4	3,998	90.9

Source: Committee on Statistics, MoNE.

Within the last decade, Kazakhstan housing investments totaled 4.6 trillion KZT (about 25 billion USD). Moreover, annual investments in housing increased from 254 billion to 740 billion KZT. Housing investment trends also showed a sudden explosion of construction investment in 2005 and 2006, and a severe contraction in 2008 and 2009 (see Table 1-4). Housing investment shrank by a third for the nation, by 51% for Astana and by 47% for Almaty in 2009 alone. But investment had since more than recovered by 2013. The share of Astana and Almaty in total housing investment was as high as over 63% in 2006 and 2007, and was 44.3% in 2014 and 39.4% in 2015. Considering that the population share of these two cities was only 13.5% in 2014, the concentration of housing investment in these two cities has been exceptionally high.

〈Table 1-4〉 Housing Construction Investment Trends

	Nation (mil. KZT)	Astana (mil. KZT)	Almaty (mil. KZT)	Growth Rate			Share in Nat'l Total	
				Nation	Astana	Almaty	Astana	Almaty
2003	59,524	19,027	12,604	n/a	n/a	n/a	32.0%	21.2%
2004	130,495	54,289	20,282	119.2%	185.3%	60.9%	41.6%	15.5%
2005	254,287	95,617	48,317	94.9%	76.1%	138.2%	37.6%	19.0%
2006	368,354	129,898	103,782	44.9%	35.9%	114.8%	35.3%	28.2%
2007	490,375	162,275	148,002	33.1%	24.9%	42.6%	33.1%	30.2%
2008	468,039	129,182	126,688	-4.6%	-20.4%	-14.4%	27.6%	27.1%
2009	310,848	63,470	67,075	-33.6%	-50.9%	-47.1%	20.4%	21.6%
2010	335,655	68,869	56,216	8.0%	8.5%	-16.2%	20.5%	16.7%
2011	421,013	75,142	86,486	25.4%	9.1%	53.8%	17.8%	20.5%
2012	428,241	64,460	74,152	1.7%	-14.2%	- 14.3%	15.1%	17.3%
2013	497,861	98,652	83,487	16.3%	53.0%	12.6%	19.8%	16.8%
2014	613,487	142,826	129,197	23.2%	44.8%	54.8%	23.3%	21.1%
2015	719,173	140,486	142,827	17.2%	-1.6%	10.5%	19.5%	19.9%

Source: Committee on Statistics, MoNE.

As can be seen in <Table 1-5>, there are large regional differences in construction activity. Astana holds first place (472 billion KZT in 2015), followed by Atyrau (385 billion KZT) and Almaty city (279 billion KZT). In contrast, investment activity was lowest in regions such as North Kazakhstan oblast (54 billion KZT) and Kostanay oblast (85 billion KZT). Moreover, the gap among regions has been widening over the years.

〈Table 1-5〉 Volume of Construction Works by Region

(Unit: million KZT)

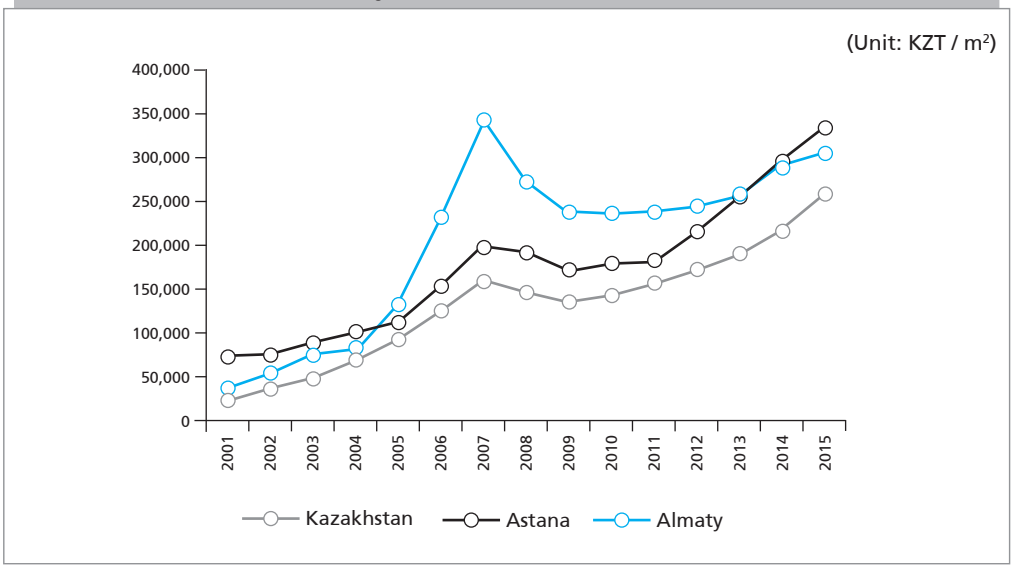
Region	2010	2011	2012	2013	2014	2015
Kazakhstan	1,943,960	2,085,137	2,266,803	2,439,390	2,667,183	2,861,058
Akmolinskaya	58,520	67,045	75,429	68,682	83,222	91,727
Aktobe	126,479	99,680	127,201	186,168	206,837	124,708
Almaty	150,334	173,139	185,039	193,605	201,782	215,424
Atyrauobast	352,882	367,432	286,905	253,871	243,224	385,982
West Kazakhstan	80,776	59,170	51,696	58,467	73,577	86,572
Zhambyl	52,314	65,573	117,511	132,523	110,826	94,773
Karaganda	91,174	107,125	132,651	214,343	224,632	161,175
Kostanay	49,928	58,556	79,457	84,020	88,723	85,706
Kyzylorda	74,920	112,591	124,320	150,399	106,521	97,826
Mangystau	152,047	163,307	147,345	154,343	172,236	178,006
South Kazakhstan	124,888	133,288	170,649	179,655	190,347	199,059
Pavlodar	56,847	64,677	85,102	90,104	113,659	176,055
North Kazakhstan	22,534	22,230	28,041	35,313	38,512	54,586
East Kazakhstan	81,326	96,321	118,208	137,602	145,063	158,365
Astana city	256,623	286,111	304,834	280,887	398,943	472,219
Almaty city	212,368	208,892	232,415	219,408	269,079	278,875

Source: Committee on Statistics, MoNE.

Given the underdeveloped stock market and a lack of other financial instruments, investors mainly invest in two assets: houses (9% of total savings) and bank deposits (91%). According to the National Bank of Kazakhstan, as of January 1, 2016 the deposits of individuals in commercial banks amounted to 6,885.5 billion KZT (over 20 billion USD), which is more than 11 times higher than the total investment in residential construction in 2015. Although investments in construction are a flow concept while bank deposits are a stock concept, we may still compare these indicators to get an idea about the current situation.

The determining factors in housing affordability are property prices and corresponding purchasing power. National average housing prices per m^2 were 92,600 KZT in 2005 and rose to 249,300 KZT in 2016. House prices peaked in 2007, then plummeted due to the global financial crisis (see Figure 1-6). As of 2012-13, prices have recovered, but the recovery in Almaty is still rather slow.

[Figure 1-6] House Price Trends

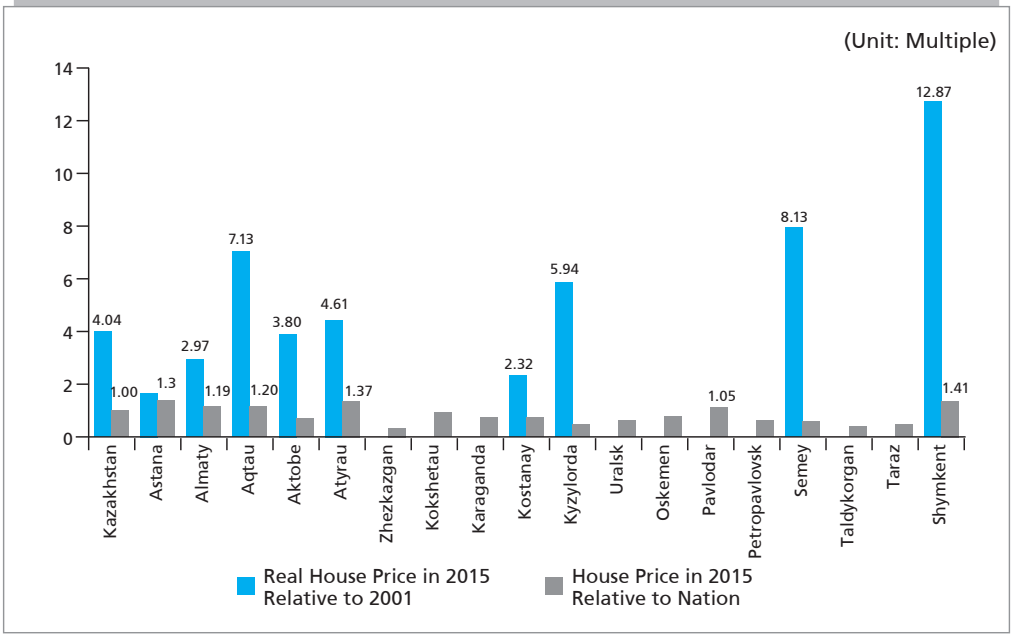


Source: https://forbes.kz.

Regional differences in housing price inflation are large. The blue bars in [Figure 1-7] show the relative real price of housing (per m^2) in 2015 as compared to 2001. Nationally, real housing prices in 2015 are 4.4 times the prices in 2001, but the comparable multiples for Astana and Almaty are lower than the national average. Instead, cities such as Shymkent, Semey, and Aqtau show much higher multiples. In many countries, house price inflation tends to be higher in major cities often due to restricted supplies, which in turn is related to stringent land use regulations. Perhaps housing supplies in Astana and Almaty have not been bound by such severe restrictions.

The grey bars in [Figure 1-7] represent regional housing prices (per m^2) in 2015 as compared to the national average. Housing prices in Astana and Almaty are higher than the national average by 30% and 19% respectively. Houses in Shymkent and Atyrau are more expensive than those in the two major cities, while housing prices in some other regions are less than half of the national average. In recent years, Astana has been the absolute leader in residential real estate operations, but it is not possible to significantly shorten the waiting list for municipal housing. On the other hand, many privately invested apartments remain unoccupied while wealthy investors wait for prices to rise.

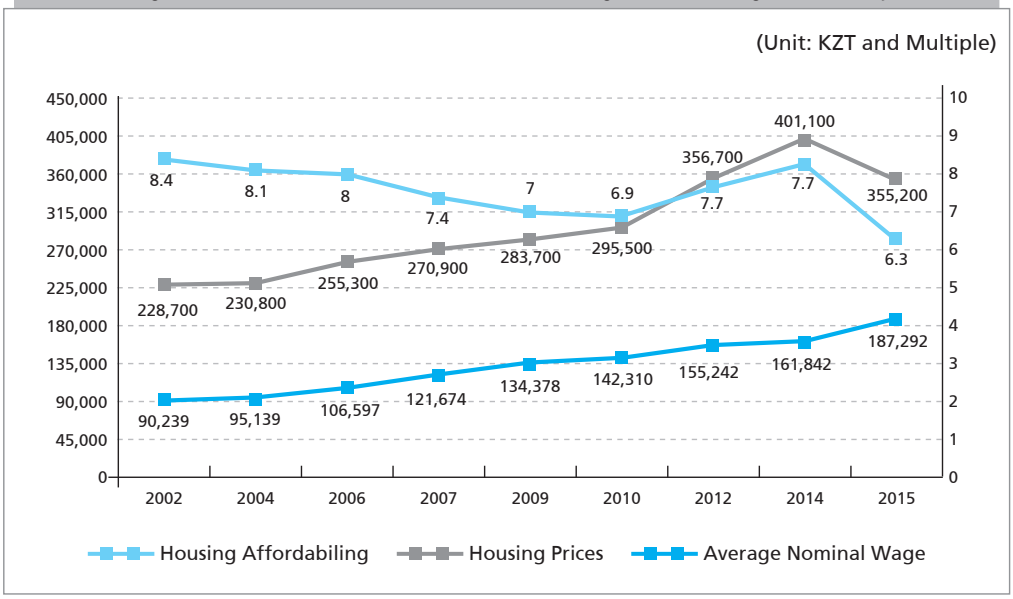
[Figure 1-7] Relative Real House Prices by Region



Source: Committee on Statistics, MoNE.

Housing affordability depends on the ratio of housing prices to annual (disposable) income. A rule of thumb is that housing in the country or a city is affordable if the cost per m^2 of house is equal to the monthly gross income of an average family. After two devaluations of the KZT in February and August of 2015, residential real estate prices dropped in terms of USD, but not in terms of KZT. However, as can be seen in [Figure 1-8] the dynamics of growth for average nominal wages in Kazakhstan (blue line) is ahead of the trend in housing prices (light blue line) over the past 8 years. Therefore, the affordability of real estate (grey line, in number of years necessary to buy an apartment) improved over this period.

[Figure 1-8] Trends in House Price, Nominal Wage, and Housing Affordability



Source: Krisha (2016).

It should be noted that the mortgage rates of Kazakhstan commercial banks as shown in <Table 1-6> are much higher than those in developed countries such as France (2.1-3.0%), Great Britain (3.3-3.6%), Switzerland (2.1-2.3%), Italy (3.0-4.5%), and Spain (3.2-4.3%). Of course, in addition to interest rates, there are other aspects that are important to borrowers such as loan amount, repayment method, and maturity date. Nevertheless, this large difference between the rates in Kazakhstan and other countries is significant.

〈Table 1-6〉 Terms of Mortgage Loans at Kazakhstan Commercial Banks

Bank name	Initial payment (%)		Annual interest rate (%)		Period of loan
	In KZT	In USD	In KZT	In USD	
QAZAQ BANKI	30	25	from 17.8	from 9.3	from 6 mths. to 15 yrs.
Forte Bank	15	-	from 18.3	-	from 6 mths. to 15 yrs.
BANKRBK	30	30	from 19.5	12.6	up to 10 yrs.
AsiaCreditBank	from 20	-	from 14.5	-	from 6 mths. to 20 yrs.
Altyn Bank	30	-	from 15.5		from 3 to 20 yrs.
TSESNABANK	from 40	-	21.1	-	from 6 mths. to 10 yrs.

〈Table 1-6〉 Continued

Bank name	Initial payment (%)		Annual interest rate (%)		Period of loan
	In KZT	In USD	In KZT	In USD	
CENTERCREDITBANK	from 20	from 12.5	18.8	15.6	from 3 to 20 yrs.
NURBANK	from 20	-	from 15.4 to 17	-	from 6 mths. to 20 yrs.
HALYKBANK	from 10	-	14.5	-	from 6 mths. to 20 yrs.
Eurasian Bank	30	-	13-26	-	from 1 yr. to 20 yrs.
SBERBANK	30	30	16.1	8.6	from 3 mths. to 20 yrs.
VTB	10	10	18	12	From 1 yr. to 20 yrs.
Bank of Astana	15	from 13	from 17	individually	from 1 yr. to 15 yrs.
ALFA BANK	from 30	from 30	23	12	from 6 mths. to 10 yrs.

Source: National Bank of Kazakhstan.

Currently, the demand for residential property in Kazakhstan is larger than the supply, and factors such as migration, demographics, urbanization, and state support for new housing construction is further increasing demand. Moreover, 0.72% of the total area of residential buildings is recognized as emergency stock, which is in a dangerous condition and may collapse at any time. Therefore, the state needs to allocate funds for replacing these buildings with new houses.

In 2015, the average housing area per person in Kazakhstan, defined as the total area of housing divided by the population, amounted to 21.0m^2. Per capita housing area in rural areas was 17.6m^2 and was 23.8m^2 in urban areas. According to the social standards of the United Nations, the provision of housing area per person should not be less than 30m^2 in order to ensure quality of life. The Kazakhstan Program of Housing Development 2020, however, shows that Kazakhstan is behind Russia (23.4m^2), Poland (25m^2), Germany (39m^2) and the US (69.7m^2).

The Kazakhstan Program of Housing Development 2020 claims that international experience shows that, for a radical improvement of housing provision within a reasonable period of time such as over one generation's life cycle, annual construction activity should be about 1m^2 per person. For example, during their respective periods of intensive housing construction, Japan built 0.9-1m^2 of housing per person annually, the U.S. 0.7-0.8m^2, and France, Germany, and China about 0.7m^2 each. In order to achieve a level of about 1m^2 per person, Kazakhstan needs

to increase their annual volume of housing construction to 17 million m^2 and ensure total volume of housing construction within 2016-2020 at around 85 million m^2.

3. Kazakhstan Housing Guarantee System

3.1. Background

3.1.1. Major Housing Policies

The government tried very hard to provide affordable housing, but the increase in demand for housing exceeds supply. Since 2011, the number of citizens who are registered for housing from the communal funds of local executive bodies (hereinafter–"akimats") has doubled and continues to grow. On October 1, 2016, the number of people waiting or preparing for better housing conditions amounted to about 2.3 million, of whom 400 thousand were on waiting lists for housing, 700 thousand were depositors of Zhilstroysberbank, and 1.2 million people were on waiting lists to receive 10 acres of land.

Since the mid-2000s the government has implemented various affordable housing programs. "The State Program of Housing Construction in the Republic of Kazakhstan for 2005-2007" tried to supply houses at the cost of 350 USD per m^2. The policy goal originally planned for three years was reached in two years. In 2007, the government adopted another program to supply houses at a price of 56,515 KZT (approximately 400 USD) per m^2 during 2008-2010. Furthermore, the "Affordable Housing 2020" program was adopted in 2012 with a goal of supplying houses at a price of up to 142,500 KZT per m^2. However, in 2015 the program was integrated into a new program, "Development of Regions 2020".

Now there is the "NurlyZhol Development Program" that shifts the focus from housing purchases to affordable rental housing. In September 2016, the President of the Republic of Kazakhstan proposed a new program called "Nurlyjer" that would encourage private development and a transition to rental housing over the next 15 years. The cost of this program is estimated to be more than 100 billion KZT, of which 80 billion will be spent on infrastructure, 10 billion on subsidizing mortgages, and 11 billion on preferential loans to construction companies.

3.1.2. Equity Participation in Residential Development and its Problems

The pre-sale of houses, more often called equity participation, was widespread in Kazakhstan during the period of rapid commercial housing construction in 2003-2006. Most of the 6.5 million m^2 in housing area built during this period was financed with funds raised by equity participation.

In addition to being a finance mechanism for construction companies, consumers also benefit from equity participation. First, there is significant savings for equity participants when purchasing a house. Housing prices for participants are generally 15-30% lower than the market prices for comparable finished homes. Moreover, it is possible to enter into equity participation not only at the very beginning, but also during the construction process. Second, equity participation in housing construction involves making an initial payment after signing the contract (usually, 20-50%), with the remaining amount paid in several installments during construction. Such installment features may be convenient for home buyers. If necessary, the customer can take advantage of bank loans or other credit products. Third, some developers allow for the involvement of equity holders from the design stage. The buyer can decide the layout, select the flooring, and make suggestions regarding the orientation of windows and the like, or simply reserve an apartment. Fourth, equity participation fosters the formation of a home owner's association at an early stage, which independently chooses a management company and a range of services for the homes and the surrounding area such as security, area fence, parking, and other infrastructure and services.

But equity participation can have its own problems. First, home buyers have to wait months or even years for delivery of a new house. On average, completion of a project takes from 1.5 to 3 years, but there are often delays of a few months. There may also be more serious problems such as a failure to raise sufficient funds for construction, contractor problems, a failure to comply with regulatory and legislative codes, administrative and bureaucratic obstacles, and financial crises or other force majeure events which may stall the project indefinitely. Equity participants may lose their entire investment in extreme cases.

Indeed, with the onset of the global financial crisis in 2007, many construction projects were frozen with no effective protections for equity holders. The government was forced to allocate funds from the state budget as well as the National Fund to protect equity holders and complete construction projects. For a total of 450 residential projects with 62,889 shareholders, the government allocated 464.3 billion KZT, of which more than a third could not be recovered.

3.1.3. “Law on the Equity Participation in Housing Construction” of 2006

The legislative framework to protect the rights and legitimate interests of the parties involved in inequity participation was laid down in the “Law on the Equity Participation in Housing Construction” of July 7, 2006 and in subsequent amendments and additions. Given the experience of massive violations of developers’ obligations to equity holders during 2003-2008, the law underwent a number of significant changes in 2009, including the requirement to organize shared construction in order to ensure maximum protection for shareholders’ funds. To raise funds from home buyers in accordance with this law, a developer had to obtain a permit for commissioning a residential building and for using interest-holders’ money. Under this regulation, developers had to construct housing buildings with their own funds and could only use interest-holders’ funds when the building was completed. Accordingly, this mechanism was only useful for developers who already had other funding sources besides shareholders’ contributions. This is why this mechanism did not work properly, as it did not meet the needs of the developers at all.

Unable to meet these stringent requirements, most developers had to rely on other forms of transactions that did not fall under the regulatory scope of the law. For example, many developers created housing building cooperatives (HBCs), which enabled them to call prepaid housing investments as simply an equity interest in a HBC. This allowed construction companies to overcome the requirements of the legislation on equity participation. As a result, equity participation participants were exposed to significantly increased risks. Such a situation called for improvements in the framework for residential development and a new mechanism to guarantee equity contributions.

The State Commission on Admission of New Housing was abolished in 2016. Previously, the commission was responsible for accepting a newly constructed building into operation, but now the act of acceptance into operation is done by the project owner, contractor, and technical supervisors. Along with this deregulation, the introduction of a new mechanism to guarantee equity contributions was expected to ensure a reduction in risks, the growth of private sector housing developments, and increased private investment in housing construction.

3.2. Introduction of the Housing Guarantee System

3.2.1. Preparation for a New System

In his 2012 article, “Social Modernization of Kazakhstan: Twenty Steps to a

Society of Universal Labor", the President of the Republic of Kazakhstan gave an order to create a working group of representatives from governmental and non-governmental bodies ('Working Group') to develop and implement a system to protect the rights and interests of equity holders in housing developments by improving existing legislation. The Working Group studied in detail the pros and cons of different approaches and mechanisms. The international experiences of equity participation in housing construction included cases from Korea, Canada, UK, Italy, Spain, Russia, and other countries. Countries such as England, Canada, France, Italy, Spain, Russia, etc., at various times faced the problem of defrauded investors and so adopted mechanisms to ensure the proper performance of the developer's obligations, thus lowering the amount of risk in the construction sector.

The international experience in guaranteeing equity deposits consists of two approaches. One is to regulate the relationship between developers and private insurance companies, which was the approach adopted by Western countries such as the US, Japan, and most European countries. Another approach is direct public regulation of the sector through the creation of a specialized institution that manages the risk of construction non-completion. The most successful example of the second approach is the experience of Korea. In the end, the Korean model in which the government plays an active leadership role and provides the basic mechanisms of interaction among the players in the construction market was determined most relevant to the Kazakhstan situation. On April 7, 2016, the new "Law on the Equity Participation in Housing Construction" was signed.

3.2.2. Housing Sales Mechanism with Equity Participation (Housing Pre-sales)

According to Paragraph 1, Article 7 of the new law, equity participation is allowed when any one of three options is satisfied:

- Option 1. Guarantee by the Housing Guarantee Fund
- Option 2. Project financing by a commercial bank
- Option 3. Construction of a residential building skeleton by the developer's funds

The law prohibits soliciting individuals' and legal entities' equity participation in residential buildings (apartment buildings) in ways not provided for by this law. For the first option, the Housing Guarantee Fund was created based on government decree № 479 of August 26, 2016. In accordance with statutory objectives, the Fund provides guarantees for real estate investors to complete the construction of a residential building in the case of a failure by a project company to construct residential buildings.

To participate in this process, the developer must have at least 3 years of experience in the construction of residential buildings on a break-even basis over the past 2 years, and borrowed funds cannot exceed its equity capital by more than 7 times. The Fund will ensure the qualifications regarding financial stability and experience, and implement controls over the quality and progress of construction work through an engineering company by employing the best practices of risk management.

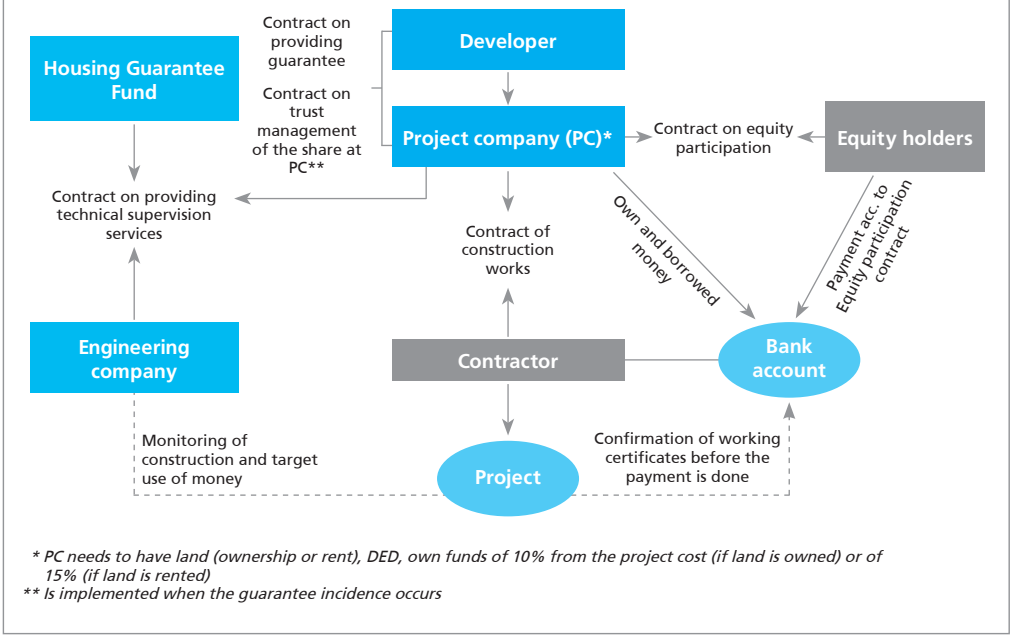
The second option for equity participation requires a project finance loan from commercial banks in an amount sufficient to complete the construction. In addition to the bank's decision on lending by this method, the developer must have experience of at least 3 years in the construction of residential buildings, ownership or leasehold of the project site, and design and estimate documentation approved by the state examination office. The bank, in turn, will select the engineering company that will control the flow of funds and the volume of work performed. After going through all of these procedures, the developer applies to the local executive authority (akimat) for permission to solicit the equity participation of individuals. However, commercial banks in Kazakhstan have stopped providing loans for housing construction in the last 3 to 4 years and are not planning to change this policy in the near future. Moreover, with this option, equity participation may be pointless if the project financing covers the construction costs.

The third option allows equity participation after completion of the frame of a building with the developer's own funds, thus reducing the risk of incomplete construction. In addition to calling for a large capital input from the developer, there are other requirements. The developer must have at least 5 years of experience, secure land ownership or leasehold is required, and the akimat's approval of the design and estimate documentation is also required. After meeting all these requirements, the developer is to then apply to the akimat for permission for equity participation.

3.2.3. Workflow of the Guarantee System

The newly developed housing guarantee mechanism introduces new interactions among the equity participants such as the developer, project company, agent bank, engineering company, equity participants and the Housing Guarantee Fund (hereafter, the "Fund"). The process consists of the following stages (see Figure 1-9):

[Figure 1-9] Housing Guarantee Mechanism



Source: Authors.

Stage 1. The developer creates a project company that is a 100% owned subsidiary. The developer's equity contribution in the project company can take the form of money, land, design and estimate documentation with the positive endorsement of technical expertise, a building in progress at not less than 10% (in case the land is owned by right of ownership) or at least 15 % (in case the land is in use rights) completion, as well as the funds to pay the guarantee fee. Creation and maintenance of the project company may not appear in the design and estimate documentation of the construction project. However, the cost of maintaining the administrative staff of the project company, as well as outsourcing services such as accountants and personnel for the construction, is usually less than 1% of the overall cost of the construction project.

Stage 2. The project company enters into a contract with an engineering organization that was selected by the Fund for the provision of engineering services regarding technical supervision over the construction work.

Stage 3. The project company enters into a contract with a commercial bank (agent bank) to open a designated bank account to be used for the project. The general contractor of the project company opens an account with the same agent bank.

Stage 4. If the Fund makes a positive decision, a three-party guarantee contract between the Fund, the project company, and the developer is signed. In addition, the pledge agreement on the authorized share capital of the project company and a trust management agreement for the share capital of the project company with the developer with conditional requirements are signed. Conditional requirements refer to when a guarantee incident occurs. After the conclusion of these contracts, the developer and the project company may enter into equity contracts with equity holders for the residential construction.

Stage 5. Equity holders make payments as specified in the contract to the designated account of the project company at the agent bank. The use of holders' money is allowed only by acts of performance work that are signed off on by the engineering companies under the contract. Further engineering companies report to the Fund on the status of construction works and payments under the contract.

Stage 6. The project company and the general contractor start the construction works and give project documentation of the construction to the engineering organization, the agent bank, and the Fund.

3.2.4. Duties and Rights of Homebuilders and Buyers

Homebuilder's (project company's) duties include:

- Inform the equity holders of the contract with the Fund and the permit issued by the local authorities when attracting the funds of individual investors for the housing construction.
- Ensure payment of construction work and other costs to complete the construction and transfer of shares in a residential building in accordance with the requirements of the legislation.
- Provide technical supervision over the construction of a residential building in accordance with legislation in the field of architecture, urban planning and construction activities.
- Submit documents to the local executive body for the registration of the contract (amendments thereto and/or additions) in the prescribed manner no later than five working days from the date of signing by the parties to the contract (amendments thereto and/or supplements).
- Ensure construction of the residential building under the specified terms of the contract, its acceptance into operation, transfer of the shares to individual investors in the residential building, and registration of the condominium.

Homebuilder's (project company's) rights include:

- Receive funds from a third party if an equity participant fails to keep up with the payment schedule for three consecutive months.
- Receive a penalty (fine) from an equity participant in case of violation of the conditions for three consecutive months in the amount of 0.1% per day of delay, in addition to the amount payable to the homebuilder in accordance with the terms of contract.

Buyers' (Equity holders') responsibilities are:

- Deposit money in the specified bank account of the project by bank transfer in accordance with the agreement on equity participation in housing construction.
- Fulfill the conditions of the contract on equity participation in a timely manner.
- Take a share in the apartment house (residential building) in the presence of a registered certificate of acceptance within thirty calendar days of receipt of notice from the project company.
- Notify the project company in writing if the actual address and (or) other personal data changes within thirty calendar days.

Buyers' (equity holders') rights are:

- Obtain all necessary information from the project company.
- Transfer the right to claim the contract on equity participation in housing construction in the manner specified by the civil legislation of the Republic of Kazakhstan.
- Require the proper execution from the project company specified in the terms of the contract.

3.3. Operation of the Housing Guarantee System

3.3.1. Conditions for the Housing Guarantee

The introduction of a new mechanism to guarantee equity contributions will reduce the risks in housing development and promote the growth of business in the commercial real estate market, thus creating the conditions for better use of private investment in housing construction. As noted above, by using the best practices of risk management the Fund will ensure a developer's financial stability and experience while implementing control over the proper use of money through engineering companies.

A contract of guarantee is signed in writing on based on a model contract approved by relevant authorities, and is concluded with the guarantee fee payment. The essential elements of a guarantee contract are the following:

- Guarantee object (subject of the contract)
- Guarantee obligations
- Amount of guarantee fee
- Guarantee incidents and the responsibility of the guarantee
- Procedure for the fulfillment of the Fund obligations
- Rights and obligations of the Fund
- Rights and obligations of the builder (the authorized company)
- Responsibilities of the developer responsible for the company

The guarantee contract is a legal foundation to attract money of equity holders.

3.3.2. Credit Assessment of Homebuilders and Evaluation of Projects

After verifying and examining the submitted documents, the Fund makes decision on whether to accept or refuse a contract for a guarantee. The Fund is to refuse to a guarantee contract for any one of the following cases:

- Failure to meet the requirements for developer status as established by the law.
- Failure of the developer to sign the contracts with the Fund referred to by the law.
- Existence of outstanding unpaid taxes and other obligatory payments to the budget in the amount of more than six monthly calculation indexes as of the application filing date.
- Judicial decisions on the initiation of rehabilitation or bankruptcy procedures against the developer responsible for the company.
- Unfavorable judgement by the Fund after checking the documents on the construction of an apartment house (residential building) in the manner approved by the competent authority.

The time for examination of the application shall not exceed fifteen working days from the date the developer and the authorized company files their application. If there are comments regarding the application, the Fund has the right to send it back for revision. When the Fund decides to sign the guarantee contract, the contract for the provision of engineering services, the contract to pledge to the authorized company the land upon which the object of construction is in progress, the contract to pledge the voting shares of the authorized company, and the contract of trust management for the voting shares of the authorized company with the builder must all be signed before the conclusion of the guarantee agreement.

3.3.3. Security

There is a special unit within the Fund responsible for security checks. This unit ensures the maximum security of the information system of the Fund in general and confidential information in particular. It provides a systematic and comprehensive campaign to protect the information of the Fund. Security requires strict compliance with the norms in place and risk management practices related to the money management process. It should also include checking the documents of the developers, engineering companies, and their top management in addition to identifying affiliations between the parties.

3.3.4. Guarantee Fee Rates

The methodology used by the Fund to assess the guarantee fee takes into account the risks involved in providing the guarantee. The guarantee fee is determined as the product of the guarantee rate and the projected cost of an apartment house. That is, $Ts = T \times Ps$, where Ts is the amount of the guarantee fee, T is the guarantee fee rate (in percentage), and Ps is the cost of a residential building project in accordance with the law. The guarantee fee rates depend on several indicators that are used to generate points in each category and the total score:

- Profitability measures (from 0 to 20 points)
- Solvency measures (from 0 to 20 points)
- Credit leverage (from 0 to 20 points)
- Characteristics of the developer (from 0 to 40 points)

Each developer of a project is rated based on the indicators above and is given a particular grade.

〈Table 1-7〉 Score of Points and Grade of Developers

Number of points	Grade of the applicant
90 points and more	A
≤ 80 points < 90	B
≤ 70 points < 80	C
≤ 60 points < 70	D
below 60 points	E

Source: Authors.

Furthermore, the guarantee fee is assessed based on the score that the developer achieves.

〈Table 1-8〉 Grade and Score of Developer and Guarantee Fee Rate

Grade	Score	Guarantee fee rate (% of project cost)
A	100 points	2.0
	99 points	2.1
	98 points	2.2
	97 points	2.3
	96 points	2.4
	95 points	2.5
	94 points	2.6
	93 points	2.7
	92 points	2.8
	91 points	2.9
	90 points	3.0
B	89 points	3.1
	88 points	3.2
	87 points	3.3
	86 points	3.4
	85 points	3.5
	84 points	3.6
	83 points	3.7
	82 points	3.8
	81 points	3.9
	80 points	4.0
C	79 points	4.1
	78 points	4.2
	77 points	4.3
	76 points	4.4
	75 points	4.5
	74 points	4.6
	73 points	4.7
	72 points	4.8
	71 points	4.9
	70 points	5.0
D	69 points	5.1
	68 points	5.2
	67 points	5.3
	66 points	5.4
	65 points	5.5
	64 points	5.6
	63 points	5.7
	62 points	5.8
	61 points	5.9
	60 points	6.0
E	Less than 60 points	Rejection of the application

Note: Rates shown are for coverage for the entire project period.
Source: Authors.

3.3.5. Project Oversight and Other Risk Management

In accordance with the Article 33 of the law, the Fund is obligated to have detailed evaluations of the documents on the construction of an apartment house, including financial, technical, and legal assessments. The financial evaluation provides an analysis of the financial statements, a calculation of the main indicators characterizing the financial condition of the company and the responsible developer, an analysis of the sources of financing for the project, and an analysis of the validity of the budget analysis for the construction. The technical evaluation includes an evaluation of the work performed on the unfinished facility, a comparison between the work performed and the actual acts of performed work, and an assessment of the necessary work to complete the construction.

The legal evaluation includes a review of the title documents of the developer and project companies, a legal analysis of the authorized capital of the project company, an analysis of the availability of the necessary permits, an analysis of data on the participants, information on affiliated persons authorized by the company, an analysis of the main provisions of the construction contract authorized by the company with the contractor, an analysis on the presence or absence of trials of a material nature, and an analysis on the presence of debt regarding taxes and other obligatory payments to the budget. According to the Article 32 of the law, the period for a decision to provide the guarantee is 15 working days from the date of submission of the application.

Risk management for the Fund is to be carried out according to the approved internal documents of the Baiterek Holding and the Fund. The nature of the operational, financial, credit, and market risks and ways of mitigating them are prescribed on the following Table.

〈Table 1-9〉 Operational Risk Factors of the Housing Guarantee Fund

№ II / II	Definition of risk	Frequency of risk	Degree of impact	Events to mitigate the risk
1.1.	Loss of highly professional personnel leading to a reduction in the quality and efficiency of company management	3	2	Vocational training and retraining of administrative staff, participation in joint events, conferences, forums and projects
1.2.	The lack of qualified staff and lack of qualifications for staff	3	2	Recruitment of staff personnel on a competitive basis, the use of staff incentive schemes, creation of a favorable psychological climate within the team
1.3.	The risk of employee fraud	2	3	Taking measures to minimize fraudulent transactions, verification of workers' personal data
1.4.	Information and technical risks (the risks of IT technologies associated with technical failure)	4	2	Formation of an adequate standard for information systems and advanced software. Timely database archiving. Automating business processes
1.5.	The adequacy of the organizational structure for the objectives and scope of activities	2	3	Regular analysis of the organizational structure, the composition of departments, the number of employed workers, and their compliance with the complexity and structure of the work to be performed
1.6.	Inefficiency and lack of coordination of business processes	2	3	Analysis of business processes, the use of test results in improving business processes, application of quality management system requirements
1.7.	The risk of conflicts of interest occuring	3	3	Tracking the possibility of conflicts of interest

Note: In this and other tables, "Frequency of risk" estimates potential frequency of occurrence for every risk based on a survey of the Fund's risk department and other related departments. 1 is the lowest and 5 is the highest. "Degree of impact" estimates the potential degree of impact for every risk based on a survey of the Fund's risk department and other related departments. 1 is the lowest and 5 is the highest.

Source: Authors.

〈Table 1-10〉 Financial Risk Factors for the Housing Guarantee Fund

№ II / II	Definition of risk	Frequency of risk	Degree of impact	Events to mitigate the risk
2.1.	Risk of a liquidity deficit	2	4	Forecasting and analysis of the market situation and the timely redistribution of cash flows, monitoring of possible rapid disposal of assets without a substantial reduction in the costs.
2.2.	Risk of an inability to pay	4	4	Analysis of the risk of default by owners, thorough underwriting, formation of adequate reserve levels to resolve the guarantee incidence.
2.3.	Risk of changes to prudential normatives	2	3	Monitoring changes in international and Kazakhstani standards.

Source: Authors.

〈Table 1-11〉 Credit Risk Factors for the Housing Guarantee Fund

№ II / II	Definition of risk	Frequency of risk	Degree of impact	Events to mitigate the risk
3.1.	The risk of loss of solvency and default on their obligations by counterparties	2	3	The establishment of limits, monitoring the financial conditions of counterparties in the prescribed manner, monitoring of compliance within the established limits
3.2.	The risk of a guarantee incidence occurring	4	5	Measures for monitoring the progress of construction and analysis of the financial condition of the project company and an authorized builder.

Source: Authors.

〈Table 1-12〉 Market Risk Factors for the Housing Guarantee Fund

№ II / II	Definition of risk	Frequency of risk	Degree of impact	Events to mitigate the risk
4.1	The risk of deterioration in the dynamics of the industry's development	3	4	Analysis of changes in the dynamics of development in the industry, analysis of the impact of macroeconomic indicators on the development of the industry, monitoring housing construction programs, an analysis of the dynamics of housing construction in operation, population growth
4.2	Restrictions set by the legislation of the Republic of Kazakhstan	3	3	Monitoring normative acts by the Republic of Kazakhstan in the field of construction
4.3	The risk of new players in the market emerging	2	4	Market analysis for the presence of competitors, continuous improvement of the product line, analysis of its own products for adequacy in terms of market requirements, the adoption of proactive measures to promote and expand activities
4.4	Risk of dependency by engineering companies on the project company	2	4	At the conclusion of a three-party agreement for the provision of engineering services, the security department should check in detail the affiliation of engineering companies with the project companies. To avoid delaying payment terms for the engineering company, according to the three-party agreement the project company will be required to pay the amount within three working days after the approval of Completion Act.
4.5	Risk of transferring of the costs of obtaining guarantees for co-investors at the expense of increasing cost of the housing	2	4	The Fund will conduct an ongoing analysis of market housing prices, and will also carry out a PR campaign and provide feedback to the developers and real estate investors to avoid unjustified price increases.

Source: Authors.

3.3.6. Treatment of Guarantee Incidents

When one or more of the following events happen, the Fund must make a decision on the recognition of a guarantee incident within three working days.

- Untimely commission of construction in violation of the terms of the project construction organization as stipulated in the contract.
- Misuse of money in a total amount exceeding 10% of the value provided for in the design and estimate documentation.
- Bankruptcy decision regarding the builder by the court in association with its other activities.

The onset of a guarantee incident may be detected by the Fund in the course of routine monitoring by the monthly reports of engineering organization, or from information received from the project company, an authorized body, or at the written request of the equity holders. When the Fund receives information on the possible occurrence of a guarantee incident it does the following:

- Checks the information regarding the default and/or improper performance of the obligations of the project company.
- Verifies the information regarding whether a guarantee incident has really occurred.

If the information is confirmed and a positive decision is made regarding the recognition of a guarantee incident, the Fund notifies the holders, the authorized body, the builder, the project company, the engineering organizations, and the other interested parties about the occurrence of the guarantee incident no later than the day following the decision.

When a guarantee incident occurs, the Fund takes in trust the share capital of the project company and organizes for the completion of the project in the prescribed manner in accordance with the contract of guarantee. The Fund assesses progress on the project, and if necessary, organizes for the transfer of shares in the residential building to the equity holders. Completion of construction is financed by a special reserve formed by project companies' (developers') guarantee fee.

3.3.7. Guarantee Fund Management

Operation of the Fund is meant to bring about the following positive results:

- Creation of an effective legal framework for the activities of all the participants of the shared construction.

- Reducing the risks to shareholders, since the risks are now shared by the Fund and construction companies.
- Access to co-investors to reduce the financing costs for the developer, which will in turn lower the selling price of houses to consumers, thereby making houses more affordable.
- Minimizing the likelihood of misuse of funds and disruptions to the construction process.
- Improving the quality of new housing with the involvement and contribution of engineering organizations.
- Increased participation by second-tier banks in the construction sector by reducing the risks in the housing sector.
- Reduction of state responsibility for the obligations of unscrupulous construction companies.

〈Table 1-13〉 Benefits of the New Housing Guarantee System

For consumer	For developer	For the State
• Guaranteed completion of construction works and receipt of the housing share • Guaranteed quality of work based on the technical monitoring of construction works	• Direct access to people's money • Increase in investments attracted • Lower interest rates on loans due to decreased risks for the banks	• Additional control over proper construction work • No need for budget money to fulfill the obligations of nonperforming construction companies • Stimulating developers to finish projects • Prevention of potential social unrest • Increased housing supply • Creation of new jobs and higher GDP

Source: Authors.

With implementation of this mechanism, the administrative expenses of the builders and project companies may increase since they now have to pay a guarantee fee. However, this drawback seems to be a minor problem compared to the benefits of the new system.

4. Korean Housing Guarantee System

4.1. Korean Housing Market and Policies

Korea has achieved great long-term improvements to housing conditions both in terms of quantity and quality (Table 1-14). Koreans are now living in better and bigger houses, and houses are more plentiful than just a few decades ago. The role of the government was important, but the government assisted the housing sector with little budgetary or financial input. Economic policy was focused on the development of the export-oriented manufacturing sector, and most fiscal and financial resources were mobilized for this purpose. Housing policy focused on building up the inventory of houses, which was mostly paid for by consumers. Assistance for home buyers relied more on the supply of inexpensive land and price regulations on new houses, rather than on the allocation of fiscal or financial resources.

There have been failures as well as successes. Some people benefited more (or, less) than others from the housing policy, and it is natural for the disadvantaged complain about the market and policy. In particular, there is a high degree of resentment against the "speculators" who supposedly push up housing prices and exploit innocent people. Housing still is a reason for discontent among many people, and housing problems have always been a sensitive political issue (Kim and Kim, 2000; Kim, 1993; Kim, 2008).

〈Table 1-14〉 Long-term Housing Conditions Trends in Korea

	Units	1970	1980	1985	1990	1995	2000	2005	2010
Housing Stock	1,000	4,359	5,318	6,104	7,160	9,204	10,959	12,494	13,883
House Size	m^2	47.9	68.4	72.6	80.8	80.7	81.7	83.7	-
Per Person Residential Space	m^2	6.8	10.1	11.3	13.8	17.2	20.2	22.9	25.0
Space per Households	m^2	35.9	45.8	46.4	51	58.6	63.1	66	67.4
Persons per Room	Person	-	2.1	1.9	1.5	1.1	0.9	1.3	1.4
Hhds with One-room Housing	%	-	-	32.6	25.8	12.3	7.9	6.5	-

〈Table 1-14〉 Continued

	Units	1970	1980	1985	1990	1995	2000	2005	2010
Hhds with Hot Running Water	%	-	9.9	19.9	34.1	74.8	87.4	95.8	96.9
Hhds with Flush Toilet	%	-	18.3	33.1	51.3	75.1	87	94	97.6
Housing Supply Ratio (Hhds/ Housing Stock)	%	78.2	74.4	69.8	72.4	86.0	96.2	105.9 (98.3)	(101.9)
No. Houses per 1,000 persons	Unit	141.2	142.1	150.9	169.5	214.5	248.7	279.7 (330)	(364)

Note: 1) Housing stock figures do not include vacant houses.
2) Numbers in the parentheses represent a new definition of "house".
Source: KOSIS.

The improvements shown in <Table 1-14> owe much to a housing policy geared towards the mass-production of apartments.[1)] An apartment equipped with amenities including hot running water and a modern kitchen and bathroom ensures a minimum standard for housing conditions. In addition, security and other services collectively provided by apartment complex managers soon became an indispensable part of the lifestyle of urban families. From almost 0% in 1970, the apartment has increased its share to 60% of total housing stock in 2010 (Table 1-15).

1) The apartment in Korean terminology refers to a multi-family residential unit in a five-story or taller building. Usually, each unit is individually owned, rented, and sold, but there may be communal facilities such as a fitness center, library, nursery, and recreation rooms for seniors. Since an apartment in Kazakhstan also has a similar meaning, we use this term without additional qualifications.

〈Table 1-15〉 Increasing Share of Apartments in Korea: Housing Stock Trends

	1975	1980	1985	1990	1995	2000	2005	2010	2015
Housing stock (1000 units)	4,734	5,319	6,104	7,160	9,205	10,959	12,495	13,884	(16,367)
Apt. (1000 units)	89.2	373.7	821.6	1,628.1	3,454.5	5,231.3	6,627.0	8,185.1	(9,806.1)
Share of Apt. (%)	1.9	7.0	13.5	22.7	37.5	47.7	53.0	59.0	59.9

Note: Numbers up to 2010 exclude vacant houses while 2015 statistic includes them.
Source: KOSIS.

〈Table 1-16〉 Increasing Share of Apartments in Korea: Trends in Building Permits including Housing Project Approvals

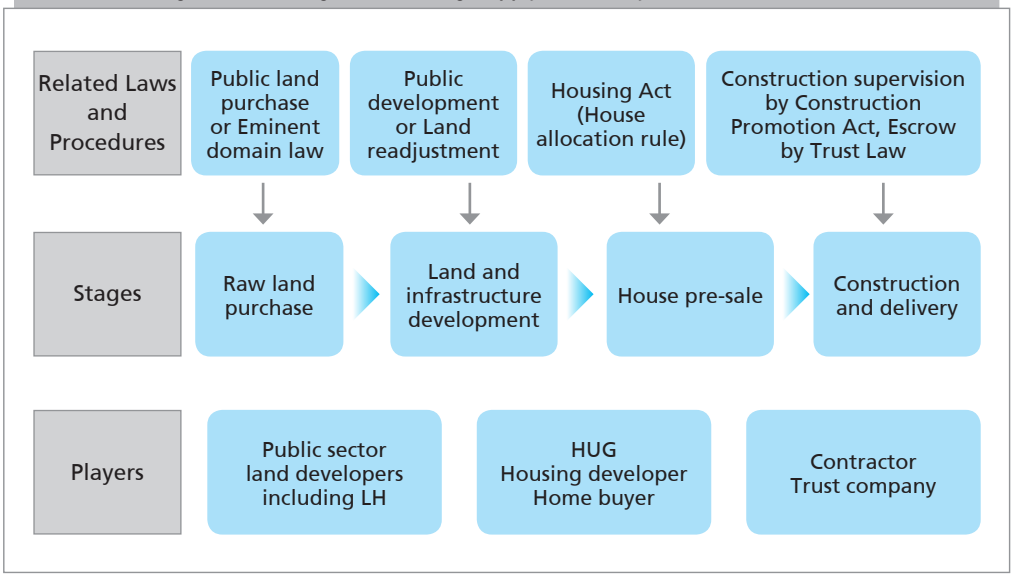
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total (1000 units)	548.8	495.4	519.1	628.5	449.8	460.5	496.8	706.4	716.6	556.3	622.6	885.4
Apts. (1000 units)	404.9	415.5	412.9	476.5	263.2	297.2	277.0	356.8	376.1	278.7	347.7	534.9
Share of Apts. (%)	73.8	83.9	79.5	75.8	58.5	64.5	55.8	50.5	52.5	50.1	55.8	60.4

Note: Statistics based on units of actual independent dwelling spaces rather than on the definition in the Construction Law.
Source: KOSIS.

In a typical apartment housing development project, hundreds or even thousands of apartments are built simultaneously. Apartment construction fluctuates with housing cycles. If the market is good, major housing developers who concentrate on building apartments are more active, and the proportion of apartments among total housing permits is high. If the market is bad, minor developers who build other types of houses increase their share. During the housing boom between 2004 and 2007, more than 75% of all building permits were for apartment construction. In major cities, this ratio frequently goes above 90%.

Apartment development projects require large lots equipped with a full range of infrastructure and public services. Producing such sites is land development. The government was reluctant to allow private-sector land development since it would produce huge profits (called development gains) for landowners as well as developers. Large-scale residential or industrial land development was thus performed by public sector developers who would, in theory, recapture and reinvest these development gains for the general public. The most prominent public sector developers were government corporations such as the Korea National Housing Corporation (KNHC) and the Korea Land Development Corporation ('KLDC'), which were merged to form Korea Land and Housing Corporation ('LH') in 2009. LH is a public corporation wholly owned by the government with 21.4 billion USD in paid-in capital and 6,500 employees. LH's main mission is to implement the government's land and housing policies, which sometimes amount to the creation of an entirely new city. LH is supported by a legal power that allowing for compulsory purchases of raw land and an expedient development process called "the public development" of land which streamlines or obviates various permits, approvals, or licenses normally required of a developer (Figure 1-10).

[Figure 1-10] Stages of Housing Supply and Policy Intervention in Korea



Source: Author.

Intervention in the market for existing housing inventory has been minimal, but every stage of new housing construction has been closely managed by the government because it can decide how much land is supplied, when and where, to whom, for what purpose, and at what price.

〈Box 1-1〉 Regulation of New House Sale Prices

Among the many regulations on new housing construction, the regulation of new house sale prices used to be the most important one. When 20 or more new houses (in most cases, apartments) were sold, the price of a unit was set below the market price of a comparable house already in the market. The gap between the market price and the regulated price amounted to a windfall gain for the lucky buyers, who were chosen in an elaborate rationing scheme from a large number of qualified applicants.

Price regulations, however, reduced homebuilders' profits and discouraged housing construction. The government tried to ensure an adequate housing supply by requiring public sector land developers to provide low-cost residential land to homebuilders. Thus, the government's extensive involvement in land development was crucial in maintaining the regulation of new home prices. Until recently, the public development of land and the sale price regulation of new apartments have been two main pillars of Korea's housing policies since the early 1980s.

Political support for price regulations was strong, since buying a house at a regulated price was a legitimate step forward in household asset accumulation. True or not, the public's belief that lifting these regulations would prompt housing price inflation also worked against deregulation. On the other hand, one can easily agree on the negative effects on the quantity and quality of the housing supply.

Source: Son (2015).

With or without a price ceiling, houses are expensive to build or purchase. Developers and home buyers would have difficulties in building or purchasing houses without external financing. However, until deregulation in 1998, the Korean government effectively blocked financial resources from diverting into the housing sector except for the operations of the National Housing Fund ('NHF', currently Housing and Urban Fund).[2)]

For housing developers, which are frequently construction companies, prior sales of houses have been the most important financing device in construction finance since the late 1970s. Housing supply rules allow a developer to receive a contract deposit and interim payments before a house is completed. In effect, home buyers directly supply funds to the housing developer without involving financial

2) The NHF (and its current version) provided low cost loans to housing developers as well as home buyers. It could do so not because the government fully funds its operations, but because it sells bonds at below market rates. Those who apply for certain licenses, permits, approvals, or real-estate-related registrations, and those who apply to buy a subsidized house, are obliged to purchase NHF bonds. Most parties immediately resell these bonds below the purchase price, realizing a loss.

intermediaries in return for an apartment in the future. In addition to supplying the funds for housing construction, home buyers also share the risks alongside housing developers. For instance, there may be a housing market downward at the time of completion, which is usually two-and-a-half to three years after the start of the project, resulting in a decrease in the housing price. Without the pre-sale, the developer must take over all of the market risk. By sharing these risks with home buyers, the developer can take a more positive attitude toward development projects. Thus, the pre-sale arrangement contributed to increasing the supply of housing.

In return for supplying development financing and sharing the risks with the developer, home buyers receive a discount on the housing purchase, a discount that is at least as large as interest payments on the latent housing construction loan. Until recently, the government in Korea also added an incentive by regulating the sale price of new apartments, effectively subsidizing home purchases.

The pre-sale of apartments and the operation of the NHF are intended to recycle resources within the housing sector. With continuous house price inflation, they reallocate the gains from housing development so that the government's policy objectives can be achieved. With the housing sector more or less solving its own financing problems, the government has channeled the nation's resources into industrialization.

The pre-sale of houses has its own drawbacks for home buyers, who pay a large amount of money for a non-existent house. There are many risks involved in such a transaction: the developer may go bankrupt before completing a promised house; the house delivered may not be as good as the home buyer expected it to be; or the housing market may go into a recession, lowering housing prices. The housing pre-sale system thus cannot work without a reliable guarantee mechanism that secures purchase money or completion of houses in case of developer bankruptcy. Summing up Korean housing policies, we can conclude that the apartment pre-sale system supported by the housing guarantee system was one of key ingredients to success.

4.2. Development of the Korean Housing Guarantee System

In the mid-1970s, apartments began to be built in large numbers in Korea, and pre-sales were popular in the new apartment sales market. The government began to establish rules and procedures for pre-sales with the Housing Supply Rule in 1978. The financial protection of pre-paying consumers was provided by mutual sureties among construction companies on an ad-hoc basis. Naturally, consumers trusted large companies over small and medium sized companies, and these companies

encountered difficulties in accessing the housing development market.

In 1993, under the newly enacted Housing Construction Promotion Act, construction companies, which at the time played the roles of housing developer as well as contractor, collectively established the Housing Construction Financial Cooperative (the 'Cooperative'). The Cooperative provided guarantees and loans for its members, but was badly managed. A skewed governance structure made the Cooperative adopt policies which benefited its members with little consideration for its own financial viability, and the government did not properly supervise the operation of the Cooperative. In 1997, payments by subrogation exceeded guarantee fee revenue by nine times. In particular, the loss on loan repayment guarantees was 42 times the guarantee fees.

〈Table 1-17〉 Losses of the Housing Construction Financial Cooperative by Guarantee Products (1997)

(Unit: 100 Mil. KRW, %)

Guarantee on	Guarantee Amount Outstanding (end of 1997) (A)	Guarantee Fee Revenue (B)	Payment by Subrogation (C)	Loss Ratio before Indemnity Exercise (D=C/B×100)
Housing Pre-Sales	402,308	579.2	533	92.0
Housing Rental Deposits	5,755	9.5	26	273.7
Housing Starts	4,595	-	2	-
Contract Work	11,786	11.2	-	-
Loan Repayments	18,474	157.0	6,580	4,191.1
Purchase of Materials	704	0.2	16	8,000
Site Purchases	2,481	0.5	21	4,200
Permits and Approvals	404	1.0	-	-
Defect Repairs	11,383	11.2	53	481.8
Inspection Fees	11,763	34.4	4	11.6
Temporary Power Supply	30	-	-	-
Total	496,682	810.1	7,235	893.1

Source: Housing Construction Financial Cooperative (1998).

The Asian Financial Crisis of 1997 severely depressed the housing market, and the mounting losses could not be contained without government intervention. The Cooperative reduced its capital by 75% from 3,250 to 848 billion KRW, and the government ('NHF') and financial institutions replenished this reduced capital. The Cooperative was then reorganized as Korea Housing Guarantee Corporation ('KHGC'), an entity independent of construction companies' interests. The KHGC stopped guaranteeing loan repayments while adding more guarantee products to accommodate the needs of the market. In 2015, the government decided to expand the role of the KHGC to include urban regeneration projects in its portfolio, turning the KHGC into the Korea Urban and Housing Guarantee Corporation (hereafter, HUG).

HUG is a legally chartered public corporation with the following missions:

- Guarantee issuance: 28 guarantee products within its portfolio
- Guarantee performance: monetary compensation or performance of original contracts
- Debt collection management and credit evaluations
- Management of the Housing and Urban Fund (formerly the NHF)

HUG's capital is currently 3.2 trillion KRW, almost the same as the Housing Construction Financial Cooperative's was in 1997. The government is the largest shareholder (67.85%), and other shareholders include LH, private financial institutions, and former Cooperative members.

HUG has 492 employees in 2015, including 4 executives. The number of HUG employees, in line with other public corporations, is strictly controlled by the government. In addition to their headquarters in Busan, HUG has 12 regional branch offices all over the country. HUG offers guarantees for all stages of many different types of real estate development as shown in <Table 1-18>, ranging from the very early preparation stages to completion and maintenance. As will be shown shortly, of the many guarantees provided by HUG, housing pre-sale guarantees are the most important product for HUG and come in five versions depending on the type of building.

〈Table 1-18〉 HUG Guarantee Product Portfolio

Project preparation stage	Project start stage	Pre-sale approval stage	Construction and post-construction stage
• Standard project finance loan guarantee • Securitized PF loan guarantee • NHUF loan guarantee • Building permit/project approval guarantee • Engineering supervisor fee payment guarantee • Renewal project loan repayment guarantee • Remodeling project loan repayment guarantee	• Housing pre-sale guarantee (5 types) • Subcontractor payment guarantee	• House mortgage repayment guarantee • House rental deposit loan repayment guarantee	• Defect repair guarantee • Rental deposit repayment guarantee • Guarantee products related to chonsei rental contracts (4 types) • Others

Source: Authors.

4.3. Process of Housing Pre-sale

Since the housing pre-sale guarantee is a component of housing supply policy, it is necessary to view the housing pre-sale guarantee in the broader context of the Korean housing supply system. For a developer to build and supply twenty or more houses per year, he must satisfy certain qualifications and become a registered housing developer.[3] For each development project, the housing developer then proceeds with the legal and business procedures set forth in [Figure 1-11].

4.3.1. Housing Project Approval

For building 30 or more houses in a project, the developer must get local government approval, which amounts to a building permit normally required for other property developments. The approval is valid for five years. In principle, the developer must secure land ownership over the project site. However, securing the right to use the land with a contract payment can be accepted for the approval.

3) The NHF (and its current version) provided low cost loans to housing developers as well as home buyers. It could do so not because the government fully funds its operations, but because it sells bonds at below market rates. Those who apply for certain licenses, permits, approvals, or real-estate-related registrations, and those who apply to buy a subsidized house, are obliged to purchase NHF bonds. Most parties immediately resell these bonds below the purchase price, realizing a loss.

In effect, a contract payment which usually amounts to 10% of the land price and some initial expenses are the minimum equity requirement for a housing developer.

4.3.2. Issuance of HUG Pre-sale Guarantee

The developer is required to obtain a HUG pre-sale guarantee for the house pre-sale.[4] Following HUG business procedures as described later, the developer applies for the guarantee, and if the project passes the screening process, a guarantee is issued.

[Figure 1-11] Process of Housing Development in Korea

Procedure	
01 Housing Project Approval	• After acquiring the right-to-use land, developer gets a local govemment approval in lieu of building permit when the number of housing units is 30 or more. • The approval is valid for 5 years.
02 Issuance of HUG Pre-sale Guarantee	• HUG requires proof of secure land ownership for issuing the guarantee
03 Approval for Public Pre-sale	• Local government requires secure land ownership and HUG grarantee for the approval of the public pre-sale. (Other routes possible)
04 Public Pre-sale	• Pre-sale announced on newspapers; buyers selected through elaborate Housing Supply Rules; sales contract signed
05 Payment of Contract Deposit and Interim Payments	• Typically 20% as contract deposit, 2 interim payments before the 50% mark, and 2 payments afterwards
06 Completion of Construction, Delivery and Ownership Registration	• With the completion of the construction, buyer pays the remaining 20% and acquires ownership

Source: Author.

4) The Housing Supply Rule stipulates that commercial insurance companies designated by the Minister of Land, Infrastructure, and Transportation can offer such pre-sale guarantees in addition to HUG. However, the ministry has not yet designated any insurance company for this purpose, and as a result HUG is the monopoly guarantor in the pre-sale guarantee market.

4.3.3. Approval of Public Pre-sale

Approval from the local government is necessary for public pre-sale of houses. Two of the most important requirements for approval are secure land ownership and the HUG guarantee. If the housing project approval was obtained based on a right-to-use land, then full ownership must be secured at this stage. Exceptions are made only for legal technicalities that do not interfere with the use of the land and transfer of ownership in due course. The Housing Supply Rule[5] offers other routes for housing pre-sales. For instance, joint surety of at least two registered housing developers or the completion of the framework for two thirds of total floors can be a substitute for a HUG guarantee. In approving the public pre-sale, the local government makes sure that the terms of the offering conform to the Housing Supply Rule.

4.3.4. Public Pre-sale

The developer can now offer pre-sale houses to the public. The terms of sale approved by the local government must be observed. If a sufficient number of houses are sold in the pre-sale, the developer proceeds with the project. If the pre-sale fails, then the project can be delayed or canceled. At this stage, the developer has most likely taken out loans to purchase the land.[6] If the project is canceled, then the developer has difficulty in paying back the land purchase loan. The developer, cosignatory (usually, contactor), and lender can all be in serious trouble.

4.3.5. Payment of the Contract Deposit and Interim Payments

The developer finances construction mostly with the contract payment and interim payments by home buyers. The Housing Supply Rule stipulates that the developer cannot demand payments that go beyond the progress of construction. Typically, the contract deposit amounts to up to 20% of the sale price, then two interim payments before construction work begins make a total of 50%, after which there are another two interim payments, and then the final payment at the

5) In addition to regulating the procedures of housing pre-sales, the Housing Supply Rule is an elaborate rationing scheme to allocate apartments among potential buyers. Under continuous house price inflation, and especially with the price ceiling for new houses, the number of buyers is usually much greater than the number of houses offered in the project. The government has set a rule about who is given priority in purchasing houses and how they are selected with the Housing Supply Rule.

6) Since around 2000, loans for land purchases and initial project costs have been made as project finance loans with the contractor providing credit enhancement. A developer is usually a small firm with limited resources while a contractor is a large construction firm. Thus, when a project turns sour, the lender relies on the contractor to pay back the loan, but even a large construction firm cannot withstand the failure of more than a few projects. In the mid- to late 2000s, more than one third of the largest 100 construction companies went bankrupt because of project finance loan defaults. See Son (2014) for details on the development finance system in Korea.

time of completion. Interim payments cannot exceed 60% of the sale price, and cannot go ahead of the construction work schedule. The final payment at the time of completion is usually 20%.

Completion of construction, delivery, and ownership registration: When houses are completed, the final payment is paid and the developer delivers the house to the buyer. Ownership is then registered.

4.4. Process of Pre-sale Guarantee Issuance

Of the many stages of housing development as described above, the pre-sale guarantee issuance is our main concern. The procedure is as follows (see Figure 1-12).

[Figure 1-12] Process of Pre-sale Guarantee Issuance

Procedure	
01 Registration for Business	• Developer or contractor who intends to use HUG guarantee must register with HUG providing info such as company name, CEO name, major stock holders, address, etc.
02 Credit Rating (30 days)	• HUG evaluates client's management ability, financial status, business records, etc. and endows one of 15 credit rates. All clients are subject to annual re-evaluation. • Special preference for clients with excellent credit standing.
03 Application for Project Guarantee Contract	• Developer applies for a pre-sale guarantee after securing land ownership. Collateral or equivalent fee required for land not acquired. • The land must not be encumbered in any way. HUG may demand the site entrusted to HUG.
04 Evaluation (3 / 6 work days +7)	• Based on credit rating of developer and contractor and assessment of the project, HUG decides whether to provide guarantee.
05 Agreement of Terms of Guarantee Contract	• A single contract may cover multiple projects up to the guarantee limit within two years. • CEO or the largest shareholder of the developer firm must provide joint surety, except for developers with excellent creditworthiness.
06 Payment of Guarantee Fee and Issuance of Guarantee	• Fee is paid and the guarantee is issued. • With the HUG guarantee, the developer gets an approval for apartment pre-sale announcement from the local government.

Source: Author.

7) HUG refuses to give a credit rating and gives a D rating in the following cases: if the firm is barred from a commercial paper clearing house; has defaulted on loans or other obligations; undergoes a corporate reorganization procedure; is denied a workout decision; has not paid back previous HUG subrogation payments; or cannot submit the necessary financial documents.

4.4.1. Registration

In issuing a housing pre-sale guarantee, HUG follows its internal business procedures that are designed to comply with relevant laws and regulations. Any housing developer wishing to have a business relationship must first register with HUG by providing basic information such as the company's name, names of the CEO and major stock holders, address, etc.

4.4.2. Credit Evaluation

HUG then evaluates the potential client's management ability, financial status, business records, etc., and gives one of 15 credit ratings ranging from AAA to D. This credit rating is subject to annual re-evaluation.[7] This allows HUG to save time when a client applies for a housing guarantee since it already has the latest credit ratings for all potential clients. Documents required for the credit evaluation include: application (prescribed form); status of business (prescribed form); agreement for using credit information (prescribed form); copy of corporate registration; certificates proving previous housing development records; financial statements for the past three years (exempt for companies under the external auditing requirement); certificates for awards, new technology, and other merits; and other documents that may be requested by HUD. The evaluation may take up to 30 days, and HUG notifies the client of the result.

HUG designates clients with a good credit rating and sound financial status as a preferred client.[8] They are given the privilege of simplified documentation, exemption from the collateral requirement when a project site is not fully owned, expedient screening, and a guarantee fee discount.

Application for Guarantee Issuance: When a developer obtains housing project approval from the local government, he applies for a pre-sale guarantee from HUG. HUG requires that the developer secure land ownership. The land must not be encumbered in any way, and HUG may demand that the site be entrusted to HUG. If part of the site is not yet acquired by the developer, or if the use of land is restricted in any way, then the developer must offer collateral or pay an equivalent fee to cover the risk.[9]

8) As noted earlier, a developer is often a small firm without much capital, while the contractor is a large construction company. Then the contractor is required to stand in joint surety, and the contractor's credit, rather than the developer's, is considered in the HUG guarantee issuance process.
9) The fee is calculated as follows: Fee in lieu of collateral = Collateral value x Equivalent fee rate depending on credit rating (0.84% to 4.2% per year) x Number of days/365.

Documents required for the application include:

- Application (prescribed form)
- Copy of the housing project approval issued by the relevant local government office including any attached conditions
- Draft application form for public pre-sale approval
- Detailed documents proving secure land ownership and other rights
- Statement of the project finance loan for the land purchase and other costs, if any
- Written promise to relinquish the developer status/rights in case of a guarantee incident
- Construction work schedule certified by the engineering supervisor
- Written promise to relinquish contractor status/rights in case of a guarantee incident
- Agreement among joint contractors and between the contractor and subcontractors
- Agreement to provide financial information
- Draft plan for the public pre-sale of houses
- Others deemed necessary by HUG

If there is a project finance loan for land purchase and other initial costs, the lender must have taken the land as collateral. HUG requires that all parties, including the lender, agree that the HUG lien becomes the most senior above all previous arrangements. Like it or not, all parties accept the HUG requirement since pre-sale is not possible without a HUG guarantee.

Judgement on guarantee: Based on the credit ratings of both the developer and contractor in addition to an assessment of the project, HUG decides whether to provide a guarantee and how much of a guarantee limit to endow. The screening process normally takes 3 working days for a small project handled by a branch office or 6 working days for a large project handled by headquarter, with potential 7-day extensions if there is a need for detailed scrutiny. Except for those with serious credit problems, potential clients are rarely turned down, but the guarantee fee may be very high.

Agreement on the terms of the contract: When the evaluation is complete, the responsibilities of HUG and the developer under the pre-sale guarantee contract are defined and agreed upon. A single contract may cover multiple projects up to the guarantee limit within two years. As part of the guarantee agreement, the CEO or the largest shareholder of the developer company agrees to personally stand in joint surety for any debts arising from the performance guarantee. Preferred clients with a high credit rating are exempt from this obligation. Also, if any collateral is required, then real estate, bank deposit documents, listed shares, public bonds, cash, letters of credit, etc., must be submitted to HUG.

The guarantee fee is assessed based on credit rating and project evaluation as shown in <Table 1-19>. A developer with the highest credit rating (i.e., AAA) with the best quality project pays a fee which amounts to 0.173% of the land value and 0.178% of the structure value per year. A developer with the lowest credit rating pays the same fee for the land, but 0.531% of the structure value per year.[10] Land and structure values are calculated based on the terms of the public pre-sale plan that is approved by the local government. The sum of land value and structure value amounts to the total sales price of the entire project less total final payments. The guarantee fee covers the period between the guarantee issuance day and the first move-in day as stipulated in the public pre-sale plan. If the dates change by the local government during the public pre-sale approval process, then the fee is adjusted accordingly.

Payment of the guarantee fee and issuance of guarantee: When the fee is fully paid in a lump sum for the entire development period, then the guarantee is issued with which the developer gets an approval for the pre-sale announcement from the local government.

〈Table 1-19〉 HUG House Pre-sale Guarantee Fee Rates

Credit Rating (15 grades)	Land Coverage	Construction Cost Coverage (class is based on guarantee judgement, including project evaluation)				
		1st class	2nd class	3rd class	4th class	5th class
AAA, AA	0.173%	0.178%	0.185%	0.192%	0.203%	0.221%
A+		0.194%	0.208%	0.215%	0.226%	0.236%
A-, BBB+		0.216%	0.225%	0.231%	0.242%	0.261%
BBB-		0.232%	0.247%	0.255%	0.267%	0.301%
BB+~CC		0.254%	0.276%	0.296%	0.314%	0.335%
C, D		0.404%	0.427%	0.461%	0.495%	0.531%

Note: 1) Discounts and Surcharges applicable to construction cost coverage
2) Guarantee covers contract- and interim payments, but not the final payment.
3) Guarantee covers the period between the pre-sale approval date and the finished building registration date.
4) The fee rate is fixed for the entire project period, even when credit ratings change ad interim.

Source: HUG (2016).

10) Even when the credit rating of the developer changes before the completion of the project, HUG does not change the fee originally assessed at the start of the project.

4.5. Project Management

Independent project supervision is very important to detect and manage any troubles with the development project. On the engineering side, the local government responsible for housing project approval appoints an independent engineering supervisor. The relevant regulations are given in the Box below. The engineering supervisor reports to the developer and the local government about the progress and quality of construction work. The developer is required to report monthly to HUG about progress on the project.

On the business side, HUG also closely monitors the progress of the housing sale and intervenes if necessary. The developer must provide HUG with a list of home-buyers within seven days after signing sales contracts. Afterwards, the list of contract holders and their payment status must be reported to HUG at the end of each quarter. For low credit developers, HUG may manage the payment account jointly with the developer.

〈Box 1-2〉 Enforcement Decree of the Housing Act on Engineering Supervision Article 26 (Designation of Supervisors and Posting of Supervisory Members, etc.)

(1) The Mayor/Province Governor shall designate a person to supervise the housing construction works. In such cases, any affiliate of the contractor of the relevant housing construction works shall not be designated and supervisors may be jointly designated for at least two adjacent housing complexes:

1. Housing construction works of less than 300 households: Persons who have each filed a report on the architect's business pursuant to the Architects Act and any specialized construction supervisory company or specialized comprehensive supervisory company pursuant to the Construction Technology Management Act;

2. Housing construction works of not less than 300 households: Specialized construction supervisory company or specialized comprehensive supervisory company under the Construction Technology Management Act.

(2) The Minister of Land, Infrastructure and Transport may determine and publicly announce documents to be submitted necessary for the designation under paragraph (1) and other detailed criteria for designation.

(3) Any person designated as a supervisor under paragraph (1) shall supervise any construction works by posting supervisory members to any construction work site according to the following standards:

〈Box 1-2〉 Continued

1. Persons prescribed by Ordinance of the Ministry of Land, Infrastructure and Transport as being qualified to supervise any construction works, who shall be posted around-the-clock to the construction work site to supervise the construction works;

2. One supervisory member in charge of overall supervisory duties and other supervisory members by the field of work shall be each posted to any construction work site;

3. A supervisory member in charge of overall supervisory duties shall be posted during the entire period of housing construction works, and supervisory members by the field of work shall be posted during the period in which the relevant work is executed;

4. No posting of supervisory members shall be overlapped with other housing construction work.

Source: National Law Information Center

4.6. Guarantee Incident

HUG defines a guarantee incident as when one of the following events occurs:

- Developer default, bankruptcy, or abandonment of project.
- Project supervisor reports a larger-than-25% gap between planned work progress and actual progress, and the home buyers demand guarantee performance.
- Project supervisor reports higher-than-75% work progress but the construction work is stalled for more than 6 months, and the home buyers demand guarantee performance.
- Construction work is stalled for more than 3 months due to contractor default or bankruptcy, and the home buyers demand guarantee performance.

4.7. Guarantee Performance

When a guarantee incident occurs, HUG takes over the project, and one of the following remedies is adopted.

- If the co-developer (if there is any) or contractor is willing and capable of completing the project, HUG may allow them to do so without notifying home buyers.
- If the project has completed more than 80% of the construction work, HUG manages and completes the project without notifying home buyers.
- Otherwise, HUG notifies the contract holders of the incident and asks them to choose one of two options: refund of all payments made or completion of the project by HUG.

- If two thirds of the home buyers want refunds, then refunds are made. Otherwise, HUG selects an alternative contractor to finish construction and delivers the houses to the home buyers.

4.8. Performance of HUG

<Table 1-20> shows the trend of annual guarantee contracts in totals and housing pre-sale guarantees. Although there are many counts of double or even multiple coverage,[11] HUG and its predecessors have provided guarantees for more than 10 million houses since 1993. In 2015 alone, more than a million houses were covered by HUG guarantees. Currently, close to 5 million houses have benefited from HUG housing pre-sale guarantees. In 2015 alone, 431 thousand pre-sale guarantees were issued.

〈Table 1-20〉 Housing Guarantee Contract Trend for HUG and Its Predecessors

Year	Total			Housing pre-sale guarantee		
	No. contracts	Amount (100 Mil. KRW)	No. housing units	No. contracts	Amount (100 Mil. KRW)	No. housing units
Total	572,181	8,897,049	10,197,282	15,798	7,052,556	4,813,179
				2.8%	79.3%	47.2%
Before 1999	24,740	957,250	2,765,828	3,675	739,450	1,574,696
				14.9%	77.2%	56.9%
2000	1,051	232,560	298,296	669	228,975	164,249
				63.7%	98.5%	55.1%
2001	1,001	221,118	279,713	666	217,886	164,115
				66.5%	98.5%	58.7%
2002	1,300	356,471	389,202	908	353,333	263,661
				69.8%	99.1%	67.7%
2003	1,334	410,246	344,803	933	406,533	219,788
				69.9%	99.1%	63.7%
2004	1,239	406,110	316,323	804	395,791	193,706
				64.9%	97.5%	61.2%

11) When a house is covered by a pre-sale guarantee, its buyer is most likely covered by the house mortgage repayment guarantee and the house by the defect repairmen guarantee.

〈Table 1-20〉 Continued

Year	Total			Housing pre-sale guarantee		
	No. contracts	Amount (100 Mil. KRW)	No. housing units	No. contracts	Amount (100 Mil. KRW)	No. housing units
2005	1,232	385,127	335,552	768	369,308	195,002
				62.3%	95.9%	58.1%
2006	1,182	431,216	306,069	746	418,546	195,358
				63.1%	97.1%	63.8%
2007	2,144	839,483	557,045	923	788,954	254,893
				43.1%	94.0%	45.8%
2008	2,560	251,735	396,331	425	197,395	78,698
				16.6%	78.4%	19.9%
2009	2,308	314,964	388,732	336	265,801	99,785
				14.6%	84.4%	25.7%
2010	1,561	230,692	444,878	361	179,111	80,989
				23.1%	77.6%	18.2%
2011	2,184	387,485	467,200	639	331,087	181,797
				29.3%	85.4%	38.9%
2012	32,133	460,433	544,785	825	348,576	216,870
				2.6%	75.7%	39.8%
2013	82,045	580,679	538,987	738	377,811	214,383
				0.9%	65.1%	39.8%
2014	156,919	926,835	787,755	1,026	538,825	283,665
				0.7%	58.1%	36.0%
2015	257,248	1,504,645	1,035,783	1,356	895,174	431,524
				0.5%	59.5%	41.7%

Note: % represents shares in total.
Source: HUG (2016).

<Table 1-21> shows the trend of outstanding guarantee contracts. There was a surge in the number of contracts between 2010 and 2015 because HUG began to guarantee repayment of housing loans for individual home buyers. Housing pre-sale guarantees still are the mainstay of HUG business in terms of guarantee amounts.

〈Table 1-21〉 Trend of HUG Outstanding Guarantees

Year	Total			Housing pre-sale guarantee		
	No. contracts	Amount (100 Mil. KRW)	No. housing units	Share in total contracts	Share in total amount	Share in total housing units
2000	7,422	570,619	1,607,346	17.2%	94.3%	31.4%
2005	7,699	1,001,774	2,059,983	20.5%	96.5%	23.4%
2010	5,464	923,900	1,867,162	14.3%	89.8%	15.5%
2015	418,994	2,668,766	3,340,227	0.5%	63.7%	26.1%

Source: HUG, 2015 Yearbook.

<Table 1-22> shows the trend of HUG guarantee incidents. The incident rate was high in the early 2000s in the aftermath of the Asian Economic Crisis, but the housing market gradually recovered after a few years, and the incident rate has recently been zero.

〈Table 1-22〉 HUG Guarantee Incident Trends

Year	Pre-sale Guarantee Clients and Bankrupt Developers			All Guarantee Incident Companies	
	No. Client (A)	No. Bankrupt Developers (B)	Pre-sale Guarantee Incident Rate (B/A,%)	No. Bankrupt Companies	No. Other Problem Companies
2000	464	12	2.59	48	61
2001	485	7	1.44	20	38
2002	542	2	0.37	6	19
2003	672	10	1.49	16	25
2004	692	10	1.45	7	22
2005	708	5	0.71	17	18
2006	741	5	0.67	13	37
2007	861	5	0.58	16	33

〈Table 1-22〉 Continued

Year	Pre-sale Guarantee Clients and Bankrupt Developers			All Guarantee Incident Companies	
	No. Client (A)	No. Bankrupt Developers (B)	Pre-sale Guarantee Incident Rate (B/A, %)	No. Bankrupt Companies	No. Other Problem Companies
2008	678	4	0.59	15	35
2009	514	4	0.78	19	57
2010	306	2	0.65	12	44
2011	357	0	0	5	41
2012	551	0	0	2	29
2013	448	0	0	6	36
2014	458	0	0	2	19
2015.3Q	535	0	0	2	17

Source: HUG, 2015 Yearbook.

<Table 1-23> shows how pre-sale guarantee incidents have been remedied. The table clearly shows that when the housing market is in recession, pre-sale buyers prefer cash refunds. When the market is good, they demand that the project be completed.

〈Table 1-23〉 Pre-sale Guarantee Performance Trends

Year	Refund of Payments	Rate of Refund	Building Completion	Rate of Completion	Total
Before 2001	26,232	27.8%	68,048	72.2%	94,280
2002	537	4.8%	10,688	95.2%	11,225
2003	761	16.2%	3,931	83.8%	4,692
2004	1,403	32.9%	2,855	67.1%	4,258
2005	1,000	26.0%	2,892	74.0%	3,892
2006	1,040	88.0%	148	12.0%	1,188
2007	6,767	92.0%	628	8.0%	7,395
2008	8,758	72.0%	3,342	28.0%	12,100
2009	17,032	87.0%	2,455	13.0%	19,487
2010	4,726	63.0%	2,804	37.0%	7,530

〈Table 1-23〉 Continued

Year	Refund of Payments	Rate of Refund	Building Completion	Rate of Completion	Total
2011	606	34.0%	1,159	66.0%	1,765
2012	1,145	21.0%	4,204	79.0%	5,349
2013	277	38.0%	452	62.0%	729
2014	1,203	28.0%	3,021	72.0%	4,224
2015	146	100.0%	-	0.0%	146
Total	71,633	40.2%	106,627	59.8%	178,260

Source: HUG (2016).

5. Lessons from the Korean Experience and Policy Suggestions

5.1. Lessons from the Korean Experience

The great improvement in Korean housing conditions is due in large part to the mass production of apartments, which in turn has relied heavily on the housing pre-sale system. Under the housing pre-sale system, a housing developer finances construction by the payments of home buyers and shares the risks involved in the development with them. Without a functioning housing guarantee system, home buyers are exposed to undue risks and housing pre-sales cannot work.

Guarantors of housing pre-sales such as HUG take over the relevant risks and manage them, although some risks cannot be eliminated. HUG, Kazakhstan Housing Guarantee Fund, and any other institution in the guarantee business are in the business of risk management. They must understand the sources and nature of the risks involved in the housing development and be capable of managing them. Governance structure, organization and staffing, funding, range of business, business procedures, selection of clients, fees, and measures for legal protection must all be geared to appropriately cover the risks.

In Korea, the spectacular failure of the Housing Construction Financial Cooperative in 1997 clearly showed the direction for reorganizing the housing pre-sale system and the housing guarantee system.

- Governance: Decision making must not be swayed by interests of the risk generators (clients, members of cooperative, politicians, etc.).

- Credit evaluation: Guarantor must be able to assess the credit worthiness of clients as well as the prospects of a project to be guaranteed. Different fees and procedures should be applied to different clients depending on the credit evaluation.
- Range of business: A guarantee product must not be offered if the relevant risks cannot be correctly assessed and priced.
- Land: Securing land ownership is a prerequisite for housing pre-sales. Land ownership should then be legally encumbered so that it cannot be infringed upon in any way during the housing development.
- Intervention: Guarantor must monitor the project's progress regularly. If there is any doubt, the guarantor must intervene and, if necessary, take over the project immediately. The guarantee contract must contain agreements regarding such an intervention.
- Balance between risk management and housing supply: If fees are too high and procedures too stringent, then the housing guarantee system hinders rather than stimulates housing supply. There must be a balance between risk management and housing supply.

5.2. Policy Suggestions

5.2.1. System of Housing Pre-sales, Housing Guarantees, and Financing

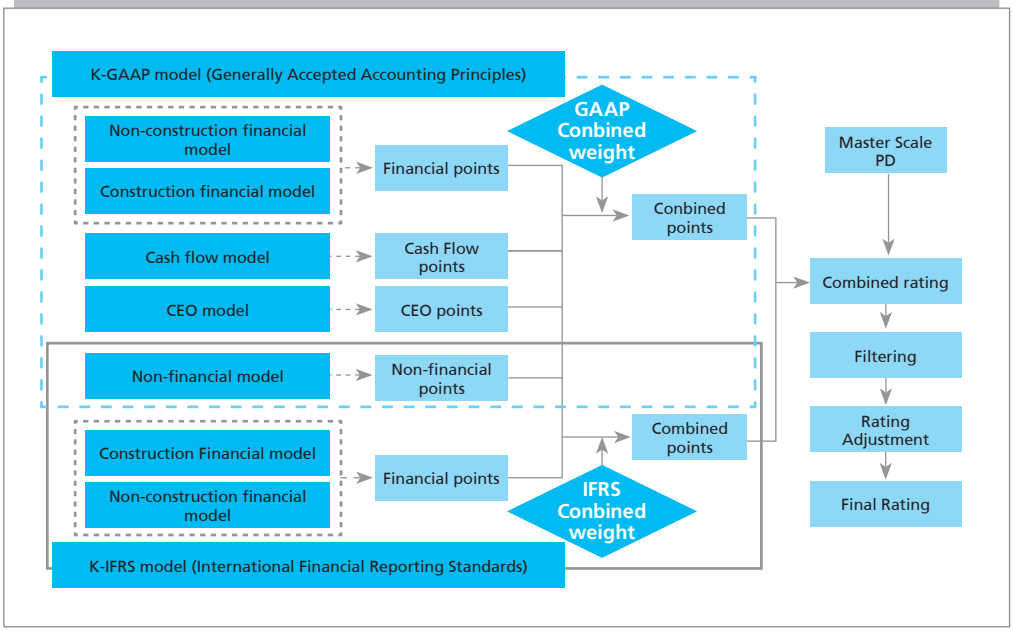
The housing guarantee is an element of the housing supply system. As such, it should work in harmony with other housing policy instruments to serve the policy goals. The protection of home buyers is its main function, but financing house construction and thus increasing housing supply is its reason for existence. As a general principle, the diverse goals and functions of the housing guarantee system should be well balanced.

5.2.2. Credit Evaluation

Accurate credit evaluation is essential in any guarantee business for obvious reasons. In HUG's pre-sale guarantee system, credit rating determines the guarantee fee, loan interest rates (if there is any involved), the level of underwriting authority, maximum guarantee amounts, and guarantee screening scores.

Anyone who wants to have a business relationship with HUG must get a HUG credit rating before their first guarantee agreement and once a year afterwards. In Korean housing development, the developer and the contractor are bound together. In this relationship, the contractor provides credit enhancement for the developer. Since the contractor is usually a much larger company with greater resources than the developer, the contractor's credit is the determining factor in the HUG guarantee procedure.

[Figure 1-13] HUG Credit Evaluation Model



Source: Kwon *et al.* (2008).

For the HUG credit evaluation, an applicant must submit standard financial data and non-financial data. Standard financial data can be submitted via the internet on the HUG homepage. Non-financial data such as a statement of the company's current condition, consent for HUG to use credit information, and corporate registration are submitted by mail or in person.

The HUG credit evaluation system was developed in cooperation with an outside credit agency, and is composed of a financial model, cash-flow model, non-financial model, and CEO model (see Figure 1-13). HUG uses these models to generate scores for the applicant and then uses these scores for final grading. HUG performs the evaluation within 30 days and gives the applicant one of 15 grades, AAA to D, which is usually valid for one year.

In addition to the credit evaluation, a project's prospects are also considered in the pre-sale guarantee. However, project evaluation is not a serious feasibility study. HUG simply notes several obvious aspects regarding the housing market situation such as the number of unsold apartments in the project area.

No guarantee system can work without some sort of credit evaluation of the guarantee debtor. The question is the elaborateness of the evaluation system. No system is perfect; indeed, there are constant and permanent improvement efforts for HUG's evaluation system. Kazakhstan credit evaluation system should

also continually evolve to consider new data and new models. It is advised that evaluation by an outside credit agency should be adopted if necessary. If the credit evaluation system is not fully operational, requiring a third party joint surety is a crude but inexpensive alternative.[12] However, joint surety sometimes cannot cover the full loss of one or more projects, and the third party is rarely an expert in managing risks.

5.2.3. Land

While real estate development is inherently risky, insecure land ownership magnifies the risks. The Korean Housing Act recognizes the importance of securing land ownership for housing development and makes it a required condition of the development procedure.

First, for housing project approval, a developer must in principle secure ownership of the project site. However, this requirement can be (and usually is) satisfied by securing the right to use the land. Second, for housing pre-sales, a HUG guarantee is required. To apply for a HUG guarantee,

- the developer must secure land ownership, and;
- any restriction on land ownership must be erased from the property ownership registration, and;
- new restrictions must be officially registered so that the site cannot be encumbered during the development process.

Third, the Housing Act very clearly prohibits any infringement on land ownership during the development process, and requires that this fact be officially registered (supplementary registration). The only exception is when HUG intervenes to cure the guarantee incident. Fourth, if the credit rating of the client is low, HUG may require that land ownership be entrusted to HUG as a condition for guarantee issuance.

Thanks to these stringent regulations, if a pre-sale incident occurs in Korea, it is probably not due to unclear land ownership; as a result, it is relatively easy to deal with the problem. Since the early 2000s, the Housing Act requirement (that the project site not be encumbered in any way and that this fact be officially registered) greatly reduced the risks involved in housing development. With clear land ownership, the project can be easily sold, transferred, or taken over by a third-party developer or contractor. Otherwise, messy legal entanglements may delay

12) As discussed before, HUG requires joint surety from the CEO or the largest shareholders of the developer firm except for firms in the highest credit rating class. Also, for a low credit developer, the contractor must provide credit enhancement.

guarantee performance by many years.

The Kazakhstan Housing Guarantee Fund should stipulate in its business procedures that secure and clear ownership of a project site is a required condition for issuing a guarantee contract. Better yet, relevant laws should contain similar clauses.

5.2.4. Intervention

A housing development project is monitored by the local government and HUG. A qualified project supervisor is appointed by the local government, independent of the developer or the contractor. The project supervisor reports to the local government and the developer regularly. The developer is required to convey these reports to the HUG. If there is any sign of trouble, HUG may send its own engineers to the site and continually monitor progress.

On the business side, if the developer is inexperienced or has a shaky credit rating, then HUG may demand joint management of the bank account. HUG then monitors the cash in-flows and out-flows on a daily basis. When a guarantee incident occurs, HUG immediately takes over the project based on such contract agreements as: a promise to transfer all rights of the developer to HUG, a promise to give up any rights of the contractor, and site ownership trust.

The Kazakhstan Housing Guarantee Fund should be able to take over the project immediately if the need arises. Related laws and regulations and a contract for guarantee issuance should be structured so that such a take-over is possible and the subsequent actions of the Fund are legally protected.

5.2.5. Firewall Between Projects

Housing developers and contractors are frequently engaged in multiple projects at the same time. A problem in one site may affect other sites, and such a contagion may endanger the guarantor's financial position. Also, developers and contractors easily fall for the temptation to move money and other resources from one project to another. It is necessary to set up a firewall between projects to prevent such movements of money. If one project fails, the firewall will save other projects that are being carried out by the same developer or contractor. A firewall may take the form of a special purpose company (SPC), trust account, or a simple separate bank account if it can be somehow be protected from the developer's bankruptcy.

The housing guarantee institution must make sure that the firewall is supported by the legal system and is easy to monitor. Also, it must facilitate the guarantor's

take-over of the project if a guarantee incident occurs. Since the early 2000s, employing a real estate trust company has become the norm in Korea. They provide an escrow account to which all money goes in and from which all expenses come out. Based on the contract between the developer and HUG as well as between the developer and trust company, HUG can easily take over the account, and in turn the project, when a pre-specified incident occurs. The Kazakhstan Housing Guarantee Fund should also be able to set up a firewall between projects to prevent a contagion of default and bankruptcy.

5.2.6. Guarantee Fees and Other Considerations

The guarantee fee is proportional to the risks involved in guarantee provision. HUG's guarantee fee is relatively low because it has established a fairly good risk management system that includes credit evaluation of a client, secure land ownership, project monitoring and management, and recovery of payments by subrogation. The Kazakhstan Housing Guarantee Fund fee is very high since there is much uncertainty regarding the risks of providing a house pre-sale guarantee. With more data and experience, the fee should be lowered as fast as possible since the current fee rate may be too high for the normal operation of housing development. Also, there should be measures to smooth out the transition to the new system. Industry participation should be encouraged in the evolution of the housing guarantee system.

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2016/17 Knowledge Sharing Program with Kazakhstan:
Improving Quality of Life in Kazakhstan:
Focusing on the Housing Guarantee System
and the National Health Insurance System

Chapter 2

Policy Consultation for Effective Management of a Health Insurance System

Policy Consultation for Effective Management of a Health Insurance System

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Summary

This study was conducted to serve as a policy consultation for the effective management of the health insurance system at the request of the Ministry of Health of the Republic of Kazakhstan (MOH). The study looks at the current status of Kazakhstan in terms of its socioeconomic and health care environment and its plan to implement social health insurance (SHI), and discusses the South Korean example with regard to improving the national health insurance system. By organically incorporating the Kazakhstan situation and the Korean example, policy recommendations for effectively managing the Kazakhstan health insurance system are proposed.

The underlying reasons for introducing SHI to Kazakhstan include, but are not limited to, the following: 1) Demographic changes associated with increased life expectancy are leading to an increase in the demand for medical care. 2) The rise of social expectations and public awareness contribute to the growth of quality requirements and the range of medical services. 3) Active technological growth in health innovation provokes the uncontrolled growth of industry input intensities. 4) The level of private health expenditures remains high. 5) Weak involvement by the private sector and the lack of competition among public health care institutions in the provision of services guaranteed by the government contribute to quality issues.

This background led the Kazakh government to introduce a mandatory health insurance system and to acquire additional financial resources needed to improve

the overall health care system. The nation's socioeconomic and health status suggest that the country appears to have the ability to introduce a SHI system relatively effectively. International comparisons suggest that the country seems to have issues with the quality rather than the quantity of health care resources. In particular, policy efforts focusing on motivating health care personnel and enhancing their capabilities should be made.

The mandatory social health insurance system, starting nationwide in January 2017, is broadly divided into a state guaranteed benefit package (SGBP) provided by the government, health services provided by the SHI, and others services covered by supplementary private insurance. The main operational body for health insurance is the fund of social health insurance (FSMS), and various financial resources will be integrated into its management. Because the system will quickly expand nationwide, a soft landing for SHI in 2017 is critical. People's understanding and acceptance are required at the early stages of implementation. It is suggested that the government should share the early results of SHI with the general public and health services providers (e.g., satisfaction, acceptability, etc.), and be ready to revisit the plan if necessary.

Regarding the imposition and collection of insurance contributions, the compliance and cooperation of the main bodies bearing the contributions are critical, in particular smaller employers, independent business owners, and employers in the informal sector. Monitoring and collecting delinquent contributions will be important. Revenue enhancement needs to be done by the diversification of revenue sources for health care as well as state subsidies, for which the method of subsidization needs to be decided.

Although the government wanted to cover the entire population all at once, international experience suggests that extending coverage to the informal sector should be gradual. Those with higher health care needs may be enrolled first.

The benefits covered by SHI are likely to be limited because the plan primarily covers services by public health care providers, while private providers will offer benefits through selective contracts. This may lead to restrictions on health insurance benefits. It will be critical to envision when and how the services offered by private health care providers can be covered by SHI. Adequate payment for such services and aligning payment policies with quality improvements are necessary. It is recommended that the government implement annual cost agreements between insurers and the medical community, verify that the costs can cover the benefit package, and maintain and improve the operation of health care providers.

The capacity of FSMS in managing public health insurance programs also needs

to be improved. In particular, competency enhancement in estimating the revenues and expenses based on the demand for promised and future benefits is important. Both the MOH and FSMS need to prepare for the rising costs of health care as Kazakhstan implements SHI. Growing demand due to coverage expansion would require more financing and service provisions.

It is also suggested that health care organizations have the right to determine their own goals and to identify indicators of performance. In order for health care organizations to provide more sophisticated health services, financial incentives and mechanisms of assessment are necessary.

1. Introduction

1.1. Background

1.1.1. Background for the Policy Consultation Request and Context

The Knowledge Sharing Program (KSP) between South Korea and Kazakhstan for economic development, initiated by South Korea at the request of the Kazakhstan government, has been ongoing for eight years since 2009. This study was conducted to serve as a policy consultation for the effective management of the health insurance system at the request of the Ministry of Health of the Republic of Kazakhstan (MOH).

The shift from the existing budget model for healthcare sector financing to the Social Health Insurance (SHI) model was initiated by the State of the Nation Address of President Nursultan Nazarbayev on January 17, 2014, «Kazakhstan's way – 2050: Common aim, common interests, common future». Since then a detailed national model of SHI was elaborated, resulting in the issuance of the law "On the SHI in the Republic of Kazakhstan".

Kazakhstan's health care system is based on the Semashko system of the former Soviet Union, in which the government is a sponsor and provider of health services. In 2012, national health expenses in Kazakhstan totaled 3.8% of Gross Domestic Product (GDP), which is significantly lower than the Organization for Economic Co-operation and Development (OECD) average of 9.4% (World Bank, 2016).

The main purpose of Kazakhstan's introduction of SHI is to have the government, employers, and employees share health expenses, integrate the financial resources needed to prevent excessive health expenses, and improve the quantitative and qualitative standards of health services (World Bank, 2016).

South Korea provides a classic example for the rapid establishment of a national health insurance system and a huge expansion of health service provisions. Korea introduced social insurance and made it mandatory, introduced compulsory designation of health care institutions, and implemented fiscal integration to reinforce the security of health insurance coverage. Examining South Korea's experience will greatly benefit the Kazakhstan government's project.

1.1.2. Understanding the Demands, Research Scope and Methods, and Research Definitions

A preliminary survey of demands shows that the Kazakhstan government wants the following from the KSP with South Korea:

- Role of the government regarding management of the health care system
- Scope of government financial support under a single insurer system
- Itemized statement of health services supported by health insurance
- Insurance subscription status of individual business owners
- Profitability of non-profit health corporations
- Insurance contribution nonpayment by local subscribers during economic crises
- Securing the financial stability of health insurance
- Regulation of the health insurance system for social insurance subscribers
- Expansion of free health services
- Balance between the health insurance system and health service providers
- System improvements that ensure greater health quality and patient safety

The focus of this study, based on the results of the aforementioned demand survey, was as follows. This study considered the items the Kazakhstan government needs to effectively manage the health care system as well as strategies for the development of the health insurance system that are linked to the development of the health care system. Specifically, the current status of Kazakhstan health security and its problems was examined, and the case of South Korea presented. By connecting both the status of Kazakhstan and the cases of Korea organically, policy recommendations for effectively managing the Kazakhstan health care system are proposed.

This study was conducted as follows. To discuss the current status of Kazakhstan, statistical data from the Kazakhstan MOH and various international organizations was collected for international comparison. A review of the literature on several cases and various South Korean regimes was conducted, and insights were derived from benchmarking similar cases where a government-led health supply system was replaced by a health insurance system. Qualitative research through descriptive statistical analysis on the collected data and in-depth interviews with government

authorities and local experts were conducted in parallel. Local experts were used to plot future paths, with a focus on understanding the level of Kazakhstanis' satisfaction with the previous health security system and health services as well as on major improvement strategies.

1.2. Research Organization

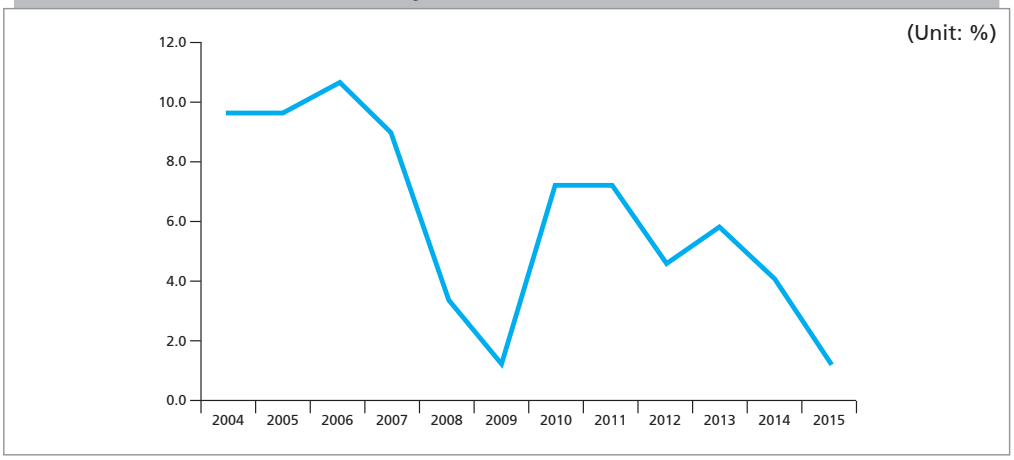
This study is organized as follows. Chapter 2 analyzes the socioeconomic status of Kazakhstan, its health status, healthcare system, use of health services and health expenses based on data from international organizations and the Kazakhstan statistics office. Chapter 3 describes the current status of the Kazakhstan health insurance system, discuss its policy problems, and offers directions for improvement. In Chapter 4, the introduction of South Korea's health insurance system and its efficient management is described; this system is also evaluated, and the factors for its success and failure are presented. Finally, in Chapter 5, policy recommendations for the introduction of Kazakhstan's health insurance system and its efficient management are proposed based on the above analyses.

2. Analysis of Kazakhstan

2.1. Socioeconomic Status

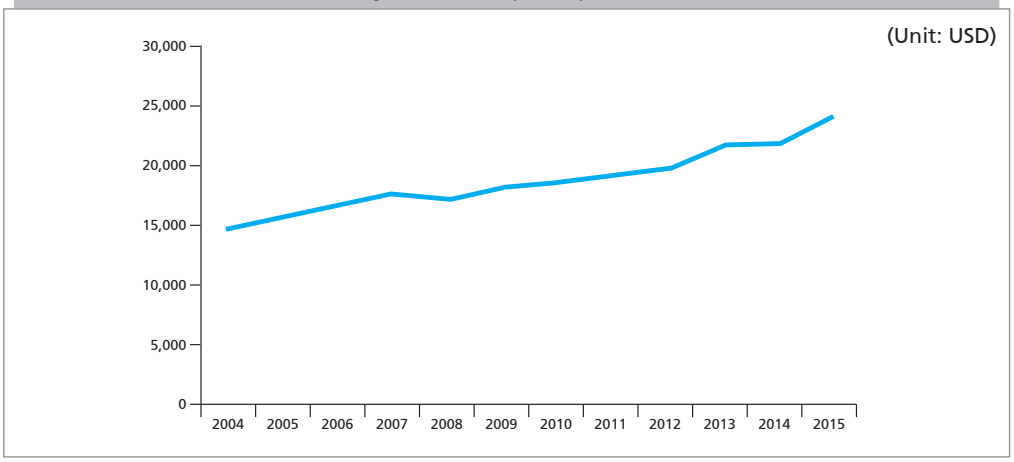
Before implementing a health insurance system, it is important to consider the socioeconomic status of the country in question because this is directly linked to whether a health insurance system can be financially sustained. Economically, Kazakhstan's level is high among other semi-developed countries, and the nation's economic status has been gradually improving. Therefore, it can be considered as being able to maintain a health insurance system. Although its economic growth rate has recently slowed somewhat, its employment rate and ratio of productive young people are gradually increasing. Although the gap between the rich and poor remains wide, the rate of absolute poverty is decreasing. Kazakhstan's GDP growth rate was very high in the mid-2000s, but decreased to 3.3% in 2008 and 1.2% in 2009 due to the 2008 global financial crisis. It then recovered to reach 7% in 2010, but declined yet again in 2012 to 4% and plummeted to 1.2% in 2015, reaching the economic growth rate at the time of the financial crisis. As can be seen, the rate is vulnerable to fluctuations in the international financial market (see Figure 2-1).

[Figure 2-1] GDP Growth



Source: World Bank.

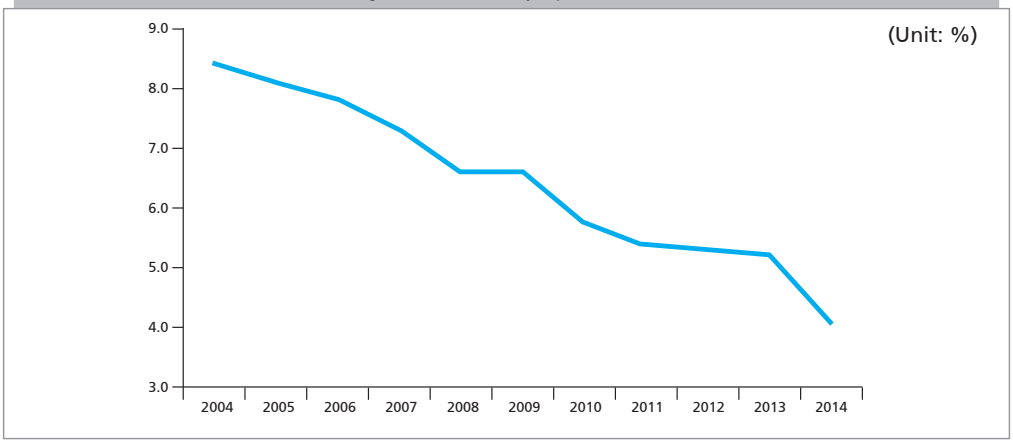
[Figure 2-2] GNI per Capita, PPP



Source: World Bank.

Unlike the GDP growth rate that has fluctuated widely, gross national income (GNI) per capita based on purchasing power parity has been consistently increasing (see Figure 2-2). Kazakhstan's GNI was 14,810 USD in 2004 and gradually increased until 2007. Although it dropped for a short while during the international financial crisis, it has been increasing since then. It increased from 19,895 USD in 2012 to 21,549 USD in 2013, thus entering the 20,000-USD GNI threshold that is considered the standard for a country to be 'developed'.

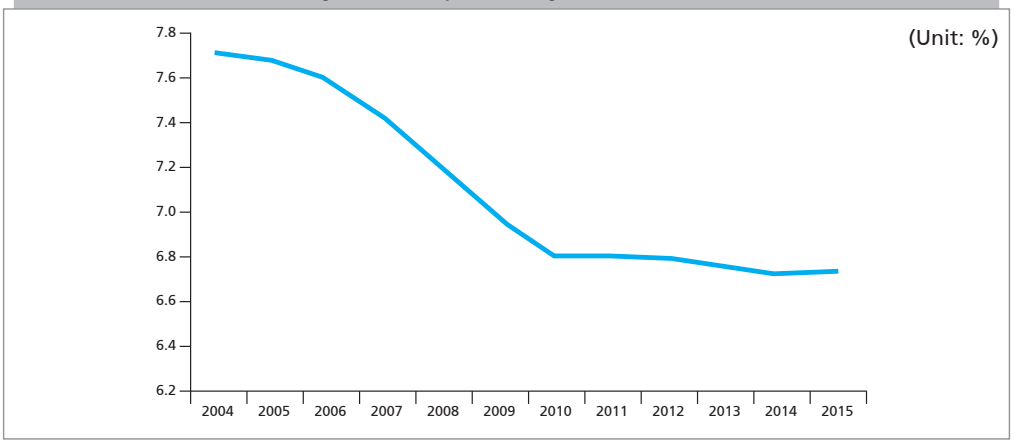
[Figure 2-3] Unemployment Total



Source: World Bank.

The gradual development of the Kazakhstan economy can also be seen in the unemployment rate (see Figure 2-3). The unemployment rate has been steadily decreasing since 2004. From 8.4% in 2004, the rate decreased to 6.6% by 2008. Free from the influence of the financial crisis, it later decreased to 4% in 2014.

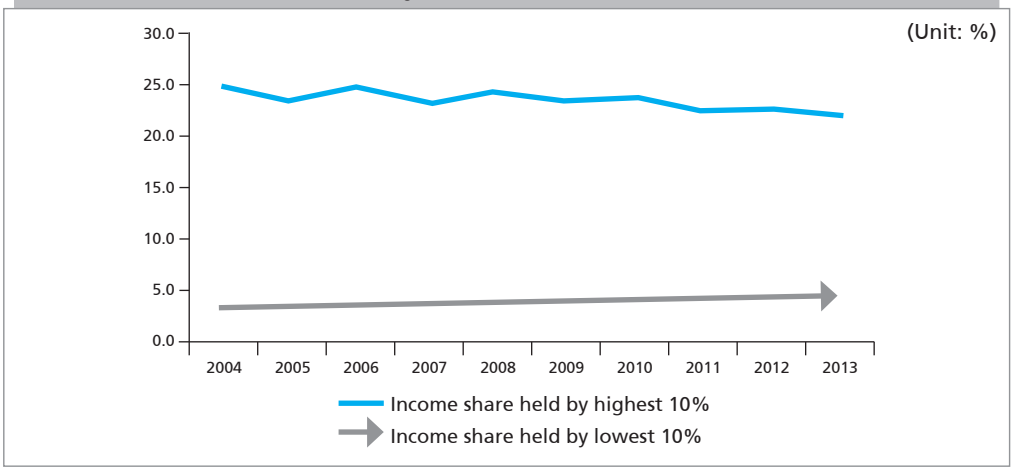
[Figure 2-4] Population Ages 65 and Above



Source: World Bank.

The structure of Kazakhstan's population differs from that of South Korea and many Western countries experiencing population aging. As the proportion of its population aged 65 and above was 7.7% in 2004, Kazakhstan was an aging society according to the UN standard. However, this percentage gradually decreased to 7% in 2009 and 6.8% in 2010, which is under the aging society threshold. The nation's all-time lowest rate, 6.7%, was reached in 2014. Thus, Kazakhstan has a high proportion of young people (see Figure 2-4).

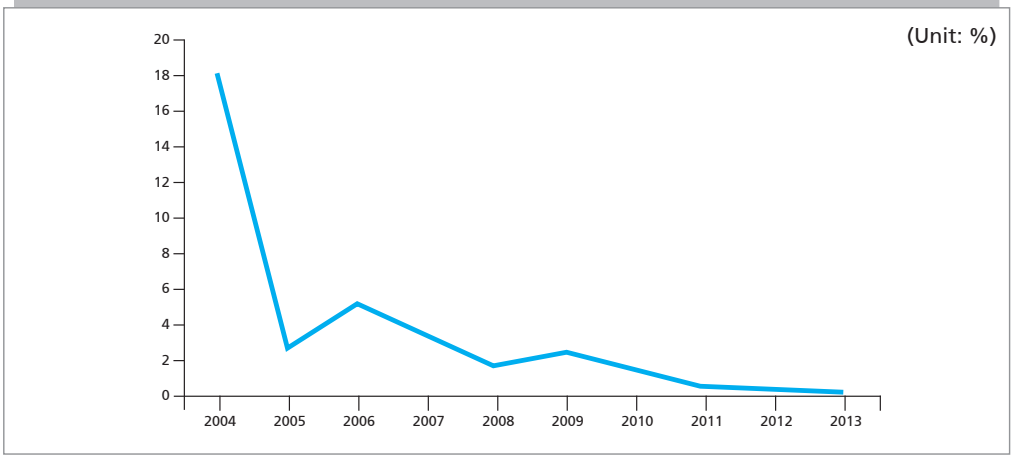
[Figure 2-5] Income Share



Source: World Bank.

The share of income among the top and bottom 10% was 24.8% and 3.4% (respectively) in 2004, a sevenfold difference, but this decreased to just over a fivefold difference in 2013 (see Figure 2-5). The share of income among the top 10% has decreased somewhat overall, reaching 22.5% in 2011, 22.4% in 2012, and 22% in 2013. The share of income among the bottom 10% has increased slightly, reaching 4% in 2010, 4.1% in both 2011 and 2012, and 4.3% in 2013.

[Figure 2-6] Poverty Headcount Ratio at 3.10 USD a Day (2011 PPP)



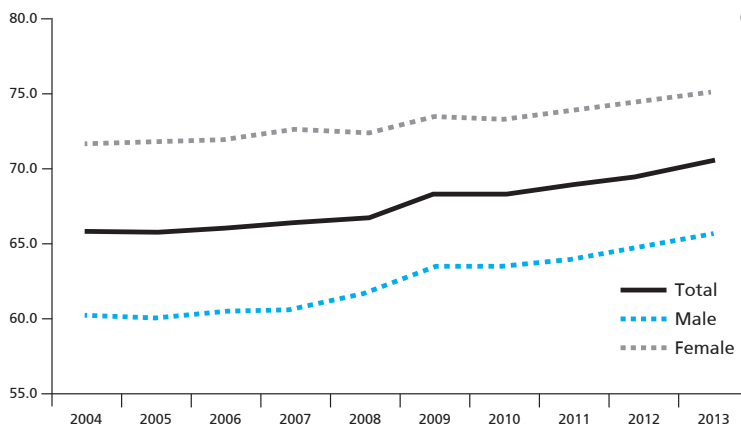
Source: World Bank.

The proportion of the population that spends 3.1 USD a day was high at 17.97% in 2004, but rapidly decreased to 2.86% by 2005 (see Figure 2-6). It then increased to 5.25% in 2006, but steadily decreased after 2009, reaching 0.71% in 2011, 0.44% in 2012, and 0.26% in 2013.

2.2. Health Status

Kazakhstan's major health index is poor. The average lifespan is short, and infant mortality and cardiovascular disease mortality are high. However, the country's health status has been improving over the past 10 years. Average life expectancy has increased by five years, and mortality for newborns and children under five has decreased significantly. Meanwhile, the prevalence of non-communicable diseases such as hypertension and diabetes is relatively high.

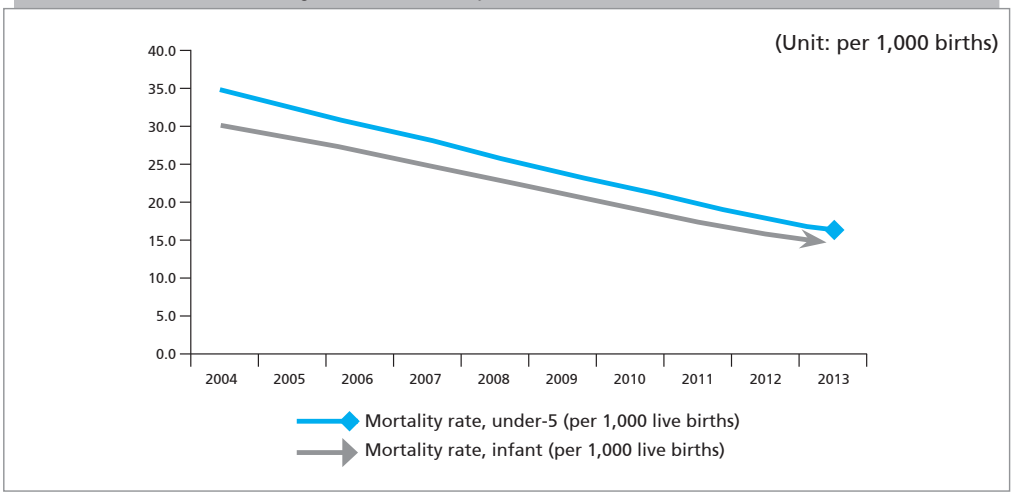
[Figure 2-7] Life Expectancy



Source: World Bank.

Life expectancy in Kazakhstan is showing an increasing trend similar to that seen in the world population (see Figure 2-7). Average life expectancy has increased each year, going from 65.9 in 2004 to 70.5 in 2013. However, it is still lower than the 71.4 global average life expectancy as calculated by the World Health Organization (WHO) in 2015. Kazakhstan's male life expectancy was 60.4 in 2004, 64.8 in 2012, and 65.8 in 2013. Female life expectancy differs from male life expectancy by 10 years: it was 71.7 in 2004 and, after a slight decrease in 2008 and 2010, reached 74.3 in 2012 and 75.1 in 2013.

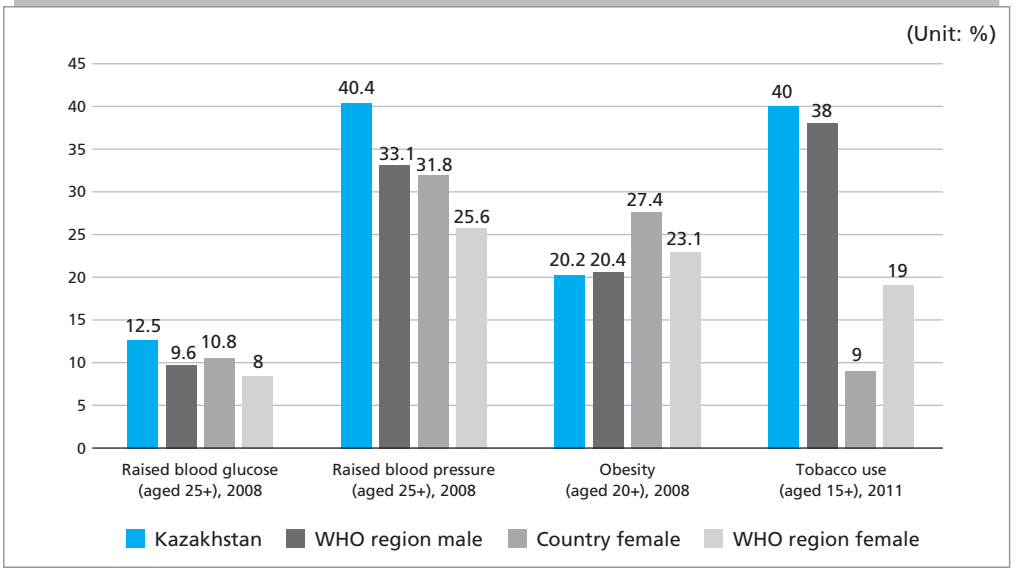
[Figure 2-8] Mortality Rate, Under-5 and Infant



Source: World Bank.

The mortality rate for children under five and infants per 1000 was 34.7 and 30.3 (respectively) in 2004; this gradually decreased to 17.9 and 16 in 2012 and 16.4 and 14.6 in 2013, respectively (see Figure 2-8). Mortality among children under five consists mostly of infant mortality. This steady decrease reflects a decrease in child mortality caused by complications associated with premature birth and labor, pneumonia, and diarrheal disease, as well as systemic improvements in maternal/child health care.

[Figure 2-9] Adult Health Risk Factors



Source: WHO (2014).

Comparing adult risk factors between Europe and Kazakhstan shows that the rate of diabetes and hypertension is higher in Kazakhstan than the average (see Figure 2-9). The prevalence of diabetes in Kazakhstani and European males is 12.5% and 9.5%, respectively, and the prevalence of hypertension is 40.4% and 33.1%, respectively. The prevalence of diabetes is 10.8% among Kazakhstani females and 8% among European females, and the prevalence of hypertension is 31.8% and 25.6% respectively, showing that females are more vulnerable to hypertension. Concerning obesity, the prevalence among males is similar between the two groups; among females however, it is 27.4% in Kazakhstan and 23.1% in Europe, showing that Kazakhstan is more vulnerable. Smoking rates are not very different among males, but the female smoking rate is 9% in Kazakhstan, lower than the 19% across Europe.

2.3. Healthcare Resources

Provision of healthcare personnel in Kazakhstan, represented by the number of physicians and nurses, appears to be adequate. Both the number of physicians and nurses per 100,000 people is similar to the EU and higher than the CIS (see Table 2-1).

〈Table 2-1〉 Physicians and Nurses

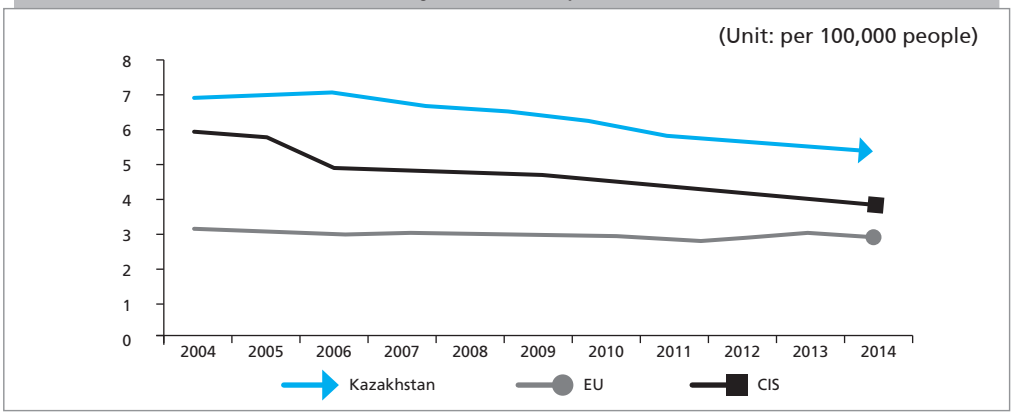
(Unit: Numbers, per 100,000 people)

year	Physicians			Nurses		
	KZ	CIS	EU	KZ	CIS	EU
2004	329	259	310	689	597	818
2005	330	260	312	700	602	827
2006	334	264	317	739	604	929
2007	337	266	319	749	605	831
2008	335	265	323	719	606	839
2009	343	273	327	769	626	850
2010	350	272	333	769	626	852
2011	355	272	339	789	627	842
2012	350	270	342	805	631	850
2013	351	270	346	802	632	856
2014	329	310	350	-	622	864

Source: WHO (2016).

As the Kazakhstan government has supplied and planned all of the healthcare facilities and human resources, the supply of healthcare resources has been constant and is therefore likely to be quantitatively sufficient.

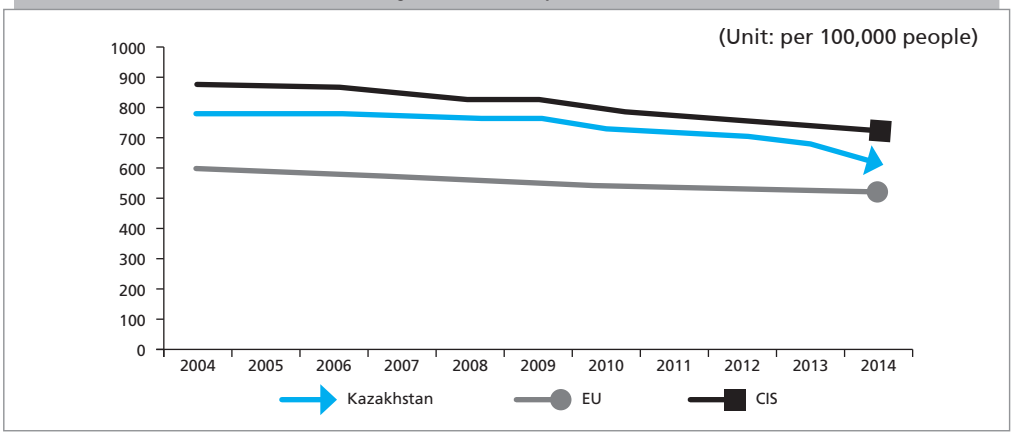
[Figure 2-10] Hospitals



Source: WHO (2016).

The number of hospitals per 100,000 in Kazakhstan is higher than that of Commonwealth of Independent State (CIS) and European Union (EU) countries (see Figure 2-10); it was 5.2 in 2014, higher than in the CIS (3.7) and EU (2.9).

[Figure 2-11] Hospital Beds

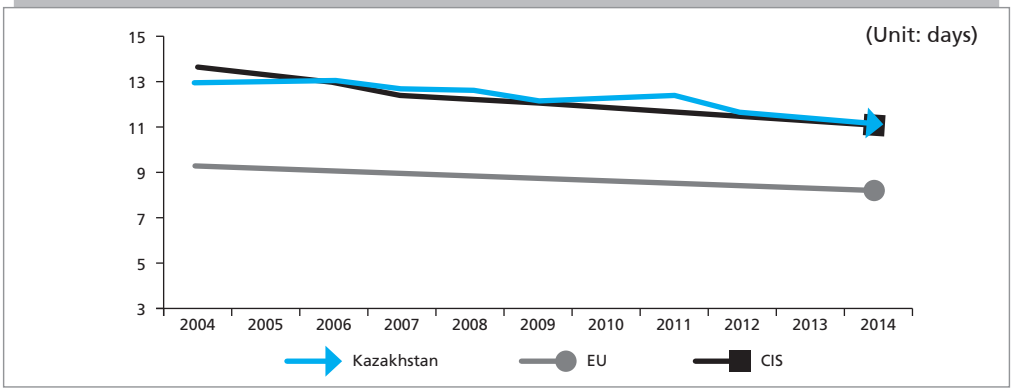


Source: WHO (2016).

The number of sickbeds per 100,000 in Kazakhstan is lower than in CIS countries (see Figure 2-11). The decreasing trend in the EU and CIS is also being seen in Kazakhstan, which reached 776 in 2004, 671 in 2013, and 608 in 2014.

2.4. Use of Health Services

[Figure 2-12] Average Length of Stay

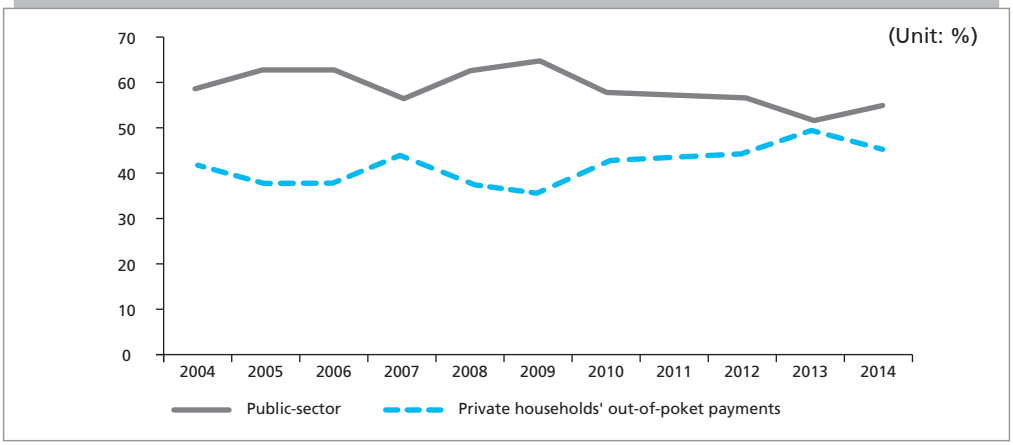


Source: WHO (2016).

The average length of stay for patients in Kazakhstan is not as long as in CIS and EU countries overall, but is higher than in 15 EU countries (see Figure 2-12). The maximum difference was at six days in 1996, and the average difference was at two days in 2004. The difference remained at two days as of 2008.

2.5. National Health Expense Coverage Rate

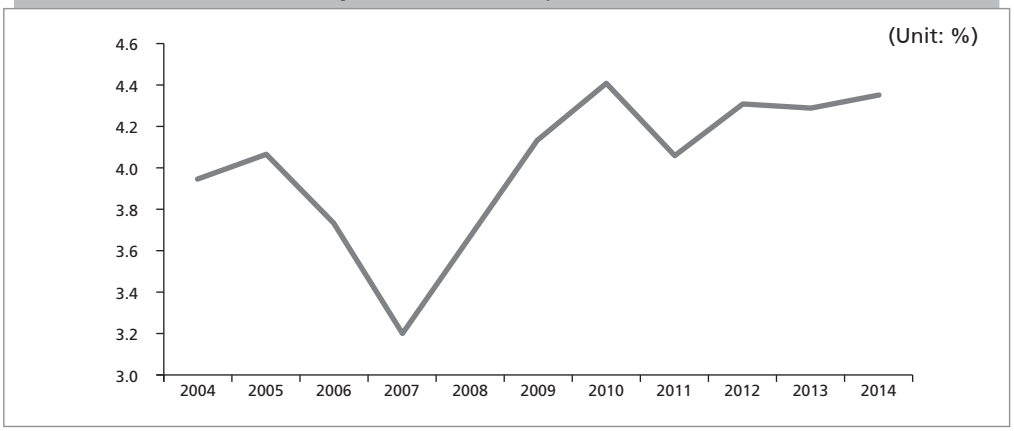
[Figure 2-13] Health Expense Coverage Rate



Source: WHO (2016).

Concerning the health expense coverage rate in Kazakhstan between 2004 and 2014, the government coverage rate was from 50 to 60% and individual coverage was from 40 to 50% (see Figure 2-13). This reflects a high degree of direct coverage for the health expenses of individual patients and their families.

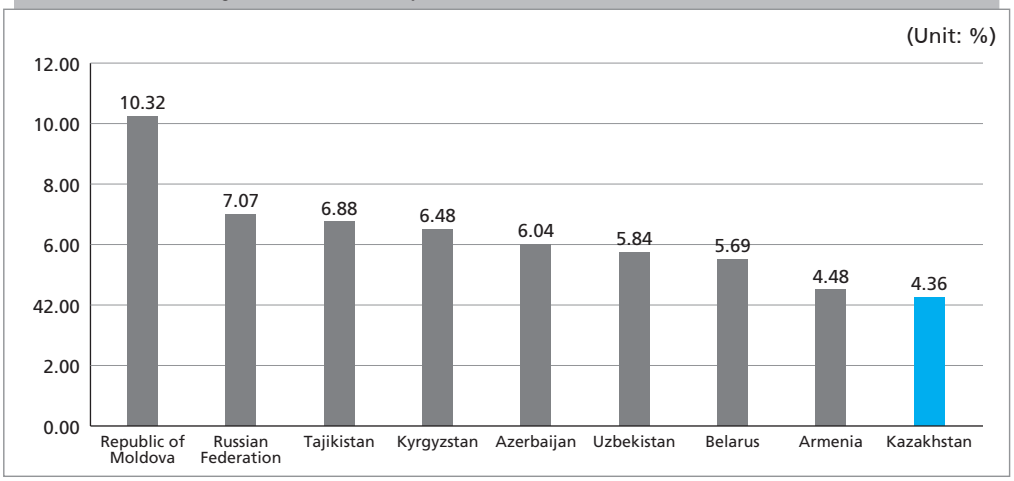
[Figure 2-14] Health Expenditure, Total



Source: WHO (2016).

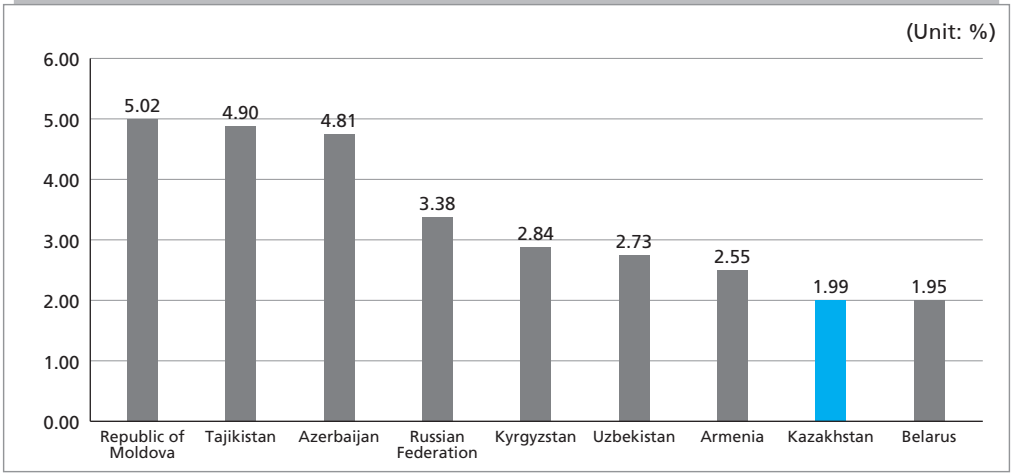
Health expenditures relative to GDP are largely influenced by the economy (see Figure 2-14). The total decreased from 4.1% in 2005 to 3.2% in 2007, and then increased to 4.4% in 2010. It then decreased again to 4.1% in 2011 and stayed at 4.3% in 2013 and 2014. Comparison among CIS countries shows Kazakhstan ranking as the lowest (see Figure 2-15 and 2-16).

[Figure 2-15] Total Expenditure on Health, Kazakhstan and CIS



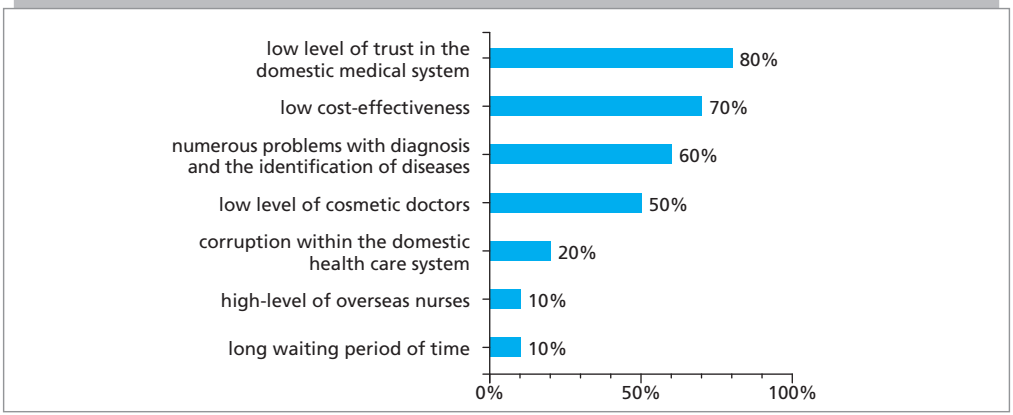
Source: WHO (2014).

[Figure 2-16] Private Expenditure on Health, Kazakhstan and CIS, % of GDP



Source: WHO (2014).

[Figure 2-17] Reasons for Kazakhstanis to Choose a Foreign Medical Center for Treatment



Source: Korea Health Industry Development Institute (2013).

Analyzing why Kazakhstanis chose foreign medical centers for treatment reveals their low level of trust in the domestic medical system (see Figure 2-17). Foreign medical centers were used due to the low level of trust in the domestic medical system in 80% of cases, low degree of cost-effectiveness in 70% of cases, and numerous problems with diagnosis and the identification of diseases in 60% of cases.[1)]

1) According to a doctor in Kazakhstan, excessive diagnosis and prescription has increased due to Kazakhstani medical technicians' lack of clinical experience, which has led to widespread social distrust. However, because healthcare is the second-lowest paying field after agriculture in Kazakhstan, doctors' compensation is low, making it difficult to recruit talented candidates into healthcare (interview following a detailed factual survey conducted on October 19, 2016).

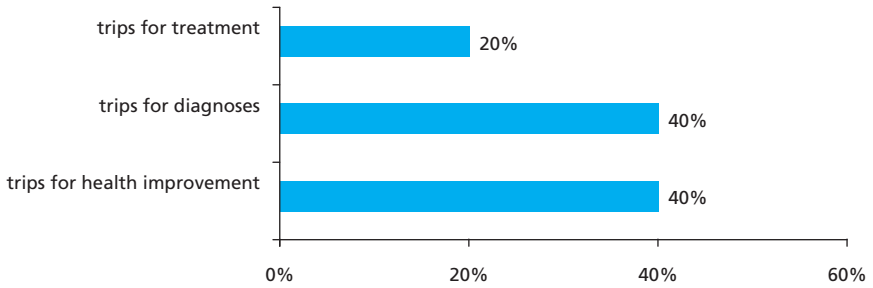
〈Table 2-2〉 List of Diseases Addressed by Foreign Treatment with Support

1) Arteriovenous malformation tumour needing radiotherapy
2) Spinal and brainstem arteriovenous malformation, aneurysm
3) Cranium tumour needing oral carcinomectomy
4) Malignant tumor needing radiotherapy
5) Keratoprosthesis
6) Dyscrasia needing transplantation of heart, nephron, liver, Lungs and spinal cord
7) Laryngotracheal stenosis
8) Tracheal stenosis

Source: Ministry of Healthcare (2016).

The list of diseases addressed by foreign treatment with support is shown in <Table 2-2>.

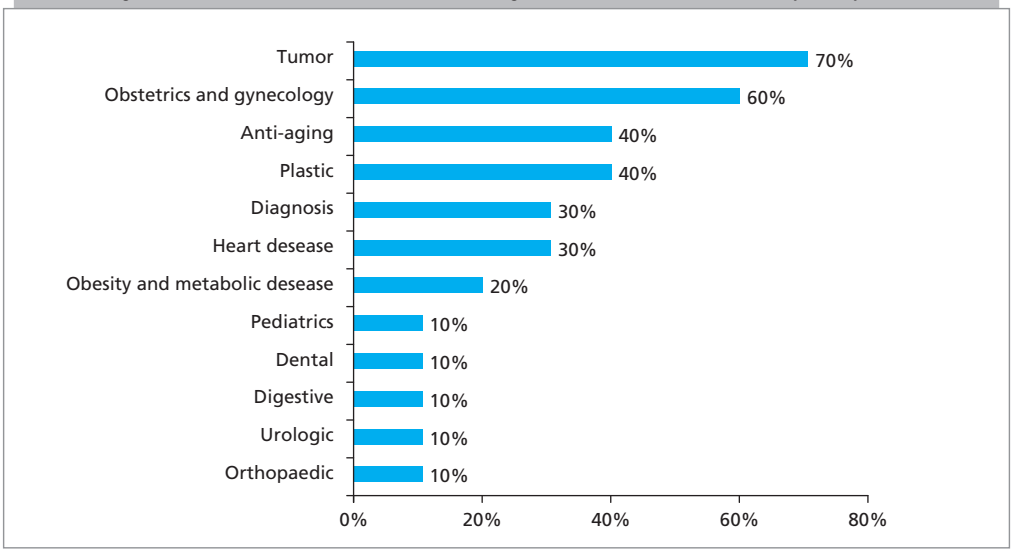
[Figure 2-18] Reason for Locals to Go on a Medical Tour



Source: Korea Health Industry Development Institute (2013).

The main reason why locals go on medical tours is the availability of numerous recreational medical tours for health improvement that offer full physical examinations and treatment courses for cardiovascular disease, diabetes, and chronic circulatory disease (see Figure 2-18). Trips for diagnoses, accounting for 40% of trips, reflect a low level of trust in local doctors' diagnoses. Trips for medical treatment account for 20% of all trips.

[Figure 2-19] Most Common Disease among Kazakhstani Customers (Expert Opinion)



Source: Korea Health Industry Development Institute (2013).

The most common diseases among Kazakhstani customers (patients) who use medical tour services are tumor-related diseases and gynecological diseases, treatments for which need to be improved (see Figure 2-19). Health services in the highest demand include (in order) physical detox and anti-aging, plastic surgery and beauty treatment, disease diagnosis, and the treatment of cardiovascular disease, obesity, and metabolism-related diseases.[2)]

3. Key Characteristics and Issues with the Social Health Insurance System in Kazakhstan

3.1. Background to the Health Insurance System's Introduction in Kazakhstan and Its Current Status[3)]

The introduction of a health insurance system via a social insurance format is the essential part of the healthcare reforms set out in the Kazakhstan 2050 Strategies

2) According to a doctor in Kazakhstan, the oncology percentage is high because diagnosis is often inaccurate due to a lack of imaging technology for interpreting the information obtained from the devices (despite the availability of equipment such as CTs and MRIs). Diagnoses are made without proper examinations and are thus widely distrusted. More than 30 years of training is likely to be required to build up the necessary clinical experience (Interview following a detailed factual survey, conducted on October 19, 2016).

3) Excerpt from World Bank, Social Health Insurance Project: Improving Access, Quality, Efficiency and Financial Protection, April 6, 2016.

long-term development plan. Its focus is the modernization of the healthcare division. The purpose of introducing a health insurance system as part of healthcare reforms is to have the government, employers, and employees share the expenses of health services and to integrate the financial resources needed to protect people from excessive health expenses.

The financial resources used for healthcare are obtained from the government budget and individual payments; one-third of national health expenses are met by individual payments. Hence, the Kazakhstan government is trying to create a mandatory health insurance system in order to explore options for expanding the healthcare system's financial resources.

The Kazakhstan government can use the lessons learned from its failure to introduce mandatory health insurance between 1996 and 1998. At the time, the government created a mandatory health insurance fund (MHIF) and tried to fund it with 3% of income tax revenues, independent business owners' insurance contributions, and state governments' insurance contributions for the socially disadvantaged. But because the unemployment rate was high at the time due to economic instability, the high cost of living, and government deficits, the government and employers could not fully pay their share, and only 35 to 40% of the fund could be established as originally planned. Eventually, the MHIF ran out in 1998 because many employers had high levels of debt and could not pay their income tax, the government could not collect insurance contributions from independent business owners (who comprised the majority of the informal sector), and state governments could not pay the insurance contributions for the socially disadvantaged while also being inexperienced in fund management. Hence, ensuring insurance payments is an important issue for future attempts.

Recently, the situation has markedly improved. The Kazakhstan MOH has gained much experience through various reforms in healthcare, and competence at the organizational level has been strengthened. In addition, the Kazakhstan MOH engaged in policy consultations with the World Bank from 2015 to 2016 regarding the health insurance system. Specifically, the World Bank provided consultation based on the integrated management of insurance contribution collection and earnings, the preparation of a strategic purchasing system, and international experience regarding social insurance management organization. It also provided detailed advice on the Health Insurance Act and shared cases of other countries' social insurance acts. Additionally, the World Bank is planning to offer technical support to the Kazakhstan MOH for financial forecasting regarding healthcare.

3.2. Roadmap for Kazakhstan Health Insurance System[4)]

3.2.1. Administration and Governance

The priorities of SHI implementation in Kazakhstan are shared financial responsibility and personal responsibility for health, accessibility and quality of health services, and effectiveness in spending financial resources.

The social health insurance fund (SHIF) had been established by November 2016 in the legal form of a joint stock company (JSC) fully owned by the government and under the supervision of the MOH. The planned institutional scheme for SHI administration is characterized by a high level of centralization with elements of pluralism.

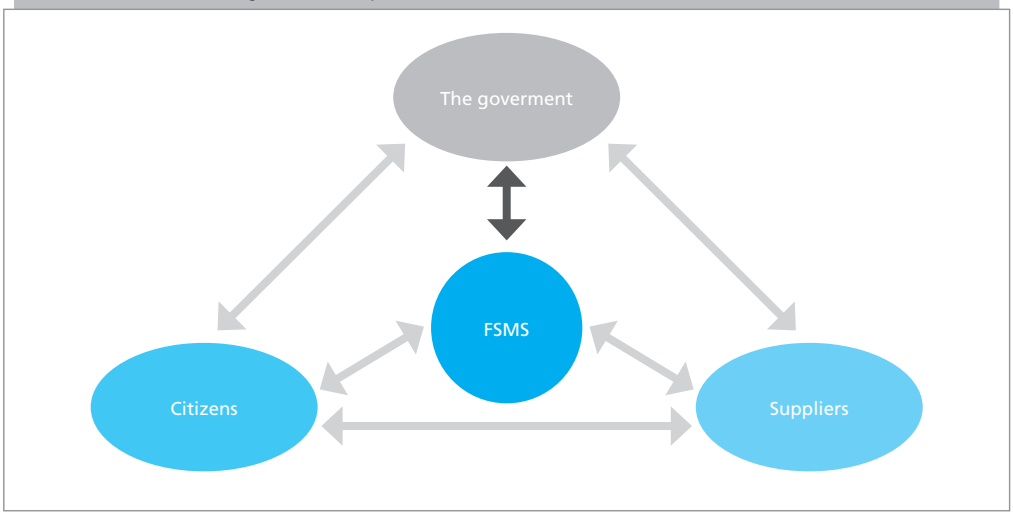
The legal framework for the direction of the SHI system is presented at a strategic level by country-level strategic documents (general priorities and direction) and the law "On the SHI" and the State Program for Healthcare Development "Densaulik" for 2016-19 (strategic document issued every 5 years that sets the goals, priorities, key tasks, indicators and policy measures to be implemented by the MOH and other republican- and local-level bodies). The framework at operational level is set by government directives that take into account the global context, situational assessments by the Ministry of Economy, the decisions of the Joint Committee (the consultative board under supervision of the MOH producing recommendations on the development of clinical standards, standards on medical education, the provision of drugs, quality control systems, etc. In terms of perspective, this board is supposed to also include representatives of medical workers / patients associations, and other NGOs in order to widen its mandate and functionality.), policy measures promoted by the MOH, and the Operational Plan of the SHIF.

The system for evaluating and controlling SHI is undergoing a development process. Nevertheless, the government as a whole, the MOH, the Ministry of Finance (MOF) and other fiscal and controlling bodies[5)], in addition to the National Bank as a regulator of the insurance market, will definitely host different parts of the process for controlling the SHI system in accordance with their competences. There is also the political will to promote the values of transparency and accountability in managing the SHIF's funds. In this regard, measures to encourage the participation of civil society in the open dialogue may ensure the sustainability of the social contract.

4) This is based on "The Introduction of Obligatory Social Insurance of the Republic of Kazakhstan" distributed by the Ministry of Health and Social Development of the Republic of Kazakhstan during the KSP launch meeting (August 18, 2016).
5) As a part of the SHIF funds pool will be transferred from the State budget.

Within the new system, key responsibilities will be redistributed between the actors as follows: The government approves the social health insurance package and makes decisions related to the assets and reserves of the Fund. The MOH issues the rules, determines the procedures for calculating the insurance payments, defines the reserves and remuneration for the Fund along with the reporting rules, and MOF supervises the financial sustainability of the Fund. The local health authority (LHA) delivers public services locally and participates in the planning process for health care services. The State Pension Payment Centre (SPPC) is responsible for the recognition of compulsory contributions and their transference to the Fund, in addition to cross-checking contributions with the state revenue authorities. And finally, the National bank holds in trust the assets of the Fund.[6)]

[Figure 2-20] System of the Kazakhstan Health Insurance



Source: Ministry of Healthcare (2016).

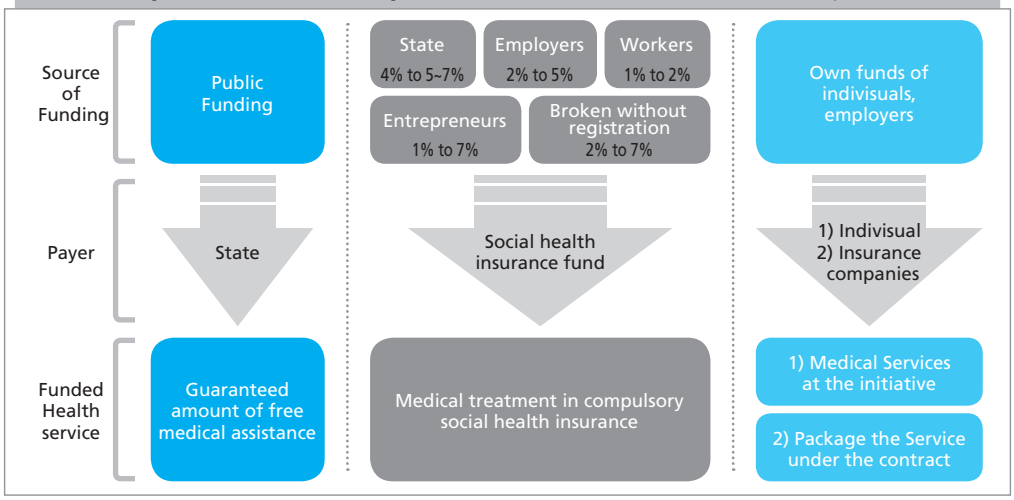
The management system for the Kazakhstan health insurance system is shown in [Figure 2-20]. The MOH drafts healthcare policies and measures the demand for health services to determine the priority of health insurance benefits. In addition, it sets appropriate costs for health services, approves the payment amounts for health service provisions implemented under the health insurance system and Kazakhstan's guaranteed free healthcare scheme or State Guaranteed Benefit Package (SGBP), and ensures that payment standards have been met.

6) Hereinafter – source for information on the organization of the SHI system – the Law "On the SHI"

3.2.2. Financing Plan

The fund of social health insurance (FSMS), tasked with managing Kazakhstan's health insurance system, manages the finances by imposing and collecting insurance contributions and preparing a reserve fund. It is also in charge of predicting the financial demand for healthcare, purchasing healthcare services, and achieving a balance between health service needs and the available funds. To improve efficiency and achieve rationalization, it also manages and supervises the qualitative and quantitative levels of health providers who signed contracts with the health insurance system to provide health services.

[Figure 2-21] The Financing Plan of the Kazakhstan Health Insurance System



Source: Ministry of Healthcare (2016).

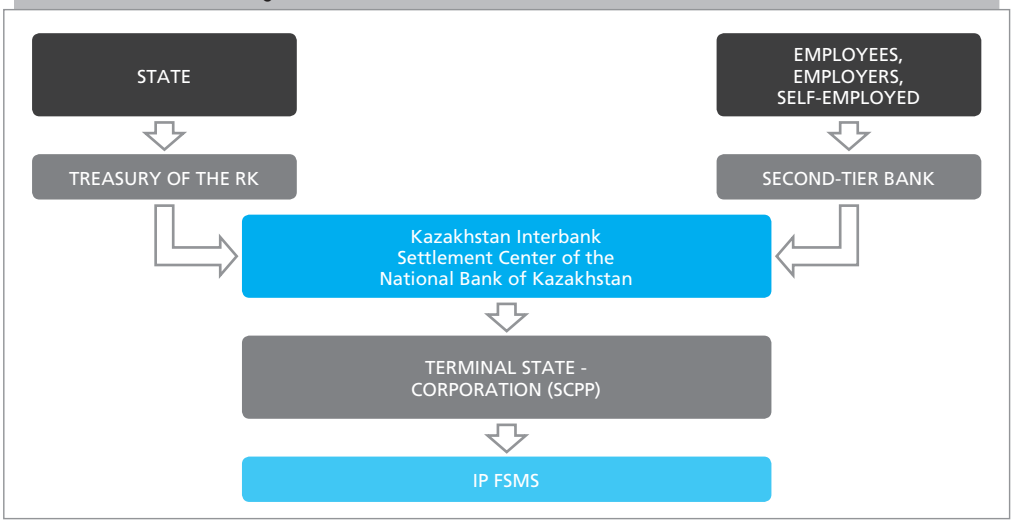
The financing plan for the Kazakhstan health insurance system is shown in [Figure 2-21]. There are three sources of financing. Public funding is paid by the government to ensure the availability of free health services. Such services include treatments for socially important diseases and diseases dangerous for others, patient transfers, emergency treatments, and vaccinations. The insurance contributions collected from the government, employers, employees, independent business owners, and employees in the informal sector will contribute towards the health insurance fund, and the services within the range covered by the health insurance system will be provided.

In this regard, the introduction of SHI can help in two ways. First, the Fund will pay for provided services ad-hoc instead of passive budgeting by the existing facility network. Therefore, public funds will be allocated more equally. Second, a set of measures targeting the areas where Out-Of-Pocket (OOP) spending is at a critical level and its significance can be elaborated upon.

The SHI system will receive revenues from 3 sources, clearly reflecting solidarity: employer and employee contributions and the state budget (high share of overall revenues). Approximate contributions will constitute:[7)]

- State: 4% in 2018 to 5%~7% by 2022
- Employers: 2% from salary in 2017, going up to 5% in 2022
- Workers: 1% in 2018, going up to 2% in 2022
- Individual entrepreneurs: 1% in 2018 to 7% in 2022 from income
- Broken without registration (informally employed): 2% in 2018 to 7% by 2022 from the legally established minimal salary[8)]
- Services not provided by SGBP and SHI will be covered through separate resources or via contracts with private health insurance providers

[Figure 2-22] Collection of Contributions and Deductions



Source: Ministry of Healthcare (2016).

The insurance contributions paid by employees and employers and the funds transferred for SGBP management are collected for the FSMS. Health services previously covered by local government budgets will be transferred to the FSMS. Thus, financing will be managed after its integration with the FSMS once the health insurance system is established (see Figure 2-22).

The FSMS will also serve as a strategic buyer of healthcare services. There are three advantages to strategic purchasing. First, it will occur as an integrative

7) Concrete contribution rates are still being discussed and will probably be modified in the near future.
8) The Law "On the SHI".

purchase (i.e., from both SGBP and OSMS). Second, purchasing health services through selective contracts with providers will motivate providers to improve their outcomes. Third, payments for all kinds of services will be centralized by FSMS headquarters.

Although the presented composition is in line with the international trend towards mixed SHI-tax funded health systems, it has some different origins. In developed countries, the population is ageing rapidly, leading to the need to decrease the tax burden on the working population. However Kazakhstan still has a relatively young population and so faces a structural and general economic challenge – the high proportion of an informally employed population. This issue causes co-funding from the state budget due to the contributions by the formally employed being insufficient .

The collection of contributions will be carried out through the existing general tax system, institutionalized under the supervision of the Ministry of Finance of the Republic of Kazakhstan. Accounting for contributors and contributions will be performed through the existing system of the JSC state corporation. Most of the value from the SHI scheme will be added on the side of disbursing funds.

3.2.3. New Purchase Plan for Health Services

At the strategic level, the SHI will establish a system of the strategic purchase, meaning that the volumes, types, and quality of services that need to be purchased by the Fund will be defined according to an assessment of the population's needs and balanced by a forecast of SHIF revenues and expenses. This seems to be the most significant and progressive innovation of the SHI.

Selective contracts between service providers and purchasers will proceed in two steps. The first step is to register the providers in the integrated registration system and examine whether they meet the minimum requirements for institutions providing health care. The second step is to have these institutions sign a contract with the FSMS after negotiations regarding supply levels and health service costs.

Under this plan, the FSMS will strategically purchase health services. This will occur through health care institutions equipped with e-health and health information systems alongside modern health care institutions. Providers without a health information system, but with plans to obtain one, will also be allowed to access the e-health system. Therefore, all processes will be automated except for the negotiations.

All information, including positive and negative evaluations of the health care

institutions, will be automatically renewed in the integrated registration system for health care institutions, and this information will be used by the FSMS to evaluate health services. Meanwhile, separate contracts (e.g., three-year contracts) and annual service and cost evaluations will be used for health service providers offering highly specialized services (e.g., the 10 health care institutions offering organ transplants).

3.2.4. Provider Payments

All health services are paid by the FSMS. The companies contracting with health care institutions will provide information on itemized health service provisions to FSMS headquarters and branches through an automatized information system. Once this system is established, constant management, supervision, and sampling will become available. Furthermore, this system will allow for the verification of services provided to the entire nation.

FSMS headquarters will send money from the central fund to the accounts of each health care institution in accordance with the opinions of the branch office and the department in charge of data evaluation. As the funds are managed and used directly by the central office, overlap and waste will be eliminated, and funds will be properly redistributed to each region. The main objective of this payment plan is to improve the quality of health services and ensure the efficiency and transparency of decision making regarding evaluations and payment.

The issue of raising the productivity of the healthcare system is of the greatest importance for Kazakhstan, as current health expenditure constitutes only 3.3% of GDP as opposed to the OECD average of 8-9%. In this regard, issues of enhancing payment mechanisms need to be addressed.

3.2.4.1. Diagnosis Related Groups (DRGs)

As mentioned above, inpatient care besides the treatment of socially significant diseases is financed via DRG. Until 2012, expenditures incurred during the year for inpatient treatment were incorporated with a cost recovery policy based on detailed reporting from providers. The gathered information served as a platform to develop the DRG system. Assistance is adjusted through a series of factors such as, for example, the duration of the heating season, an index for rural areas, and an ecological correction factor, in addition to the results of the review process of health services carried out by the Committee on Payment for Medical Services (CPMS) and the Committee on Control over Medical and Pharmaceutical Activity (CCMPA).

Informational support for the examination process is carried out by using the centralized information system.

Currently, all day medical treatment is paid at 25% of the equivalent amount for inpatient treatment. This is a very rough approach and leads to overvalued or undervalued reserve funds.

Also, there are a number of stimulating elements on tariffs that are designed to promote the development of tertiary health services and the transfer from inpatient care to daytime medical care and ambulatory surgery. For example, reimbursement for tertiary health care is carried out through the DRG by using an additional coefficient over and above the actual costs. In recent years this has made a significant contribution to the increase of such services. However, these measures have not led to a similar increase in daytime medical care and ambulatory surgery. There are two possible explanations for this fact: first, tertiary health services are more expensive and therefore more profitable for the health care provider; second, the provision of ambulatory surgery may require providing a range of additional services and the availability of additional space or equipment, such as anesthesiology and an intensive care department.

Another reason for the sluggish growth in daytime medical care can be behavioral factors. While a shortage of available resources to advance implementation may be observed in ambulatory care, an increasing the number of day-care patients results in a decrease in the number of inpatient beds. Therefore healthcare policy makers exert pressure with a view of decreasing bed capacity. In turn, existing legislation links bed capacity with the number of medical staff and, subsequently, with the size of organization and personal competence of director and so on. Therefore, the transformation of beds to daytime medical care is not a strategic aim for the hospital, as inpatient treatment is more costly and therefore requires more funding. This is a common situation in many countries, but it is be complicated by the legal nexus mentioned above.

DRG analysis has revealed an extremely simplified model with one parameter for categorization coded as ICD10 (or ICD9 in the case of significant operation). No additional clinical parameters, such as disease related complications, using expensive resources, or adjustments for too short or long stays, are included.

Data compilation of incurred expenditures is carried out by hand, so it became clear that it only covers a very small part of the total number of treated patients and may be used only for targeted groups of diseases. This might lead to inaccuracies in the reimbursement of costs.

3.2.4.2. Capitation for Outpatient Care

The system of per capita financing is supplemented by the right of a patient to choose a primary care services provider and the so-called partial fundholding system. The latter concept means that, after receiving the funds for any specialized outpatient services (e.g., diagnostic procedures, laboratory tests, and consultations), primary care providers may sign a subcontract with an appropriate provider of specialized outpatient services. The most typical organizational structure of primary care providers in Kazakhstan are hospitals with both primary care and specialized services.

There is also an element of 'payment for performance' for primary care services providers, including general physicians, nurses, social workers and psychologists. The federal budget sets a fixed rate per capita (which specifies the name of the present scheme – Incentivizing component of the payment per capita) and transfers funds to the LHA with the following distribution in accordance with pre-established common rules such as key performance indicators (KPIs). The amount of bonuses involves results on the basis of six performance indicators. However, a closer consideration of the system revealed its extreme simplicity.

3.2.4.3. Global Budgets for Rural Providers

In 2013 the global budget mechanism was introduced in rural areas based on per capita payments for outpatient and inpatient treatment. This process was accompanied by institutional reforms that represented the healthcare network as a single entity – the Central district hospital. The goal was to transfer the privileges and related resources of primary health care at the local level (small health facilities in villages, providing health services «in place»).

It should be noted that the per capita treatment reimbursement mechanism is still aligned with historic budgets, so the rate is calculated based on the total available budget, rather than an adoption of a budget based on a predefined rate and the size of the population served. Also, the use of such a global budget system suffers from disadvantages stemming from historical differences in per capita funding between regions and districts. The same situation can be observed by distributing the global budget according to the treatment of cancer and payments to per capita outpatient treatments.

It is important to point out two other important issues: (a) the division of responsibilities among health service providers in rural areas (the Central district hospital) and health services providers at the regional level (the regional hospital), and (b) the existence of an effective funding mechanism for netting agreements.

The first issue is especially important with the global budget for cancer cases. For this system, the most important principle is the policy known as, "the money follows the patient".

3.2.4.4. Global Budgets for Oncology Care

Cancer treatment in Kazakhstan is represented by so-called vertical integration, within 16 regional oncology dispensaries aimed at outpatient and inpatient treatment. The leading role belongs to the Kazakhstani Scientific Research Institute of Oncology and Radiology (KSRIOR), which provides only inpatient treatment.

Since 2012 the global budget mechanism had been introduced in the regional dispensaries based on the number of the registered patients (through the information system). Budget programs cover all expenditures for inpatient, ambulances, and drug supply. However, funding of KSRIOR carried out within the DRG does not work properly to cover the costly and complex cases of cancer treatment.

3.2.4.5. Payment Mechanisms for Socially Significant and Severe Diseases

The treatment of so-called diseases of social significance is also organized through vertical integration and is mainly implemented through specific institutions – dispensaries. There is a set of out-of-date funding mechanisms: cost reimbursements that are paid out based on bed days spent in the psychiatry department, tuberculosis department, and so on.

3.2.4.6. Further Plans on the Enhancement of Payment Mechanisms

At the moment, the following measures are supposed to be taken in order to enhance existing payment mechanisms.

First, the system of contracting will be completely revised. The new contract template is under a process of elaboration for a more specific list of services, their descriptions, volumes, and quality requirements. Contracts with both outpatient and inpatient providers will contain indicators on efficiency and quality. These two will help improve health system performance, preserving the safety of patient.

Second, existing contemporary payment systems will undergo a process of further development. One of them is the global budget system for oncological care, which is supposed to be replaced by a combination of DRGs, capitation, and fee-for-service.

And last but not least is the modernization of obsolete payment mechanisms. This process is ongoing, with budget consolidation at the central level, and will take place in 2017. The best example would be efforts regarding tuberculosis, which is still budgeted and paid for according to the number of beds, causing the wrong economic incentives.

Generally, it is noteworthy that the reformation of payment mechanisms and service delivery systems should be performed simultaneously.

3.2.5. Sustainability Fund

The insurance contribution contributed by the government to ensure the sustainability of health insurance financing will be used to compensate for any losses the health insurance system may suffer during economic downturns. It will be invested into by financial instruments through the national bank. A reserve fund will also be prepared as follows. First, a minimum balance of 50 billion KZT will be maintained each month. Second, 3% of the insurance contribution will be maintained as a reserve fund to cover unpredictable expenses. Third, to prepare for situations in which health services exceeding the amount in the contract were provided, revolving funds will be secured after the 25th of each month to process the claimed amount for that month.

3.2.6. Benefit Packages

Currently, the SGBP is declared in the Constitution. The Article 29, Paragraph 2, declares that, "Citizens of the Republic shall be entitled to free, guaranteed, and extensive medical assistance established by law". It includes the following categories of care:[9)]

- Outpatient care, including primary and consultative-diagnostic care. These two are described in detail, and includes consultations, screening tests, laboratory tests, visualization, procedures and manipulations, dentistry and tertiary outpatient services such as CT and MRI for particular categories of the population.
- Ambulance and sanitary aviation (used for delivery of quite urgent and complex patients from remote areas).
- Inpatient care, including home visits for non-transportable patients, daycare, specialized and tertiary care. This also includes the provision of drugs for inpatient cases.

9) Resolution of the Republic of Kazakhstan dated January 27, 2014 № 29 "On approval of the list of guaranteed free medical care"

- Provision of ambulatory drugs in accordance with the MOH's Decree defining the list of diagnoses (48 nosological forms) and drugs (around 200 positions).
- Medical rehabilitation, both at the outpatient and inpatient levels.
- Palliative care.
- Provision of blood products and components.
- Treatment abroad, for quite complex cases, predominantly for newborns.
- Pathology-anatomical procedures.

With introduction of the SHI, the current SGBP will be divided into two parts: the new SGBP (reduced), which will be available for all citizens and includes:

- Ambulance and sanitary aviation.
- Outpatient care for patients with diseases of social significance and for those non-covered by SHI, including primary health care, consulting and diagnostic aid.
- Inpatient care for patients with diseases of social significance and urgent cases.
- Vaccination.
- An SHI package available for participants of the SHI system (ones making contributions and 15 categories of population, for whom contributions will be made from the state budget – i.e. children and students, pensioners, disabled, unemployed, other vulnerable categories of the population, military servants, prisoners, etc.) which includes the following categories of care:
- Outpatient care with the exception of cases financed through SGBP.
- Inpatient care with the exception of cases financed through SGBP; in other words, planned care.
- Tertiary services.

All of these services will be provided either by public providers or by private ones, which are those who participate in the competition for state purchases and get contracted. Priority will be given to providers who have international or national accreditations. The existing model of the right to free choice (both for outpatient and inpatient providers) will be revised to become more flexible. However, there are still restrictions on provisions by private sector providers for specific types of care, namely oncological, psychiatric, and AIDS services.

Insurance benefits (health services sponsored by health insurance) may be restricted in such cases. While most health care institutions at the hospital level or higher are public (80.1%) as shown in <Table 2-3>, most health care institutions at the clinical level are private (84.4%). This suggests that even after social health insurance is fully implemented, many people who need primary level health care services may not be able to receive health insurance benefits when visiting clinical level health care providers. In other words, the range of actual health insurance

benefits may actually be very limited, which may result in lower public acceptance of the new health financing plan.

〈Table 2-3〉 Status of Healthcare Institutions by Established Type

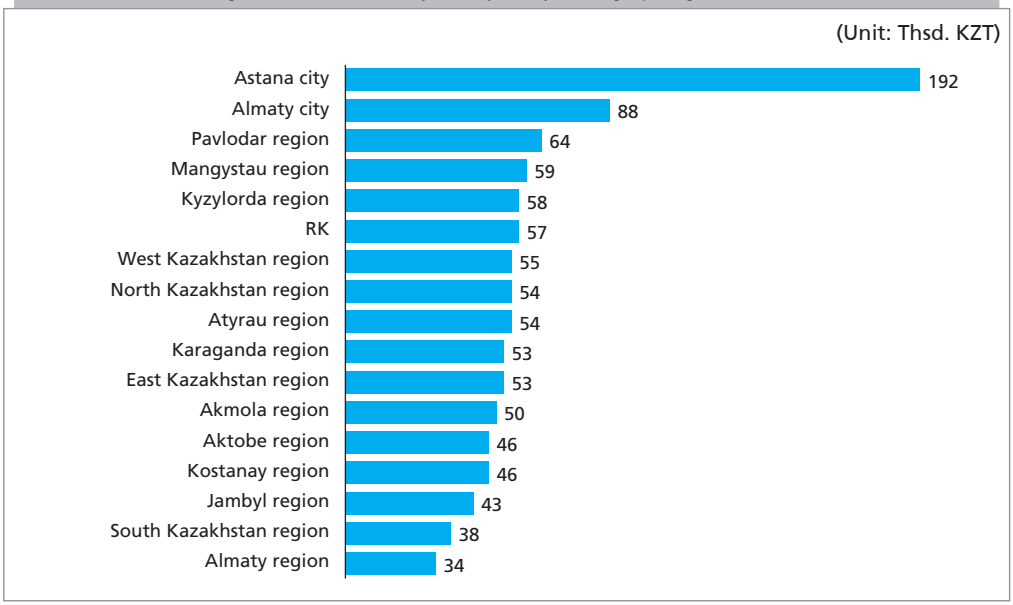
(Unit: Numbers, %)

	Public		Private		Foreign		Total	
Hospital	763	80.1	189	19.9	-	-	952	100.0
Clinic (medical and dental)	212	14.9	1,198	84.4	10	0.7	1,420	100.0
Other medical care institutions	223	28.9	525	68.1	23	3.0	771	100.0

Source: Korea Health Industry Development Institute (2013).

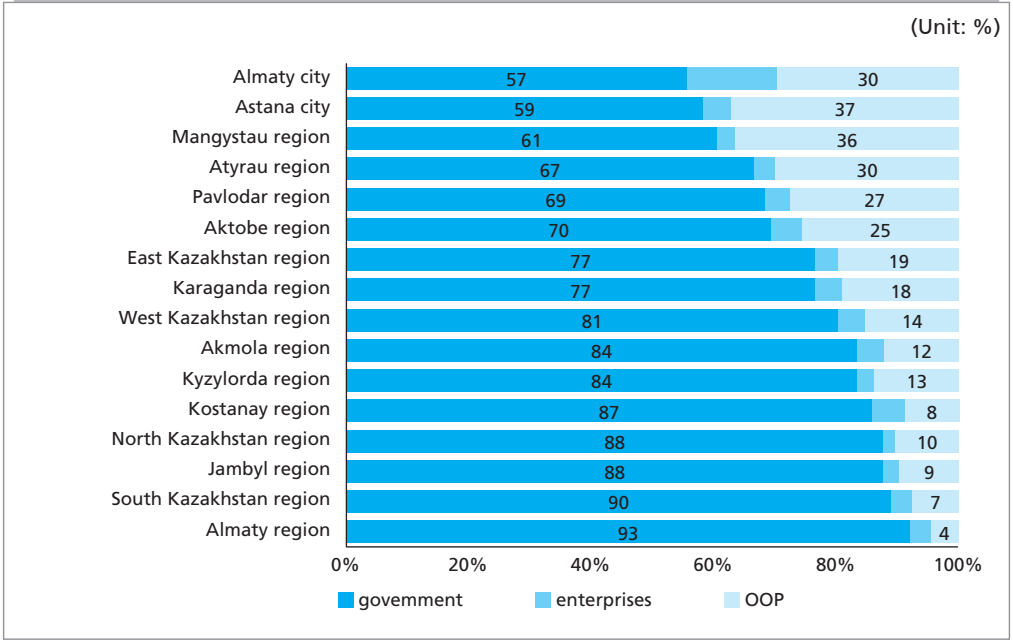
In terms of healthcare spending, there exist differences in per capita spending and the structure of total spending across regions (see Figure 2-23 and 2-24). Distribution of SHIF funding between regions will become more transparent while still taking into account the principle of regionalization, which needs to be explained. The combination of geographical and demographical factors leads to low population density (slightly over 6 inhabitants per 1 square km) and lots of remote territories. This in turn results in a lack of accessible medical care, despite extensive infrastructure. Although the service delivery model needs to be revised with regard to the possibilities of new technologies and community involvement, the acting solution suggests that powerful facilities providing tertiary care be concentrated within Astana and Almaty cities (see Figure 2-24). The right of free choice of provider for inpatient (tertiary) care complements this concept. Taking into account the described situation, some rational inequality in the regional distribution of funding will remain, while free cross-regional flows of patients through decreased administrative barriers will reduce inequalities in access for a particular patient.

[Figure 2-23] Current per Capita Spending by Region for 2014



Source: Center for Economic Research in Healthcare (2014).

[Figure 2-24] Structure of Total (current and capital) Spending by Region for 2014, excluding drugs



Source: Center for Economic Research in Healthcare (2014)

3.2.7. Claims, Reviews, and Assessments

Taking into account potential increases in the demands of the population, satisfaction with the quality of health services will significantly contribute to the success of the reforms, thus becoming one of the priorities. In this regard, the SHIF will contain a unit that works with the population, one of the functions of which will be processing of claims. Some functions of the Committee on Control of Medical and Pharmaceutical Activities will be transferred to this unit. At the moment, acting mechanisms are in the process of modernization. One possibility, out of the area of the SHIF's direct jurisdiction, is a mediation institute. Examination of provided services will be performed ad-hoc, if required by a claim.

4. Introduction of the Health Insurance System in South Korea and Experience with Its Effective Management

4.1. Introduction of the Health Insurance System Policy and Its Management: The Case of Korea[10)]

4.1.1. Brief History of Introducing National Health Insurance in South Korea

With growing demand from the public based on economic growth during the 1970s, as well as the introduction of regulation ensuring the supply of health care services by designating all health care facilities as providers for the insured, the Korean government started introducing social health insurance to the employees of large employers in 1977. This was followed by middle- to small employers, and utilized a step-by-step expansion strategy until 1989 when the country finally achieved universal health coverage (UHC). Although covering the employees of the formal sector was relatively easy, this was not the case for people in the informal sector.

Two extensive pilot projects were conducted during 1981-1988. These projects aimed to develop methods of imposing and collecting contributions from the people in rural areas and informal sector workers in order to establish insurance benefit packages and to design health-care delivery models.

10) Excerpted from Gong *et al.*, 『2014 Modularization of Korea's Development Experience: The Empirical Review of National Health Insurance in Korea』, 2014.

In both projects, the enrollment of subscribers and the imposition of contributions were done on a per-household basis. The first pilot project charged contributions based on both the capitation component (e.g., number of household members) and the economic level of a household in a local area (e.g., low, middle and high income households). Based on the issues raised during the first project, the second pilot project changed the method of imposing contributions into 50% of the base rate (e.g., per household plus per member) and 50% of the ability to pay rate (e.g., income level plus asset level). Later, there were also efforts to extend coverage to the self-employed in urban areas. At the time, contributions were charged based on 50% of base rate (e.g., per household plus per member) and 50% of the ability to pay rate (e.g., income level plus asset level plus car insurance level).

However, one of the main challenges in imposing contributions is the difficulty of setting fair contributions. Various efforts have been made since the pilot projects and achieving UHC in 1989 to develop and adjust contribution rates by mixing both (supposed) income and assets. However, controversy over the validity of the contribution basis still continues. It has been recommended that adopting a single contribution basis (e.g., income based contribution) in the near future be achieved through efforts to find and track the income sources of individuals and households.

An aggressive public campaign and strong political propaganda also played an important role in extending health insurance coverage. Governmental subsidies on health insurance contributions were given to the self-employed. Initially, the amount of these subsidies was quite substantial, corresponding to almost half of the total health insurance contributions for the self-employed. In addition, funds were provided for opening health care facilities in rural areas.

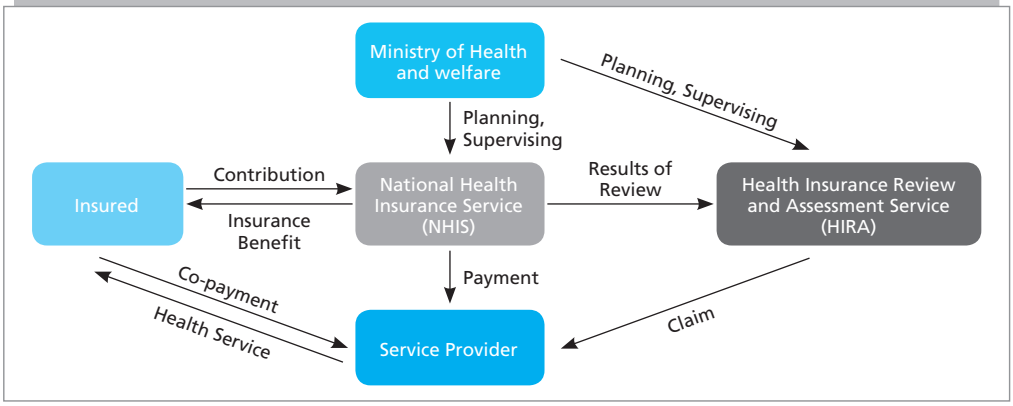
To enhance acceptability among the enrollees and to maintain the financial stability of health insurance funds, Korea started with a low contribution & high copayment policy (low-burden, low-payment, and low-benefit).

With regard to governance, Korea had multiple health insurance schemes in the past, but formed a single scheme through consolidation in 2000 after a long discussion with the various interested parties on the pros and cons of multiple schemes versus a single scheme. The major objectives of the consolidation were risk pooling, administrative cost reductions, and the unification of imposing contributions and collection. A separate single organization (i.e., Health Insurance Review and Assessment Service, HIRA) dedicated to the health insurance program, as in Japan and the Philippines, purchases services and manages health care providers. For effective purchasing, some form of financial and managerial autonomy was introduced to public hospitals to follow the pooling of funds. Most public hospitals in Korea were incorporated since the introduction of health

insurance, and they are supposed to depend largely on patient revenue for their financial resources.

4.1.2. Health Insurance Management System in South

[Figure 2-25] Health Insurance Management System in South Korea



Source: National Health Insurance Service (2014).

South Korea's current health insurance management system is shown in [Figure 2-25]. The Ministry of Health and Welfare of the Republic of Korea is in charge of decision making regarding the policies, management, and the supervision of the overall health insurance program. It also influences system management through the National Health Insurance Service and the Health Insurance Review and Assessment Service. As a single insurer, the National Health Insurance Service handles health insurance program management, provides insurance benefits to subscribers, and receives insurance contributions from subscribers. The Health Insurance Review and Assessment Service evaluates the costs of medical care benefits claimed by healthcare providers such as health care institutions and pharmacies, and announces the evaluation results to the National Health Insurance Service. For health services that pass review, healthcare providers receive the costs of insurance benefits from the National Health Insurance Service.

4.1.3. Health Insurance Financial Management Committee

Under the former National Health Insurance Act that was in place before the global financial crisis, a health insurance financial management committee was organized to review and resolve major requests regarding adjustments of insurance contributions and other insurance financing issues. The financial committee consisted of 10 representatives of the employee insured, 10 representatives of the self-employed insured, and 10 representatives from the public. However, the

representatives of the self-employed insured on the committee strongly requested national support and opposed increases in insurance contributions, creating issues that indirectly impacted the financial crisis. To prevent the crisis from worsening, decision making regarding insurance contributions was taken over by the health insurance policy committee of the Ministry of Health and Welfare of the Republic of Korea.

4.1.4. Health Insurance Policy Deliberative Committee

The Health Insurance Policy Deliberative Committee (HIPDC) is affiliated with the Ministry of Health and Welfare of the Republic of Korea and consists of the vice-minister of the Ministry of Health and Welfare of the Republic of Korea, eight members representing health insurance subscribers, eight members representing the medical community, and eight members representing the public service. The HIPDC reviews and resolves issues with the standards and costs of medical care benefits, payment amounts corresponding to local subscribers' insurance contribution imposition scores, and the insurance rates of professional subscribers.

The cost determination process is divided into two parts: the determination of relative value scores and a conversion index. First, relative value scores are reviewed by the relative value management planning group of the HIPC and the medical practice professional assessment committee of the Health Insurance Review and Assessment Service; these are confirmed by the HIPC and are finally announced by the Minister of Health and Welfare.

The determination of the conversion index, or the costs of medical care benefits, involves cost negotiations between the chairman of the National Health Insurance Service and directors representing six medical divisions (hospitals, medical clinics, oriental medicine clinics, dental clinics, maternity clinics, and health institutions). After an agreement is reached, the index is reviewed and confirmed by the financial management committee and announced by the Minister of Health and Welfare. If cost negotiations break down due to conflicting positions, the matter is resolved by the HIPC and the results are announced by the Minister of Health and Welfare.

4.1.5. Finance Stabilization Policies

Finance stabilization efforts are generally made from earning and expenditure perspectives. The earning dimension includes proper imposition and collection of insurance contributions and the acquisition of external resources aside from insurance contributions. The expenditure dimension includes the provision of benefits suitable for each financial level and the elimination of unreasonable expenditures regarding insurance benefits(see Figure 2-26).

[Figure 2-26] Finance Stabilization Policies

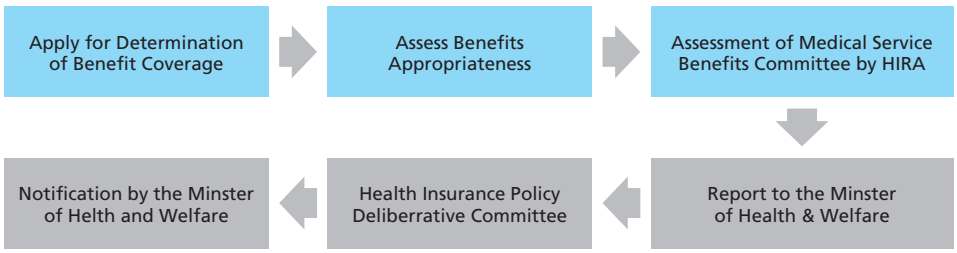
Earnings	▮ Setting up of a focused-collection rate and the assessment for long-term delinquent insured ▮ Enforcement of eligibility requirement for dependents ▮ Trace of omitted income for a complete charge of contribution ▮ Production of profits with short-term effective management of finance between the period of contribution and treatment benefits cost payment
Costs	▮ Matching up the claimed benefit costs with the medical records of the person who received service ▮ Enforcement of the reviews on medical and pharmaceutical expenses ▮ Re-evaluation of the fee schedule assessment system ▮ A campaign that raised awareness on the importance of medical receipts

Source: Gong *et al.* (2014).

The finance stabilization policy implemented in South Korea can be broadly divided into three parts. First, the government enacted a temporary National Health Insurance Finance Stabilization Special Act and provided extensive government grants, including national funds and a tobacco levy, for the financial management of health insurance. Second, the government took action to reduce benefit costs. It verified treatment details for examinees and checked whether they coincided with the claim statements of insurance benefit costs, in addition to intensifying the monitoring of treatment and prescription costs. Third, it helped reduce costs by adjusting the cost structure rather than reducing costs directly; this made cost estimates vary depending on the type of health care institution involved (e.g., clinic, hospital, general hospital), inducing a cost-reduction effect.

4.1.6. Process of Determining the Range of Service Provision (Determination of Medical Benefits)

[Figure 2-27] Process of Determination of Medical Benefits



Source: Gong *et al.* (2014).

Determining whether health insurance should be applied to new health services that have not yet been identified as either payment or nonpayment items, and decisions about the range of medical benefits offered, are critical as they can change the scale of health insurance expenditures. The procedure used to determine medical benefits is as follows (see Figure 2-27). The first step is to apply for determination of benefit coverage. Assessment of benefit appropriateness is followed by discussions with the relevant academic society, data analysis, and an executive review by the Health Insurance Review and Assessment Service that examines the subjects of the medical care benefits and the relative value scores. The National Health Insurance Service participates in this review process as a committee to consider the economic feasibility and appropriateness of the benefits. The case is then evaluated by the medical practice professional assessment committee, and the results are reported to the Ministry of Health and Welfare within 100 days of the date of application. Then new medical practices with and without the new benefits are reviewed. When they are identical to, or included in, the previously determined practices, the results are announced after considering the opinions of relevant medical and pharmaceutical organizations. Finally, if the case is justified, the Ministry of Health and Welfare of the Republic of Korea announces or replies to the results within 150 days of the date of application.

4.1.7. Format of the National Subsidy

Various national subsidy formats for health insurance financing in South Korea have been considered. With a view towards reinforcing coverage and medical accessibility among low-income people, the strengths and weaknesses of en bloc support for insurance financing, differential support for insurance benefit costs according to disease and class, differential support for professional/local subscriber insurance contributions according to class, and en bloc or differential support for local subscriber insurance contributions have all been reviewed and implemented from various angles.

4.2. National Health Insurance Program in South Korea

4.2.1. Contributions

The current structure of the imposition and payment of contributions is as below (see Figure 2-28). While the employees insured either through private companies or through the public sector are responsible for paying their half of the monthly contribution, the self-employed insured householder is responsible for paying the entire contribution. Self-employed health insurance contributions are calculated based on the householder's income using a calculation method that refers to the householder's property, income, vehicle, age, and gender.

〈Table 2-4〉 Imposition and Payment of Contribution in 2015

The Insured / Classification	Employee Insured		Self-employed Insured
Monthly Contribution	Average Monthly Salary Contribution Rate (6.07% in 2015)		Contribution Points x value per point (178.0 KRW in 2015)
Responsibility of Payment	Private Company • Employee: 50% • Employer: 50%	Goverment Official • Employee: 50% • Goverment: 50% Private School • Employee: 50% • Employer: 30% • Goverment: 20%	Householder
Collection	Deducted from Salary		Monthly Billing Individual Payment
Due Date	By the 10th of the following month (every month)		

Source: National Health Insurance Service.

4.2.2. Risk Sharing Structure

In order to obtain more financing and prevent potential moral hazards, a risk sharing structure has been adopted. Currently, copayment of inpatient services is 20% of total covered health care costs, while that of outpatient services ranges 30% to 60% depending on the type of health care providers the insured visited. With same conditions, if one uses outpatient services from tertiary hospitals, higher copayments are charged as compared to using primary or secondary health care providers. In the meantime, in an attempt to improve the overall benefits covered by national health insurance, patients with serious conditions such as cancer, cardiovascular diseases, cerebrovascular diseases or rare diseases, tuberculosis, and severe burn injuries are supposed to bear 5%~10% of copayment, which is lower than in other cases.

4.2.3. Benefits

In 2015, the amount of service benefits was 44.6 trillion KRW, which is 97.6% of total benefits. They include health care benefits such as diagnosis, tests, drugs, medical materials, treatments, surgery, rehabilitation, as well as health check-ups. The amount of cash benefits was 1.1 trillion KRW, and is 2.4%of total benefits. Examples of cash benefits include refund allowances for health care, co-payment ceiling systems and reimbursement, appliance expenses for the disabled, and pregnancy & childbirth examination expenses.

Efforts to expand benefits and reduce catastrophic health expenditures have been made. Benefit expansions have been done by compulsory designation of

health care providers, continuous expansion of benefits for severe and chronic diseases, deducing uncovered services, and setting out-of-pocket limits. Reducing catastrophic health expenditures is an important task. Given that Medical Aid recipients are less than 3% of the population, a higher percentage of households were experiencing catastrophic health expenditures. Reducing the contributions and/or out-of-pocket payments of the near poor has been discussed. Funding for emergency medical use also has been introduced.

4.3. Evaluation of the Introduction of the Health Insurance System and Management Policy, Analysis of Success and Failure Factors, and Implications

Problems with Health Insurance Implementation and Solutions

There were some problems that occurred during the early stages of South Korea's health insurance implementation.

1. Setting a range for dependents was challenging because the insured were mainly limited to lineal ascendants, descendants, and spouses being maintained by the insurant. To solve this problem, the approved range of dependents was expanded based on Korea's traditional extended family.
2. Additionally, unqualified people who did not subscribe to medical insurance were borrowing other people's medical insurance cards to access health services; this was prevented by introducing a medical insurance card verification system.
3. The format wherein medical care institutions were assigned was problematic. The number of medical care institutions that could go under contract and be used by subscribers was limited because they were assigned according to their contracts with unions. This was solved by allowing insurance to be applicable to whatever treatment was ultimately received from unassigned health care institutions and later altering the format to en bloc assignment.
4. The medical costs claim process was somewhat complicated. As health care institutions had to apply insurance costs to insurance subscribers and general costs to nonsubscribers, their workload increased and the process was complicated. Hence, the insurance claim documentation and procedures were simplified, and participation in the system was encouraged until national health insurance covered the entire nation. Medical claims reviews being conducted by each insurer caused confusion; this was overcome by unifying the supply of medical claims reviews at the medical insurance foundation.
5. Financial imbalances in the insurance system due to financial gaps between unions were solved by pursuing a program of joint financing.

But there are ongoing issues as well. Problems occur in the medical transfer system in which the use of health services is concentrated in high-level hospitals due to reduced health expenses. This has been addressed by gradual improvements, as enforcing the medical transfer system in the absence of an unresolved urban–rural gap in medical resources is predicted to increase inequality in the use of health services in rural areas where there are shortages of health care institutions. And the medical community requests an increase in payments, which raises the question of whether the medical costs are appropriate. This has been addressed by analyzing the breakeven point among health care institutions and other promising adjustments.

5. Conclusions and Policy Proposals

5.1. Summary of Main Ideas

Lower spending on health overall in Kazakhstan has prompted the introduction of social health insurance. The Kazakhstan government's main purpose in introducing a mandatory health insurance system is to acquire the additional financial resources needed to improve the quality of health services. The nation's socioeconomic and health statuses suggest that the country does have the ability to introduce a health insurance system relatively effectively. The country's health service provisioning appears to have issues with quality rather than quantity; the main issue is likely the capability of health care personnel. Building human resources capabilities in health care takes time. Increasing base salaries, along with other efforts, is necessary.

As the government selectively introduces SHI and contracts with providers, competition among providers is expected to improve services. However, competition alone may not be sufficient. Financial incentives and other mechanisms also need to be introduced.

The health insurance system that starts nationwide in January 2017 is broadly divided into the SGBP provided by the government, health services provided by SHI, and other services covered by supplementary private insurance. The main operational body for health insurance is the FSMS, and various financial resources will be integrated into its management. Because the system will expand quickly nationwide, a soft landing for SHI in 2017 is critical. The population's understanding and acceptance are required in the early stages of implementation. Regarding the imposition and collection of insurance contributions, the compliance and cooperation of the main bodies bearing the contributions are critical, especially by independent business owners and employers in the informal sector. Monitoring and

collecting delinquent contributions will be important. Revenue enhancement needs to be done by the diversification of revenue sources for health care as well as state subsidies, where there needs to be a decision on how to subsidize needs.

Health insurance benefits will be provided primarily by public health care institutions. Private medical care providers will offer benefits through selective contracts with the FSMS. This may lead to restrictions on health insurance benefits. Contracting with private providers, as well as inducing the improvement of health services by providers, will require adequate payment for services along with aligning payment policies with quality improvements.

5.2. Policy Proposals and Conclusions

5.2.1. Governance

It is recommended that the operating body of SHI become financially and administratively sustainable. The role of the MOH in implementing regulations and monitoring the overall progress of the SHI needs to be strengthened. The competency and capacity of the FSMS in managing public health insurance programs also needs to be enhanced. This requires building transparency and accountability, such as by risk pooling and saving on administrative costs. More attention should be given to monitoring the efficiency and effectiveness of health care spending. Both the MOH and FSMS need to prepare for the rising costs of health care as Kazakhstan implements SHI. Growing demand due to coverage expansion will require more financing and service provisioning.

In the meantime, it is suggested that the government should develop an institution or governing body which represents the various stakeholders such as the government, workers, and employers. Working on public relations and marketing campaigns for SHI by sharing the early results with the general public and health services providers (e.g., satisfaction, acceptability, etc.) will be necessary. This function is anticipated to be implemented on the basis of the existing Joint Commission on Quality, which in the future will be a self-regulating organization.

It will be critical for the government and insurer to attract private health care providers. In doing so, it is necessary to develop a reimbursement system and purchasing agreements for private health care providers, and to follow up on the effects of capitation and DRG on health care costs and the utilization of public health care providers. Monitoring equity among the different groups of populations and regions should be an on-going policy concern for the government and the insurer. This will require updates on health services utilization and health outcomes, and work to improve quality and customer satisfaction. Strategic policy

documents list indicators that monitor the involvement of private providers in the health insurance system. In addition, there should be improvements to tariff policy in terms of including depreciation charges in tariffs.

5.2.2. Enrollment

When implementing national health insurance systems, many countries have had difficulties extending coverage to independent business owners and employees in the informal sector. Since the Kazakhstan government wanted to cover the entire population all at once, it is strongly recommended that the following efforts should be made in order to increase the rate of enrollment of the informal sector. It is important to use mechanisms that simplify registration, collection, and service provisioning. With joint efforts by tax and social security authorities, establishing a collective system for registration and collection would be helpful. Communication campaigns specifically targeting informal workers, together with a set of education and awareness activities at the local level, will also be necessary (Duran-Valverde *et al.*, 2013).

5.2.3. Collection of Contributions and Revenue Enhancement

For the health insurance system to be successfully established, sufficient financial resources need to be obtained to ensure high-quality health services for all. From the perspective of fiscal revenues, it is necessary to critically evaluate whether the current system of imposing insurance contributions adheres to the principle of social insurance, namely, the 'ability- to-pay principle', and to develop plans for its improvement. In particular, since the burden of insurance contributions on subscribers is expected to increase due to the expansion of coverage and service provisions in the future, revamping the current system will be essential to increase the rate of paying contributions. It is also critical to establish a plan for properly figuring out incomes for the self-employed and farmers, who make up the majority of the informal sector.

Thus, the collection of health insurance contributions needs to be managed effectively. Feasible plans for the imposition and collection of insurance contributions and administrative mobilization will be needed. Insurers will have to make efforts to identify and collect delinquent insurance contributions and collect late fees where applicable, and prepare legislation for collecting insurance contributions preferentially from other bonds, excluding national and local taxes. FSMS may need to recruit new (temporary) staff to help assess the ability to pay contributions among informal sector workers. When charging and collecting contributions from small private companies, it would be helpful to provide them with some incentives (e.g., income tax deductions). It would also be worthwhile to

consider assisting in the establishment of informal worker associations to make the collection of contributions easier.

Meanwhile, subscribers who can lower their insurance contributions and the households they belong to need to be determined. During this process, there must also be a determination as to whether the government should sponsor part of the insurance contribution for certain classes. Collaboration between the central government and local governments should be promoted (e.g., 50:50 or 70:30) when subsidizing the contributions of the informal sector and/or supporting existing health care providers, or when opening new facilities in rural and remote areas. The central government may also need to assess the financial conditions of local governments and categorize them into poor, average, and rich conditions, and consider helping those in poor condition support their health care.

As the costs of the health insurance program cannot be covered entirely by insurance contributions, external financial resources should be sought out(e.g., government subsidies, health promotion fund, consumption tax, etc.). Numerous countries have attempted to solve the cost issue through national subsidies or various additional financial resources for social insurance management. Kazakhstan's government should also use national funds to provide insurers with an amount corresponding to a certain fraction of predicted revenues from insurance contributions for each year within the range of the annual budget. The government will need to decide whether to support insurance benefit costs or help reduce insurance contributions, and whether to differentiate among diseases and classes.

The task of examining the potential introduction of cost-sharing schemes is included in the State Program on Healthcare Development. Nevertheless, taking into account (a) relatively low per capita income, (b) structural problems of the economy (partially represented by high rates of the informal employment), and (c) a newly expanded tax burden (with introduction of the SHI), this issue should be approached with the aim of achieving the highest level of accuracy in order to avoid a potential rise in social tensions.

5.2.4. Benefits Expansion

In terms of insurance coverage, it will be critical to establish strategies and a roadmap to expand public health care coverage to private hospitals, clinics, and pharmacies. The MOH should encourage private health care institutions to provide health insurance benefits if they meet the standards for facilities, equipment, personnel, and treatment subjects. To foster improvements in health care quality, the government should implement annual cost agreements between insurers and the medical community and verify that these costs can cover the benefit service

package and maintain the revenues of private health care providers. Standards and service procedures for health insurance should also be established.

Given that health insurance coverage expansion is expected, it will be necessary to develop an independent and professional entity that is able to prioritize health insurance coverage and determine the cost-effectiveness of the health care services, medical supplies, medications, and so on.

In the initial stages, the role of planning between-region distribution is supposed to be very important to ensure the financial sustainability of the system during the transition. In this regard, a set of methods for planning have been elaborated in 2016. Meanwhile, it is strongly recommended that after a soft transition to the new system, the role of centralized planning be replaced step-by-step by utilizing the potential of native competition and demand mechanisms (at least for urban areas).

One of the tools to do this is an enhanced procedure for choosing providers for contracting. The current procedure should be examined and modernized, emphasizing transparency and equal possibilities for public and private providers. Technically, the main shift needs to be made from decisions (even collegial) to rules.

All of the measures described above will be supported by strict financial discipline, with only limited support to public providers in remote rural areas in case of a risk of bankruptcy.

In addition, support plans for enhancing the skills of medical personnel, particularly in the area of making accurate diagnoses, need to be established. As this cannot be achieved quickly, long-term planning is required. Substantially increasing the income levels of medical personnel is an especially urgent matter. Hostility might arise against health care institutions and personnel pursuing profits, but the pursuit of profit at certain levels can contribute to better management of health care institutions and enhance the motivations of medical personnel. The government also needs to develop plans for improving labor conditions in the medical field, which will help attract highly-qualified medical personnel, and to consider allowing health care institutions to pursue non-medical business within a permitted range set by the MOH as a subsidiary endeavor.

5.2.5. Improvement of Provider Payment

In terms of DRG payment for inpatient services, all day medical treatment is paid at 25% of a similar amount for inpatient treatment. Such a rough approach leads to overvalued or undervalued reserve funds. Therefore, it is highly recommended to bring the reimbursement rate in line with the actual costs.

DRG analysis has revealed an extremely simplified model with one parameter for categorization coded as ICD10 (or ICD9 in the case of a significant operation). No additional clinical parameters, such as disease related complications, the use of expensive resources, or adjustments for too short or long stays, are included. It is assumed that the DRG system is more complicated in order to meet the objectives of evaluating incurred expenditures. It is strongly recommended to take one of the diagnostic related systems that already exist, for example, the systems of Germany or Australia.[11)]

To avoid inaccurate costing, it is necessary to create an appropriate data collection system in the near future. In Kazakhstan, it is also necessary to handle depreciation through the DRG system. The benefits of depreciable amounts allocated on the service costs are the following: raising the awareness of executives regarding capital expenditures, improving efficiency in the use of capital; keeping an appropriate interaction of capital and labor resources; increasing the opportunities of service providers; and the creation of an environment to improve fair competition.

In terms of capitation, in accordance with the international experience[12)], a number of transformations should be implemented. For example, in the United Kingdom the Quality Outcomes Framework indicators are grouped around diseases of high priority. In Kazakhstan, linkage with the Disease Management Programs is recommended. All of the reviewed pay-for-performance indicators can be divided into three groups: (a) Very general system-level indicators, which is the case in Kazakhstan (timely diagnosed tuberculosis, number of cases of maternal mortality, etc.). Such indicators are too distant from reality, and thus hardly manageable. (b) More specific indicators reflecting coverage (e.g., in the Estonian system - % of population of a certain age covered by HbA1c monitoring in last 3 years). (c) Specific indicators setting particular goals (e.g., in the UK's QOF - % of patients with diabetes of 2nd type having HbA1ac under 7.0). Moving towards such more specific indicators simply makes sense.

In UK's QOF, there are a number of exclusions, such as when a particular case is not taken into account when calculating the indicator's value (e.g., if a diabetic patient with bad clinical indicators has been attached to the PHC facility in the past

11) When categorizing acute inpatient episodes of care into groups with similar conditions and similar usage of hospital resources, Australian Refined Diagnosis Related Groups (AR-DRGs) incorporates information from the hospital morbidity record such as the diagnoses, procedures and demographic characteristics of the patient. AR-DRG assignment is also influenced by the procedures, medical conditions and other factors that differentiate processes of care. The German DRG (G-DRG) also adjusts for both hospital related structural factors (size, ownership, total costs, etc.) and case complexity (major disease category, procedures, etc.).

12) European Observatory on Health Systems and Policies, Paying for Performance in Health Care: Implication for health system performance and accountability, 2014.

couple of months). It contributes to higher accountability and should be introduced in Kazakhstan; in international practice, systems of indicators are reviewed every 1-3 years, which allows for both the provider and purchaser to stay in shape.

5.2.6. Improvement in the Quality of Services

In general, as a measure of the degree of independence, it is also possible for all health care providers to motivate employees by paying them bonuses based on an estimation of their efficiency, which is the so-called differentiated remuneration. It is suggested that health care organizations have the right to determine their own goals and identify indicators of performance. In order to provide more sophisticated health services, financial incentive methods should be complemented by the support of the LHA.

In a wider context, it is necessary to further enhance the mechanisms of assessment, or expertise, of treated cases. Currently, there are the following types of expertise at the inpatient level: (a) fiscal control investigation of cases provisioning SGBP services for a fee and external audits of usage of budget funds; (b) quality expertise that covers lethal cases, claims, following the standards of treatment, etc.; and (c) volume expertise that target up-coding, unnecessary hospitalization cases, and so on. The last one –volume expertise – is performed first automatically by logic controls incorporated into the information system; after that, a random 15% sample is examined manually by expert physicians. Shaping the mechanisms of expertise will also help strengthen payment systems.

Information and communication systems that support monitoring and improving the quality of care also need to be prepared and upgraded continuously. The MOH should encourage health care institutions to improve the quality of their health services and make their accounting more transparent by setting standards for accreditation and financial accounting. In doing so, it would be better to require larger health care institutions meet these regulations first, followed by small- to middle sized institutions.

5.2.7. Conclusions

In light of international standards, it is necessary to consider the sustainability of the health insurance system in terms of cost, quality, and access. The Kazakhstan government should develop guiding principles for self-assessment of its capacities in the areas of paying for health services, imposing contributions, securing funds, operation and administration, and improving health care quality so as to avoid the problems experienced by other countries in the past. For example, the current health insurance bill in Korea contains only minimal information for

reimbursement, lacking detailed clinical information. Therefore, very important information - for example, data that can be used to develop therapeutic protocols using artificial intelligence - is missing in the era of the forthcoming Fourth Industrial Revolution. In the case of Kazakhstan, it would be possible to reduce this trial and error if the government can prepare in advance when introducing social health insurance.

In addition, although not discussed in this study, suggestions for revamping the overall health system of Kazakhstan, such as improving public health, disease prevention and health promotion, need to be made through future studies.

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