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The Role of Public Housing Finance Institutions in Changing Environments

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< Abstract >

In this paper, we evaluated the recent trend in housing finance market with a special view to enhance housing welfare for the low- and middle-income households. The focus has been set on the division of role by three major public housing finance institutions National Housing Fund, Housing Finance Credit Guarantee Fund and KoMoCo.

The need that Government should serve as a direct provider of mortgages has been diminished recently. Instead, new need for Government to serve as an indirect facilitator or enabler of the mortgage market has been growing gradually. The Government should encourage private financial institutions to increase the availability of mortgage by expanding the infrastructure necessary for enhancing the function of the mortgage and MBS market. This role can be done through HGCGF that provides credit guarantee against default risks of borrowers and KoMoCo, the MBS issuing agency.

Finally the provision of housing assistance is dependent upon income class. For the lowest income households, housing finance should be utilized to assist the sufficient supply of rental housing and housing allowance. This should be main role of the National Housing Fund.

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I. Introduction

Overall housing conditions in Korean cities have improved substantially since mid 1980s. Total housing stock doubled over the past two decades. Housing supply ratio, defined as the ratio between the number of dwelling units and the number of households, jumped from 71.7 % to 94.1 % between 1985 and 2000. The figure has already surpassed 100% in several provinces and is expected to reach 100 % very soon for the country as a whole¹⁾. In addition, per capita floor space increased from 46.4 square meters to 62.9 square meters during the same period. Other indicators of crowding as well as quality of dwelling and facilities improved remarkably.

Housing has also become more affordable during 1990s, excepting in Seoul. Although the data are sketchy, the house price to income ratio (PIR) is declining for the whole country. According to the recent research done by Lee(2002), PIR for Seoul was 7.9 in 2000 and it might be even higher due to the recent price increases. There are no official data on home-ownership rate, and the published figure is the share of houses inhabited by their owners. Since new houses were supplied in large numbers and most of them allocated to first-time homebuyers, home ownership rate must have increased substantially. However, the reported figure for 2000 was 54%, just 1 % point higher than the 1995 level²⁾.

The improvement in overall housing conditions can be attributable to government housing policy and programs. But their main beneficiaries were middle and upper middle-income households, and affordable housing is still not available to some segments of the moderate and low-income population. As the problem of housing shortages is now under control, enhancing equity in housing outcome should be a focus of government housing policy. In fact, government is moving in this direction now. Recently, the Ministry of Construction and

1) The housing supply ratio is not an ideal measure of housing shortages because it is based on inadequate definitions of housing and household. But it has been used as the single most important indicator in Korea.
2) It is likely that many more people now own homes but a substantial fraction of them live in rented property because their own houses do not meet their preferences for size, location and school district.

Transport published a circular on minimum housing standards as a benchmark for low-income housing policy.

In order to achieve more equitable housing outcome as a nation, it is critical to make housing more affordable for low and moderate- income households. Korean government needs to work on several key areas to make this possible. The first is to provide direct subsidies to enhance the target group's ability to pay rent or make the down payment for home purchase. Assistance should be targeted at people as opposed to houses since tenant based subsidies are more cost-effective than project based subsidies as well as offering wider range of choices (Olsen 2000). Efforts should be made to minimize the cost of such programs as they are to be financed by government budget³⁾.

The second area is to rationalize the role of public sector housing finance institution. This requires restructuring of the National Housing Fund, to realign its functions, to secure sources of finance, and to improve the allocation of loans. Such reform should be based on a re-assessment of the one house per household policy focused on promoting homeownership. Homeownership may have a social value but securing a decent housing option is more important. Finance and subsidies should ideally be separated. As long as government assistance takes the form of interest rate subsidies on housing loans, the size of housing finance cannot expand. It cannot reach the very poor either, because they may not afford to buy their own houses⁴⁾.

Third area government policy can be effective is the private sector housing finance. It can facilitate the expansion of housing finance system and down-market penetration. Providing access to credit for lower-income households is a global challenge. In order to encourage the private housing finance sector to serve the needs of the lower-income population, it is essential to reduce credit risk of the lenders. Strengthening the mortgage insurance and guaranty system will be helpful.

3) Government plans to identify those households whose housing conditions fall short of a minimum standard recommended by KRIHS (1999) and reduce their number with various means.

4) Not knowing what the current ownership rate is, it is difficult to decide how further government can promote home ownership.

In order to maximize the impact of the above policy efforts, government should coordinate the reform in housing finance and housing supply system. There are two types of affordability problems, that of housing itself and that of mortgage loans. Although housing finance reform can improve the terms of housing credit such as interest rate and down payment requirements, the problem of high house price and rents relative to income level cannot be addressed with housing finance alone. Therefore, government should ensure that developable land would be supplied so that housing can be produced at reasonable costs.

In this paper, we will focus on the role of government in strengthening the overall housing finance system and the role of the National Housing Fund as a housing policy instrument. We will not address the issue of housing subsidies in details.

II. Housing Needs of Low-income Households and the Role of Housing Finance

The definition of low-income households can vary. For the purpose of housing policy, it is useful to identify those households whose housing conditions fall below a certain social norm. Recently, Korean government defined the national minimum housing standards in terms of the net floor space, the combination of bedrooms, dining room and kitchen by household size, as well as requirements on facilities, structure, and the quality of the environment.

A study by the Korea Research Institute for Human Settlements (KRIHS 1999) presents a profile of the housing problem facing the low-income households. The study found that owner-occupants enjoy the best housing conditions, followed by Chonseil tenants, and renters. An average owner-occupant consumes a net floor space of 5.9 pyong (about 19.5 square meters), while the per capita floor space of a typical low-income household was 3.8 pyong (12.5 square meters). The burden of rent relative to income of the lowest 10 % in income distribution was almost three times as large as that of the highest 30 %.

The same study also estimated the number of households below housing standards. For ex-

ample, based on the criteria on facilities such as dining room, kitchen, bathrooms and storage, about 2.7 million households were found to fall behind the standard. Applying various criteria, the KRIHS study estimated that about 4.5 million households (34 % of all households) were living in houses not fulfilling at least one criterion as of 1995. Based on such estimate, the study concluded that 2.8 million additional houses would be needed to address the needs of low-income households.

Further efforts would be needed to incorporate the housing standards in the design and implementation of housing policy. A crucial element in low-income housing policy is resource mobilization. The above-mentioned study by KRIHS provides an estimate of financing requirements to implement a ten-year plan to improve housing conditions of low-income households. The estimate is summarized in Table 1. A more concrete program and budget projection based on the most recent housing survey should be prepared.

<Table 1> An Estimate of Financing Requirements for Low-Income Housing Policy

	Dwelling/Households ('000)	Required budget (billion Won)
Public rental housing	70~112	4,300~6,900
Rehabilitation/remodeling	140~196	70~98
Housing allowance	540	270~540
Chonseil loan at below market rate	40	300
Total	790~890	4,900~7,800

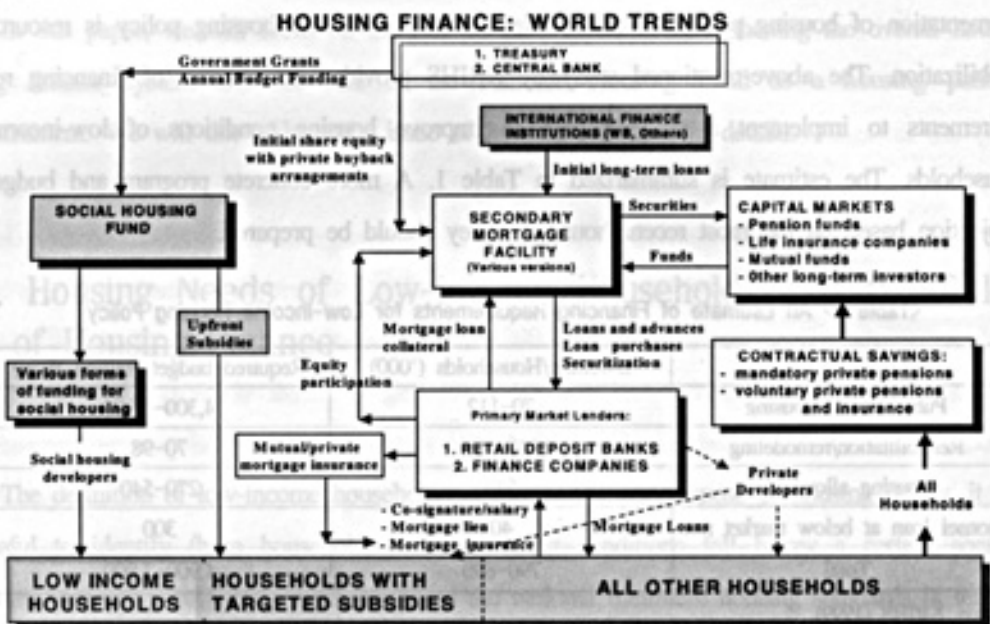
Source: KRIHS (1999)

National Housing Fund should be utilized as a means of mobilizing resources for low-cost rental housing. Efforts should be made to use the market to leverage additional credit for low-income households. Government subsidies should be structured so that they will not distort the housing finance system. For example, an up-front grant towards down payment or subsidy on monthly payment on a market rate loan could be considered. The experience of Chile is worthy of a careful study (Hassler 2002).

A model of housing finance system considering proper division of responsibilities between private and public sector housing finance institutions can be found in Renaud(2001) and is il-

illustrated below. The diagram shows that social housing fund should be funded by government budget, while the main housing finance system should be integrated with the capital markets to tap long-term resources. It also illustrates the importance of mortgage insurance and guarantee programs in mitigating credit risk for lenders and hence expanding credit to moderate-income households.

<Figure 1> Housing Finance: World Trends



Source: Renaud(2001)

For the lowest income group, housing should be approached as an integral part of social safety net. Housing allowance financed with the budget of the Ministry of Health and Social Welfare should be coordinated with public housing programs of the Ministry of Construction and Transportation. In short, housing finance can play a crucial role in addressing the housing problems of low-income households, but it also has limitations in reaching the lowest income group. With this as background, the sections below will focus on improving the overall performance of housing and also that of the National Housing Fund.

III. Evolution of Housing Finance System in Korea

1. Overview

The housing finance system in Korea came into being with the establishment of the Korea Housing Bank (KHB) in 1967. KHB was established as a specialized bank for housing finance. KHB was a public enterprise and a deposit money bank. KHB has raised funds mainly by taking contractual savings from potential homebuyers as well as general deposits in the retail savings market, and partly by issuing bank debentures in the capital markets. Since commercial banks did not offer long-term housing loans at that time, the Government had to establish KHB to assist low- and middle-income families in purchasing their owner occupied housings.

KHB has provided long-term mortgages at below market interest rates to pursue these policy objectives. This contributed the public perception that long-term housing loans should be available at low interest rates. In this way KHB played a key role in the Korean housing finance market during the early years.

In 1997, KHB was privatized reflecting the rapid change in both the financial and housing markets into account. Namely, KHB was converted from a state-owned housing bank to a private commercial bank that focused on housing finance. KHB changed its name to the Housing and Commercial Bank (HCB) after privatization. Later in 2001, HCB was merged into the Kookmin Bank to form a largest commercial bank in Korea. The new Kookmin bank is a pure commercial bank, does not have to focus on housing finance business. But Kookmin Bank's dominant market share in the housing finance market did not decreased after merge.

In 1981, the Government created the National Housing Fund (NHF). The housing problem in Korea stemmed from shortage of housing stocks, thus the Government needed to promote more housing construction. The purpose of NHF was to promote the housing construction and provide low-interest mortgages for low-income households. And since NHF does not

have its operating organization or staffs. Instead, the management of NHF has been entrusted to Kookmin Bank.

Both NHF and the Kookmin Bank represent more than 80% of the primary mortgage market in Korea. There are some other financial institutions that deal with housing loans. Those are commercial banks, life insurance companies, and installment finance companies. Commercial banks were partially allowed to make mortgage loans in the mid-70s, but they did not actively provide mortgages because of the legal and economic barriers to their entry into the housing finance market. Commercial banks could not provide the long-term mortgages with maturities of 10 years or more due to legal restrictions. The funds raised by commercial banks were allocated to the manufacturing and export industries with high priorities. These restrictions were eliminated after financial liberalizations in 1998. The relatively low mortgage interest rate of former HCB have posed as an economic obstacle for entry to other commercial banks. Recently, however, commercial banks have been issuing larger volumes of home equity loans. After financial crisis the commercial banks realized that home equity loans were less risky asset type among their loan portfolio. In addition, favorable weights were allocated to home equity loans in calculating risky assets of banks. Moreover, corporate demand for loans has greatly decreased due to economic slow down in 1999-2001.

Another key public entity in the Korean housing market is the Housing Finance Credit Guarantee Fund. HFCGF was established in 1988 to guarantee mortgage and construction loan lenders against default by borrowers and to allow greater access-to-credit to those who apply for mortgages but do not have sufficient collateral. However HFCGF has not played an important role because of several reasons. That is, the mortgage lenders have had little need to be guaranteed against possible default of their housing loans since in most cases LTVs were less than 50% until recently. Furthermore, there have hardly been any decreases in incomes of mortgagees and residential real estate prices in Korea.

In 1996, a new class of players entered the Korean housing finance market. They were 10 mortgage companies and 21 installment credit companies. They were allowed to make mortgage loans. They mobilize resources through borrowing from merchant banks as well as the

capital market by issuing debentures. However, their mortgage business could not expand after financial crisis. The reason was: (1) After financial crisis many companies got into trouble some were defaulted and they lost credibility and failed funding from the capital market. (2) They could not maintain their competitiveness in terms of interest rate since commercial banks very aggressively offer low interest home equity loans after financial crisis.

In 1998, MBS law and ABS law were introduced. Since then, mortgage lenders can sell their mortgage to securitization agency. This will reduce liquidity risk, interest risk, and credit risk associated mortgage-lending business. KoMoCo, the Korea Mortgage Corporation, was established as a quasi-public agency to issue MBS under MBS law. With the introduction of this secondary mortgage market, the housing finance system in Korea became a kind of full-fledged system that is similar to the USA system. MBS in Korea is at its very early stage, so securitization has not affected the housing finance market yet.

2. Characteristics of Housing Finance Policies and Recent Reforms

Housing finance was treated as a policy loan in Korea, and was nearly monopoly situation since fund raising for long-term housing loan and provision of such loans are limited to NHF and former HCB that were public sector institutes. However, since the government directed most of capital to the manufacturing and export industry with highest priority and there were very few financial institutions supplying mortgages, an insufficient amount of financial resources was directed to housing sector. The Government has directly regulated both interest rates and the volume of mortgage loans by controlling the public housing finance institutions such as NHF, former HCB, and HFCGF.

Thus the housing finance market in Korea before a major reform after 1998 could be characterized as follows:

- a. A highly monopolistic market structure
- b. The segregation of the housing finance market with the rest of the financial markets

- c. Non-market pricing of loans and distorted allocation of funds
- d. The coexistence of small-sized formal market and large-sized informal market (i.e. *Chonsei* system that will be discussed later)

As mentioned before, after 1998, the Korean housing finance system has been undergoing fundamental changes and reforms. Some of changes were introduced as an integral part of the Government policy towards financial liberalization and deregulation of the housing sector. Among them interest rate deregulation was a notable one. The ultimate objective of the reforms is to make the housing finance system more competitive, integrated, market-based, and finance-focused. The major changes other than interest rate deregulation are as follows.

- a. Shift from a monopolistic system to a competitive system
 - Commercial banks were allowed to provide long-term mortgages in December 1996.
 - Installment finance companies opened for business in January 1996.
 - The Housing & Commercial Bank Act was abolished, and hence the HCB was privatized in August 1997.

- b. Shift from a segmented system to an integrated system
 - Commercial Banks as well as the HCB were permitted to issue debentures through the capital markets in February 1997.
 - The government announced its plan in March 1997 to enact a special law for creating a secondary mortgage market in 1998.

- c. Shift from a government-controlled system to a market-based system
 - Underwriting and pricing of mortgages will be more and more responsive to consumers' needs, and competitors' attitudes and strategies.
 - The privileges and restrictions on housing finance institutions have largely been removed, and the remaining restrictions and privileges are also expected to be abolished soon.

d. Shift from a housing-focused system to a finance-focused system

- The low level of the mortgage interest rate, which has been maintained to mitigate housing costs for low-income families, will be upwardly adjusted to reflect financial factors such as funding costs and lender's risks involved in long-term mortgage lending. The limit on the maximum size of homes eligible for mortgages, which has been set in order to allocate more funds to low-income families, will be relaxed soon.

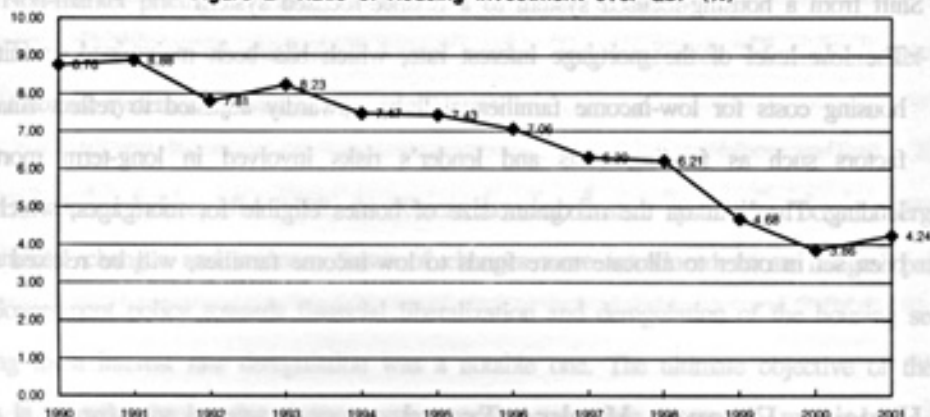
IV. Housing Finance Market Trend

Even though recent reform process in the housing finance market, it is still dominated by public sector. This domination by public sector obstructed expansion of private housing finance market. Thus, the mortgage market in Korea remains relatively small compared with those of other countries. The ratio of mortgage loans outstanding to GDP was only 11.5% as of 2001, while the corresponding ratio was over 30% in Japan, and over 50% in the U.S and the other European countries. In this section, current housing and housing finance market trend in Korea will be explored.

1. Sluggish Housing Investment

The housing investment has been sluggish recently. As shown in Table 1 and 2, ratio of housing investment over GDP has been declined from 6.3% in 1997 to 2.9% in 2000 and 4.2% in 2001. In the early 1990s when the housing investments were very booming this ratio went up to 8.88 % in 1991. During 1988-1992 years, the Government executed 200-million house construction plan. This plan was carried out very successfully thanks to extensive land supply from the public sector and huge amount of construction financing by NHF. After this 200-million house construction plan, the capacity of homebuilders has been more than doubled.⁵⁾

<Figure 2> Ratio of Housing Investment over GDP (%)



Source: Bank of Korea, www.bok.or.kr

But since then the housing investment as a share of GDP has continuously declined, and it dropped to 3.86% in 2000. This sluggish trend in housing investment can be seen also in housing starts trend as shown in Table 2. The number of housing starts cut in almost half in 1998. The housing starts have increased gradually since 1998 mainly led by private sector around Seoul Metropolitan Area. This sluggish investment in residential construction caused a sharp increase in house prices very recently.

<Table 2> Housing Investment

Unit: Billion Won, %

	1997	1998	1999	2000	2001
GDP (A)	423,007	374,710 (-6.7)	437,709 (10.9)	478,533 (9.3)	493,026 (3.0)
Total Investment (B)	145,295	114,563 (-22.2)	118,773 (-3.7)	132,337 (11.4)	130,149 (-1.7)
Construction Investment	100,651	92,705 (-17.9)	83,742 (-9.7)	80,923 (3.8)	86,904 (7.4)
Housing Investment (C)	26,668	25,548 (-7.9)	20,506 (-16.5)	18,454 (-10.0)	20,911 (13.3)
C/A	6.3	6.2	4.7	2.9	4.2

Note: numbers in the parenthesis are annual rates of change.

Source: Bank of Korea, www.bok.or.kr

- 5) While the average number of annual housing starts was no more than 220,000 before the 200-million house construction plan, it amounted to 600,000 after the Plan.

<Table 3> Housing Starts

Unit: 1,000 houses

	1997	1998	1999	2000	2001
Total	596 (100.0)	306 (100.0)	404 (100.0)	433 (100.0)	530 (100.0)
Public	219 (36.7)	131 (42.8)	151 (37.3)	140 (32.3)	128 (75.8)
Private	377 (63.3)	195 (57.2)	253 (62.7)	293 (67.7)	402 (75.8)
Seoul	229 (38.4)	149 (48.7)	237 (58.7)	241 (55.7)	297 (56.0)
Rest	367 (61.6)	157 (51.3)	167 (41.3)	192 (44.3)	233 (44.0)

Note: numbers in the parenthesis are shares out of total housing starts.

Source: Ministry of Construction and Transportation, www.moct.go.kr

2. A sharp increase in the number of housing subscription deposits.

In Korea most new housing is distributed to the holders of housing subscription deposits. So the trend of the number of subscriber to these deposits can be used as a good forecast of future demand for housing and housing loan.

There are different types of subscription deposits. If he or she wants to buy a new house from the private sector, he or she should have HSTD (Housing Subscription Time Deposits) or HISD (Housing Installment Saving Deposits). If you prefer a new house supplied by the public sector, you must enroll NHSSD (National Housing Subscription Savings Deposits).

The total number of subscription has dropped sharply by 40% in 1998, the year of financial crisis. However, in 2000, the number jumped more than 130% as the Government lifted the monopolistic privilege of HCB and allowed other commercial banks to accept these deposits. In addition, the housing price increased rapidly since 1999. Most of additional subscribers were centered on the Seoul Metropolitan Area, where the demand for housing is strong, compared to other region.

This increase of housing subscription deposit holders means that the future demand for housing and housing loan will remain strong.

<Table 4> Number of Housing Related Deposit Subscribers

Unit: 1,000 accounts

	Total	HISD	HSTD	NHSSD
1997	2,248	992	809	447
1998	1,391 (-38.1)	588 (-40.8)	530 (-34.5)	274 (-38.8)
1999	1,606 (15.4)	639 (8.7)	678 (27.9)	290 (5.8)
2000	3,791 (136.1)	1,914 (199.6)	1,561 (130.3)	317 (9.5)
2001	3,709 (-2.1)	1,873 (-2.1)	1,379 (-11.7)	457 (44.2)

Note: numbers in the parenthesis are annual rate of change.

Source: Kookmin Bank, www.kookminbank.co.kr

3. Housing Finance Still Underdeveloped.

Even though the housing finance market has expanded gradually in 1990s, the overall size remains relatively small with a view to Korea's GDP, the size of Korea's Capital market, and the size of consumer credit in Korea.

The ratio of housing loans outstanding over GDP in Korea was 13.3% in 2000. In 1996, the ratio was 10.5%, and it increased gradually as the size of the housing finance market expanded. However, the same ratios in USA, U.K and Japan were 56.6%, 55.4% and 32.4% in 1999 respectively. This means that the housing finance market in Korea has a great potential to develop.

<Table 5> The Ratio of Mortgage Outstanding over GDP

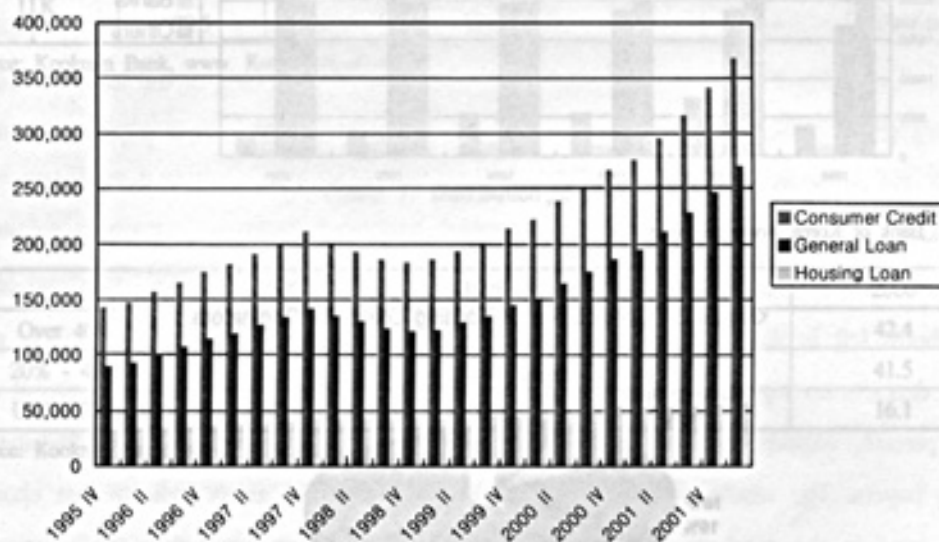
Unit: %

	1996	1997	1998	1999	2000
Korea	10.5	11.7	12.5	12.7	13.3
USA	52.4	52.5	54.4	56.6	-
U.K	54.2	53.6	53.6	55.4	-
Japan	28.6	29.9	30.6	32.4	-

Source: Kookmin Bank, www.kookminbank.co.kr

The ratio of housing loans over consumer credit also has shown a downward trend. The ratio was dropped from 40.8% in 1999, to 29.2% in 2000. As you see in the Figure 1, the growth of housing loans has fallen apparently behind the growth of total consumer credit.

<Figure 3> Trend in Consumer Credit



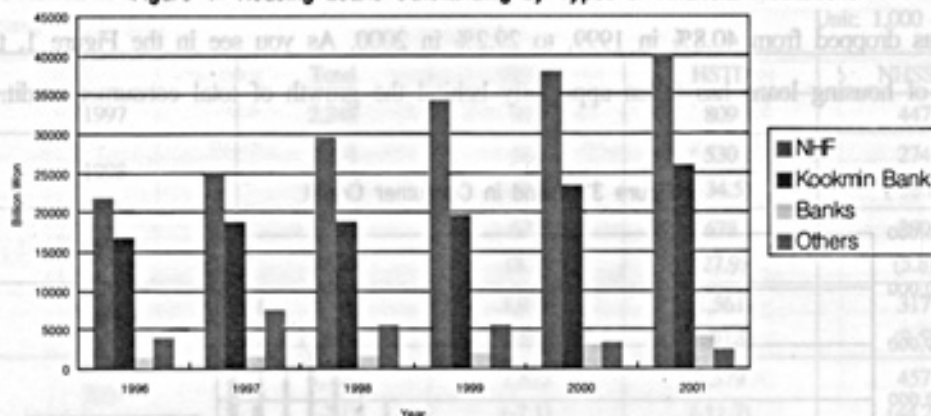
Source: Bank of Korea, www.bok.or.kr

4. Near Monopolistic Market Structure

NHF and Kookmin Bank are two dominant providers of housing loans. Their combined market share never drops under 85 percent recently. The other commercial banks provide housing loans very aggressively since 2000. However, the size of the Mortgage Companies in the Korean housing market has shrunk as they have lost their competitiveness and have failed in obtaining secured long-term funding at preferential interest rates.

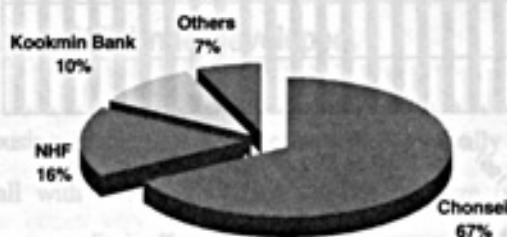
If we include chonse money, then chonse, the informal housing finance market, constitutes the largest share in the Korean housing finance market.

<Figure 4> Housing Loans Outstanding by Types of Financial Institutions



Source: Bank of Korea, www.bok.or.kr

<Figure 5> Composition of Housing Loans by Originators



Source: Bank of Korea, www.bok.or.kr

5. LTVs Moving Up

Average LTVs are on the rise as the housing finance market is becoming more competitive. The commercial banks, which entered the market lately, have tempted mortgage borrowers by offering low and variable interest rates and high LTVs. This resulted in the upward trend in the average LTVs of housing loans. Average LTV reached 38.1% in 2000 from 29.4% in 1997. The share of housing loans with LTV over 49% also has increased from 21.2% in 1997 to 42.4% in 2000. However, LTVs are said to be very low by international comparison in USA, and U.K, the average LTVs are near 80% so we can say that still insufficient flow of money is available in the Korean housing finance market.

<Table 6> LTVs: An International Comparison

Unit: %

	1996	1997	1998	1999	2000	
Korea	25.0	29.4	32.2	33.1	38.1	
USA	78.2	80.4	80.0	78.7	-	
U.K	72.7	72.2	71.1	70.0	-	All buyers
	90.5	85.8	80.5	80.0	-	First-time

Source: Kookmin Bank, www. Kookminbank.co.kr

<Table 7> Distribution of LTVs

Unit: %

	1997	1998	1999	2000
Over 40%	21.2	31.0	30.3	42.4
20% - 40%	56.4	50.0	47.1	41.5
Under 20%	22.3	18.9	22.6	16.1

Source: Kookmin Bank, www. Kookminbank.co.kr

6. More Dependency on Short-term Funding

The NHF and Kookmin Bank have traditionally raised a large proportion of the funds from the housing related savings scheme that was closely tied to the Government's housing policies. However after financial crisis, the relative size of housing related savings became smaller. Instead, they were dependent upon short-term deposits. After financial crisis, commercial banks with a good credit rating such as Kookmin Bank faced a huge inflow of deposits and they began to use these short-term deposits for the housing and home equity loans with a variable interest rate.

The long-term bond market is underdeveloped in Korea, thus banks inevitably depends on short-term funding for providing housing loans. This is clearly inefficiency.

V. Informal Housing Finance

Chonsei is a unique arrangement that has been serving as a substitute for a formal housing finance system in Korea. Renaud (1988) points out that *Chonsei* is the most conspicuous aspect of the financial repression imposed on the household sector in Korea. The *chonsei* system consists of a large cash deposits to a landlord at the beginning of the lease in lieu of monthly rental payments. The full amount of deposits is refunded, without payment of interest, at the termination of the lease contract, and the interest forgone by the tenant is expected to cover the rental value of the dwelling.

Chonsei is the most popular form of rental arrangement in Korea. In 2000, 32.0 percent of households fell in this category and most of another 14.3 percent classified as renters paid some deposits on top of monthly rents. The 1990 figures for Seoul were 41.3 percent and 21.5 percent, respectively. It also serves as an important source of informal financing to house buyers. The results of the KRIHS survey of household assets indicate that *chonsei* funds used in the purchase of housing were five to six times larger than the volume of mortgage lending provided by HCB in 1999.

Chonsei deposits are often used by the prospective homebuyers to finance the house purchase. Kim(1990) points out that *Chonsei* system is inefficient and inequitable. Instead of borrowing from a financial institution against housing, the owner is, in fact, extracting a loan from his tenant. With *Chonsei*, the tenant usually assumes all default risk unless he registers since the owner receives the total deposit in advance.

Chonsei is widespread because it serves some of interests of both the tenant and the landlord. The landlord would prefer *Chonsei* to monthly rental because he cannot find a better loan elsewhere, and also because it saves him of possible rent delinquency. The tenant may prefer *Chonsei* to monthly rental because the former offers a wider range of choice in dwellings than latter.

The typical amount of *Chonsei* deposits is 40-60 percent of the unit market value, and a conservative estimate for the size of total *Chonsei* deposits is about 63.4 trillion won at the

end of December 2000. The estimated total *Chonse* deposits is 17% more than the total outstanding loans (54.1 trillion won) at the end of December 2000.(Lee(2002))

The *Chonse* system is not financially efficient either for the landlord or the tenant. To the extent that a *Chonse* deposit is, in effect, an informal loan from a tenant to a landlord, we need the alternative loan arrangements and savings instruments which could offer more appealing arrangements to both parties. Total *Chonse* claims offer the potential to increase substantially the amount of resources within the formal housing finance system in Korea. To facilitate a conversion of the “*Chonse*” system, Kim (1990) suggests increasing the dwelling units rented on a monthly basis by promoting new construction of rental housing and by encouraging conversion of existing *Chonse* contracts to monthly rental contracts with preferential taxation.

VI. Growth potential of the Housing Finance Market

It is widely believed that the housing finance market in Korea will grow steadily in the coming years. This prediction is based on the following fact.

- a. The demand for mortgages will steadily increase due to the rise in the construction and renovation of houses and lifting of restrictions on the floor space of houses eligible for loan. Also there is still a substantial shortage of housing in Korea, and the Korea's people have shown a strong preference for owning their own house instead of renting. If we compare the figures of number of houses per 1,000 inhabitants, that of Korea is 244.5 units in 2000. However, the corresponding figures of USA, U.K, Germany, France, and Japan are 1.5 – 2 times of Korea figure. And, the number of subscribers (currently more than 3 millions) for housing related deposits is ever increasing. Thus, we can conclude that the demand for housing shortage is not fully resolved yet. There will also likely be much more widespread renovation of existing homes or redevelop-

ment in urban areas because the homes in Korea have relatively short life cycles and because land is becoming increasingly scarce.

<Table 8> Number of Houses per 1,000 Inhabitants (2000)

Korea	USA	U.K	Germany	France	Japan
244.5	429	417	426	470	371

Source: Korea Research Institute for Human Settlements

- b. The supply of housing loans will increase due to the changes in the financial markets. The Kookmin Bank and other commercial banks plan to expand housing finance operation. The deposit inflow to these banks has increased greatly. Thus the banks have enough funds to expand mortgage business.
- c. The informal housing finance market will be gradually absorbed into the formal housing finance market as the access to credit is more and more widespread. Due to the low LTV ratio, Korean homebuyers were heavily dependent on the informal sources of funds such as the returned Chonse deposits or personal borrowing from relative and other acquaints. This implies that enormous growth potential lies ahead for the mortgage market in Korea, if the informal housing finance market can be absorbed. In addition, the LTV ratio will steadily go up due to the several factors. The enhancement of the lending capacity of mortgage lenders, the stabilization of housing prices, and the improvement in affordability of housing. If the LTV is increased to 60% from average 40% of these days, then the volume of the mortgage market will be almost doubled.

VII. The Role of the Government in the New Housing Finance System

1. Structure of the New Housing Finance System

The structure of the housing finance system in Korea can be seen in Figure 6. The housing finance market can be divided into three sub-markets: (1) construction loan market, (2) mortgage market, and (3) MBS market. These three markets are interconnected into the general capital market and the housing market.

The construction loan market is the market where homebuilders finance the cost for new housing construction. Traditionally, NHF financed the cost for public housing construction, and homebuyers financed the cost for private housing construction. NHF construction loan for owner-occupied housing is converted into mortgage loan after completion. Thus, the money for construction loan can be said to come from the potential homebuyers eventually.

The mortgage market is the market where homebuyers finance owner-occupied housing. In Korea, mortgage lenders include NHF, commercial banks, life insurance companies, and installment credit companies. These financial institutions supply mortgage loans to potential homebuyers. Among them NHF finance newly constructed public housing. Recently commercial banks are very aggressive in supplying home equity loans with 3-month variable rate. On the contrary, installment credit companies lost their competitiveness since financial crisis. They could not compete with banks and insurance companies whose funding costs were far lower than installment credit companies. Another important player in the primary mortgage market is HFCGF. HFCGF provides credit guarantee to those who have high credit risk but insufficient collateral value.

The MBS market was introduced in 1999. KoMoCo is not a sole agency to issue MBS, but KoMoCo is the leading and dominant issuer of MBS. KoMoCo already issued 2.6 trillion Won of MBS. With the introduction of MBS market, now the housing finance market in Korea is fully integrated with capital market. Homebuyers expect more flow of mortgage

loans from the general investors through MBS. Thus KoMoCo will contribute to the expansion of the size of housing finance market. HFCCGF also provide MBS issuers for financial guarantee regarding the payment of principals and interests.

2. The Role of the Government in the New Housing Finance Market

Shift from Being the Provider of Mortgages to the Facilitator of the Mortgage Market

The Korean Government has intervened in the housing finance market directly through NHF, which can be considered as a part of Government itself. The rationale for the Government's provision for mortgages in earlier years was two-fold. First, there was an urgent need to resolve the worsening housing shortage. Second, there was little participation by commercial banks in the mortgage market.

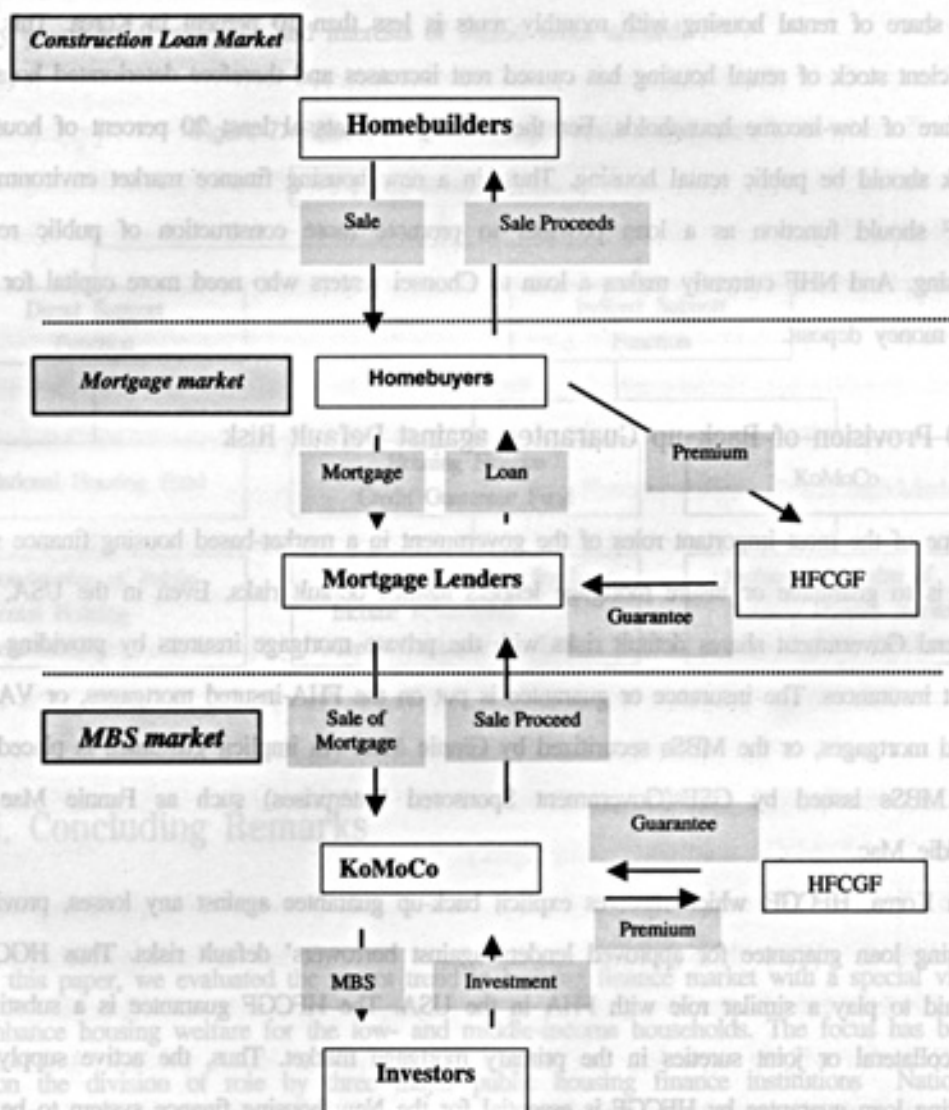
In recent years, however, there have been significant changes in the housing and mortgage markets. The housing shortage has been reduced significantly, and the commercial banks as well as life insurance companies have expanded their mortgage supply tremendously, thus making home mortgages much more widely available than ever.

Therefore, the need for Government to serve as a *direct provider* of mortgages has been diminished. Instead, new need for Government to serve as an *indirect facilitator* or *enabler* of the mortgage market has been growing gradually. The Government should encourage private financial institutions to increase the availability of mortgages by expanding the infrastructure necessary for enhancing the function of the mortgage and MBS market. This role can be done through HGCCGF that provides credit guarantee against default risks of borrowers and KoMoCo, the MBS issuing agency.

1) Concentration on the Construction of Public Rental Housing

The Korean Government has by regulation held the mortgage rates below the market level to lower housing costs for low-income households. The interest subsidy to homebuyers can be justified from the viewpoint of social welfare policy. However, as the interest deregulation

Figure 6. Structure of Housing Finance Market



as a part of financial deregulation has been done and historically low-level interest rates are maintaining in the money market, these interest subsidy has been disappeared. Moreover it is consistently claimed that blanket interest subsidy is inefficient and unfair if it is used as a tool of welfare policy. Anyway the need for NHF to provide low-cost loans to low-income households was weakened.

Instead, NHF should be used as a loan provider for constructing public rental housing. The share of rental housing with monthly rents is less than 10 percent in Korea. This insufficient stock of rental housing has caused rent increases and therefore deteriorated housing welfare of low-income households. For the stability of rents at least 20 percent of housing stock should be public rental housing. Thus, in a new housing finance market environment, NHF should function as a loan provider to promote more construction of public rental housing. And NHF currently makes a loan to Chonsei renters who need more capital for the key money deposit.

2) Provision of Back-up Guarantee against Default Risk

One of the most important roles of the government in a market-based housing finance system is to guarantee or insure mortgage lenders against default risks. Even in the USA, the Federal Government shares default risks with the private mortgage insurers by providing explicit insurances. The insurance or guarantee is put on the FHA-insured mortgages, or VA-insured mortgages, or the MBSs securitized by Ginnie Mae. An implicit guarantee is placed on the MBSs issued by GSEs(Government Sponsored Enterprises) such as Fannie Mae or Freddie Mac.

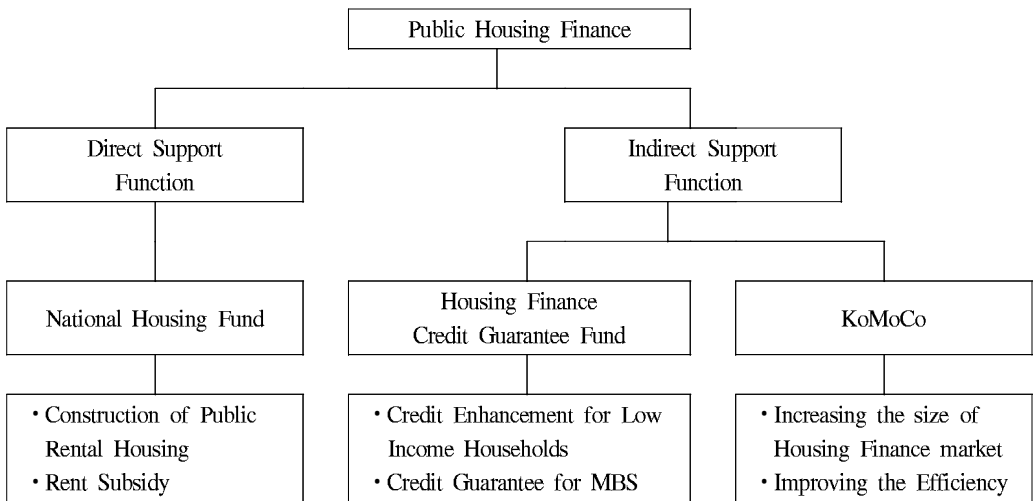
In Korea, HFCGF, which receives explicit back-up guarantee against any losses, provides housing loan guarantee for approved lenders against borrowers' default risks. Thus HFCGF is said to play a similar role with FHA in the USA. The HFCGF guarantee is a substitute for collateral or joint sureties in the primary mortgage market. Thus, the active supply of housing loan guarantee by HFCGF is essential for the New housing finance system to be vitalized in a short period of time.

The expansion of HFCGF guarantee not only enables lenders to effectively supply housing loans but also can contribute to accelerate the development of MBS market by removing default risks. This is because guaranteed or insured loans against default are very attractive to the capital market investors because of the safety.

HFCGF should play the role of intermediary in the MBS market. In addition to its present

role as guarantor in the primary mortgage market, HFCGF may provide guarantee on the timely payment of principals and interests of MBSs when needed.

<Figure 7> Roles of Public Housing Finance Institutions



VIII. Concluding Remarks

In this paper, we evaluated the recent trend in housing finance market with a special view to enhance housing welfare for the low- and middle-income households. The focus has been set on the division of role by three major public housing finance institutions National Housing Fund, Housing Finance Credit Guarantee Fund and KoMoCo.

The housing finance market in Korea went a major reform since 1998. MBS was introduced while deregulation process was undergoing to allow all financial institutions for offering long-term housing loans. Thus it can be said that institutional setup has been completed for the efficient housing finance system. If this system works well, we expect large flows of new capital from the capital market into the housing finance market. Actually the

commercial banks are offering home-equity loan type housing loans very aggressively these days.

The provision of housing assistance is dependent upon income class. For the lowest income households, housing finance should be utilized to assist the sufficient supply of rental housing and housing allowance. This should be main role of the National Housing Fund. However these housing loans cannot meet the needs of low-income households. The “one house per household” policy focused on promoting homeownership is ineffective for these income group. For the lowest income group, housing should be approached as an integral part of social safety net. Housing allowance financed with the budget of the Ministry of Health and Social Welfare should be coordinated with public housing programs of the Ministry of Construction and Transportation.

The need that Government should serve as a direct provider of mortgages has been diminished recently. Instead, new need for Government to serve as an *indirect facilitator* or enabler of the mortgage market has been growing gradually. The Government should encourage private financial institutions to increase the availability of mortgages by expanding the infrastructure necessary for enhancing the function of the mortgage and MBS market. This role can be done through HGCGF that provides credit guarantee against default risks of borrowers and KoMoCo, the MBS issuing agency.

This policy stance will help greatly upper low-income households for purchasing decent housings. In addition these institutions should make every efforts for housing loan providers to offer long-term fixed rate mortgages. With the expansion of conventional housing loans, MBS market will be expanded, and potential homebuyer can freely purchase their homes with minor down payment and affordable monthly payments.

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