

INU- 49

**THE WORLD BANK
POLICY, PLANNING AND RESEARCH STAFF**

Infrastructure and Urban Development Department

FILE COPY

Report INU 49

**UNDERSTANDING THE COLLATERAL
QUALITIES OF HOUSING
FOR FINANCIAL DEVELOPMENT:**

**THE KOREAN "CHONSE" AS EFFECTIVE RESPONSE
TO FINANCIAL SECTOR SHORTCOMINGS**

By Bertrand Renaud

June 1989

DISCUSSION PAPER

This is a document published informally by the World Bank. The views and interpretations herein are those of the author and should not be attributed to the World Bank, to its affiliated organizations, or to any individual acting on their behalf.

Copyright 1989
The World Bank
1818 H Street, N.W.

All Rights Reserved
First Printing June 1989

This is a document published informally by the World Bank. In order that the information contained in it can be presented with the least possible delay, the typescript has not been prepared in accordance with the procedures appropriate to formal printed texts, and the World Bank accepts no responsibility for errors.

The World Bank does not accept responsibility for the views expressed herein, which are those of the author and should not be attributed to the World Bank or to its affiliated organizations. The findings, interpretations, and conclusions are the results of research supported by the Bank; they do not necessarily represent official policy of the Bank. The designations employed, the presentation of material, and any maps used in this document are solely for the convenience of the reader and do not imply the expression of any opinion whatsoever on the part of the World Bank or its affiliates concerning the legal status of any country, territory, city, area, or of its authorities, or concerning the delimitations of its boundaries or national affiliation.

This is a background paper for World Development Report 1989 on Domestic Finance and the discussion of housing and non-corporate finance issues.

The author is Bertrand Renaud, Housing Finance Advisor, Infrastructure and Urban Development Department of the World Bank. Detailed comments from Robert Buckley, J.D. von Pischke and Robert Vogel have considerably improved the presentation of this paper and are greatly appreciated. Some of them are providing impetus for further analyses beyond this paper.

The World Bank

UNDERSTANDING THE COLLATERAL QUALITIES OF HOUSING FOR FINANCIAL DEVELOPMENT:

**The Korean "Chonse" as Effective Response
to Financial Sector Shortcomings**

Discussion Paper

ABSTRACT

1. The potential collateral efficiency of housing is the cornerstone on which to develop a housing finance system. This fact is not always fully appreciated. In developing countries, this collateral question goes beyond the provision of mortgage services for housing ownership, as is the case in developed countries. What is sometime overlooked is that the nature and function of real property wealth changes with the level of development. In developing countries, a high level of consumption of housing services is less critical than the role of housing as a savings vehicle. Housing assets are reliable income generating assets at a stage when salaried incomes, social security systems and retirement systems are not well developed. In inflationary economies, housing assets also have the advantage of providing a return in kind in the form of housing services. The collateral qualities of housing for short or long-term borrowing and this real-denominated return from housing investment are two of three reasons why housing can contribute much to overall financial development. The third reason, is that housing makes up a large and growing share of total tangible assets as an economy develops. Therefore improvements in housing finance can be expected to have a very positive impact on overall financial deepening.

2. To show the collateral power of housing in a developing country, this paper analyses the operation of the "Chonse" housing deposit which is a widely used informal financial claim in Korea. Essentially, a "chonse" claim is a large deposit given to a landlord instead of rent. When the tenant leaves the housing unit, the "chonse" deposit is returned by the landlord. What is exchanged is the use of the capital by the landlord for the consumption of housing services by his tenant. For both landlord and tenant the housing unit is the key for developing very important financial services. Chonse is an instrument to finance investment by households and unincorporated small firms, in short the household firm. It has also been the prime household saving instrument for many Korean families. This Chonse financial claim developed very rapidly in the informal sector during the post-war period. It was a creative response to a severe shortage of financial services when the urban sector was expanding rapidly, the financial sector was very small, and the economy was experiencing significant periods of negative real interest rates on banking deposits. During that period, Chonse has become the dominant financial claim of the household sector. Its operations are intimately linked to the economic characteristics of housing, but its effects have reached beyond housing to many forms of small scale urban investments with significant employment effects.

3. The paper first presents financial conditions in Korea during the period 1960-1985. Over that time, the economy spanned almost the entire range of developing country incomes from US\$100 to US\$2,200 per capita and was a microcosm of most financial development issues. This description is followed by the analysis of two key aspects of Chonse. First, the analysis shows how the collateral value of housing, measured by the ratio of the Chonse deposit to the value of the unit fluctuates according to interest rate levels and financial market conditions. Second, it evaluates the impact of this asset-constrained system on housing tenure choices and access to housing. The resulting structure of the total housing finance system is described. The paper closes with evidence

on the impacts of this housing finance system on capital formation and mentions briefly two important questions regarding financial liberalization strategies: whether rationing the supply of mortgage lending actually stimulates household savings and the extent to which liberalization of the housing finance system could precede overall financial sector liberalization.

4. The development of the Chonse system in Korea illustrates the continuity which often exists between the creative development of a financial innovation in the informal sector at low levels of income and the formal financial services available to meet similar needs in more advanced economies. Both informal arrangements and formal financial instruments can coexist to provide needed services. However, there comes a time when the large relative size of the informal sector compared to the formal housing finance becomes a measure of the failure of public policies to permit significant housing finance development rather than an indicator of serious scale and income constraints on the operations of housing finance institutions. This is the case of Korea today.

UNDERSTANDING THE COLLATERAL QUALITIES OF HOUSING
FOR FINANCIAL DEVELOPMENT:

The Korean "Chonse" as Effective Response
to Financial Sector Shortcomings

Table of Contents

I.	<u>INTRODUCTION: WHAT DO INFORMAL HOUSING FINANCE SYSTEMS TELL US ABOUT FINANCIAL POLICIES?</u>	1
II.	<u>INSTITUTIONAL AND UNREGULATED FINANCIAL MARKETS: KOREA, 1960-1985. A MICROCOSM OF FINANCIAL DEVELOPMENT ISSUES.</u>	5
III.	<u>"CHONSE" AS RATIONAL RESPONSE TO A SEVERE SHORTAGE OF FINANCIAL SERVICES</u>	11
	A. Main Parameters of the Korean Urban Economy Over the Period 1960-1985.	11
	B. Financial Characteristics of Chonse	12
	Basic Features of This Financial Claim	12
	Prior Accumulation of Financial Assets and Housing Tenure Choices	13
	C. An Analysis of Two Key Financial Functions of Chonse	15
	Market Conditions Affecting The Collateral Value of Housing and the Chonse Ratio	17
	Role of Chonse in Gaining Access to Housing	18
	Chonse is Effective, But is it Financially Efficient?	22
IV.	<u>RESULTING STRUCTURE OF THE HOUSING FINANCE SYSTEM</u>	23
	A. Sources of Funds for Housing Asset Acquisition.	23
	B. Coping With Rationed Mortgage Lending: The Household Hunt for Funds	23
	C. Overall Structure of the Housing Finance System	26
V.	<u>IMPACTS OF CHONSE AND BENEFITS OF PROGRESSIVE FINANCIAL LIBERALIZATION</u>	32
	A. Impacts of Severe Mortgage Rationing and Curb Market Rates	32
	Distortions Within the Housing Sector	32
	Distortions Across the Economy	33
	Economic Reforms and Trends Toward Increasing Market Integration	34
	Housing Markets in an Open Economy: Sensitivity to the Current Account	36
	B. Benefits of Progressive Housing Finance Liberalization	38
	Does Rationing Mortgage Supply Stimulate Additional Household Savings?	38
	What Place for Housing Finance in Domestic Liberalization?	38

VI. CONCLUSION: TOWARD MORE NEUTRAL HOUSING FINANCE POLICIES 40

BIBLIOGRAPHY 42

TABLES

Table 1: Major Economic Indicators for the Korea Housing Markets, 1963-1985 6

Table 2: Korea: Sources of Funds for Housing Purchases by Household Income Level for all Households, 1986 24

Tables 3a: Korea: Strategies Followed by Households to Purchase Housing: First Home Buyers 27

3b: Korea: Strategies Followed by Households to Purchase Housing: Previous Owners 28

FIGURES

Figures 1.a: Korea Real Interest Rate Differential: Time Deposits
1.b: and Curb Market, 1963-86 8

Figure 2: Income, Financial Assets & Housing Tenure Choice in Korea 16

Figures 3.a: Korea: Fragmented Housing Finance, 1986, Sources of Funds, Highest Income Group 25

3.b: Korea: Fragmented Housing Finance, 1986, Sources of Funds, Lowest Income Group 25

Figure 4: Structure of the Housing Finance System in Korea (1984 Flows) . 30

Figures 5.a: Korea Real Interest Rate Differential, Mortgage Rate of Curb Market, 1963-86 35

5.b: Korea Spreads Between Mortgage Rates, Corporate Yields and Curb Market 35

Figures 6.a: Korea Annual Real Estate Price Changes, CPI and Housing Prices, 1966-86 37

6.b: Korea Annual Rate of Inflation - Consumer Price Index, 1963-87 37

UNDERSTANDING THE COLLATERAL QUALITIES OF HOUSING
FOR FINANCIAL DEVELOPMENT:

The Korean "Chonse" as Effective Response
to Financial Sector Shortcomings

I. INTRODUCTION: WHAT DO INFORMAL HOUSING FINANCE SYSTEMS
TELL US ABOUT FINANCIAL POLICIES?

1.01 Financial policies in developing countries have long been dominated by concerns for needs of the trade sector and large incorporated firms. However, in terms of total financial claims, it is the decentralized smaller scale unincorporated sector which generates the greatest proportion of total finance through the economy. Many of these claims are informal in the sense that the structure of contracts is not regulated and the suppliers of finance are not supervised by financial authorities. In particular, informal or non-institutional housing finance arrangements make up the greatest share of financial services to the housing sector. These informal housing finance arrangements can provide important information about the quality of on-going financial policies toward the urban non-corporate sector. With the rapid shrinking of the non-monetized economy everywhere, financial policies, fiscal policies and monetary policies are bound to have major impacts on sources of non-corporate finance, directly and indirectly.

1.02 Housing and small business finance are linked to the rapid urbanization which has been the dominant story in developing countries during the second half of this century. As cities go, so goes the future of the economy because it is not possible to build an efficient and growing national economy on unproductive or chaotic cities. An important turn-around in thinking--no doubt caused by the erosion of public resources during the decade--has been the recognition that urbanization is functionally linked to development and is a wealth generating process reflected in real estate prices in cities. This process may not be going too well, there may be inequalities in accessing this wealth which may also not be tapped adequately for the financing of the key public investments. Making the building of developing cities more efficient, more productive and facilitating the economic integration of low-income populations have been daily concerns for a long time. Cities are built the way they are financed. Too many distressed formal financial systems and a renewed focus on private market activities have revived interest in understanding formal and informal mechanisms financing urban investment and their stability.^{1/}

1/ See World Development Report 1989, especially Chapter 2 "Why does finance matter?" and Chapter 5 "Financial Systems in Distress".

1.03 New questions are being raised at international meetings such as:^{2/} why do many key ministries keep looking at housing exclusively as a welfare problem rather than as an economic activity? Housing is a key instrument of capital formation for the household sector: how can this activity be shaped? Housing can be very helpful in securing a financial infrastructure in the urban economy: how can we develop financial systems that will facilitate the economic integration of our large flows of migrants into the urban economy and make them more productive? Properly organized, the housing sector can pay for itself and generate additional resources for the residential infrastructure. Improving housing finance can free public funds for the welfare support of the poorest, but what are the key requirements? From a production viewpoint, considerable change in thinking is also taking place following the weak technical and financial performance of so many public housing agencies.

1.04 Because of the linkages between the needs for greater domestic savings mobilization and the dominant role that housing plays in household savings and investment behavior, public policies toward housing finance have gained importance in national economic management. Considering the extreme shortage of mortgage finance in developing cities, the recurring question is why? Is the cause to be found in endogenous economies of scale constraints such as thin markets in mortgageable housing, low-income levels and high transaction costs for financial institutions? Or is the shortage caused by inflationary macroeconomic policies heavily dependent on debt financing interacting with restrictive regulatory and financial policies which limit or rigidly define access to the banking system by households and small urban firms? Each country is therefore faced with a dual question: are current housing finance policies consistent with overall financial sector objectives and conversely are financial policies consistent with the financial services needed by the housing sector?

1.05 This paper has two objectives. The first one is to analyze a particularly interesting informal financial claim linked to housing, the Korean "Chonse". The "Chonse" system originates from a creative informal, private response based on opportunities for mutual benefits in unfavorable financial policy environments. Essentially, a "Chonse" claim is a large deposit given by a tenant to a landlord instead of rent. When the tenant leaves the housing unit, the "Chonse" deposit is returned by the landlord. What is exchanged is the use of the capital by the landlord for the consumption of housing services by his tenant. For both landlord and tenant the housing unit is the key for developing very important financial services. This financial claim illustrates very well how financial services for the household firm can be built upon the economic characteristics of housing as a reliable and widely available collateral. The paper analyses also the financial needs of housing as an important domestic sector and shows how "Chonse" contracts have continuously adapted to the changing financial environment. A second objective of this paper is to see what happens in housing markets in terms of access to housing assets when the supply of mortgage services is rationed in order to direct credit to "priority sectors". Is such a policy likely to achieve its intended results? Are there unintended

^{2/} The questions listed are direct quotes from senior level delegates at the Washington Policy Conference sponsored by U.S. AID , Washington, D.C. November 7-9, 1988.

regressive effects that are undesirable from the viewpoint of public policy?

1.06 The nature and function of real property wealth change with the level of development.^{3/} In developing countries, real estate assets are first of all income generating goods. In developed countries, real estate wealth plays a less critical role as income generator because of the prevalence of salaried incomes, social security and retirement systems together with the availability of a diversity of financial and other assets. The merit of the Chonse case is to be a very good example of how in developing countries, the consumption of housing services is less important for many households than the role of housing a savings vehicle. In addition, housing can play a very important role as collateral to obtain financing in the productive activities of the household and unincorporated sectors, two sectors which are in many cases difficult to distinguish. In Korea, households have been borrowing for purposes very similar to those encountered in other developing countries. A 1981 survey of household assets and liabilities showed the following composition and purpose of household borrowing:^{4/}

Investment Related Borrowing	39.3%
Housing Related Borrowing	25.9%
Debt Repayments	15.3%
Family Celebrations	4.1%
School Fees	3.2%
Medical Expenses	3.1%
Large Consumer Goods	1.3%
Others	7.3%

The leading reason for borrowing is for investment purposes. This analysis which follows aims to show that in Korea, like in other developing countries, housing and real estate collateral has been playing an important role in a household or small business' ability to borrow. In the informal sector, "Chonse" has been is a major instrument.

1.07 The analysis of the Chonse system proceeds as follows: First, basic information regarding the unregulated financial markets of Korea is presented together with significant indicators of financial conditions in the urban markets of Korea between 1963 and 1987. Then Chonse is described qualitatively. This description is followed by an analysis of the impact of changing interest rates,

^{3/} For an analysis of long-term trends in wealth and its changing role, see A. Babeau (1988)

^{4/} Survey of Borrower Finance, 1981. Citizen National Bank, Seoul.

inflation and real estate prices on the ratio of the value of the Chonse deposit to the current value of the housing unit (or portion of it) which serves as collateral and provides real-denominated payments in the form of rental services. The second part of the analysis deals with the joint impact of Chonse and the shortage of mortgage financing on household choices when both rental and investment housing markets are constrained by the availability of financial assets. The resulting structure of the total housing finance system covering formal and informal housing finance in the mid-1980s is presented.

1.08 The final section of the paper presents evidence on the inefficiencies and regressive distributive impacts of severely rationing mortgage supply on the urban economy. Because macroeconomic reforms interact with financial reforms, the benefits to Korea from successful adjustment policies and the beginnings of liberalization are briefly shown. Two important questions for housing finance liberalization are raised. First, does rationing the supply of mortgages increase household savings or raise savings rates? Second, is there a sectoral ordering in financial liberalization and could housing finance liberalization proceed ahead or independently of overall financial liberalization?

II. INSTITUTIONAL AND UNREGULATED FINANCIAL MARKETS: KOREA, 1960-1985,
A MICROCOSM OF FINANCIAL DEVELOPMENT ISSUES

2.01 One of the advantages of analyzing Korea is that its economic growth has been extremely rapid during the period 1960-1985 and spans most of the income range of developing countries in this short time. Korean per capita GNP has grown from US\$100 in 1960 to an expected US\$3,600 by the end of 1988. In the process, the urban population share has risen from 37 percent in 1960 to 79 percent in 1985, based on urban areas above 20,000 people. The dynamic interactions between financial policies and informal housing finance must have changed considerably in an urban economy that has expanded 87-fold in 25 years. Under such rapid variation, the Chonse system has moved from its seminal financial environment typical of very poor economies where small scale transactions prevails together with short duration of loans, and a tendency for transactions to be geographically and socially concentrated to an income level and minimum market scales where the provision of institutional housing finance services is feasible. This economic feasibility threshold has certainly been crossed during the 1980s if not much earlier in Korea and macroeconomic and financial policies are the dominant factors in causing the continuing heavy dependence on Chonse and informal housing finance.

2.02 Korea experienced significant inflation during that 25-year period, until the successful macroeconomic and financial structural adjustment policies of the early 1980s. The inflation rate was repeatedly above 20 percent (see Table 1, column 1). This 20 percent level is a threshold beyond which most analysts find that "it is extremely difficult for a financial system to function efficiently ...[and this]... adverse effect is aggravated by administered interest rates, especially for longer-term intermediation operations."^{5/} How did Chonse respond to these constraints?

2.03 In spite of significant improvements since the early 1980s linked to successful adjustment policies ^{6/}, the total financial system of Korea still consists of a highly regulated formal system and unregulated markets which interact in a complementary manner. The interactions within this dualistic structure have been analyzed and do not need to be discussed here.^{7/} Credit demands--including corporate credit demands--

^{5/} See Roe and Popiel, (1988).

^{6/} Among others, these improvements include the privatization of the commercial banks, a widening of the regulated interest rates band, greater interest rate consistency across sectors and increased managerial autonomy.

^{7/} See for instance Yung-Chul Park (1976), David Cole and Yung-Chul Park (1983), and Sweder van Wijnbergen (1981) and (1983).

Table 1: MAJOR ECONOMIC INDICATORS FOR THE KOREA HOUSING MARKETS, 1963-1985
TABLE FOR WDR 1989 BACKGROUND PAPER

YEAR	ANNUAL CHANGE CPI (%) (1)	TIME DEPOSIT RATE (NOMINAL) (2)	CURB MKT. RATE (NOMINAL) (3)	MORTGAGE RATE (NOMINAL) (4)	CORPORATE BOND YIELD (5)	TIME DEPOSITS (REAL) (6)	CURB MARKET (REAL) (7)	MORTGAGE RATE (REAL) (8)	CORPORATE YIELD (REAL) (9)	CURB TO DEPOSITS SPREAD (10)	CURB TO MORTGAGE SPREAD (11)	GNP GROWTH RTE (REAL) (12)	PER CAPITA GNP (GROWTH) (13)	LAND PRICE INCREASE (14)	HOUSING PRICE INCREASE (15)
1960															
1961															
1962															
1963	20.2	15	52.4			-4.3	26.8			31.1		9.1	6.52	51	
1964	29.6	15	61.4			-11.3	24.5			35.8		9.6	7.02	30.3	
1965	13.8	26.4	58.8			11.1	39.5			28.5		5.8	3.22	34.6	
1966	11.2	26.4	58.7			13.7	42.7			29.0		6.6	4.69	65	42
1967	10.8	26.4	56.4	23		14.1	41.2	11.0		27.1	-30.1	11.3	9.39	21.2	116.2
1968	10.4	25.2	55.9	20		13.4	41.2	8.7		27.8	-32.5	13.8	11.89	51.5	31.5
1969	12.7	22.8	57.2	20		9.0	39.5	6.5		30.5	-33.0	7.6	5.69	122.7	68.2
1970	15.6	22.8	50.8	20		6.2	30.4	3.8		24.2	-26.6	9.1	7.14	0.1	3.8
1971	13.5	20.4	46.3	20		6.1	28.9	5.7		22.8	-23.2	5.3	3.34	46.9	36.1
1972	11.5	12	38.9	18.2	22.9	0.4	24.6	6.0	10.2	24.1	-18.6	14	12.04	4	14.9
1973	3.2	12	39.2	15.2	21.8	8.5	34.9	11.6	18.0	26.4	-23.3	8.5	6.54	8	15.2
1974	24.5	15	37.6	15.5	21	-7.6	10.5	-7.2	-2.8	18.2	-17.8	6.8	4.84	25.4	17.4
1975	25.3	15	41.3	15.5	20.1	-8.2	12.8	-7.8	-4.2	21.0	-20.6	13.4	11.89	21.9	38.2
1976	15.3	16.2	40.5	16.5	20.4	0.8	21.9	1.0	4.4	21.1	-20.8	10.7	9.19	26	27.6
1977	10.2	14.4	38.1	15.5	20.1	3.8	25.3	4.8	9.0	21.5	-20.5	11	9.49	46.7	24.3
1978	14.5	18.6	41.7	16.5	21.1	3.6	23.8	1.7	5.8	20.2	-22.0	7	5.49	79.1	73.7
1979	18.3	18.6	42.4	16.5	26.7	0.3	20.4	-1.5	7.1	20.1	-21.9	-4.8	-6.31	22	10.9
1980	28.7	19.5	44.9	19.5	30.1	-7.1	12.6	-7.1	1.1	19.7	-19.7	6.6	5.04	17	16.2
1981	21.3	16.2	35.3	18.5	24.4	-4.2	11.5	-2.3	2.6	15.7	-13.8	5.4	3.84	7.1	1.7
1982	7.3	8	30.6	14.1	17.3	0.7	21.7	6.3	9.3	21.1	-15.4	11.9	10.34	5.6	1.6
1983	2.3	8	25.8	10	14.2	5.6	23.0	7.5	11.6	17.4	-15.4	8.4	6.84	31.7	9.5
1984	2.5	10	24.7	11.4	14.1	7.3	21.7	8.7	11.3	14.3	-13.0	5.4	3.84	21.6	7.6
1985	2.8	10	24	11.4	14.2	7.0	20.6	8.4	11.1	13.6	-12.3	12.3	10.74	7.8	-7.3
1986	3	10	22.4	11	12.8	6.8	18.8	7.8	9.5	12.0	-11.1	12	10.47	3.8	3.1
1987	3														21.3
1988															

Sources: Bank of Korea, Economic Statistical Yearbooks, Ministry of Construction.

that cannot be met in the formal sector due to interest rates ceiling or to credit allocation policies are redirected to the unregulated markets. In Korea, the name "unregulated " financial markets is used in preference to "informal" or "unorganized" because this parallel financial system is well-structured and has clearly distinct segments.

2.04 Analysts often distinguish five main segments in the Korean unregulated markets. In order of increasing complexity, scale and sophistication these are: (i) a very insignificant and rudimentary private credit market which is unorganized, (ii) the extensive variety of "kye" or rotating saving and credit associations (ROSCA) for households and business services (iii) mutual credit associations or "mujin" companies for small businesses, (iv) the informal bill and commercial paper market, and (v) the large scale informal credit brokers market generally called the "curb market" in Korea. There have been similarities between curb market operators and private finance companies for consumers and small enterprises. A major difference between the "curb market" and private finance companies is that "curb" rates are uncontrolled while finance company rates are regulated. Because of a lack of scale economies, imperfect information and weaker enforceability of contracts, transaction costs and risk premia are also very important. "Chonse" claims associated with housing are not usually not mentioned explicitly in this list of components of the Korean unregulated financial system in spite of the fact that their volume is much larger than institutional housing finance as is shown later in this paper.

2.05 Because the formal financial system of Korea has long been subject to considerable oversight and controls, the impact of ceilings on deposit and lending rates has been particularly widespread. Real interest rates on the curb market have been very high, and the dualistic structure of the financing of the economy has been very sharp. Curb market rates have been continuously surveyed by the Bank of Korea since at least 1963. Curb rates are also used as reference by households and are relevant to the operation of the savings markets and housing markets. The relationship between curb market rates and regulated 3-months deposit rates is presented in Figures 1.a and 1.b in real terms. Another important reference rate is the yield on corporate bonds which is considered the best approximation to the opportunity cost of capital in Korea (See Table 1, columns 5 and 9).

2.06 Major macroeconomic policy events and related financial episodes show up in the otherwise long-term downward trend in nominal (and real) curb market rates. Structural adjustment reforms have taken place between 1981 and 1985, including incremental financial liberalization.^{8/} Since then, the regulated sector has grown very rapidly at the expense of informal finance. Two points must be noted regarding trends in the Korean financial sector. First, deposit rates and curb market rates tend to move in step reflecting the close substitutability between bank deposits and curb market loans (See Figure 1.a).

^{8/} See Yoon-Je Cho and David Cole "The Role of the Financial Sector in Korea's Structural Adjustment" in Vittorio Corbo and Sang-Mok Suh eds. Structural Adjustment in a Newly Industrialized Country: Lessons From Korea, World Bank book manuscript, 1988.

FIGURE 1.a

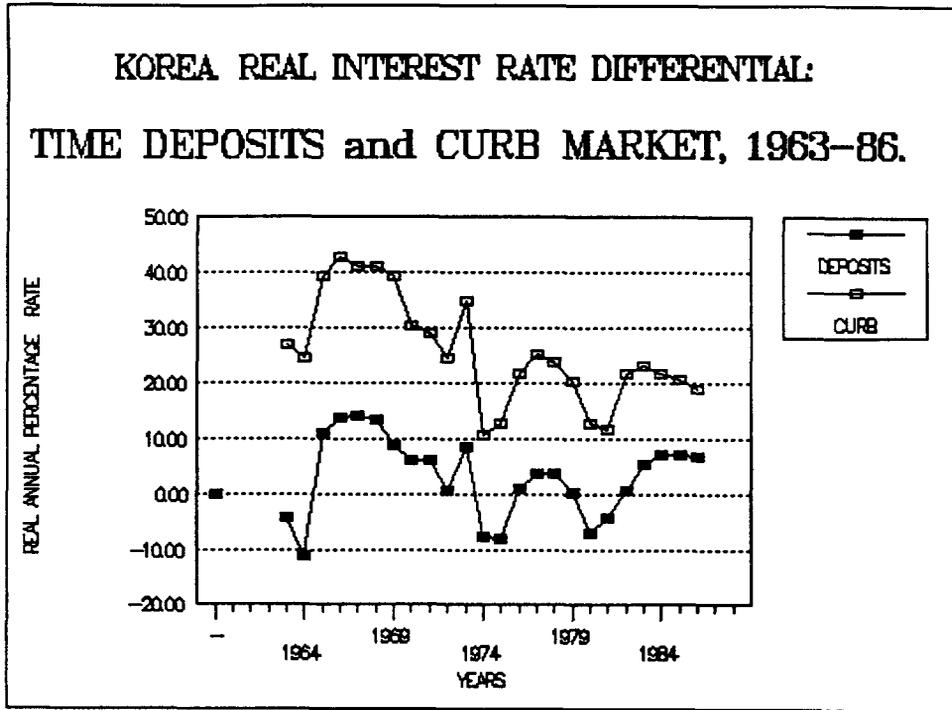
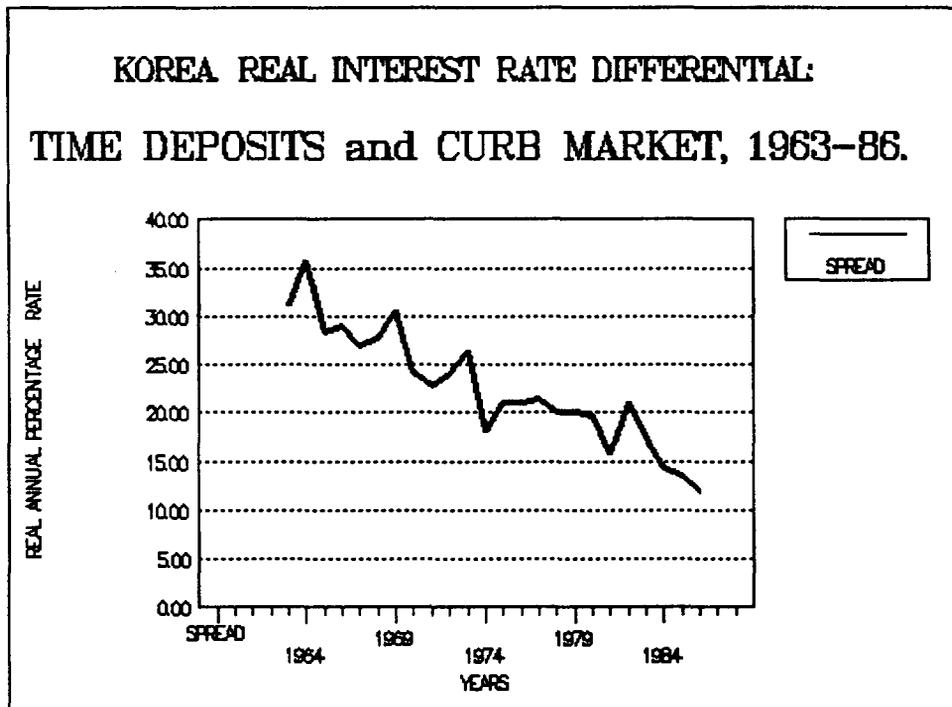


FIGURE 1.b



Second, the originally sharp dualistic structure of the financial system has converged over 25 years. The spread between real time deposit rates and curb rates has declined. It used to be very large, about 30 percent at the time of the 1965 interest rate reforms but has now come down to about 10 percent (See Figure 1.b). This spread is still significant and takes into account safety and inefficiencies in the unregulated markets.

2.07 If the cost of funds in the unregulated market is known, the total size of the unregulated market is not. There has been considerable interest in knowing this size compared to the formal financial system and in trends over time.^{9/} Estimates of the curb market were made in 1972 due to the mandatory registration of business-related claims. The downward-biased value was that the curb market defined by items (4) and (5) above was equivalent to 25 to 33 percent of M2, which in turn was equal to 37% of GNP.^{10/} Following a curb market scandal involving US\$255 million of promissory notes, a study of its size was made in 1982 and again in 1985. The 1981 end-of-year estimate was that curb market business loans amounted to 25 percent of M1 (with M1 itself representing 9 percent of GNP), 7 percent of formal business credit, and 10 percent of total bank deposits. These two observations suggest a decline in the share of the unregulated market from 12% of GNP in 1972 to 3% in 1981, but still a large absolute size as the economy has expanded four-fold in money terms in the intervening ten years. The value of outstanding Chonse claims itself has grown rapidly with urban investment. Is quite large but it is not included in these business-related curb market estimates. using 1980 census data on the diffusion of Chonse, a tentative estimate is that Chonse claims outstanding were more than seven times the value of mortgages provided by the banking system. Comparisons with household savings deposits still need to be made.

2.08 The size of the non-corporate sector in the economy has changed over time. Until the revision of the national accounts and flow-of-funds from 1980, the household sector was not separated from the non-corporate sector. Estimated shares of the non-corporate sector in national savings over a twenty year period, derived from flow-of-funds data from the Bank of Korea are as follows:

	<u>1965</u>	<u>1970</u>	<u>1980</u>	<u>1985</u>
National Savings	101.2%	71.6%	64.6%	92.0%
Government	44.4%	29.3%	16.9%	22.3%
Corporate	22.5%	13.8%	27.3%	35.7%
Non-Corporate	34.3%	28.5%	20.4%	34.0%
Foreign Savings	-1.2%	28.4%	35.4%	8.0%
(Memo: GNP/capita)	(US\$105)	(US\$248)	(US\$1,606)	(US\$2,032)

^{9/} See BYEON, Yangho (1985) and RO, Sung-Tae (1986).

^{10/} See Cole and Park (1983), Chapter 4.

While these estimates would benefit from further refinement, it is clear that the non-corporate sector has been a major component of the Korean economy throughout the period. It is only since the early 1980s that the financing of small and medium enterprises has become a priority issue in Korean policies.

III. "CHONSE" AS RATIONAL RESPONSE TO A SEVERE SHORTAGE
OF FINANCIAL SERVICES

A. Main Parameters of the Korean Urban Economy Over
the Period 1960-1985

3.01 The Chonse system represents a very creative response of the household and unincorporated sectors to the inability of financial institutions to provide them with adequate services under rapid urbanization, inflation, negative real bank deposit rates and the rigid rationing of banking loans. While occasionally in use in rural areas, this system has played an important role in financing the Korean urban economy over the period 1960-1985 which was characterized by the following traits:

- (a) A rapidly expanding urban system experiencing population growth at a compounded rate of 5% per year over 25 years.
- (b) Urban wages rising at a real rate of 8 percent per year between 1960 and 1986.
- (c) Frequent periods of significant high inflation (see Table 1, col. 1).
- (d) Frequent periods of ex-post negative real deposit rates (see Table 1, col.6).
- (e) Consistently positive real curb market rates (see Table 1, col. 7).
- (f) Land and housing values appreciating rapidly at real two-digit rates every year until the early 1980s (see Table 1, cols. 14 and 15).
- (g) High rates of household mobility for homeowners as well as renters. Analyses of the 1980 census show mobility rates of .323 per year for home owners (a move every 3.1 year) and .769 for renters (a move every 1.3 year) for the entire population of movers and stayers.
- (h) A greatly rationed supply of mortgage finance from the creation of the Korea Housing Bank in 1967 up to the present.

B. Financial Characteristics of Chonse

Basic Features of This Financial Claim

3.02 In a developed economy, we look at the demand for residential mortgages from two viewpoints: (i) mortgage debt as a form of consumer credit and (ii) mortgage debt as a critical instrument for achieving the asset portfolio objectives of a large proportion of households, a portfolio where housing dominates. These two aspects of mortgage demand are increasingly present in the Korean market. However, to explain the origin of Chonse, it is helpful to reverse the direction of thinking and to start with the housing asset as a key vehicle to generate the financial services that the banking system is not providing to the household and unincorporated sector for a variety of regulatory reasons.

3.03 The Chonse system predates the regulated housing finance system. A Chonse deposit consists in the payment of a large lump sum deposit to a landlord at the beginning of occupancy instead of monthly rental payments. The Chonse payment is therefore not only a security deposit but also a substitute for rent. In fact, the later function dominates because the Chonse deposit must be refunded in its entirety by the landlord when the tenant vacates the dwelling. Instead of raising rents when the rental market becomes tight or operating costs increase, landlords increase the amount of Chonse at the renewal of rental contracts. The interest foregone by the renter is expected to cover the implicit rental value of the dwelling. Analyses show that imputed rents tend to be competitively priced and reflect the cost of funds on the unregulated markets. Therefore, the imputed rent is equivalent to Chonse deposit times the monthly curb market rate (which was 1.4 percent per month in real terms in 1986, see Table 1, col. 7). Chonse is one of the most popular rental arrangements in Korea. As shown below, it also plays a important role in the purchase of housing.

3.04 As a savings instrument, Chonse reflects the poor quality or absence of household-oriented financial claims generated by the regulated financial sector until recently (see times series on real deposit rates, Table 1, col. 6) On one hand, the tenants build up their savings with the periodical increase in the deposit amount, generally every six months. They receive a real rate of return on this financial asset which is positive but in kind in the form of housing services. The return on Chonse should stay close to the curb market rates where landlords can redeposit their funds. On the other hand, the yield on Chonse money foregone by tenants must also be equal to the real-denominated value of the housing services they receive. The size of the Chonse compared to the value of the space rented can therefore rise rapidly when real market housing rents rise and curb market interest rates decline, two prevalent trends in urban Korea. Today, Chonse depositors still express satisfaction with Chonse as a vehicle for self-imposed savings and asset accumulation. They view it as a contractual savings scheme well suited to the deposit of the large periodic bonuses which are part of the wage structure in Korea. Often, increases in Chonse deposit contracts coincide with the large year-end bonuses.

3.05 As a source of funds, Chonse exemplifies the inherent qualities of residential real estate as collateral. Instead of borrowing from a bank against this collateral, the owner of the dwelling is receiving a loan from his tenant (or tenants). In terms of bargaining power, the lack of adequate housing finance and the chronic scarcity of housing under extremely high urban population growth rates have tended to favor landlords.^{11/} With Chonse, tenants assume all default risk since the landlord receives the total deposit in advance. The renters' countervailing power is the ability to remain on the premises until recovery of their capital, but because they often double-up with their landlord this is a poor, unpleasant remedy. As already noted, when a landlord is not using the deposit to pay for real estate or business activities the money can be promptly deposited with an informal dealer on the curb market.

Prior Accumulation of Financial Assets and Housing Tenure Choices

3.06 Due to the shortage of financial services, the composition of assets held by households and the non-incorporated sector tends to be restricted to the growth of households savings and/or retained earnings. Chonse plays an alleviating role in the non-corporate sector and is also a major element in the operations of the two housing markets: the market for housing services from the existing housing stock and the market for new housing investment. Because a Chonse contract implies the accumulation of substantial financial savings, both housing markets are asset-based, not cash-flow based. This situation is clearly a serious problem for the renters who have not accumulated much financial savings. Cross-section and times series data comparing pure rental rates with chonse deposits show that the return on Chonse stays close to the curb market rate. Because of the need for a large accumulation of savings, tenants rent less space than they would under a monthly rent system. Some tenants are too poor to afford chonse deposits. They must use a 100% cash rent tenure and double or triple up in some of the worst housing units. Longitudinal studies show that rental tenants are low-income families incapable of improving their housing conditions over time, while chonse renters improve their housing conditions with every housing move.

3.07 The magnitudes involved in this housing-related financial claim are very large measured against annual household incomes, the market value of the rented space and in comparison with the supply of institutional housing finance claims. Household surveys in the mid-1980s show that Chonse represents a very high share of the capital cost or market value of the rented space or unit. Typical Chonse ratios range between 35 percent and 40 percent of the market value of the unit. These ratios are higher in large cities and often range up to 70

^{11/} During the second half of the 1970s the Korean economy became overheated and housing rents were rising rapidly, See Figure 6.a, page____. The government was forced to recognize the significance of this "informal" market and eventually a Tenancy Protection Law was passed in 1981 to specify the characteristics of this unusual financial claim. The 1981 Law regulates the frequency of Chonse deposit increases and improve a tenant's ability to recover his deposit when vacating his unit.

percent for apartments.^{12/} Because it is not possible to accumulate such large financial savings for housing, various types of contracts exist such as partial Chonse, or declining Chonse which include a combination of cash deposit and monthly payment. Such large financial claims coincide with doubling-up and room rentals are very common due to the inadequacy of the housing stock, caused in part by the inadequate housing finance system.

3.08 The price of housing compared to household income levels is very high in Korea. The 1985 KRIHS Housing survey shows that the average unit/income ratio is 5.5. Using an underestimate of the Chonse/unit ratio of 30 percent, we can see that a typical renter must deposit $5.5 \times 0.3 = 1.65$ times its annual income. It is indeed an unusual rental tenure arrangement which requires more than 20 months of salary as cash deposit.

3.09 With the rapid appreciation in real estate values (see Table 1, column 15), not all households can accumulate the financial savings required to secure the rental of a full unit. There are therefore three broad classes of tenure in Korea and gradations within each of them based on the financial asset-constraint of households. These tenure choices are:

- (a) Full ownership of a unit, with or without mortgage debt outstanding.
- (b) Chonse contracts themselves have five basic variations. In order of declining asset requirements these are:
 - a. Exclusive Chonse: when the household is rich enough to rent an entire unit and make a full Chonse deposit. The household does not take a Chonse renter.
 - b. Whole Chonse: when the household makes a lump sum deposit large enough to cover the full amount of the implicit rent for the entire unit. However, the main household chose to sublet to another family as a substitute to mortgage loans in order to restructure its assets.
 - c. Partial Chonse: when the household does not have enough assets to rent an entire unit and must share it with the landlord or else a Whole Chonse renter--and even at low-income levels with another tenant family. Partial Chonse therefore coexist in one unit with either Whole Chonse or outright ownership. This

^{12/} For modern apartment units in Seoul, ratios of chonse to housing price can go as high as 70% of the unit's value and the absolute value of the financial claim can be startlingly large in high income neighborhoods. For instance, the Office of National Tax Administration (ONTA) reported in 1987 that a Hyundai apartment in Apkujong-dong a quality district of Seoul was posted at 243 million won for tax purposes, or 3 million per pyong (one pyong is 3.3 m²). For a typical 55-pyong Hyundai apartment the Chonse deposit can therefore vary between US\$75,000 and US\$133,000. For reference, the average annual urban household expenditures were about US\$6,570 in 1987.

tenure arrangement is one of the most widespread rental arrangement in Korean cities.

- d. Standard Chonse: when the household provides the full-lump payment and expects to raise the contract amount at each contract renewal or periodic rent raise.
- e. Declining Chonse: when the household makes a smaller one-time deposit from which an agreed amount is deducted every month. The remaining balance will be returned when the tenant vacates the unit.

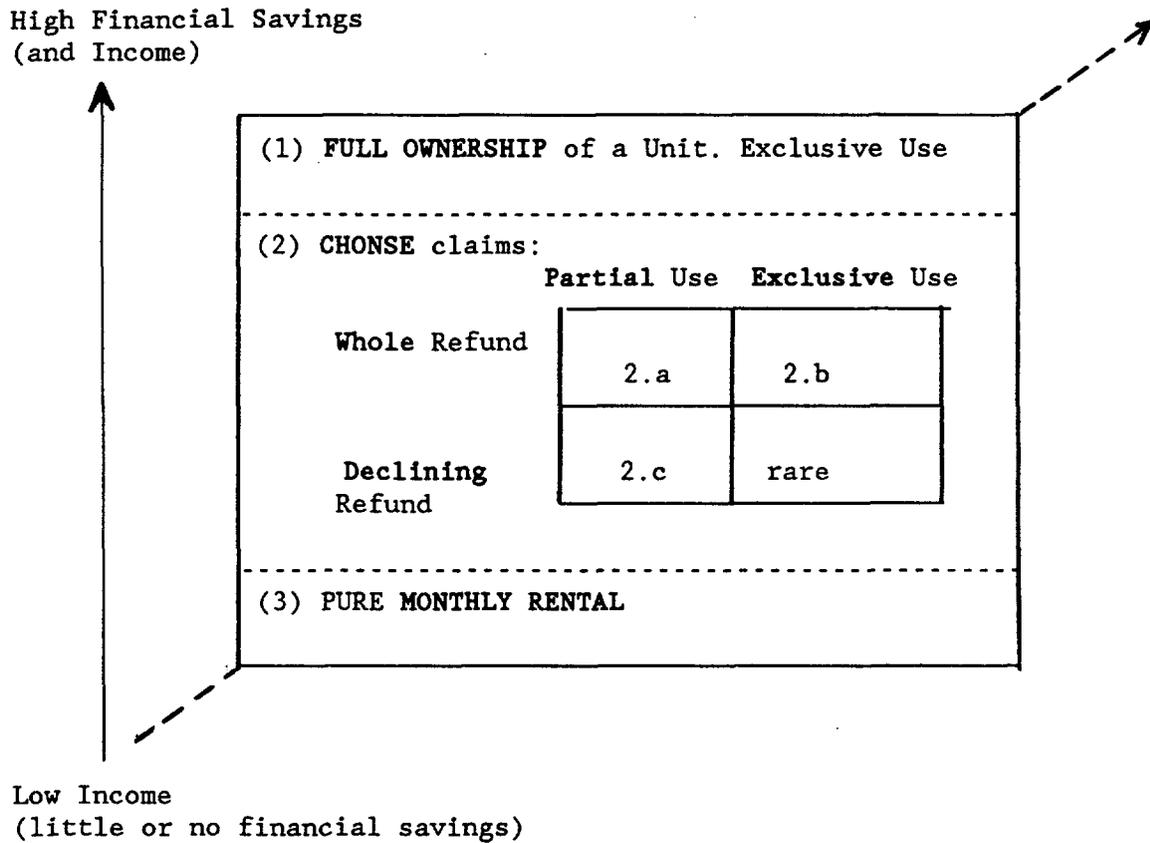
- (c) Monthly Rental with Deposit. This rental contract is the same as in other countries. However, in some cases the deposit requirement can also be high and is often equal to one year's rent--not income. This security deposit does not have the contractual saving feature of Chonse: rental is cash-flow based, and not asset based. This form of tenure is considered the least desirable and characterizes the lowest income groups. Monthly renters usually share the unit with the landlord as well as other tenants.

There tends to be a systematic and stable relationship between household choices among these three major types of tenures, the specific financial agreements chosen for the structure of Chonse and the socio-economic characteristics of the households such as age of household head, household earnings, current financial assets and net worth. This entire housing tenure structure is summarized in Figure 2.

C. An Analysis of Two Key Financial Functions of Chonse

3.10 As a financial instrument of the non-corporate sector, Chonse has two possible uses for the seller of the claim. It can finance investment in business-related activities directly or through redeposit on the curb market or it can finance the purchase of housing. For the 25-year period covered in this paper, business-related use of Chonse has fluctuated according to the intensity of financial repression generated by financial sector policies. The specific business use of Chonse funds cannot be investigated further due to the wide diversity of investments to be considered. As yet, there is no direct evidence on the split of Chonse funds between business uses and housing investment over time. What can be done is to analyze Chonse as an alternate source of residential mortgage finance. In that case, the leading question is what happens in housing markets which are subjected to severe credit constraints and where the demand for housing services is a function of accumulated financial assets through the size of Chonse.

FIGURE 2: INCOME, FINANCIAL ASSETS AND HOUSING TENURE CHOICE IN KOREA



Market Conditions Affecting The Collateral Value of Housing and the Chonse Ratio

3.11 The ratio of Chonse deposit to the value of housing is a measure of the collateral value of housing for borrowers. In an unconstrained world with unsegmented financial markets and no capital gains on housing, users of housing are expected to be indifferent to the choice of tenure between ownership, Chonse and pure rental. The rent would be equal both to the value of the unit times the curb market interest rate and the Chonse deposit times the curb rate.^{13/}

$$\text{Rent} = [\text{housing price}] \times [\text{curb rate}] = [\text{Chonse deposit}] \times [\text{curb rate}]$$

or:

$$R = [P] \times [I_c] = [C] \times [I_c] \quad (1)$$

Under such assumptions, we would therefore expect the size of Chonse to equal the market price of the house, but this is not the case: Chonse has often varied between 30 percent and 70 percent of the house price.

3.12 At least two factors may be at work in determining the level of Chonse: (i) the expected after-tax rate of appreciation of housing and (ii) segmentation in the capital markets such that the housing rental rate (rate of return on housing) might differ significantly from the financial cost of funds, with a further differentiation between the curb rate and the corporate bond rate. Given the extreme scarcity of mortgage finance for most of the period, the relevant cost of funds in the housing sector has been the curb rate. This rate has been much higher than the opportunity cost of capital in the economy (See Table 1, Columns 7 and 9). Anticipating on the evaluation of Chonse, one could therefore expect an underinvestment in the housing sector due to the great difference in the cost of capital in the sector and opportunity cost of capital in the economy at large.

3.13 The relevant interest rate being the curb rate and the Korean rental market being quite competitive (viz. the high rate of renter mobility), the amount of Chonse can be expressed as a function of the curb rate and the rate of appreciation of housing. On one hand, Chonse must match curb market rates as said earlier in equation (1):

$$[\text{Rent}] = [\text{Chonse}] \times [\text{curb rate}] \quad \text{or,}$$

^{13/} Of course, the rent level is also linked to the tightness of housing market conditions. In Korea housing demand has risen very rapidly with household incomes and urban population growth which housing supply has been found to a lower elasticity than other countries. the net effect has been rising real rents autonomously from conditions on the curb market. KIM Kyung-Hwan has shown that public policies have tended to prevent the flow of capital in housing markets and that the real return to housing has been substantially above the opportunity cost of capital for much of the rent period. (see Kim, 1987)

$$R = C \times I_c \quad (1)$$

On the other hand, the total return on housing for its owner includes the anticipated capital gains rate such that an acceptable rental rate may be:

$$[\text{Rent}] = [\text{Unit Price}] \times [\text{curb rate less capital gains rate}]$$

$$R = P \times [I_c - I_a] \quad (2)$$

When combining these two considerations, the new formulation of the Chonse ratio becomes:

$$C = P \times [1 - I_a/I_c] \quad (3)$$

This relationship provides a good starting point for interpreting Chonse ratios over time or across markets, as well as the impact of the sharp increases in capital gains taxes since the mid-1970s. We can expect the following comparative static results:

- (a) Chonse ratios will increase when the curb rate decreases as has been the secular trend since 1963 (see Figure 1.b).
- (b) Chonse ratios will decrease in market areas where the rate of appreciation is high.
- (c) However, in the "anti-speculation areas" where severe capital gains tax are levied, the net after-tax capital gains has been drastically lowered. We would therefore expect higher Chonse ratios in these areas. This is why Chonse ratios are so high in some of the high-income apartment areas of Seoul (See Annex Table on the record of anti-speculation measures since the 1960s.)
- (d) In disequilibrium markets where the rate of appreciation may be temporarily falling, such as in 1984-1985 when housing prices declined by 7 percent (see Table 1, column 15), we might expect to see paradoxical cases of Chonse ratios becoming greater than one. Such cases have been analyzed by Kim and Chai (1987) who explore the reasons why renters who deposit a Chonse that is more than enough to buy the unit outright did not exercise that option in the years 1984 and 1985. They find that high capital gains taxes were a leading factor in not exercising the option to buy.

Role of Chonse in Gaining Access to Housing

3.14 In a market where the supply of mortgage finance is sharply rationed the ability to save will determine the choice of tenure and affect the household portfolios. The degree of "incompleteness" of household asset "portfolios" will

be even more pronounced than in a well developed financial market.^{14/} The choice of tenure in the Korean market is not only determined by income levels but also by the amount of Chonse, i.e. by the level of financial assets already accumulated. It is therefore necessary to analyze the role of Chonse in tenure choices in order to have a better understanding of the distributive impact of mortgage rationing across households income groups.

3.15 The ratio of Chonse to unit value just described is an implicit measure of the collateral value of housing for the landlord. It is also possible to illustrate how access to housing varies according to the characteristics of a household (income, and accumulated assets) and market conditions (interest rates, rate of housing appreciation, and loan-to-value ratio available from financial institutions).^{15/}

1. Case of a Renter

3.16 A renter must maximize his utility subject to his (cash-flow) budget constraint such that:

$$[\text{earned} + \text{non-earned income}] = [\text{housing consumption}] + [\text{non-housing cons.}] \quad (4)$$

or:

$$y + I_c.A = R + NH \quad (5)$$

where:

A = total financial assets, including Chonse

I_c = curb market rate

R = rent for the housing unit (or part of it)

NH = non-housing consumption

Part or all of the assets A is required for the Chonse in lieu of rent that is to say I_c is equal to R. By definition renters cannot benefit from capital gains on housing. A rise in housing value will lead to an increase in Chonse deposit by renters. In turn, this increase will have to be financed from new savings out of y. For this reason, at equal levels of income y, the housing consumption of renters will tend to be less than that of owners. In other words, a result of the Chonse system is that access to that prevalent form of rental tenure is

^{14/} On the issue of the incompleteness of household portfolios in advanced financial markets, see the papers of the recent NBER Conference on Residential Real Estate and Capital Formation, Newport, R.I. October 1988.

^{15/} A full treatment of housing demand under rapid income growth, inflation and mortgage rationing is well beyond the purpose of this paper. For some key readings on the issues of liquidity constraints and asset constraints see Modigliani (1954), Tobin (1967, 1972), Artle and Varaya (1978), Dougherty and Van Order (1982), Wheaton (1985) and, for the Korea case, Cho (1988).

based on asset accumulation and not on current income cash-flow. ^{16/}

2. Case of a Buyer

3.17 Several factors make it very desirable to own housing in Korea. The preference for exclusive ownership is strong: without real estate or other collateral it is very difficult to borrow from the financial markets, either formal or informal; renters often have to double up with their landlords and may have to move when their Chonse is increased, causing the high rate of mobility reported in the censuses; the bequest motive is very strong in East Asian societies;^{17/} the rate of appreciation of housing has been higher than either inflation and income increases. In a simple comparative static framework, households will aim to maximize their utility based on housing and non-housing consumption. They are subject to two main constraints: a budget constraint and a credit constraint linked to the value of the housing unit. The cash-flow budget constraint irrespective of anticipated capital gains for an owner-occupant can be written again as:^{18/}

$$[\text{earned} + \text{non-earned income}] = [\text{housing consumption}] + [\text{non-housing}] \quad (4)$$

or:

$$y + I_c.A = [I_c (P - B) + I_b. B] + NH \quad (5)$$

where:

A= total financial assets, including Chonse

P= the price of the housing unit

B= total borrowing (formal or informal)

I_b= the interest rate on borrowing

NH= non-housing consumption

If all borrowing is on the curb market, the budget constraint becomes:

$$y = I_c.[P - A] + NH \quad (6)$$

The credit constraint is such that the value of the unit must be no more than

^{16/} In his life-cycle simulation of the tenure decision, Cho finds a jump in housing consumption after a change of tenure to ownership. (1988, pp.128-129).

^{17/} See Hayashi and others, 1987, Horioka (1988) and Cho, Chapter VI (1988).

^{18/} See Cho (1988)

the sum of assets A and the maximum feasible borrowing B:

$$P \leq A + B \quad (7)$$

If we designate by b the maximum loan-to-value ratio, the credit constraint is simply:

$$P \leq A / (1 - b) \quad (8)$$

It must be understood that this credit constraint can be read in two ways. If the borrower is fortunate enough to get a KHB loan, b is the mortgage loan-to-value ratio. If not, b simply reflects the collateral value of the house on the curb market; that is to say that it should equal the Chonse ratio. Under these two simultaneous budget and credit constraints it is possible to explore the feasible space for ownership.

3.18 Under mortgage rationing, access to a bank mortgage loan will generate a dual benefit. The new landlord can take a Chonse according to the on-going Chonse/unit price ratio. He can also receive a collateralized mortgage. This in effect sharply raises, currently doubles, the total collateral value of the unit for investment purpose.^{19/} This happens because to the bank's loan-to-value ratio can be added the chonse ratio. Moreover, the total cost of borrowing is greatly more favorable (see Figure 5.b, below). We can therefore expect KHB borrowers who are first-time owners to make extensive use of Chonse from a tenant and to have some of the highest housing-to-income ratios. A dynamic effect of falling curb market rates is to raise the possible Chonse ratio and therefore b , with the result that asset-constrained buyers can now get closer to their unconstrained optimum. Not surprisingly, housing markets function better when curb rates fall.

3.19 Similarly, an increase in the assets of an individual will bring him closer to his unconstrained optimum. With rapid rates of housing appreciation, this is what is happening with previous owners who are upgrading their units. On the other hand, when housing prices are stable or are falling as seen since 1982 (Table 1, col. 15), constrained choices will diverge even more from the optimum. In the case of first time buyers, we can expect to see frequent occurrences of asset transfers from relatives to release the constraints.

3.20 We can also ask what is the partial effect of an increase in income. An increase in income expands the budget constraint without improving the credit constraint. Since asset formation is not necessarily linked functionally to this rising income, household asset formation can be expected to be less efficient and suboptimal in the absence of banking services for households and household firms. An improvement of housing conditions will depend on which is the greater of the two: the rate of household saving and asset formation or the rate of housing appreciation. Across the housing market, there is a split between first

^{19/} Of course the buyer is giving up part of the use of the unit to his Chonse tenant for a significant period of time.

time buyers and previous owners and a growing divergence in achievable consumption and welfare.

Chonse is Effective. But is it Financially Efficient?

3.21 Without belaboring the point, there is a clear distinction between Chonse's effectiveness in meeting the financial needs of the non-corporate sector and its financial efficiency. This financial claim offers none of the benefits of institutional financial intermediation in terms of risk diversification, time intermediation, or denomination intermediation. Since Chonse's reference rate is the curb rate, its inefficiency can be measured by the spread between the curb rate and the corporate bond yield (Table 1, cols. 7 and 9). As already noted, in Korea the corporate bond yield is considered the best proxy to the level of the opportunity cost of capital in the economy.^{20/}

^{20/} See Dornbusch and Park (1987).

IV. RESULTING STRUCTURE OF THE HOUSING FINANCE SYSTEM

A. Sources of Funds for Housing Asset Acquisition

4.01 Considered as financial claims, the volume of Chonse contracts is considerably larger than outstanding institutional lending for housing. The Chonse system was estimated on the basis of simple ratios to be about 5.5 times larger than the residential mortgage loans outstanding in the institutional housing finance system in 1980.^{21/} The results of the KRIHS survey of household assets also indicate that Chonse funds used in the purchase of housing were five to six times larger than the volume of mortgage lending provided by KHB in 1986. Table 2 provides the first overview ever taken of housing finance strategies followed by households at various income levels in Korea. While the situation might be different from twenty years ago, this table gives a comprehensive view of the funds available to finance housing in 1986. Its limitation is to aggregate flows of funds across four different categories of buyers: first-time buyers; owners who are moving up; those lucky enough to get a mortgage loan and the vast majority of those who don't. Otherwise, the large role of informal finance Table 2 is quite clear. The fragmented nature of the financing of housing is also very conspicuous: 13 sources of funds need to be listed. A variety of informal sources are used: returned Chonse funds (column 2), kye (ROSCA, column 4), curb market loans (column 9), Chonse deposit from renters (column 10). The composition of financing for the highest and the lowest income groups among buyers is presented in Figures 3.a and 3.b. The data supports very well the theoretical analysis: high-income groups are heavily asset-dependent and lower-income buyers are more dependent on Chonse. In both cases, financing appears more fragmented than it really is because individual strategies can differ significantly. Such strategies can be understood better through an analysis of the sub-population of buyers who get a KHB mortgage loan.

B. Coping With Rationed Mortgage Lending: The Household Hunt for Funds

4.02 As Table 2 shows, it takes skill and hard work to put together the financing of a housing unit. Even those who have access to mortgage loans have difficulties because the loan-to-value ratio offered by KHB is low.

^{21/} At the time of the 1980 Census, the total stock of housing (urban and rural) was 7.9 million units. 58.7% of the units were owner-occupied, 23.9% were under a Chonse contract, 15.3% were under monthly rental and 1.9% were under other arrangements such as free employee housing. Additional Chonse contracts in shared dwelling units are not captured by the Census which focuses on units and the tenure contract of its primary occupant. At that time the urban ratio of housing units to households was as low as 59% percent. In other words, 31% of all urban households had only partial use of their units and had to share them with others. Census data and housing surveys show that crowding in rental units is very frequent for low-income groups. A similar analysis will be done with the recently published 1985 housing census.

Table 2: KOREA: SOURCES OF FUNDS FOR HOUSING PURCHASES BY HOUSEHOLD INCOME LEVEL FOR ALL HOUSEHOLDS, 1986

HH INCOME\ 10,000 WON\	SALE OF PREVIOUS HOUSE (1)	RETURNED CHONSEI DEPOSIT (2)	SAVINGS & SECURITIES (3)	KYE (4)	SALE REAL ESTATE (5)	KHB LOAN (6)	FORMAL LOAN (7)	WORK PLACE LOAN (8)	CURB MARKET LOAN (9)	CHONSEI1 DEPOSIT FROM RENTER (10)	ASSISTANCE FROM PARENT OR RELATIVE (11)	WORK PLACE GRANTS (12)	OTHERS (13)	TOTAL
1-10	11.9	23.9	31.3	6.0	1.5	4.5	0.0	0.0	6.0	3.0	3.0	1.5	7.4	100.00
11-20	11.9	23.8	27.7	8.9	5.6	2.6	1.0	0.3	6.9	1.7	5.6	0.3	3.7	100.00
21-30	8.6	26.3	28.8	8.1	3.7	1.8	1.8	0.4	4.7	4.6	7.8	0.4	3.0	100.00
31-40	10.5	22.5	29.3	8.9	2.6	2.5	2.8	1.4	5.4	4.5	7.3	0.2	2.1	100.00
41-50	12.7	18.9	29.5	9.4	2.9	3.8	2.6	1.3	4.9	5.3	5.8	0.2	2.7	100.00
51-70	16.2	15.5	26.4	8.3	3.0	4.9	3.9	0.6	5.0	6.3	7.1	0.2	2.6	100.00
71-100	18.3	13.0	26.5	7.4	3.8	8.6	2.4	1.1	4.1	6.2	6.4	0.3	1.9	100.00
over 100	23.9	7.1	29.5	6.7	4.5	3.4	6.3	0.4	2.6	7.1	6.0	1.2	1.3	100.00

Source: Research on Policies to Strengthen the Housing Finance System.
Interim Report, December 1986, Based on New KRISH Survey, p. 69.

FIGURE 3.a

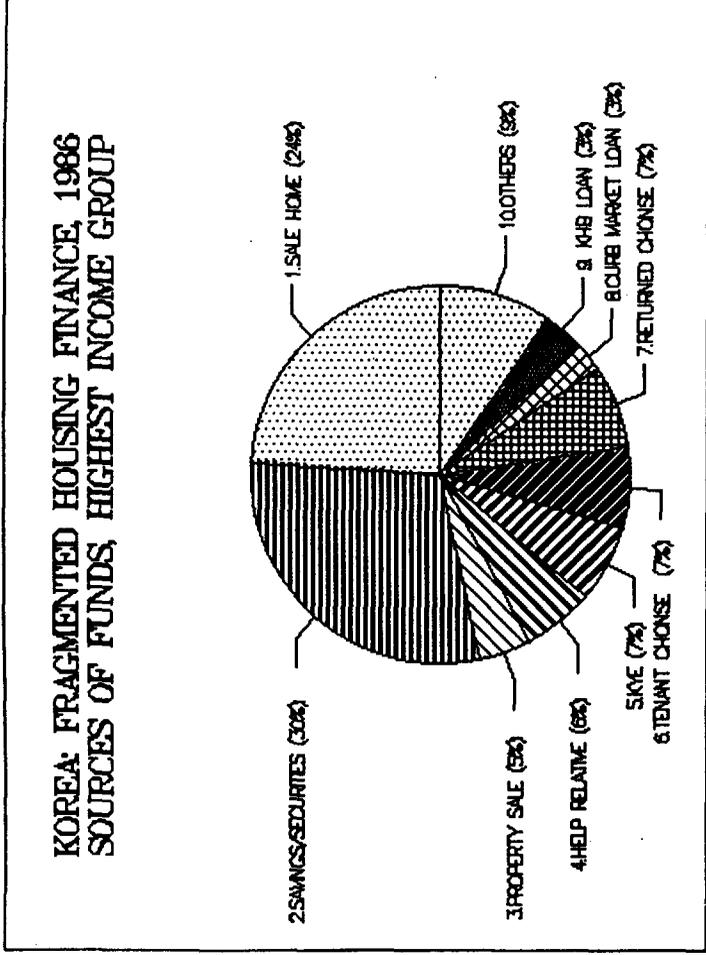
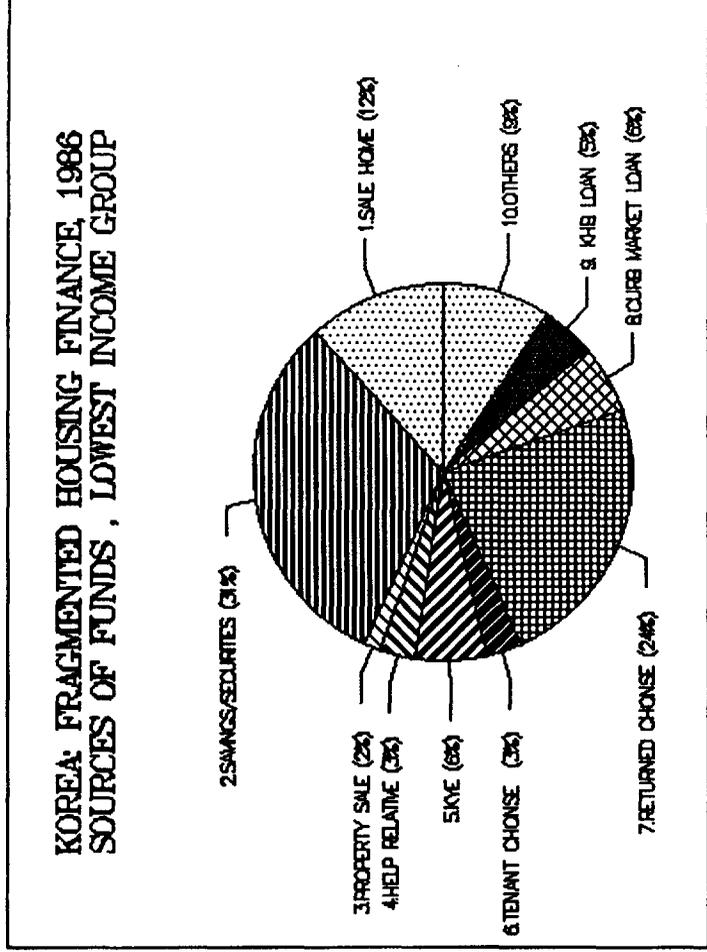


FIGURE 3.b



Institutional lending is further restricted to a favored market segment: units must be less than five-year old and they must be under 82.5 m² in size. Using the KHB's 1985 survey of its borrowers, it is possible to rank the most successful strategies followed by this favored minority of households. Two tables are provided covering first-time buyers and previous owners that are trading-up. These tables have the same structure. Borrowers are regrouped according to the composition of their financing from eight major sources of funds. Strategies are ranked in descending order of frequency (Column 9). For each group the tables gives mean household income (10), the price of the unit (11), the down payment (12), the loan-to-value ratio (13) and the ratio of the price of the unit to the annual income of the household (14). While based on Korea, these tables on sources of funds are expected to be typical of economies where the supply of mortgage finance is significantly rationed. It is also typical of this mortgage rationing and consistent with the earlier analysis of constrained tenure choices to find that KHB borrowers are more often previous owners (53.2 percent) than first-time buyers (46.8). This happens in spite of the fact that KHB is a public sector bank whose social priority is to encourage first-time ownership.

4.03 The critical role played by Chonse for first-time home buyers in Table 3.a is very evident. These new buyers rely heavily on their returned Chonse (Row 1). Buyers who rely exclusively on a KHB loan and their assets are not exploiting fully the collateral value of their housing and therefore have the lowest price/income ratio (Row 2). As could be expected, given the range of unit values available on the market, buyers with the highest price/income ratios are those taking the Chonse deposit of a renter to realize fully the collateral value of their unit (Row 3). They become jointly landlords and owners, reduce their housing consumption and maximize expected capital gains. Asset transfers from relative are very large when they take place and also lead to high price/income ratios (Rows 4 and 6). It must be noted that unit-value/income ratios are high in Korea by international standards. Average market ratios of the order of 3.0 are found in well functioning housing markets with fully developed housing finance systems. Within a given market, these ratios vary as shown by the Korean data and housing taxation can play a significant role in this regard.

4.04 The case of previous owners is presented in Table 3.b. A very high proportion of 43 percent rely strictly on housing capital gains when they are trading-up (Row 1). Those who exploit the collateral value of their new purchase either by taking a Chonse renter (Row 3) or additional loans (Row 4 and 5) aim at a high price/income ratio, in some cases as high as 6.4.

C. Overall Structure of the Housing Finance System

4.05 The structure of the total housing finance system for 1984 is presented in Figure 4 based on data compiled from various sources. Compared to Table 2 which is based on 1986 data, Figure 4 appears to overstate the contribution of institutional finance to the housing sector: according to the 1986 survey, KHB loans would have been much less than 8 percent of total funds (see Table____, column 6). However, the main implications of Figure 5 are robust. The Korea institutional housing finance system is small and limited to a few specialized

Table 3.a: KOREA: STRATEGIES FOLLOWED BY HOUSEHOLDS TO PURCHASE HOUSING; FIRST HOME BUYERS

Strategies	KHB Loan (1)	Sale of Previous House (2)	Returned Chonseil Deposit (3)	Financial Savings (4)	Assistance from Parent or Relative (5)	Loans from Financial Institute (6)	Chonseil from Renter (7)	Others (8)	Frequency		Household Income (Mean) (10)	Price of Structure (Mean) (11)	Amount of Downpayment (Mean) (12)	Loan-to Value (%) (Mean) (13)	Price/ Income (Yr.) (Mean) (14)
									N (9)	Y					
1	596.06 (30.08)		601.55 (28.39)	949.55 (41.53)					317	49.30	52.20	2147.15	1551.09	30.08	3.89
2	596.91 (29.61)			1683.52 (70.39)					97	15.09	62.19	2280.42	1683.52	29.61	3.69
3	696.21 (28.08)		433.94 (17.25)	1046.36 (38.63)			428.64 (16.04)		66	10.26	43.55	2605.15	1908.94	28.08	5.51
4	583.85 (25.61)		632.69 (23.66)	821.95 (30.60)	527.08 (20.13)				65	10.11	52.65	2565.57	1981.72	25.61	4.75
5	600.00 (28.64)		637.56 (25.86)	743.41 (28.87)		488.05 (19.31)			41	6.38	53.22	2469.02	1869.02	25.96	4.52
6	645.31 (29.05)			926.97 (37.05)	876.75 (33.90)				32	4.98	42.75	2449.03	1803.72	29.05	5.34
7	640.00 (28.64)		445.20 (19.78)	712.40 (29.18)				547.20 (22.40)	25	3.89	52.76	2344.80	1704.80	28.64	4.19
									643	100					

Source: KHB, Survey of the Housing Units Financed by the KHB, 1985.

November 3, 1988

Table 3.b: KOREA: STRATEGIES FOLLOWED BY HOUSEHOLDS TO PURCHASE HOUSING: PREVIOUS OWNERS

Strategies	KHB Loan (1)	Sale of Previous House (2)	Returned Chonseil Deposit (3)	Financial Savings (4)	Assistance from Parent or Relative (5)	Loans from Financial Institution (6)	Chonseil from Renter (7)	Others (8)	Frequency		Household Income (Mean) (10)	Price of Structure (Mean) (11)	Amount of Downpayment (Mean) (12)	Loan-to- Value (%) (Mean) (13)	Price/ Income (yr.) (Mean) (14)
									N (9)	X					
1	618.25 (25.86)		1989.20 (74.14)						315	43.09	58.83	2607.45	1989.20	25.86	4.37
2	630.26 (23.44)		1554.47 (52.70)		705.68 (23.86)				304	41.59	60.18	2890.42	2260.15	23.44	4.63
3	712.50 (21.74)		1751.09 (46.03)		753.44 (20.24)		434.22 (11.99)		64	8.76	53.11	3651.25	2938.75	21.74	6.43
4	608.33 (19.06)		1684.17 (49.22)		522.50 (16.99)	462.50 (14.74)			24	3.28	61.04	3277.50	2669.17	19.06	5.02
5	531.25 (21.05)		1486.67 (51.50)			780.42 (23.37)			24	3.28	56.33	2790.33	2267.08	21.05	4.58
									731	100					

Source: KHB, Survey of the Housing Units Financed by the KHB, 1985.
November 3, 1988

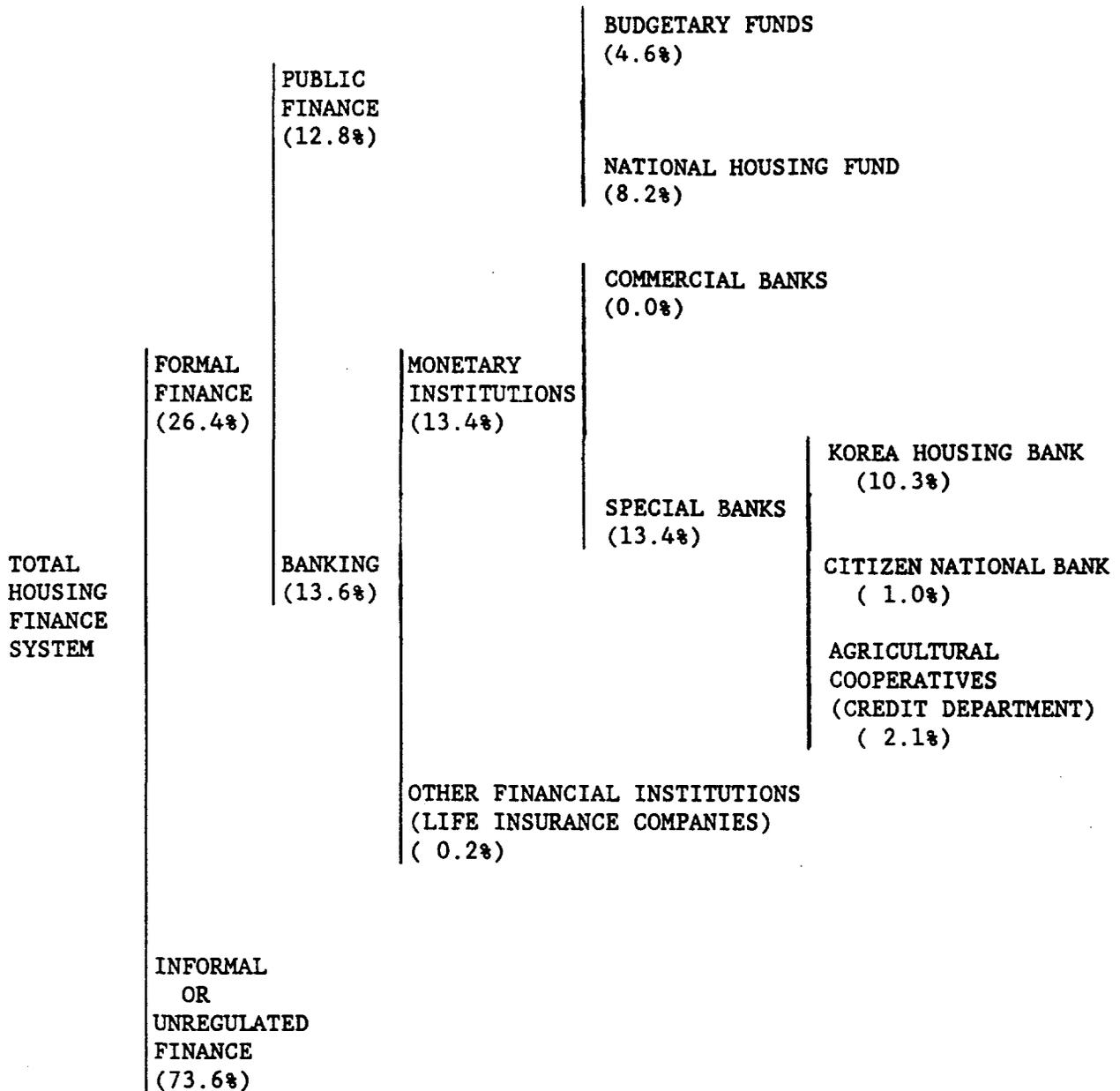
lenders. The Korea Housing Bank has a de facto monopoly position because it also manages public finance funds, and commercial banks have no activity at all in residential mortgage lending. The potential benefits from financial liberalization in the sector can be judged by the large value of outstanding Chonse contracts. With the high rate of domestic savings now achieved housing finance diversification is highly feasible both in terms of additional institutions and in terms of types mortgage instruments to meet the differentiated needs of various social groups. In 1984, institutional sources provided only one-fourth of the funds required for new housing alone without speaking a transactions for existing units. The informal market provides the balance. Within the formal sector, public finance sources such as the budget and national housing funds deposit schemes provided one-half of the mortgage lending.

4.06 Since Korean households have been using Chonse as a substitute to contractual savings at a bank, this raises the question of why banks would not offer savings contracts that are competitive, safer, and more convenient than Chonse. Because of controls on lending rates and direct Ministry of Finance guidelines, commercial banks have not lent to households and most of the unincorporated sector. On the other hand, since the mid-1970s the Korea Housing Bank was allowed to offer a saving instrument competitive with the curb market: the Worker Asset Formation Savings Deposit (WAFD). These accounts have offered interest rates of the order of 24 percent per annum depending on the exact terms of the deposit contract, providing very high real yields in recent years. The WAFD is heavily subsidized by the government since KHB funds only between 7.5-8.0 percent of the interest payments and the government pays the balance. Maximum limits are currently imposed on the income of the savers. WAFD became a major source of deposits for KHB during the high inflation period. However, during that very same period of extreme credit allocation the KHB balance sheets show that it had to redeposit a high share of its funds with the National Investment Fund (NIF) to be used for the heavy industry investment program and other "policy loans". There could hardly be a clearer case of mortgage rationing.

4.07 Since the beginning of financial liberalization, the terms of WAFD have been made less attractive to savers through the income ceiling and the scheme has been made available to other banks, especially Citizens National Bank which is rapidly becoming the bank of the household sector. WAFD deposits still represented about 14 percent of KHB deposits and 17 percent of its loanable funds in 1985. With the end of forced redeposits into the NIF and high real return on deposits KHB has been able to increase its mortgage lending steadily. Nonetheless, KHB is still managing a policy-induced shortage of funds.

4.08 The institutional housing finance system remains highly segregated from the rest of the financial sector. The level of the mortgage rate offered by KHB is still typical of a severely rationed mortgage system and remains a barrier to entry into the sector either by banks or non-bank financial institutions.

FIGURE 4: STRUCTURE OF THE HOUSING FINANCE SYSTEM IN KOREA (1984 FLOWS)



Sources: These estimates are based on various sources, including Bank of Korea, Economic Statistics Yearbook, 1985; KRIHS A Study on Housing Problems (1985) and World Bank, Korea Housing Finance System, June 1986 (5807-KO).

The spread between the mortgage rate and the curb market is still large as seen in Figures 5.a and 5.b. What matters more for the liberalization of housing finance is that the spread between the mortgage rate and corporate rate have been closing (See Table 1, cols. 8 and 9 and also Figure 5.b). There are now significant opportunities to displace the costly curb market financing of housing with efficient mortgage loans.^{22/}

^{22/} See Renaud (1986)

V. IMPACTS OF CHONSE AND BENEFITS OF PROGRESSIVE
FINANCIAL LIBERALIZATION

A. Impacts of Severe Mortgage Rationing and Curb Market Rates

"The nineteenth-century invention of the amortized loan is of such importance in housing economics that it should rank with the invention of the steam engine in changing the face of Britain" (A.A. Nevitt, 1966).

5.01 Chonse clearly is a useful instrument from the viewpoint of meeting important financial needs not satisfied by institutions. Unfortunately, it also has undesirable features. The operations of the real estate market in Korea are asset-based, and low-income households are negatively affected. This trait is common to most developing countries. It may be that in Korea, Chonse alleviates more of the impacts of policies rationing the non-corporate sector than in other economies. Possibly, inequalities may become even wider in countries where similar systems have not develop, or did so on a much smaller scale. In any case, in Korea we can observe two kinds of distributive distortions: intra-sectoral distortions within the housing sector, and intersectoral distortions in investment allocation across sectors.

Distortions Within the Housing Sector

5.02 Economic and financial efficiency are not the only concerns in the area of non-corporate finance: the performance of the housing sector also has distributive implications. The questions of equity and what to do with credit subsidies are ever present. As banking systems now stand in developing countries, it is clear that informal finance provides services that are essential to the housing of low and middle income households. What needs to be discussed further is the extent to which such informal finance services while solving urgent problems may have negative dynamic impacts on both household wealth distribution and income distribution.

5.03 The degree to which the three basic tenure groups of owners, Chonse tenants and pure renters becomes more sharply segmented in periods of high inflation and/or rapid real estate appreciation has not yet been well documented. However, the evidence on the composition and allocation of the housing stock fits the conceptual analysis well. In the context of rapidly rising living standards, in particular, it is a well documented fact that relative rental conditions at the bottom end of the housing market have been worsening in most cities, particularly the large ones.^{23/}

^{23/} Conditions in rental housing markets have been extensively documented in several studies made by the Korean Research Institute on Human Settlements (KRIHS) attached to the Ministry of Construction and the Korea National Housing Corporation in 1980 and 1985. In particular, see KHRIS (1985), chapter 4.

5.04 Direct public assistance to the lowest income groups is part of public policy. Subsidies to housing exist in every country in the world for various reasons, but they do not necessarily achieve their intended redistributive objectives. Essentially, subsidies to housing can be provided through three main channels: direct up-front subsidies (in-kind through subsidized input prices or up-front through fiscal grants), through the taxation system, and through the financial system. Among these three alternatives credit subsidies are the most problematic. In particular, preferential lending rates have often been mandated to promote politically desirable activities or to benefit marginal groups. These preferential lending rates are often rationalized on the basis of high or "usurious" interest rates in the informal markets. Unfortunately, in country after country the findings are that housing subsidies through credit are regressive and favor the better off. This finding is very similar to the experience with rural credit which is one of the other major components of non-corporate finance.^{24/} Moreover, among all forms of credit subsidies to various sectors, it can be argued that housing credit subsidies are the least efficient due to the long maturity of housing mortgage loans which leverages the negative impacts of such subsidies. Credit subsidies favor the largest borrowers and they are also much less transparent than well targeted open subsidies.

5.05 If, as the Korea case shows, mortgage rationing and informal housing finance also tends to lead to regressive distribute results, financial policies toward households and their main asset, housing finance policies have little choice but to walk a narrow path toward neutrality. These neutral financial policies would be policies which neither aim to provide housing finance services at subsidized interest rates nor attempt to ration the household sector out of institutional finance services.^{25/} Practical actions need to fit the political reality and financial history of each country.

Distortions Across the Economy

5.06 The deliberate rationing of banking services to the household sector was compounded by inflation until 1982. Looking at the stock of wealth, the impact of this rationing is apparent through a comparison of the National Wealth Surveys of 1968 and 1977. Contrary to what one would expect in a rapidly developing economy, but consistent with financial repression which was particularly severe in the late 1970s, the share of financial assets in total

^{24/} For a good analysis of rural credit issues see Dale W. Adams, Douglas H. Graham and J.D. Von Pischke. Undermining Rural Development with Subsidized Credit, Westview Press, 1988. In particular, see Claudio Gonzales-Vega's two chapters on "the Iron Law of Interest-Rate Restrictions" and "Cheap Agricultural Credit: Redistribution in Reverse". For a recent paper on the impact of government intervention see C. Bell, T.N. Srinivasan, and C. Udry "Agricultural Credit Markets in Punjab: Segmentation, Rationing and Spillover," unpublished paper, June 1988.

^{25/} For an elaboration on the Korean case, see Renaud (1986).

wealth fell from 20.69 percent in 1968 to 16.2 percent in 1977.^{26/} Of equal interest is the fact that the share of residential buildings fell from 23.8 percent to 15.1 percent during this period which has been the most massive period of urbanization that Korea will ever know.

5.07 Looking at annual investment flows, careful estimates integrating national accounts data, National Wealth Survey data and sectoral censuses indicate that the national real gross capital stock expanded at an average rate of 9.72 percent between 1960 and 1985. However, the dwelling stock expanded the slowest of all major sectors at 6.85 percent.^{27/} This low growth contrasts with the high urban population growth and large income gains which are two primary determinants of the demand for housing. In Korea the rate of increase in number of dwellings has fallen noticeably behind the sum of the urban population growth rate and the household real income growth rate over the period. This is true even after adjusting for an income elasticity estimate of demand of 0.7 which is the median estimate for Korea so far and taking into account a low price elasticity which is estimated at around 0.2 (the more significant user-cost elasticity still remains to be estimated).

5.08 This evidence of housing investment rationing is fully consistent with the Kim (1987) findings of a market segmentation between the real estate sector and the rest of the capital markets where his estimates for the real rate of return to housing for both single family units and multiple family units exceeded by 40 percent to 50 percent corporate bond yields which are the best indicators of the financial cost of capital in Korea. As long as the curb rate is the reference rate for housing and interest rate discrimination between curb markets and institutional markets exists, this will continue to happen. Under unsegmented investment markets the yields should be much closer. Moreover, financial policies have interacted with rigid regulatory policies in the urban sector to restrict the supply of housing and prevent a more satisfactory allocation of resources across sectors of the economy.^{28/}

Economic Reforms and Trends Toward Increasing Market Integration

5.09 An analysis of the Chonse system cannot ignore the rapidly improving financial environment, especially since 1982. Macroeconomic reforms have successfully interacted with the move toward financial liberalization which began in the non-bank financial sector and included divestiture of government ownership of commercial banks, widening of interest rate bands, positive real deposit rates, and a rapid expansion of securities market. The financial economy adjusts more rapidly than the real economy to changing monetary policies, interest rate policies and the degree of price stability. Since the rapid and successful implementation of these policies during the period 1980-84, including cautious liberalization, the growth of the institutional finance sector has been extremely rapid. Inflation has fallen from 28 percent in 1980 to less than 3

^{26/} See J.H.K. Han (1987)

^{27/} See Hak K. Pyo (1987).

^{28/} See Renaud (1988).

FIGURE 5.a

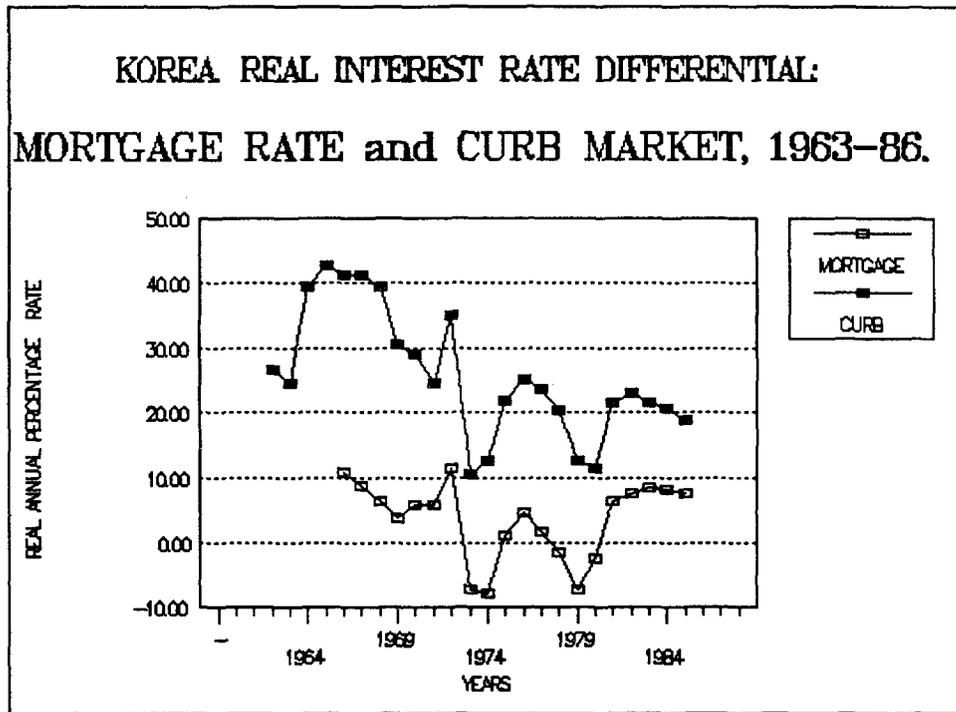
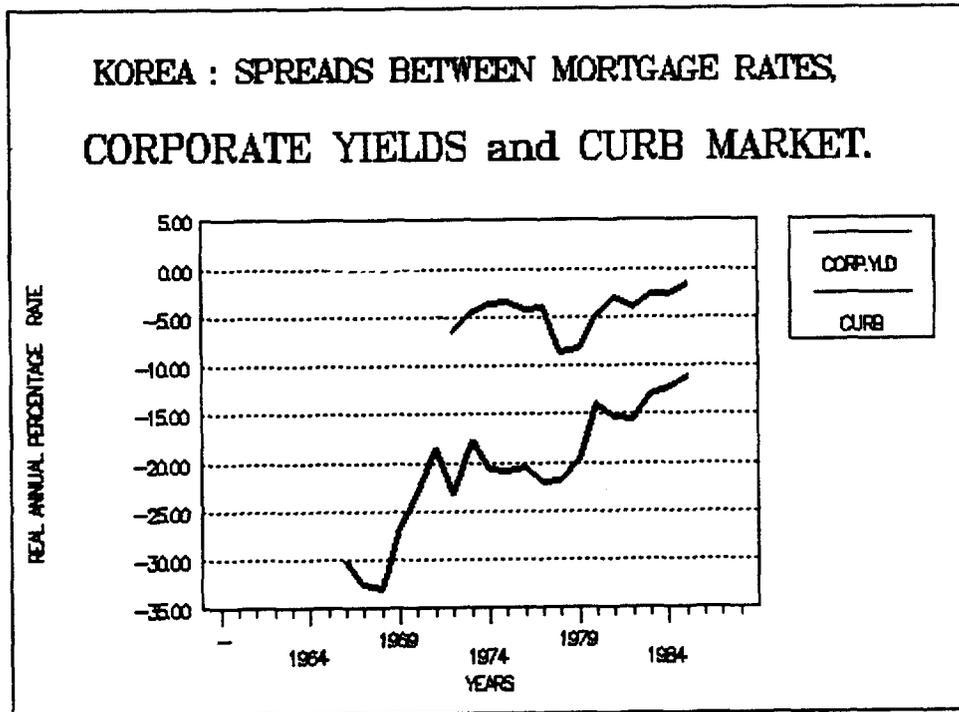


FIGURE 5.b



percent until 1987 (See Figure 6.b). Real rates on time deposits have risen sharply from -7.1 percent in 1980 to 7.0 percent in 1984 and are now high by international standards, reflecting in part the troubled commercial banking system with its low net worth and portfolio of bad loans from the late 1970s.

5.10 A most significant adjustment in household debt composition is the move away from informal markets which ceased to be the dominant source of funds for the first time in 1985, as follows:^{29/}

Source of loans \ Year	1981	1982	1983	1984	1985	
Financial Institutions	20.0	30.1	38.5	43.0	50.4	%
Unregulated Markets	9.7	69.2	61.0	56.3	49.0	%
Others	0.3	0.7	0.5	0.7	0.6	%

Nonetheless, restrictions on mortgage financial services to households remain significant. The benefits of this cautious liberalization seem to have been reaped mostly by the upper income households (top 20 percent) who diversified their assets away from real estate. For the majority of urban households, mortgage debt as a key operational variable in meeting asset diversification objectives is not yet a factor in Korea. Korean household portfolios remain quite incomplete. Only a few class of assets are held by most households. They still face serious problems of asset indivisibility, high transaction costs, asset management costs, and tax effects. In spite of its financial inefficiencies and rigid links to housing collateral, Chonse remains the leading debt instrument.

Housing Markets in an Open Economy: Sensitivity to the Current Account

5.11 Only a small proportion of housing finance comes from monetary institutions and there is great housing market dependency on liquidity. With the appearance of a current account surplus, the conduct of monetary and financial policy is now moving from the management of scarce funds to that of a competitive allocation of funds. This causes some transitional problems. In the housing sector this transition has been marked by a sharp rise in housing prices in 1987 which contrast with continuing overall price stability. (See Figures 6.a and 6.b).

^{29/} Citizen National Bank, Annual Survey on the Utilization of Household Finance, 1981 to 1985, Seoul. See J.H.K. Han, 1987, Table 17, p.31.

FIGURE 6.a

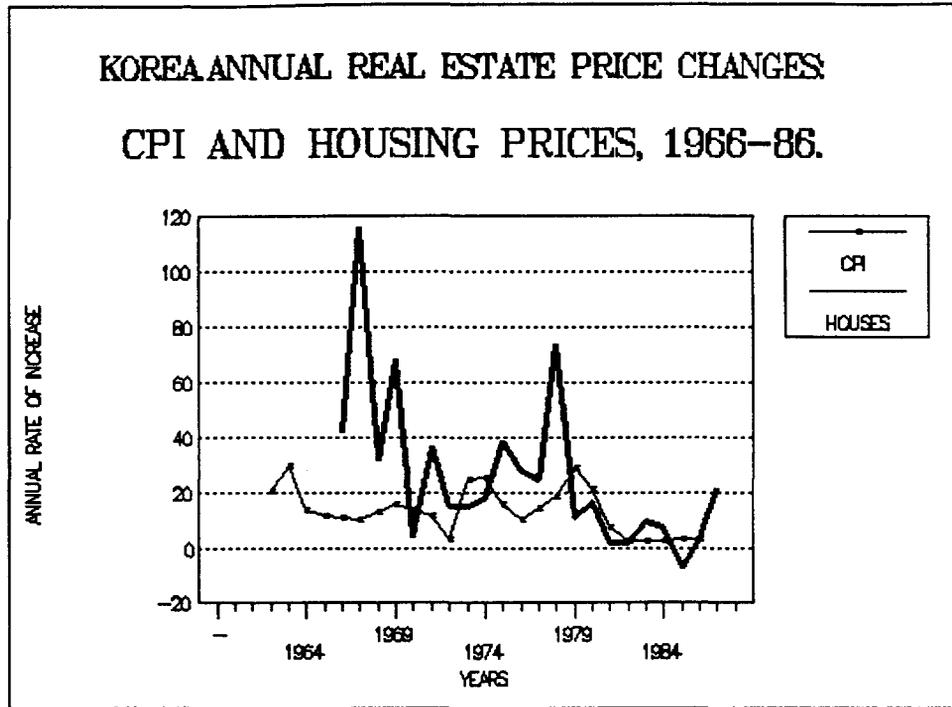
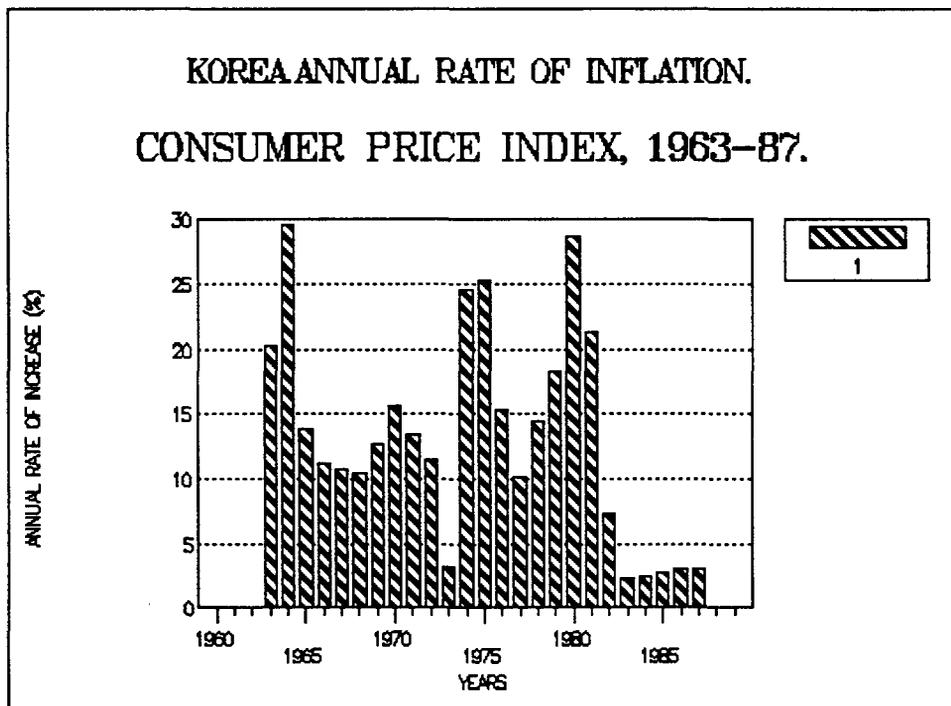


FIGURE 6.b



B. Benefits of Progressive Housing Finance Liberalization

5.12 If we define credit rationing by the fact that the after-tax cost of mortgage debt is lower than the after-tax cost of own equity this is still very much the case in Korea. Given the structure of retail savings markets and its public sector constraints, it may be difficult for the Korea Housing Bank to change its lending structure quickly. On the other hand, mortgage lending by non-bank financial intermediaries at market cost seems to be a very promising route to liberalize the housing finance system in Korea. As noted in another paper, the urban policy regulatory framework also needs to be adjusted and the structure of real estate taxation need to be fully integrated into an overall fiscal strategy from the sector. Housing finance policies interventions need to move away for a piecemeal ad hoc approach that is lacking in long-term consistency and effectiveness.

Does Rationing Mortgage Supply Stimulate Additional Household Savings?

5.13 A rejoinder to liberalization is the question whether rationing the supply of mortgage services is favorable to higher rates of household savings. After all, the Korean case shows clearly that households must accumulate large amount of savings prior to achieving ownership. This question has been addressed for Japan twice recently. In both cases, the answer given has been: no, rationing the supply of mortgage loans does not appear to have been responsible for the accelerating rate of savings by Japanese household. Household savings seem to have been most strongly influenced by the rate of income growth and a strong bequest motive.^{30/} What appears to be happening is that under severe mortgage rationing as in Japan or Korea, is that the life-cycle pattern of savings is affected. From a theoretical viewpoint, households are prevented from optimizing their saving-consumption pattern from period to period over time. This evidence comes in addition to the finding of intersectoral and intrasectoral investment distortions when mortgage lending is severely rationed. The desirability of neutral housing finance policies is reinforced.

What Place for Housing Finance in Domestic Liberalization?

5.14 In Korea, like in many other countries, the extensive structure of specialized banks has acted as a substitute for adequate secondary facilities and large securities markets. Liberalization policies invite a review of these specialized institutions. Because housing banks like KHB represent a small part of total banking assets of specialized banks there has been a tendency to postpone thorough analyses of the specialized housing finance sub-subsystem and to delay discussion of the role of public banks like KHB. In that regard, the question of the order of liberalization of the financial system is an interesting one. It can be argued that housing finance liberalization (especially through mortgage pricing-to-market) could precede liberalization in other areas of the banking system owing to housing's collateral quality and associated lower credit risk premium. At the same time it must be recalled that such housing finance

^{30/} See Hayashi, Ito, Slemrod, NBER (1987) and Horioka, NBER (1988).

reforms are not merely financial reforms. The speed and extent of reform will also depend also on the supply of bankable assets. Increasing this supply will require major progress qualitatively and quantitatively in two key areas: tenure security through property registration; sound foreclosure laws and their timely enforcement. The situation, regarding these two bottlenecks varies greatly from country to country. In the case of Korea these two supply constraints are minor, the liberalization issues are essentially a matter of financial policy.

VI. CONCLUSION: TOWARD MORE NEUTRAL HOUSING FINANCE POLICIES

6.01 This paper has aimed to go beyond the mere description of Chonse as an interesting informal financial instrument. Through an analysis of its dynamics, the paper has also shown the information feedbacks on financial policies that informal finance can provide. Informal instruments like Chonse reflect the selective credit policies and interest rate controls used by a country. The evidence in Korea is that the household sector and unincorporated small business firms have responded very creatively to the failure of the banking system to provide them with the services they wanted. However, severe mortgage rationing has had serious negative effects in the form of intrasectoral investment distortions. In spite of overall improvement in housing conditions, there has been a relative deterioration of housing conditions for the lower-income groups. Because the operation of rental and investment markets are asset-based, there has been an increasing inequality of access to housing services. Financial policies have played a key role in this situation as shown by the post-1980 household portfolio changes made by upper income groups after the expansion of capital markets.

6.02 From an equity point of view, reducing the severe rationing of mortgage loans to the housing sector will also have an indirect benefit by freeing scarce public resources to address the basic needs of the lowest-income households. There is an issue of policy imbalance when public finance sources represent 50 percent of the total supply of mortgage lending for home ownership which does not reach the poorest, at the same time that rental housing markets used by the poor keep getting more crowded. Accentuating directed credit would not solve the problem. Rather a strategy to end mortgage rationing should be an integral part of overall financial policies.

6.03 Due to severe debt constraints on relying on foreign capital, developing countries must successfully develop domestic savings. Household savings are a critical component of the domestic savings markets. Household portfolios are incomplete and dominated by housing. Appropriate policies toward household savings and housing finance will have a critical impact on the mobilization of household savings and financial intermediation. It is also a fact that most developing countries are now going through their peak phase of urbanization. Major benefits could be obtained for the efficiency of the entire economy and the mobilization of household savings by developing (i) financial policies, (ii) tax policies and (3) urban regulatory policies that are mutually consistent. Piecemeal regulatory approaches have been shown repeatedly to have negative long-term effects which might eventually prove difficult to reverse as the urban economy grows larger.

6.04 It is important to note that the expansion of formal housing finance depends on the supply of bankable housing assets through two key public goods: a registration and titling process that keeps up with the rapid expansion of cities, and enforceable mortgage contracts including effective foreclosure laws. Without them, the potential collateral efficiency of housing will be either diminished or dissipated. In the case of Korea, this is not an obstacle to the rapid development of a modern housing finance system. The main structural factor

which could defeat the benefits of expanding the formal housing finance system are very restrictive urban planning and zoning policies which significantly restrict the supply of urbanized land and therefore housing. Unless urban planning regulations are improved, an inelastic supply of housing could merely lead to the capitalization of the efficiency gains of a better housing finance system into higher property values, instead of improving access to middle and lower income household to housing.

6.05 The analysis of Chonse also points at two premises which are not always included in the analysis of urban development. The first one is that both financial policies and urban regulatory policies have at least as much to do with the observed efficiency of the developing city as mere physical and economic characteristics such as population density or per capita income. The second is that, above a minimum threshold of financial development the market share of informal housing finance is more a measure of the inadequacy of financial sector policies than a reflection of minimum economies of scale or of scope in providing financial services to the sector. The analysis of informal housing finance services currently in place can therefore provide crucial information about desirable policy reforms. Anecdotal evidence from Asia, Latin America and Africa suggest that techniques like Chonse are widespread. Unfortunately, such informal finance is not yet well documented in most countries.

Features of Real Estate Speculation Control Measures and Housing Industry Reactivation Measures

Table 3

Year	Measures	Main Features	Remarks																
1960s	Special Tax Measures Regarding Real Estate Speculation Control (Nov. 29, 1967)	<ul style="list-style-type: none"> •50% Tax imposition on transfer of lands •Tax imposition of vacant lands of 2-more years and on land exceeding 10 times constructed floor spaces •Tax coverage: Seoul, Pusan and other areas designated by Presidential Decree 																	
1970s	Notice of Special Areas (1978)	<ul style="list-style-type: none"> •First Notice: 158 Donga (Feb. 15, 1978) •Second Notice: 205 Donga (July 10, 1978) 																	
	August 8 Real Estate Speculation Control Measures (1978)	<table border="1"> <thead> <tr> <th>Classification</th> <th>Before Aug 8 Measure</th> <th>August 8 Measure</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>Transfer income tax</td> <td>30%</td> <td>50% (100% on unregistered resale, 40% additional tax on within-2-year-sale)</td> <td>Not applied</td> </tr> <tr> <td>Registration system</td> <td>•Contract and legal seal certificate •Effective for 3 months</td> <td>•Legal seal for sale effective for 1 month •a copy to tax office</td> <td>Applied</td> </tr> <tr> <td>Broker system</td> <td>•Report</td> <td>•License</td> <td>Not applied</td> </tr> </tbody> </table>	Classification	Before Aug 8 Measure	August 8 Measure	Results	Transfer income tax	30%	50% (100% on unregistered resale, 40% additional tax on within-2-year-sale)	Not applied	Registration system	•Contract and legal seal certificate •Effective for 3 months	•Legal seal for sale effective for 1 month •a copy to tax office	Applied	Broker system	•Report	•License	Not applied	
	Classification	Before Aug 8 Measure	August 8 Measure	Results															
	Transfer income tax	30%	50% (100% on unregistered resale, 40% additional tax on within-2-year-sale)	Not applied															
	Registration system	•Contract and legal seal certificate •Effective for 3 months	•Legal seal for sale effective for 1 month •a copy to tax office	Applied															
Broker system	•Report	•License	Not applied																
		<ul style="list-style-type: none"> •According to revision of Income Tax Law in Dec. 30, 1978, 50% Transfer Income Tax was levied on general houses owned for 2 years, 70% for less than 2 years and 100% on resale without registration 																	
	Regulations on permission and report of land transactions (Dec. 5, 1978)	<ul style="list-style-type: none"> •Revision of National Territory Use Management Law controlled areas for land transactions were designated •Designation of vacant areas. It was encouraged to develop the areas 																	
1980s	June 26 Housing Industry Reactivation Measures (1981)	<ul style="list-style-type: none"> •Reduction of Transfer Income Tax rate •Partial lift of control on price of houses sold on a large scale •Removal of obligation to construct more than 50% of citizens' houses 																	
	Removal of Special Areas (July 1, 1981)	•Removal of 363 Donga notified in 1978 and 4 apartment areas																	
	January 4 Housing Industry Reactivation Measures (1981)	<ul style="list-style-type: none"> •Flexible tax rate on Transfer Income Tax was extended from September 1982 to March 1984 •100% tax exemption on owners of residential site •Financial support for house-purchase (300 billion won) •Expanded supply of building site by public organizations such as Land Development Corporation (Designation of possible areas for land development in 41 cities, amounting to 8.1 million pyungs) 																	
	May 18 Housing Measures (1981)	<table border="1"> <thead> <tr> <th>Classification</th> <th>Before May 18 Measures</th> <th>After May 18 Measures</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Transfer Income Tax</td> <td>•15%-35% of real tax rate •50% tax reduction on lands except apartment area</td> <td>•5% of transfer tax rate on sale of newly built house by first owner</td> <td>Applied</td> </tr> <tr> <td>Acquisition Tax, Registration Tax</td> <td>•Acquisition Tax 2% •Registration Tax 3%</td> <td>•30% reduction of Acquisition and Registration Taxes on houses</td> <td>Applied</td> </tr> <tr> <td>Covered House</td> <td>•One house per household</td> <td>•One house per household</td> <td>Applied</td> </tr> </tbody> </table>	Classification	Before May 18 Measures	After May 18 Measures	Remarks	Transfer Income Tax	•15%-35% of real tax rate •50% tax reduction on lands except apartment area	•5% of transfer tax rate on sale of newly built house by first owner	Applied	Acquisition Tax, Registration Tax	•Acquisition Tax 2% •Registration Tax 3%	•30% reduction of Acquisition and Registration Taxes on houses	Applied	Covered House	•One house per household	•One house per household	Applied	
	Classification	Before May 18 Measures	After May 18 Measures	Remarks															
Transfer Income Tax	•15%-35% of real tax rate •50% tax reduction on lands except apartment area	•5% of transfer tax rate on sale of newly built house by first owner	Applied																
Acquisition Tax, Registration Tax	•Acquisition Tax 2% •Registration Tax 3%	•30% reduction of Acquisition and Registration Taxes on houses	Applied																
Covered House	•One house per household	•One house per household	Applied																
	June 28 Economy Activation Measures (1982)	<ul style="list-style-type: none"> •Reduction of Corporation Tax: 23.3% — 20% •Reduction of interest rates of banks and nonbanking institutions •Autonomy of commercial banks •Expansion of financing for real occupier of houses 																	

1980s	December 22 Control Measures on Speculation in Houses (1982)	<ul style="list-style-type: none"> •Application of discriminatory house prices on sales in a large scale •Removal of zero rank in savings for eligible house application •Rearrangement of timing of house sales •Encouragement of small-scaled and to-be-rent houses •Extension of restricted period for house sales from six months to 2 years in Seoul and speculated areas •Strengthening of qualification for house application and management of living-in 																				
	February 16 Real Estate Speculation Control Measures (1983)	<ul style="list-style-type: none"> •Recording of counterpart's name and inhabitant's registration number when in transaction in legal seal certificate •Licensing of real estate brokers •Realistic sales and prices of houses according to bond-bidding system •Notice of specially designated areas (really transacted price will be the base for transfer income tax) •Purchase, development and sales of lands by public organization to control price increases and speculations 																				
	Notice of specially designated areas (1983)	<ul style="list-style-type: none"> •First Notice (February 18, 1983): 34 Donga and two apartment complexes such as Apyung-Dong, Kaepo-Dong •Second Notice (March 8, 1983): 29 Donga, seven apartment complexes such as Seocho, Bangbae and Banpo 																				
1980s	Bond-bidding system for sales of apartment houses (March 17, 1983)	•Citizens' house bond to the apartment house less than 25.7 pyung have 2% annual interest rate with 20 years of grace period from May 1, 1983																				
	April 18 Overall House and Land Measures (1983)	<ul style="list-style-type: none"> •Reduction of flexible tax rate period for Transfer Income Tax (from March 31, 1984 to June 30, 1983) <table border="1"> <thead> <tr> <th colspan="4">Comparison of Transfer Income Tax Rate</th> </tr> <tr> <th>Classification</th> <th>Basic rate</th> <th>Flexible rate</th> <th>After July 1983</th> </tr> </thead> <tbody> <tr> <td>House and real estates (owned for more than 2 years)</td> <td>H 30% RE 40%</td> <td>15% 25%</td> <td>15% 40%</td> </tr> <tr> <td>Less than 2 years</td> <td>50%</td> <td>35%</td> <td>50%</td> </tr> <tr> <td>Resale without registration</td> <td>75%</td> <td>75%</td> <td>75%</td> </tr> </tbody> </table>	Comparison of Transfer Income Tax Rate				Classification	Basic rate	Flexible rate	After July 1983	House and real estates (owned for more than 2 years)	H 30% RE 40%	15% 25%	15% 40%	Less than 2 years	50%	35%	50%	Resale without registration	75%	75%	75%
	Comparison of Transfer Income Tax Rate																					
	Classification	Basic rate	Flexible rate	After July 1983																		
	House and real estates (owned for more than 2 years)	H 30% RE 40%	15% 25%	15% 40%																		
Less than 2 years	50%	35%	50%																			
Resale without registration	75%	75%	75%																			
		<ul style="list-style-type: none"> •Considering to adopt overall land property tax system •Encouragement by public sectors to expand residential sites in cities •Administrative guide to refrain from non-business land by enterprises •Tight money policy to control M2 																				
	Report of land transactions (Dec. 20, '84)	•For 5 years in Kyungki, Choongnam and Choongbuk Provinces (from Dec. '84 to Dec. '89)																				
	Expansion of report of land transactions (March 28, 1985)	•For 5 years in Seoul, Incheon and Bucheon cities (from March 1985 to March 1990)																				
	Designation of area for land management (June 3, 1985)	•122 Donga and 8 apartment complexes were designated for special management to control speculation by National Taxation Administration Office																				
	September 5 Housing Industry Activation Measures (1985)	<ul style="list-style-type: none"> •Joint development of lands by public and private sectors •Discriminatory sale prices of houses by regions and alleviation of construction controls •Increase of financing for purchase of houses (200 million won) 																				

BIBLIOGRAPHY

- Artle, Roland and Pravin Varaya. "Life Cycle Consumption and Homeownership." Journal of Economic Theory, Vol. 18. 1978, pp. 38-58.
- Babeau, Andre. Le Patrimoine Aujourd'hui (National Wealth Today), 311 pages, Editions Nathan, Paris, 1988.
- Bell, Clive and others. "Agricultural Credit Markets in Punjab: Segmentation, Rationing and Spillover," unpublished paper, June 1988.
- Byon, Yangho. Effects of Financial Liberalization and Monetary Policy in the Presence of Unregulated Money Markets, Ph.D. Dissertation, N. Illinois, 1985. Business Korea. "Korea's Underground Economy," Vol. 4, No. 12, June 1987, pp. 72-73. (Report on Korea Economic Research Institute Study).
- Cho, Joo-Hyun. An Asset-based Theory of Housing Choice Under Credit Constraints: The Case of Korea, M.I.T., Ph.D. Dissertation 1988.
- Citizen National Bank. Survey of Borrowing Households, Seoul, various years.
- Christian, James W. The Contribution of Shelter to National Economic Development, Second International Shelter Conference, Vienna, September 1987.
- Cole, David C. and Park Yung-Chul. Financial Development in Korea, 1945-1978, Harvard University Press, 1983.
- Dornbusch, Rudiger and Yung-Chul Park. "Korean Growth Policy" in Brookings Papers on Economic Activity, Vol. 2, 1987, pp. 389-454.
- Dougherty, Ann and Robert Van Order. "Inflation, Housing Costs, and the Consumer Price Index," American Economic Review, Vol. 71, No. 1, pp. 154-64.
- Federation of Korean Industries. Korea's Economic Policies (1945-1985), Seoul, 1987.
- Han, Jae-Hye Kim. An Empirical Analysis of the Tenure Decisions in Korea, Ph.D. Dissertation, Wharton School of Finance, U. of Pennsylvania, 1987.
- Hayashi, Fumio, T. Ito and J. Slemrod. "Housing Finance Imperfections and Private Saving: A Comparative Simulation Analysis of the U.S. and Japan," NBER Working Paper No. 2272, June 1987.
- Horioka, Charles Yuji. Housing Demand and Saving for Housing in Japan, NBER Savings Conference, Tokyo, January 1988.
- Kim, Choong-Soo. Housing Conditions and Housing Policy Issues, Korea Development Institute, Seoul, 1984, (Korean).

- Kim, Kyung-Hwan. An Analysis of The Inefficiency of Urban Housing Market Investment: The Case of Seoul, Korea. Ph.D. Dissertation, Economics Department, Princeton University, June 1987.
- Kim, Mahn-Je and Byung-Ju Kim. A Study of Money Markets and Industrial Investment Finance, Research Institute for Economics and Business, Sogang University, November 1970, 127 pages.
- Kim, Sangphill and John J. Chai. "Progressive Tax-Based Tenure Choice: A Study of Korean Housing Rentals," International Economic Journal, Vol. 1, No.2, Summer 1987, Seoul.
- Korea Board of Appraisers. Annual Land Price Statistics, Seoul, various years.
- Korea Economic Research Institute. A Study of Korea's Private Financial Market, (Korean), July 1982.
- Korea Housing Bank. Statistical Yearbook of Banking Services, various years.
- Korea Research Institute for Human Settlements. A Study of the Korean Housing Finance System, Seoul, Korea, December 1986, 124 pages (Korean).
- _____. A Study on Housing Problems and Policy Developments in Korea, Seoul, October 1985, 512 pages.
- _____. Housing Policy Development Research, Seoul, Korea, August 1983, 641 pages.
- Lee, Jung-Soo. "Interest Rate Structure in Korea," Seoul, June 1982, unpublished, 40 pages.
- Modigliani, Franco and R. Brumberg. "Utility Analysis and the Consumption Function" in Post-Keynesian Economics, ed. K. Kurihara, Rutgers U. Press, 1954.
- Mohlo, Lazaros E. "Interest Rates, Savings, and Investment in Developing Countries: A Re-examination of the McKinnon-Shaw Hypotheses" IMF Staff Papers, Vol. 33, No. 1, March 1986, pp. 90-116.
- Park Yung-Chul. The Unorganized Financial Sector in Korea, 1945-75. Studies in Domestic Finance No. 28, World Bank, 1976.
- Pyo, Hak K. "The Use of the Polynomial Benchmark Method in the Measurement of Capital Stock: South Korea 1953-1985", Paper Presented to the International Association for Research On Income and Wealth, Rome, August 1987.
- Renaud, Bertrand. The Future of the Korean Housing Finance System, December 1986 unpublished, 24 pages.
- _____. "Compounding Financial Repression with Rigid Urban Regulations: Lessons of the Korean Housing Market," Review of Urban and Regional Development Studies, December 1988, Tokyo. Vol. 1, No. 1.

- Ro, Sung-Tae. Korean Financial Markets and Targets of Monetary Policy Reform, Ph.D. Dissertation, Harvard 1984.
- Roe, Alan and Paul A. Popiel. Managing Financial Adjustment in Middle-Income Countries, EDI Policy Seminar Report No. 11, World Bank, 1988.
- Struyck, Raymond J. and Margerie Turner. Housing Finance and Housing Quality in the Philippines and Korea, The Urban Institute Press, Washington D.C., 1986, 120 pages.
- Tobin, James R. "Life Cycle Saving and Balanced Growth." in Ten Economic Studies in the Tradition of Irving Fisher, New-York, John Wiley, 1967.
- _____. "Wealth, Liquidity and the Propensity to Consume" in Human Behavior in Economic Affairs, ed. B. Strumpel, San Francisco, 1972.
- Van Wijnbergen, Sweder. "Credit Policy, Inflation, and Growth in a Financially Repressed Economy" Journal of Development Economics, Vol. 13, (1983) pp. 45-65.
- _____. Short-Run Macroeconomic Adjustment Policies in South Korea, World Bank Staff Working Papers No. 510, November 1981, 178 pages.
- Von Pischke J.D. Undermining Rural Development with Subsidized Credit, Westview Press, 1988.
- World Bank. Korea: Rapid Development and The Search For New Perspective, Economic Report, 1978.
- World Bank. Korea Housing Finance System, Washington D.C., June 1986, 69 pages.