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This report summarizes the major problems which hinder both the present and future functioning of the Korean Housing Finance System. Information was derived from a study conducted in 1976 by Richard T. Pratt Associates, Inc. under the auspices of the Office of Housing of A.I.D. It provides preliminary recommendations for action for the areas important for housing finance. Few countries can match the high rate of growth of the strong housing finance system which has occurred in Korea during the last 15 years. The factors in the economy of Korea which have contributed to this growth are population growth and GNP, inflation, private savings, and capital investment. The study assesses the role of interest rates in the economy and in the housing finance market, and it explores problems in setting and administering interest rates. It discusses the financial system, the Korean Housing Bank (KHB), and the Korean National Housing Corporation (KNHC). It also assesses the roles of the Bank of Korea, special banks, commercial banks, and mortgage lending, and it presents such facets of the KHB as deposits, national housing funds, and the housing lottery. The sources and uses of the funds of the KNHC are examined. In the economy of Korea there is a well-developed governmental system for planning and monitoring economic growth. The economic planning bureau has developed a fourth five-year plan for the period extending from 1976 through 1981. This report reviews the role

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of housing finance in this plan. Tables present information on major points of the study, and appendices summarize areas in the housing finance program such as the raising of housing funds and the housing finance system.

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HOUSING FINANCE IN THE
KOREAN ECONOMY

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

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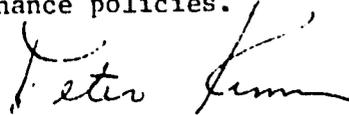
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WASHINGTON, D.C. 20523

FOREWORD

This study was conducted by Richard T. Pratt Associates, Inc. under the auspices of the Office of Housing of the Agency for International Development and through financing provided by this office. The purpose of the study was to develop information and make recommendations relating to housing finance in the Korean economy.

While the findings and recommendations of the report have been discussed with representatives of the Government of Korea, the report is not to be interpreted as an official position of either the Government or of the Agency for International Development.

We hope, however, that the Government of Korea will find the report and its recommendations useful to it as it formulates and implements its future housing finance policies.



Peter M. Kimm
Director
Office of Housing

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SUMMARY AND RECOMMENDATIONS

The Korean Housing Finance System is beset with a number of problems, which both hinder its present functioning and threaten its ability to provide adequate housing finance in future periods. The major problems and some preliminary recommendations for action are provided according to the areas of important consideration for housing finance.

THE KOREAN ECONOMY

The Korean Economy has demonstrated an impressive ability to consistently achieve a high rate of growth. Few countries can match the Korean progress of the last 15 years during which real growth has occurred at a rate of 10% per year. A number of factors favorable to the development of a strong housing finance system exist in the economy. These include:

- A. The economy is consistently achieving substantial real growth, expanding the economic base from which financial resources can be drawn.
- B. Population growth has been moderating as reflected by the 1.98% annual rate of growth during the current five year program and the expected annual growth rate of 1.6% during the coming fourth five year plan.
- C. Saving seems to be a highly developed cultural pattern in the country of Korea. Private savings as a percent of

gross national product has increased 13% per year for the past five years and currently represents 14.3% of gross national product, a figure comparable to the savings rate in the United States.

- D. Substantial demand exists for housing capital. The average annual increase in housing investment was 35.5% per year during the past five year economic plan.

While there are many positive factors operating in the economy, substantial problems and negative influences also exist. These include the following:

- A. The high growth rate of the economy has been accompanied by rapid inflation. Double digit inflation in Korea has been common for many years, and inflation reached 25% per year from 1973 through 1975. The cost of building materials has risen faster than general prices in the economy.
- B. The monetary policy of the government of Korea is completely integrated with fiscal policy. The annual national deficit is financed directly by the Bank of Korea and government fiscal policy is extended into the credit markets by the practice of making low interest loans to favored economic sectors. This comprehensive monetary fiscal policy approach to credit markets makes it impossible for housing finance institutions to operate independently in the market. Their ability to capture resources is a function of their persuasiveness with government planners rather than the demand

for funds in the housing sector.

- C. Government policy includes a program of using inflation, caused by monetary growth, as a major source of revenue for the government. During the period of 1970 through 1975, the money supply has increased at an average annual rate of 31%, more than double the real rate of growth in the economy. This provides an effective source of financial resources to the central government, but injects substantial inflation into the economy and causes interest rates to be high. An economy characterized by interest rates in the 15%-25% range is not conducive to the use of long term fixed rate mortgages.

It is both inappropriate and beyond the scope of this report to suggest major changes in the functioning of the Korean economy. Nevertheless, because of its important effect on housing finance, government policy cannot be ignored. It is suggested that the government of Korea consider developing a budget which takes into account the implicit revenue and spending decisions which are contained within the nation's monetary policy. Inflation levels of 20% per year transfers spending power to the government equal to approximately 20% of the nation's money supply. Much of the spending power raised through the practice of inflation is distributed as subsidies to favored economic sectors. The magnitude of these interest rate subsidies is not reported nor monitored by the government. The transfers involved are of a major economic magnitude. The government would be operating

with more and better information if these flows were explicitly taken into account.

INTEREST RATES IN THE KOREAN ECONOMY

The Korean economy is presently characterized by a mixture of credit markets which at the one extreme are almost completely government controlled with specified interest rates, and at the other extreme, are set in credit markets that are completely free and unfettered from government regulations and exist outside of all formal financial institutions. A number of problems exist in the area of setting and administering interest rates, including the following:

- A. Inasmuch as the government has chosen to use interest rates as a direct tool of subsidy in the economy, formal credit markets do not effectively allocate funds according to need or effective demand in each sector.
- B. Because of the proliferation of government controls, it is not infrequent that different borrowers whose needs and economic circumstances are similar and who are borrowing for identical purposes find themselves paying substantially different interest rates for their loans, based upon the source of funds and the politically determined program under which the loan falls.
- C. Because of the ineffectiveness of the formal credit market, a major portion of private business financing has been driven into the informal market (curb market). Because this market

is more risky and less well organized, interest rates are higher than they would be had these transactions been allowed to take place in a formal institutional setting.

D. Market interest rates for high quality firms in the Korean economy would likely fall in the range of 15%-25% in the absence of government intervention. Because of government controls setting interest rates at a much lower rate, for example, 8%-15% on mortgages, the interest rate policy results in massive subsidies. The subsidies are not allocated on a rational basis. There is little monitoring of who ultimately receives the subsidies or what the effect of them is.

E. The use of interest rate subsidies has an unfortunate effect in a capital short, rapidly growing country like Korea. When a subsidy is given through the interest rate, the amount becomes directly proportionate to the size of the loan. Each industry and credit recipient of a low interest rate loan has an incentive to borrow the maximum amount of funds. This results in a tendency for the extravagant use of capital rather than its careful conservation, as would be indicated by economic circumstances.

As in the case of the general economy of Korea, suggestions on the national interest rate policy are somewhat beyond the scope of this report. However, inasmuch as they impact housing finance so extensively, it would be improper to ignore them. Therefore, the following suggestions are made:

- A. The Bank of Korea and the monetary board should carefully evaluate the present structure of interest rates existing in the country for the purpose of determining whether or not such an extensive system of control is warranted or beneficial. Where a controlled interest rate on a certain type of loan does not seem too critical to national interest, decontrol of that rate or setting limits within which it can freely vary should be considered.
- B. The implicit subsidy involved in the controlled interest rates should be measured and accounted for by the Ministry of Finance. The subsidy amount, which is the difference between the appropriate market rate and the subsidized rate offered, should be reflected in the budgetary process.
- C. Because subsidization of interest rates tends to encourage the use of capital, careful consideration should be given to switching as many interest rate subsidies to specific won subsidies as is possible. If a subsidy were switched from the interest rate variety to a specific won amount, and the subsidized entity were forced to borrow at market rates, incentives for the conservation of capital would be greatly improved.
- D. The Ministry of Finance should make a careful study of the operation of the curb market for the purpose of determining what terms and conditions on deposits would be required to move a substantial portion of the financial activity

in the informal financial market into formal financial institutions. Present unrealistic limitations on deposit and loan rates do not effectively control the national allocation of credit. They serve only to drive credit into the unregulated, high risk, high interest rate, informal markets.

THE KOREAN FINANCIAL SYSTEM

The Korean financial system is presided over by the Ministry of Finance with policy direction coming from the Economic Planning Board and daily supervision of the commercial banks occurring through the Bank of Korea. A number of factors existing in the Korean financial system cause it to be less effective than desired as the assembler and lender of the nation's private funds. Some of the important factors are:

- A. A general opinion seems to exist, both within the nation's central bank, the Bank of Korea and its system of commercial banks that mortgage loans are a type of non-productive consumer credit as opposed to loans to industry, which are perceived to be for production purposes. As a result of this, commercial banks have never been encouraged to make mortgage loans.
- B. In addition to the philosophical aversion to mortgage loans, commercial banks have lending opportunities which involve higher rates of interest and shorter maturities than have been available in the residential mortgage market.

- C. The life insurance companies and other non-bank financial intermediaries are not highly developed in the Korean economy, and therefore do not provide a substantial potential source of mortgage credit.

Some relatively modest changes in the overall functioning of Korea's financial institutions would increase system's effectiveness as a supporter of the nation's mortgage markets. Recommendations include:

- A. Deregulation of at least limited categories of deposits and loans so that the financial institutions may effectively compete for private funds which are presently not being captured within the formal financial system.
- B. An educational program to demonstrate the economic effectiveness of residential mortgage lending in generating employment and income in the Korean economy. Such a campaign should focus on the ability of residential construction to employ relatively unskilled labor, the fact that residential construction uses domestically produced goods rather than imported goods, and the induced employment and income which is generated as the result of multiplier effects.
- C. The proscription presently placed on commercial banks against making land development and construction loans should be removed or modified, to allow commercial banks to participate in construction lending. Construction lending is well suited

to normal bank lending. These loans tend to be relatively short term, self liquidating and are capable of bearing relatively high interest rates.

- D. The Ministry of Finance in conjunction with the commercial banking industry and the Housing Bank of Korea should carefully explore the possibility of developing a standardized mortgage instrument on which the nationwide city banks and the local banks could originate and service residential mortgages. In order to encourage commercial banks to make such mortgages, which may not appear to them to be appropriate for their portfolio of assets, a secondary market could be developed which would allow the mortgage loans to be sold to the Korea Housing Bank. This would greatly increase the availability of institutions making mortgage loans. A commercial bank could make a construction loan followed by the permanent mortgage loan, which was then sold to the Korea Housing Bank.

THE KOREA HOUSING BANK

The Korean Housing Bank is the only financial institution charged with the responsibility of assembling and disbursing funds for mortgage lending in Korea. A number of recommendations are presented designed to increase the effectiveness of primary mortgage lending institutions.

- A. The Ministry of Finance should conduct a study to determine if the nation's housing finance needs can be adequately served by the Korean Housing Bank as it is presently conceived and operated. Two questions appear highly important in this

regard. First, should the Korean Housing Bank remain as a retail mortgage lender in the nation or should its role be changed to that of a wholesale lender with the development of savings and loan type lending institutions. A third alternative, the Korean Housing Bank serving as both the wholesale and retail lender should also be examined. This alternative would involve the bank remaining in retail lending while at the same time conducting a secondary market in mortgages originated by others.

- B. The bank presently has a multitude of savings deposits which are offered to the public. It appears that the number of accounts offered is so large as to cause confusion and to dilute the bank's ability to promote any one of these types of accounts. It is recommended that the bank consider simplifying its deposit structure into a few basic accounts: checking accounts, passbook savings accounts withdrawable upon demand, and time certificates of deposit with interest rates appropriate to the maturity of the account.

- C. The Korean Housing Bank has had difficulty in attracting deposits in recent years as a result of the low market interest rates which are offered by the institution. Either the bank should be given additional discretion as to the interest rates which it offers or the monetary board working jointly with all banks should consider restructuring interest rates upward so as to increase the portion of private savings

which are channeled through the formal financial sector.

D. The role of national housing bonds as a source of funds to the Korean Housing Bank should be reevaluated. In recent years, the bank has become heavily dependent upon these funds as a source of low cost money. Several problems are basically associated with the national housing bonds, including:

1. The bonds represent a form of tax and are only purchased on a compulsory basis. The supply of funds from this source can only be expanded by extending the group who are compelled to buy the bonds or by increasing the amount of bonds which must be purchased by the compulsory purchasers.
2. In the absence of a major increase in requirements for the purchase of housing bonds, the long run growth of funds from this source would be limited to the general expansion of economic activity which involves compulsory purchase.
3. Beginning in 1978, the first issue of five year maturity bonds must be repaid. In each subsequent year the cash requirements for repayments will represent a significant portion of the new issues with only approximately 30% of the gross issues representing a net increase in housing funds.
4. National housing bonds represent a form of tax while

the loans made from the funds supplied provide a subsidy. There appears to have been no rationale developed as to why wealth should be transferred from bond purchasers to mortgage borrowers.

It is recommended that the Korean Housing Bank make a careful study of the expected funds' availability from national housing bonds and this study pay careful attention to the implication for the bank's cost structure as national housing bonds play a reduced role in an expanded mortgage finance system.

E. It is recommended that the Korean Housing Bank stop the practice of tying specific sources of funds to specific loans. The present practice results in an irrational allocation of credit and substantial inequity in the way various borrowers are treated who are in similar economic and social circumstances.

F. The bank's practice of making mortgage loans at interest rates currently ranging from 4% to approximately 15%, rates which are substantially below market rates, has helped assure a chronic shortage of mortgage funds. The Housing Bank has provided a very small portion of the total housing investment amounting to only about 14% of the total during the period of 1967 to 1972.

G. The Korean Housing Bank offers a wide variety of mortgage loans of various terms and interest rates. As a general rule, there is no rationale between the type of loan offered

and income or financial need of the purchaser. Two types of problems present themselves. First, if there are two families which are in similar economic circumstances, one may receive an interest rate of 8% while another receives an interest rate of 14%, because the loans came from separate sources. Second, a household which is in a superior position financially may receive a larger subsidy than a household with greater financial need. For example, a household borrowing for a 15 pyong unit would receive a larger loan and therefore, a larger subsidy than a family borrowing for a 10 pyong unit. The Korean Housing Bank should restructure its loan interest rates and terms on other criteria than the source of funds. If interest rates for different loans are to be maintained rates should be consistent with the nation's general public policy concerning income distribution.

- H. The mortgage loans of the Korean Housing Bank have the same problem as other subsidized loans in the country. The subsidized loans provide an incentive to borrow as much capital as is possible and in some cases may result in Korean Housing Bank funds being arbitrated into higher yielding investments instead of being used for housing purposes. If the Korean Housing Bank is to continue to be a conduit for housing subsidies, studies should be conducted to determine alternative means other than interest rates for providing housing subsidies. For example, a one time housing subsidy might be granted to the home purchaser at the time he acquired

the home. With the subsidy determined by the household's personal financial circumstances and not tied to the size of the mortgage loan. The household would then have incentive to conserve capital and minimize the needed size of the mortgage loan.

- I. The present practice of making below market interest rate loans has serious implications for the future operations of the Bank. The Bank is presently making loans of 15 to 25 years at interest rates well below cost of funds available in the open market. At the same time it is obtaining shorter term low cost funds from the government and from compulsory sources such as the five year maturity national housing bonds. The present practice of long term low interest rate lending requires that low cost funds be available not only at the time the loan is made but throughout its life. This requires that the present low cost sources of funds be replaced with other funds of a similar low cost nature. It is not clear that such funds will continue to be available or that it would be desirable to allocate them to this use in the future. It is not a desirable practice to use a subsidy system which places requirements on future operations and compromises the ability of the Housing Bank to operate successfully in future time periods. As in earlier recommendations, it is suggested that the bank carefully explore ways of either eliminating subsidies, including them at the time of the loan origination, or as a third alternative, finding long term

sources of low cost money, an unlikely prospect.

J. The problems of establishing a stable self supporting housing finance system in Korea are exacerbated by the present practice of the Korea Housing Bank in making 15, 20, and 25 year mortgage loans on a fixed interest rate basis. The long term mortgage plus the high rate of inflation have combined to sharply reduce the real recovery of financial resources from mortgage borrowers. Under conservative assumptions, Korea has had a rate of inflation of at least 20% per year for the past several years. With this rate of inflation, and an interest rate of 8%, charged on a 20 year loan, the repayments received from the loan will only refinance about 49% of a new housing unit, so about half of the housing finance stock is lost in each round of lending. The risks inherent in the short term borrowing, long term lending presently engaged in by the housing bank should be reevaluated. The housing bank should investigate the feasibility of using renegotiable mortgages of 3 to 5 years. The somewhat more involved processes involved in formal indexation should be explored.

SUMMARY AND CONCLUSIONS

The recommendations contained in this study should be viewed as areas of exploration for the government of Korea. The short period of time which the investigators had to examine housing finance and familiarize themselves with the political and institutional structure of the country requires that the recommendations be viewed as apparent

possibilities for improving the system. At the same time, the investigators chose to make some rather specific operating recommendations in the hopes that this would provide a focus for those who would be charged with making improvements in the housing finance system. The examination of the social and legal framework in which the recommendations must be evaluated and implemented was beyond the scope of this paper. The actual implication of desirable recommendations must come from within the country of Korea itself and will require substantial effort on the part of the housing finance task force representing the various entities and interests in the housing finance area. It is hoped that the recommendations contained in this report will provide a beginning structure for the work of that task force.

The Korean Economy

The Korean economy has grown at a high rate for many years, having achieved a growth rate of 27.2% per year over the past 15 years and 28.5% over the past 5 years (Table 1). Inflation has also been high, at 16.7% per year since 1960 and 17.0% per year since 1970, as calculated from the GNP deflator (Table 2).

The real growth of the economy, after removing the effect of inflation is impressive. In 1970 constant prices, GNP grew 10% per year over the past 15 years and 9.8% over the last 5 years (Table 3).

The relatively high level of inflation has been accompanied by a government policy of expanding the money supply faster than the rate of real economic growth. During the period 1970-1975 money has expanded at an annual rate of 31% (Table 4), roughly consistent with the real growth rate (9.8%) plus the rate of inflation as measured by the GNP deflator (17.1%). In 1976, the government plans to expand money by 25% with an expected economic growth rate of approximately 12%. To the extent that excess money creation results in inflation, the monetary policy serves as a form of taxation on those holding money. The fourth five year plan calls for a moderation in the money supply growth with an expansion of the money supply of under 20% per

year through 1981.

The demonstrated ability of the Korean economy to consistently achieve a high rate of growth is impressive. Few countries can match the Korean progress of the past two decades. The strength of the economy is a favorable factor for the development of adequate housing finance. As incomes rise, households' ability to save increases and the probability of developing successful housing finance institutions improves.

Population Growth and GNP

The population of Korea which stands at 35 million people has grown 2.2% per year since 1960 (Table 5). Growth has slowed in the last five years as reflected in the 5 year annual growth rate of 1.98%, but experienced a sharp increase in 1975 when it grew 3.7%. The overall trend is expected to continue, reducing population growth to 1.60% per year for the next 5 years (Appendix IV). Real GNP growth per capita has been 6.7% per year since 1960 and 7.6% per year for the last 5 years (Table 6), reflecting the simultaneous acceleration of GNP and slowing of population growth. Korean economic planners expect continued growth of over 7% per year in per capita GNP through 1981.

As a result of the urban trend to nuclear families, annual household income deflated by the consumer price index, perhaps a better measure of housing purchasing power, has not risen as fast as per capita GNP, increasing 2.2

percent per year over the past 5 years (Table 7).

Inflation

As might be expected in a rapidly growing economy characterized by aggressive money supply expansion, double digit inflation has been common in Korea for many years. This was compounded in recent years by the increase in the price of oil and general world wide inflation causing the average annual rate of inflation to exceed 25% from 1973 through 1975 (Table 2). The result has been sharp increases in prices. The Consumer Price Index (Table 8) now stands at 202.2 (1970 = 100) a 15.12% per year increase since 1970 with Building Materials Price Index (Table 9) slightly higher at 207.1 and price of housing in cities at 161.7 (Table 10), an annual 5 year increase of 15.7% and 10.1% respectively.

Private Savings

To a large extent the ultimate feasibility of developing well-functioning housing finance institutions depends on the capacity of the economy to generate private savings. The savings ethic seems to be well developed in Korea, even among relatively low income groups. Private domestic savings have increased nearly 40% per year since 1970 (Table 11) and over this same period of time an ever increasing proportion of national income has been devoted to savings. Savings as a percentage of gross national product has increased at an approximate rate of 13% per year for the

past five years (Table 12) and currently represents 14.3% of gross national product. In recent years, savings as a percentage of GNP has been as high as 17.5% which occurred in 1973. The ability to generate savings in the Korean economy is impressive when it is recognized that in 1975 Korea's private savings compared favorably with the U.S. level in recent years.

A demonstrated ability to save exists. Given the substantial level of savings, an important consideration becomes that of what set of financial institutions and instruments would effectively direct the savings in the housing investment area.

Capital Investment

Some indication of the priority which housing has received in private and public spending can be determined from examining the capital investment patterns in Korea.

Table 13, a summary of Table 14, shows the breakdown of capital investment in Korea for the year 1975 as well as the most recent five-year annual growth rate of each of the investment components. As the table shows, gross domestic capital investment amounts to 27% of the nation's gross national product, with one sixth of the capital investment occurring in the housing area. Evidence seems to indicate that housing has not been a high priority item in the last five year economic program. Nevertheless, the table shows that the average annual increase in housing

investment was very high at 35.5% per year, exceeded only by rate of inventory accumulation and investment in transportation equipment.

Table 13
Capital Investment

	<u>% GNP 1975</u>	<u>% Gross Domestic Capital Investment 1975</u>	<u>5 Year Growth Annual Rate 1970-1975</u>
Gross Dom. Cap. Inv.	27.0	100	28.6
Dwellings	4.4		16
Non-Residential Bldgs.	4.4	16	23.7
Other Construction	5.3	19	20.5
Transport Equipment	5.3	19	37.3
Machinery	6.3	23	33.2
Increase in Stocks	1.6	6	49.5 (LR)

Source: Monthly Economic Statistics, Bank of Korea, September 1976, pg. 128.

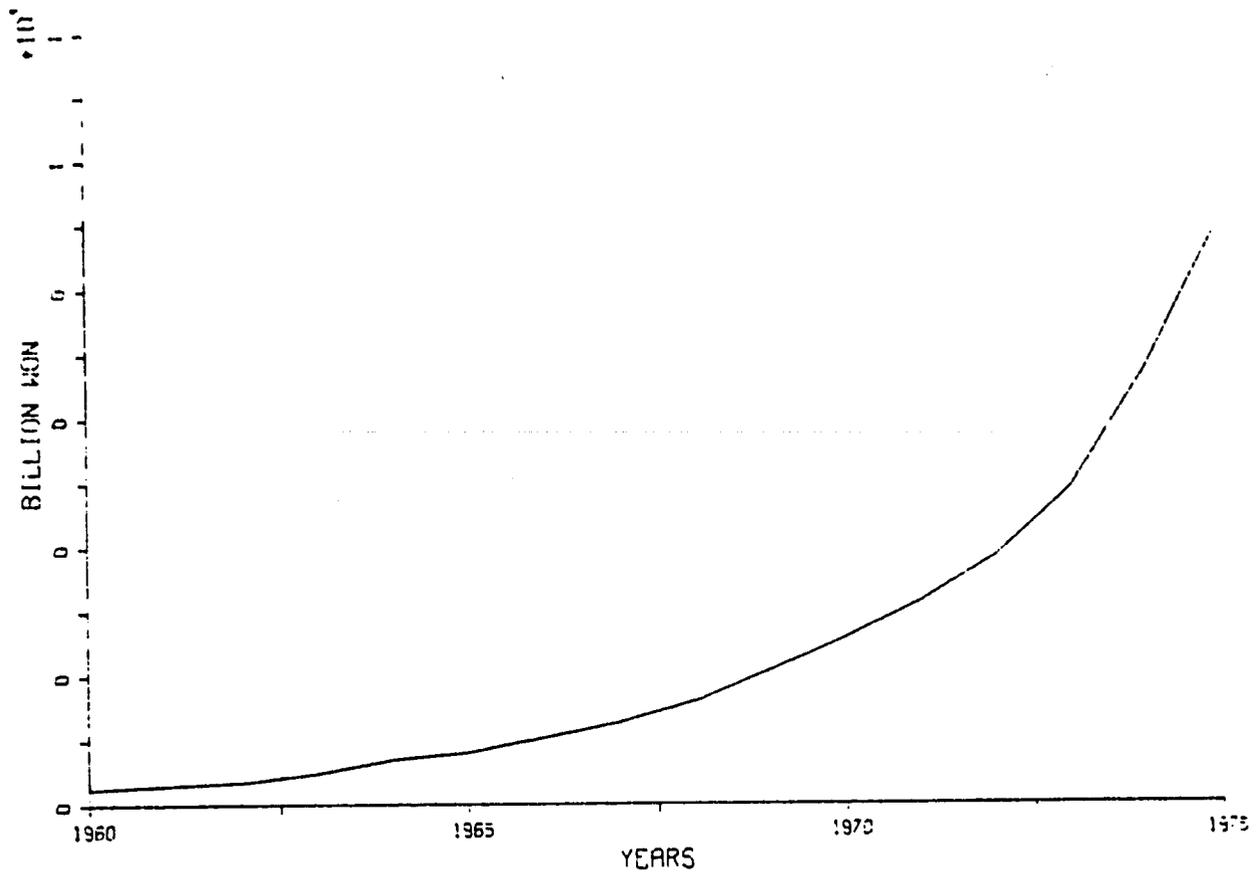
In the fourth five year plan, investment in housing appears to have even less of a priority (Appendix I). Real growth of investment in dwellings will be only 4.43% while real growth of investment in all other categories will be 8 to 9 percent. Investment in housing is expected to decline both as a percent of GNP and as a percent of Gross Domestic Capital Formation in the next five years.

In spite of the rapid growth in housing investment, the need for housing has increased more rapidly than the supply. From 1960 to 1975, the nation's population increased at an annual rate of 2.2%, however, this figure does not

accurately reflect the change in housing needs. The trend toward the nuclear family has reduced household size and as a result, households have increased at 2.9% over the 15 year period. During the same 15 year period, housing stocks grew at only 2.3 percent per year. The growing housing shortage, compounded by the present policy of destroying squatter settlements, is more severe in urban areas where, over the same 15 year period, population and number of households has grown at an annual rate of 6.0% and 6.7% respectively while housing stock has grown at a rate of only 5.2% per year.

Some elements of the Korean economy are not well suited to the use of long term fixed rate mortgages. The 15-20% rate of inflation and the associated high interest rates which have existed in recent years have injected a high level of subsidy into fixed rate mortgages which have interest rates of 8-15%. When the cost of funds may be 20% and money is lent at 8% the lender is subsidizing the borrower at 12% per year over the life of the contract. At the same time these high rates of inflation hinder the development of a healthy housing finance system which traditionally operates on the basis of acquiring short term funds and lending them on a long term basis. The inflation experienced during the past five years has made it difficult to assemble investment funds for long term fixed rate mortgage investments.

TABLE 1
GROSS NATIONAL PRODUCT



GROSS NATIONAL PRODUCT IN CURRENT PRICES (BILLION WON)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1961	20.6														
1962	19.3	17.4													
1963	25.6	28.2	40.0												
1964	29.8	33.1	41.7	43.3											
1965	26.7	28.3	32.2	28.4	15.0										
1966	27.0	28.3	31.2	28.3	21.4	28.2									
1967	26.4	27.4	29.5	27.0	22.0	25.6	23.0								
1968	26.3	27.2	28.9	26.7	22.9	25.7	24.4	25.8							
1969	26.8	27.6	29.1	27.3	24.3	26.8	26.3	28.0	30.3						
1970	26.5	27.2	28.5	26.9	24.4	26.3	25.8	26.8	27.3	24.4					
1971	26.1	26.6	27.7	26.2	24.0	25.5	25.0	25.5	25.4	23.0	21.7				
1972	25.8	26.3	27.2	25.8	23.8	25.1	24.6	24.9	24.7	22.9	22.1	22.5			
1973	25.9	26.4	27.2	25.0	24.2	25.4	25.0	25.4	25.3	24.0	23.9	25.1	27.7		
1974	26.7	27.2	28.0	27.0	25.5	26.7	26.5	27.0	27.2	26.6	27.2	29.1	32.5	37.5	
1975	27.2	27.7	28.5	27.6	26.2	27.4	27.3	27.9	28.2	27.8	28.5	30.3	33.0	35.7	33.9

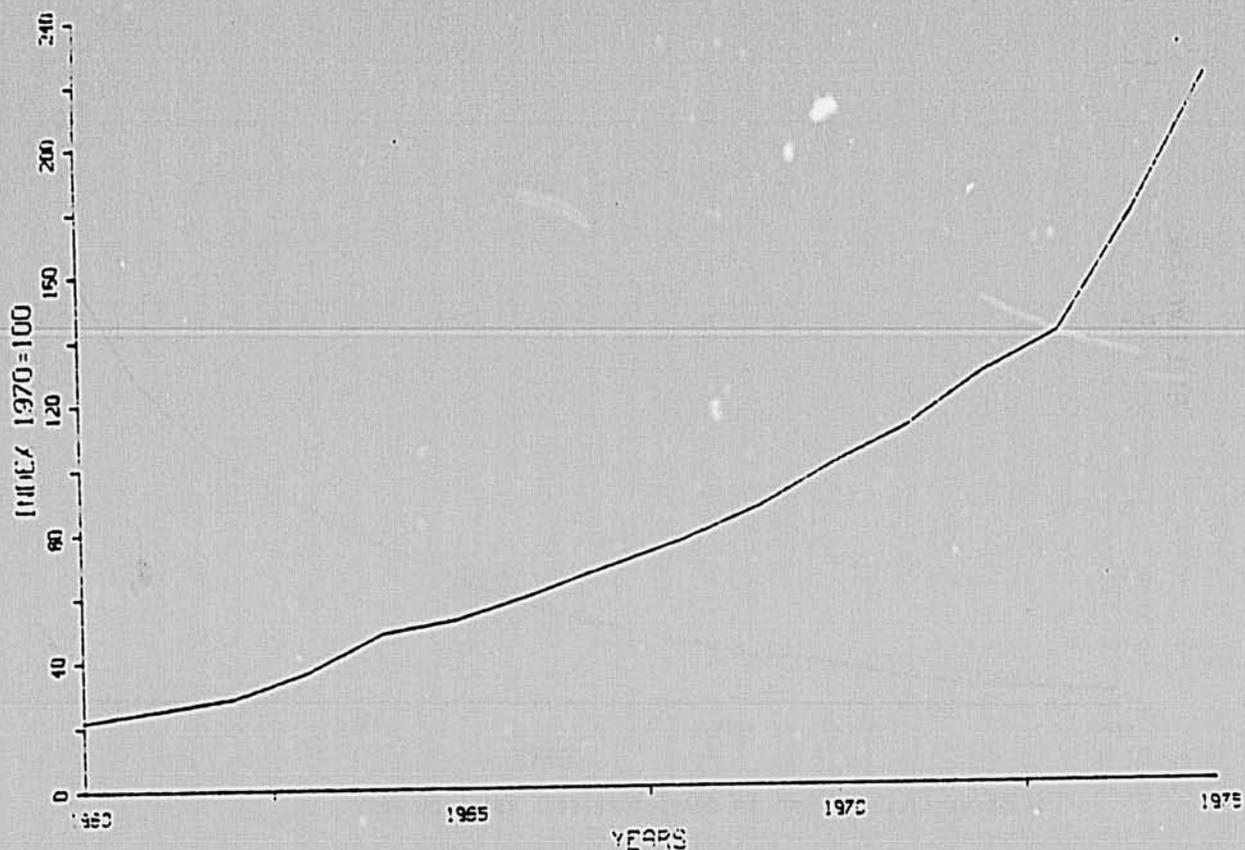
GROSS NATIONAL PRODUCT IN CURRENT PRICES (BILLION WON)

1960	246.34	1966	1032.45	1971	3151.55
1961	277.08	1967	1269.95	1972	3660.00
1962	340.89	1968	1598.04	1973	4928.67
1963	494.54	1969	2081.52	1974	6779.11
1964	700.20	1970	2589.26	1975	9080.33
1965	805.32				

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 2

GNP PRICE DEFLATOR



YEARS	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1961	15.1															
1962	14.5	13.7														
1963	17.1	21.1	23.7													
1964	22.2	24.5	31.4	32.1												
1965	19.3	20.3	22.5	19.6	8.2											
1966	18.4	19.1	20.4	17.8	11.2	14.3										
1967	17.4	19.2	19.1	15.3	12.1	14.1	14.0									
1968	17.7	17.3	17.3	15.9	12.0	13.3	12.0	11.8								
1969	15.6	16.4	17.2	15.4	12.3	13.3	13.0	12.5	13.2							
1970	14.5	16.6	16.9	15.4	12.8	13.7	13.5	13.4	14.3	15.3						
1971	16.0	14.1	15.3	14.9	12.6	13.3	13.2	13.0	13.3	13.4	11.5					
1972	13.9	15.9	16.1	14.8	12.3	13.5	13.4	13.3	13.6	13.8	13.9	14.5				
1973	15.4	15.4	15.5	14.3	12.5	13.0	12.0	12.6	12.8	12.7	11.8	12.0	9.6			
1974	16.1	15.2	16.4	15.4	13.8	14.4	14.5	14.5	15.0	15.4	15.4	16.7	17.8	26.7		
1975	16.7	16.5	17.0	16.1	14.7	15.4	15.5	15.7	16.3	16.8	17.1	18.5	19.9	25.4	24.1	

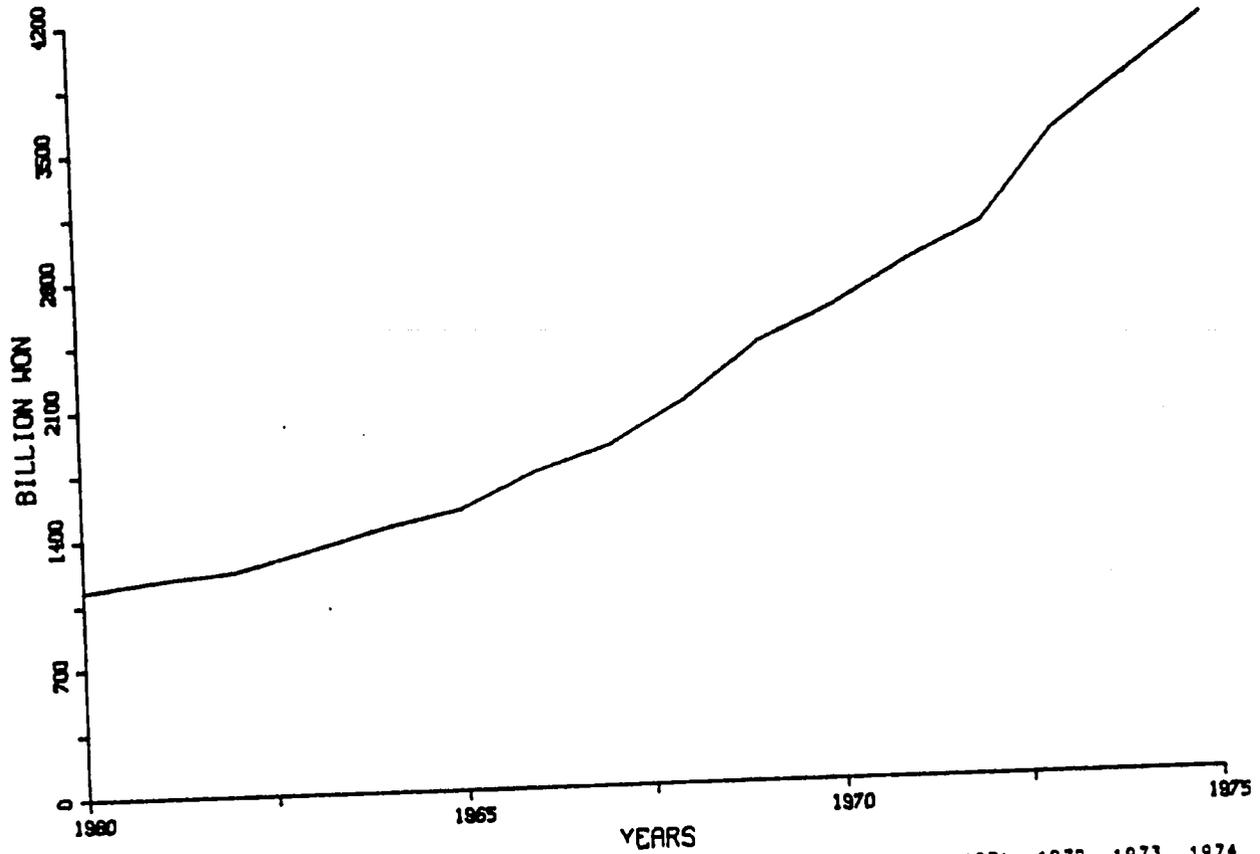
GNP PRICE DEFLATOR (1970=100)

1960	21.20	1966	60.10	1971	111.90
1961	25.10	1967	56.50	1972	127.70
1962	26.00	1968	76.60	1973	139.90
1963	34.50	1969	56.70	1974	177.20
1964	44.00	1970	52.70	1975	219.00
1965	47.70				

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 3

GROSS NATIONAL PRODUCT
1970 CONSTANT MARKET PRICES



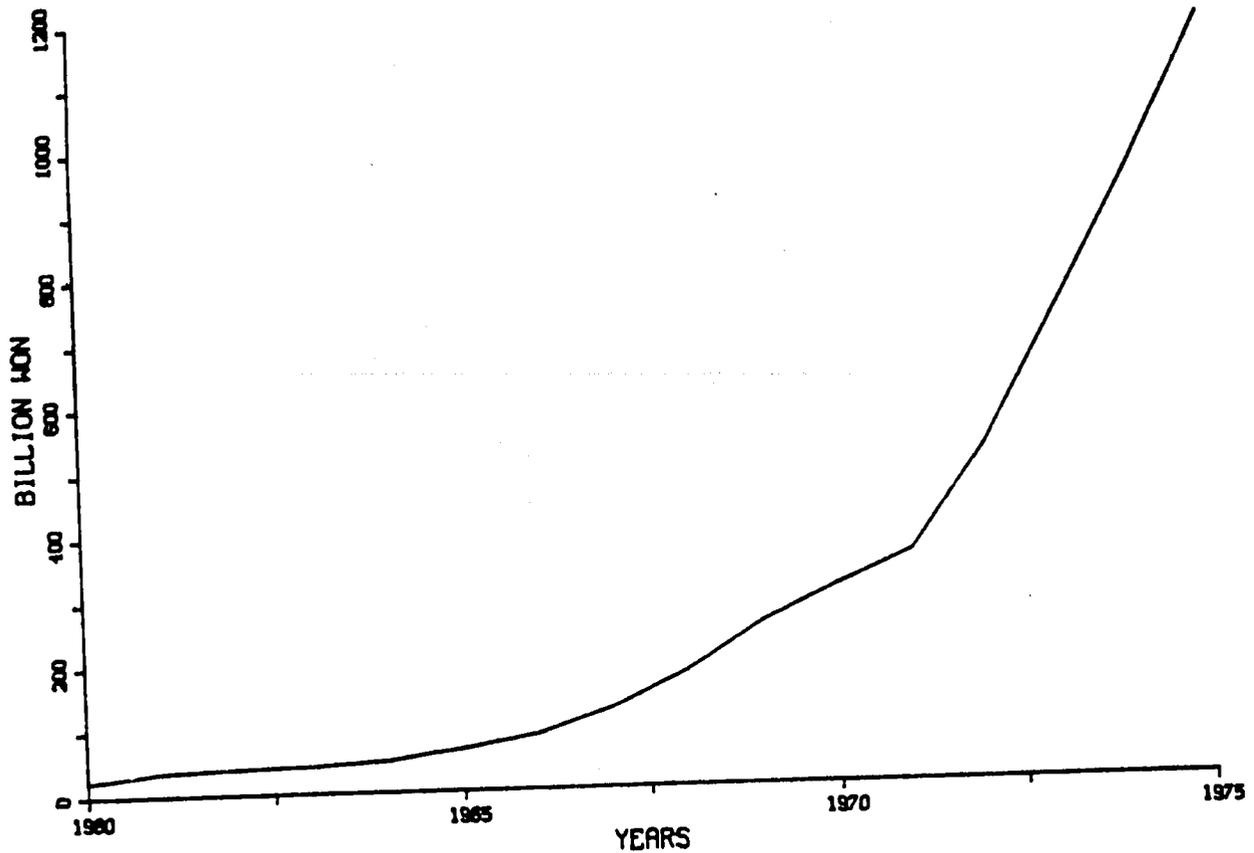
	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1961	4.7															
1962	4.0	3.3														
1963	5.5	6.0	8.8													
1964	6.3	6.8	9.7	8.6												
1965	6.2	6.6	7.6	7.3	6.1											
1966	7.2	7.8	8.9	9.0	9.2	12.4										
1967	7.3	7.8	8.7	8.7	8.7	10.1	7.8									
1968	8.0	8.5	9.3	9.5	9.7	10.9	10.2	12.6								
1969	8.7	9.3	10.1	10.4	10.7	11.9	11.8	13.8	15.0							
1970	8.6	9.1	9.9	10.0	10.2	11.1	10.8	11.8	11.4	7.9						
1971	8.7	9.1	9.8	9.9	10.1	10.8	10.5	11.1	10.6	8.5	9.2					
1972	8.5	8.9	9.5	9.6	9.7	10.2	9.9	10.3	9.7	8.0	8.1	7.0				
1973	9.1	9.5	10.1	10.2	10.4	11.0	10.8	11.3	11.0	10.1	10.8	11.6	16.5			
1974	9.1	9.5	10.0	10.1	10.2	10.7	10.5	10.9	10.6	9.8	10.2	10.6	12.5	8.6		
1975	9.0	9.3	9.8	9.9	10.0	10.4	10.2	10.5	10.2	9.5	9.8	9.9	10.9	8.3	7.9	

GROSS NATIONAL PRODUCT AT 1970 CONSTANT MARKET PRICES (BILLION WON)

1960	1129.72	1966	1719.18	1971	2826.82
1961	1182.45	1967	1953.01	1972	3023.63
1962	1220.98	1968	2087.12	1973	3522.72
1963	1323.31	1969	2403.49	1974	3825.50
1964	1441.09	1970	2589.26	1975	4129.32
1965	1525.70				

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 4
MONEY SUPPLY

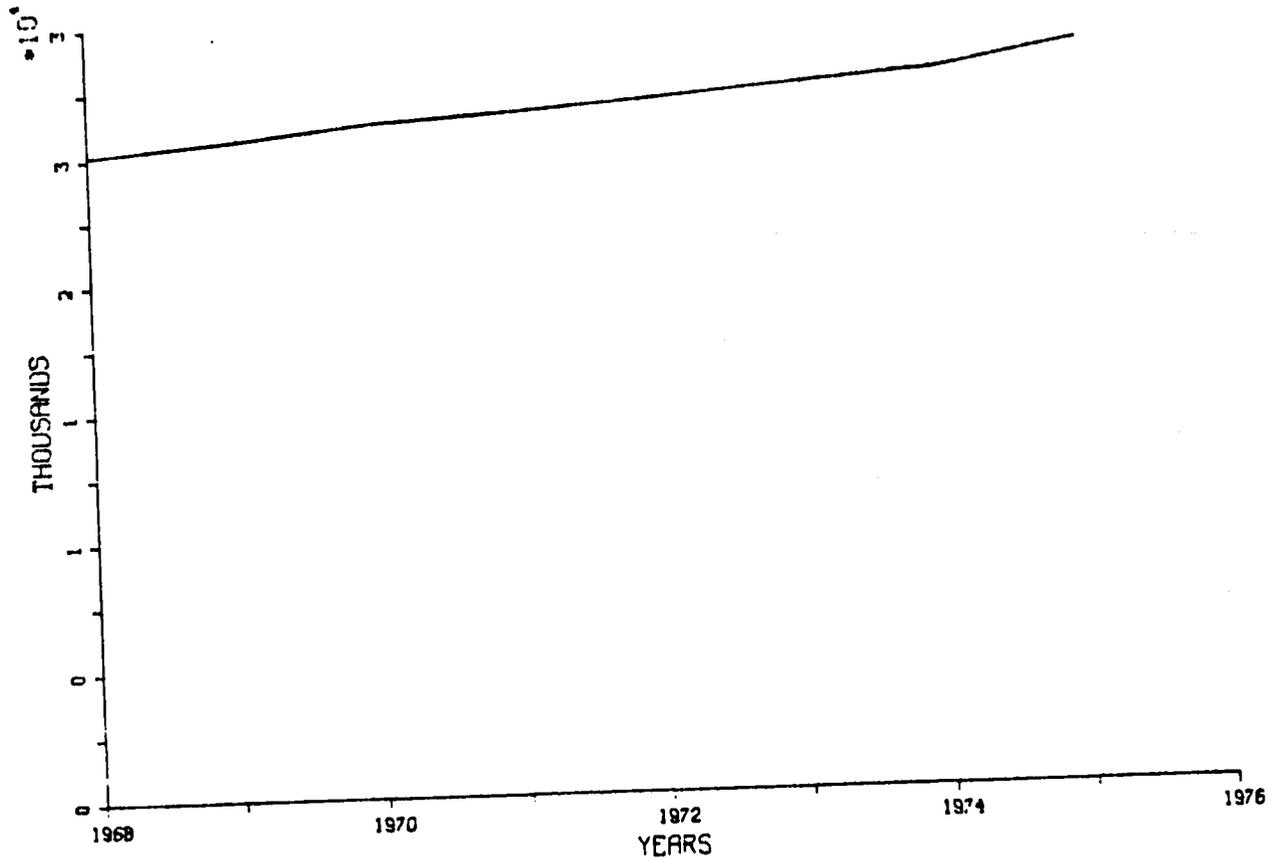


	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1961		57.7														
1962		31.7	10.1													
1963		22.7	8.2	6.3												
1964		21.1	11.0	11.4	16.7											
1965		23.6	16.3	18.5	25.1	34.2										
1966		24.6	18.9	21.2	26.6	31.9	29.7									
1967		27.3	22.8	25.6	30.9	36.0	36.9	44.5								
1968		29.4	25.7	28.6	33.5	38.1	39.5	44.6	44.6							
1969		30.7	27.6	30.4	34.9	38.8	40.0	43.6	43.1	41.7						
1970		29.8	27.0	29.3	32.9	35.9	36.2	37.9	35.7	31.5	22.1					
1971		28.5	25.9	27.8	30.8	32.9	32.7	33.3	30.6	26.3	19.2	16.4				
1972		29.8	27.5	29.4	32.3	34.4	34.4	35.2	33.4	30.7	27.3	29.9	45.1			
1973		30.6	28.6	30.4	33.1	35.0	35.2	35.9	34.6	32.6	30.5	33.4	42.8	40.6		
1974		30.5	28.6	30.3	32.8	34.5	34.5	35.1	33.8	32.1	30.3	32.4	38.2	34.9	29.5	
1975		30.1	28.4	29.9	32.1	33.6	33.5	34.0	32.7	31.1	29.4	30.9	34.8	31.5	27.2	25.0

MONEY SUPPLY (BILLION WON)						
1960	22.70		1966	85.10	1971	358.00
1961	35.60		1967	123.00	1972	519.40
1962	39.40		1968	177.90	1973	730.30
1963	41.90		1969	252.00	1974	945.70
1964	48.90		1970	307.60	1975	1181.70
1965	65.60					

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 5
POPULATION

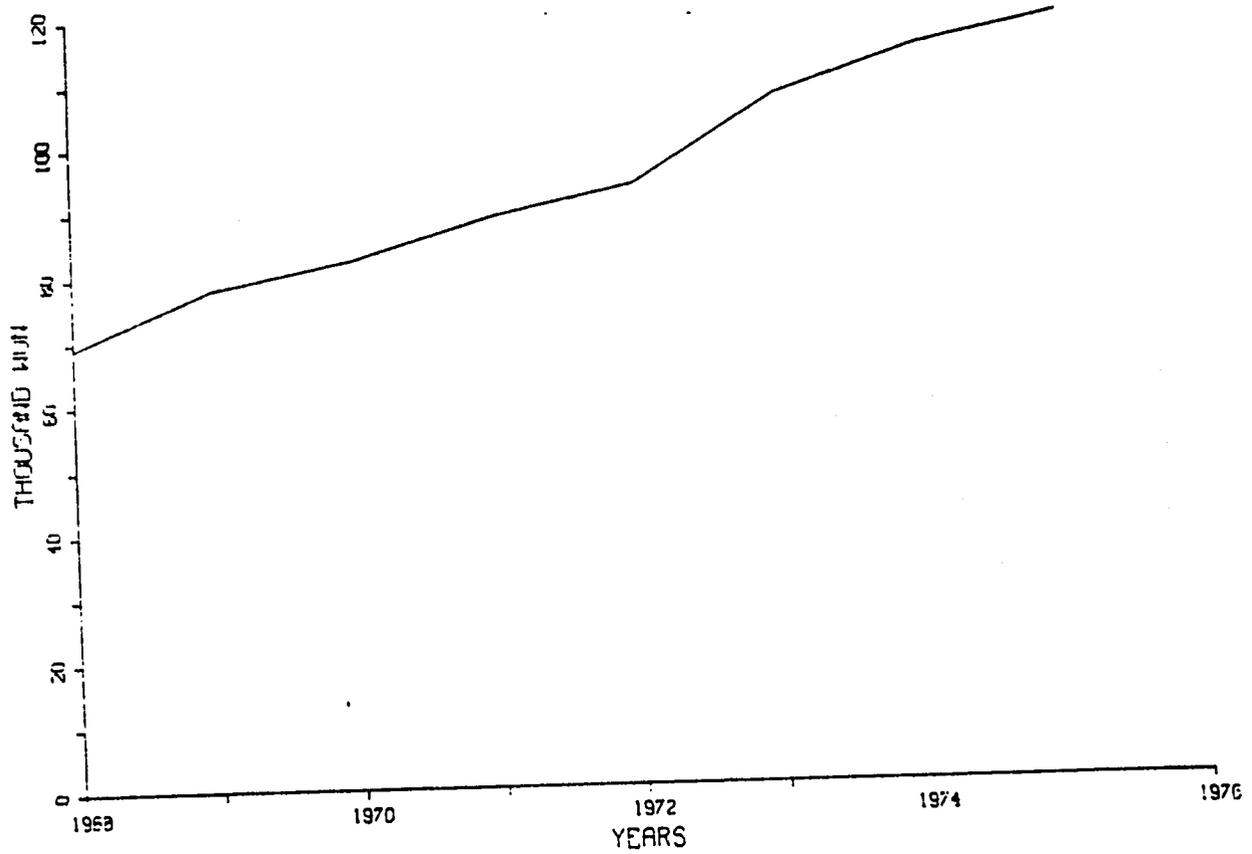


	1968	1969	1970	1971	1972	1973	1974
1969	1.9						
1970	2.1	2.3					
1971	1.2	1.8	1.3				
1972	1.8	1.7	1.5	1.7			
1973	1.8	1.7	1.5	1.7	1.7		
1974	1.7	1.7	1.6	1.7	1.7	1.7	
1975	2.0	2.0	2.0	2.2	2.3	2.7	3.7

POPULATION (THOUSANDS)							
1968		30171.00		1971	31828.00	1974	33459.00
1969		30738.00		1972	32360.00	1975	34681.00
1970		31435.00		1973	32905.00		

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 6
PER CAPITA GNP
 1970 PRICES



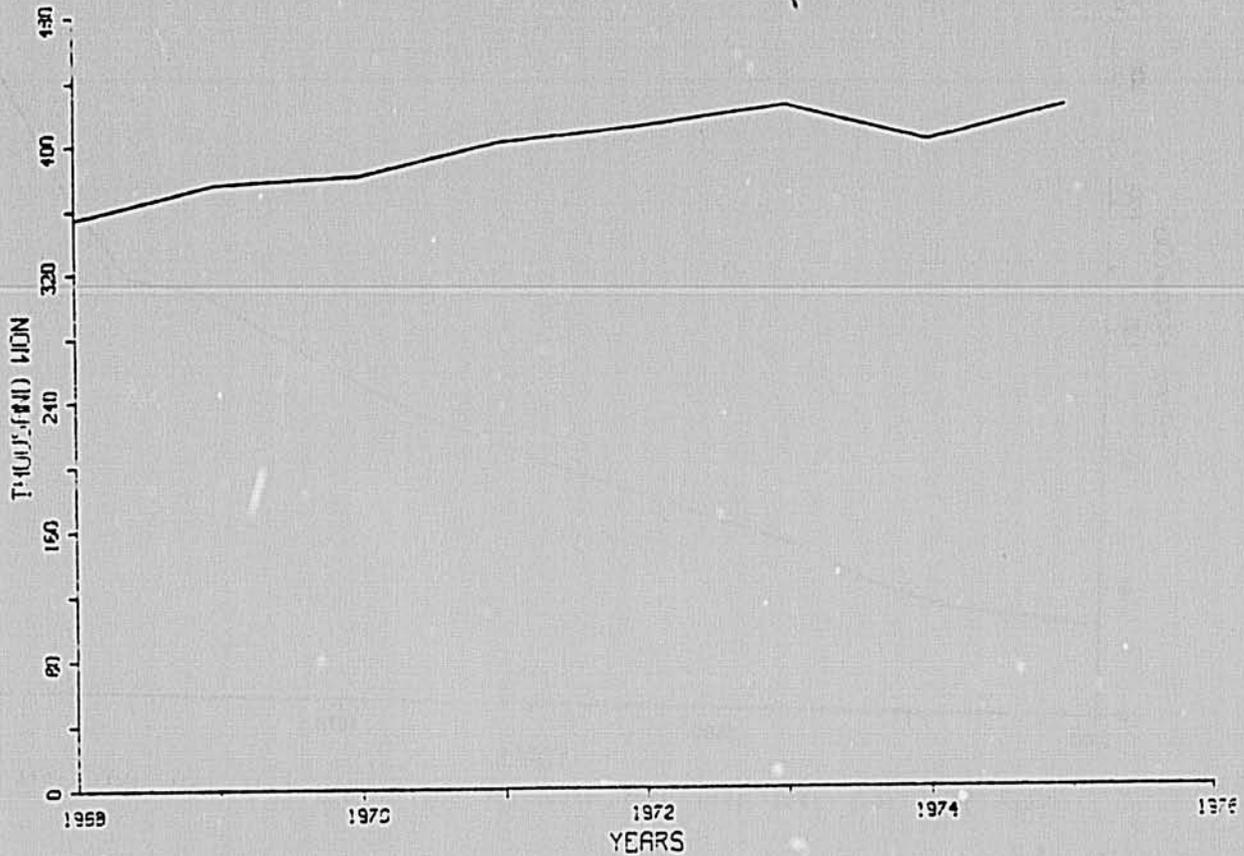
	1969	1970	1971	1972	1973	1974	
1969	21.0						
1970	0.1	5.5					
1971	8.7	6.6	7.8				
1972	7.5	6.2	6.5	5.2			
1973	9.1	6.2	9.1	9.8	14.6		
1974	8.7	7.9	6.5	8.6	10.6	6.8	
1975	8.1	7.3	7.6	7.6	6.4	5.5	4.1

PER CAPITA GDP AT 1970 PRICES

1969	64.58	1971	68.82	1974	114.33
1970	78.00	1972	93.44	1975	119.07
1971	85.00	1973	107.06		

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 7
HOUSEHOLD INCOME
DEFLATED BY CONSUMER PRICE INDEX

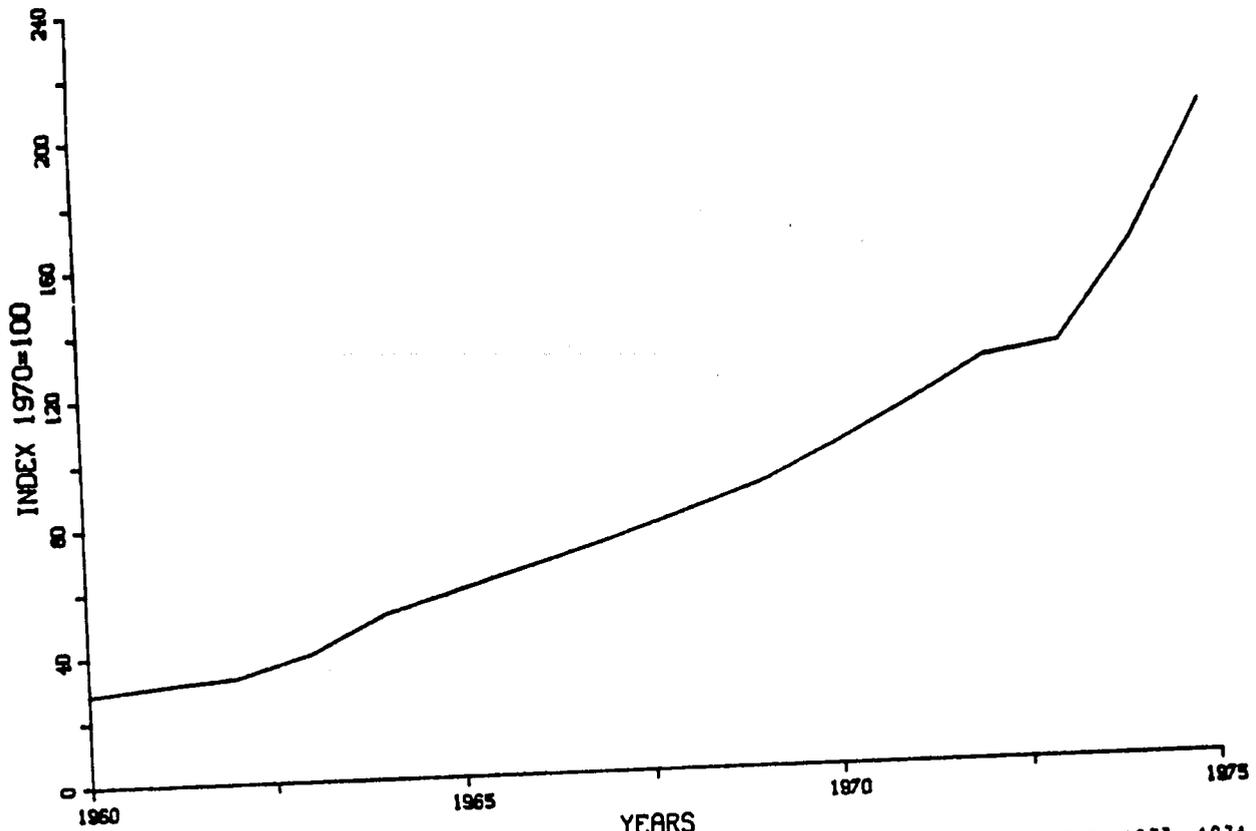


	1968	1969	1970	1971	1972	1973	1974
1968	6.0						
1969	3.7	1.4					
1970	4.3	3.4	5.6				
1971	3.9	3.1	4.0	7.4			
1972	3.7	3.1	3.7	2.6	3.1		
1973	2.1	1.4	1.4	.0	-1.1	-5.2	
1974	2.6	2.1	2.2	1.4	1.0	.0	5.6

ANNUAL HOUSEHOLD INCOME DEFLATED BY THE CONSUMER PRICE INDEX (THOUSAND WON)							
1968		354.79		1971	402.42	1974	402.57
1969		376.10		1972	411.97	1975	424.99
1970		381.24		1973	424.87		

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 8
CONSUMER PRICE INDEX

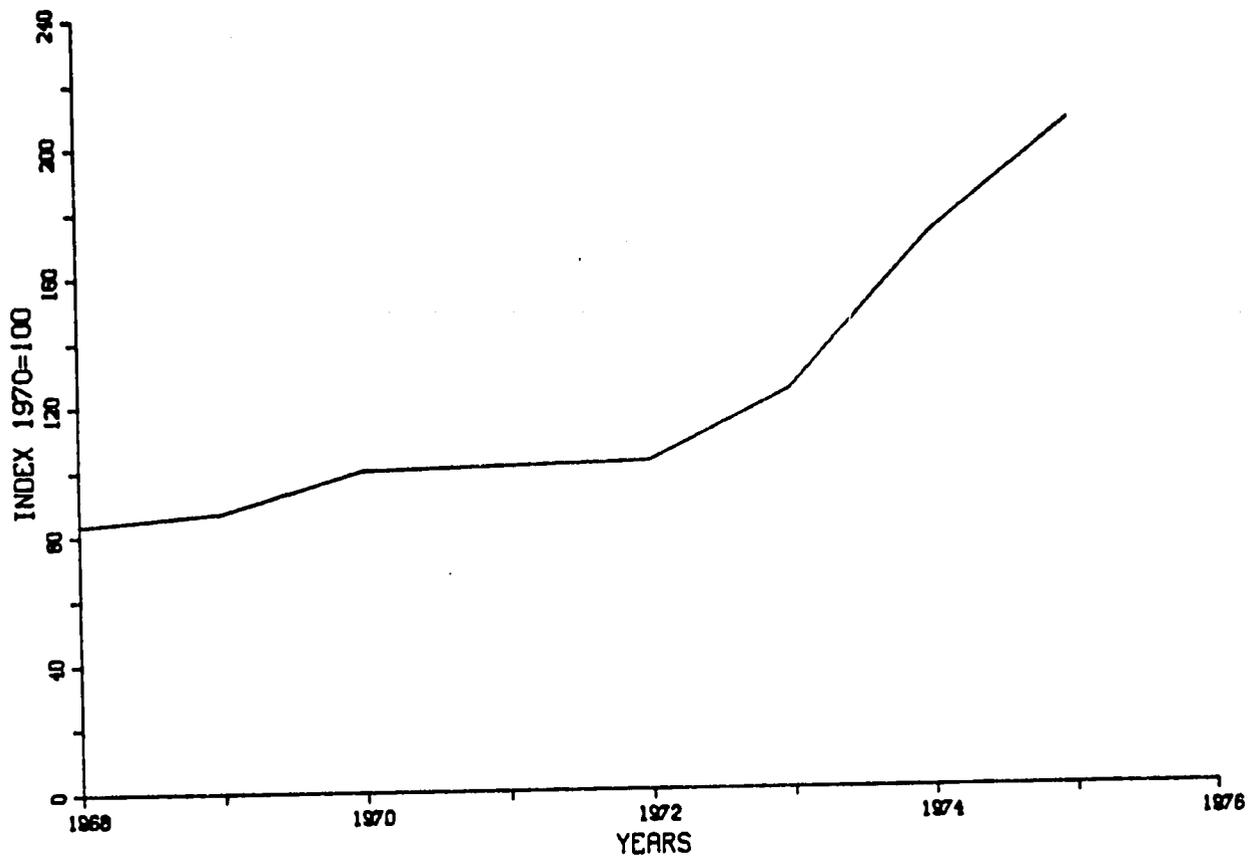


Year	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1961	8.0														
1962	7.3	6.5													
1963	11.6	13.3	20.7												
1964	15.8	18.5	25.0	29.5											
1965	15.3	17.3	21.1	21.3	13.6										
1966	14.8	16.2	18.7	18.1	12.8	12.0									
1967	14.2	15.3	17.1	16.2	12.1	11.4	10.9								
1968	13.8	14.7	16.1	15.2	11.9	11.3	11.0	11.2							
1969	13.4	14.1	15.2	14.3	11.5	11.0	10.7	10.6	10.0						
1970	13.3	13.9	14.9	14.1	11.7	11.4	11.2	11.3	11.4	12.7					
1971	13.2	13.8	14.6	13.9	11.8	11.5	11.4	11.6	11.7	12.5	12.3				
1972	13.1	13.6	14.3	13.7	11.8	11.6	11.5	11.6	11.7	12.3	12.1	11.8			
1973	12.3	12.7	13.3	12.6	10.8	10.5	10.3	10.2	9.9	9.9	9.0	7.4	3.1		
1974	13.1	13.5	14.1	13.5	12.0	11.9	11.8	12.0	12.1	12.5	12.5	12.5	12.9	23.6	
1975	13.9	14.4	15.0	14.5	13.3	13.2	13.4	13.7	14.0	14.7	15.1	15.8	17.2	25.0	26.3

CONSUMER PRICE INDEX (1970=100)					
1960	26.60	1966	65.40	1971	112.30
1961	30.90	1967	72.50	1972	125.60
1962	32.90	1968	80.60	1973	129.90
1963	39.70	1969	88.70	1974	160.10
1964	51.40	1970	100.00	1975	202.20
1965	58.40				

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 9
BUILDING MATERIALS PRICE INDEX

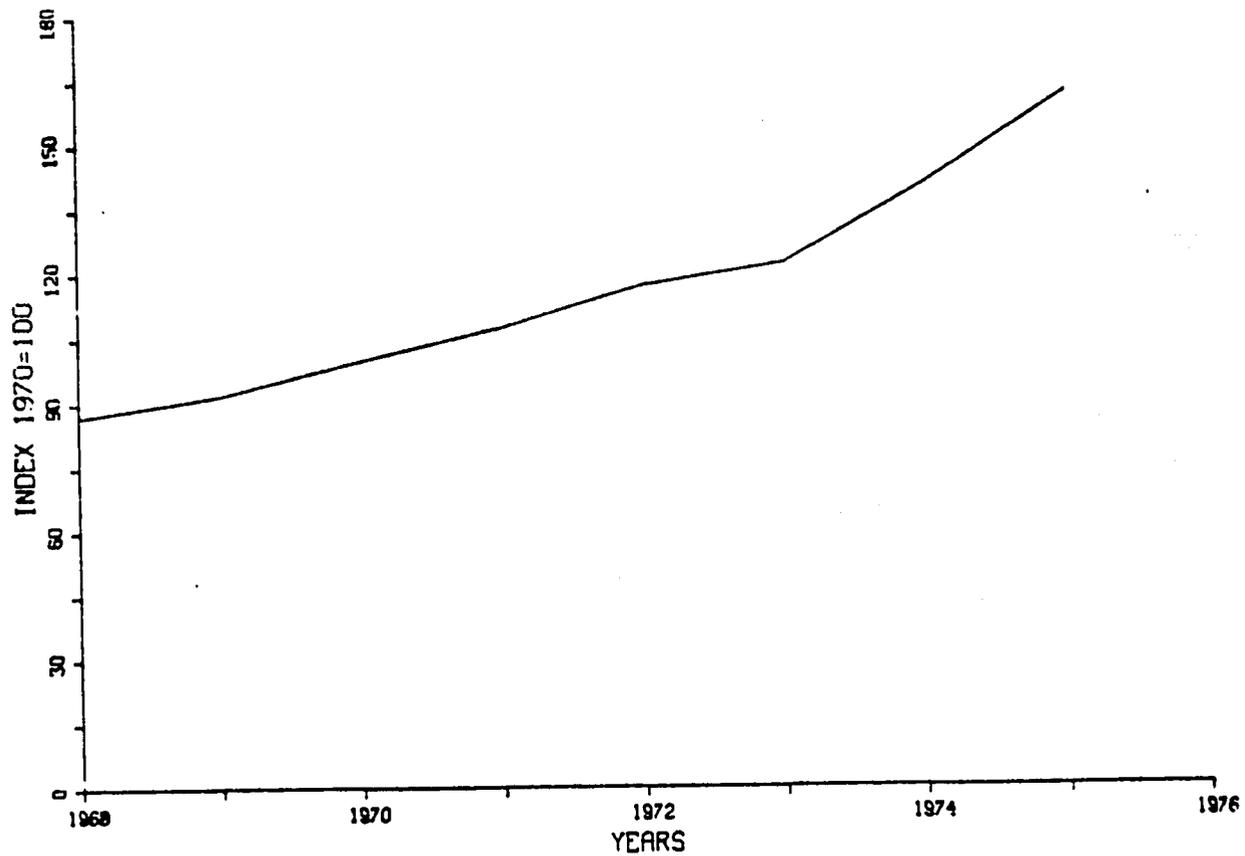


	1968	1969	1970	1971	1972	1973	1974
1969	4.3						
1970	9.4	14.8					
1971	6.6	7.7	1.1				
1972	5.2	5.5	1.1	1.1			
1973	8.3	9.3	7.5	10.8	21.5		
1974	12.8	14.6	14.5	19.4	29.8	38.6	
1975	13.9	15.5	15.7	19.6	26.5	29.1	20.3

BUILDING MATERIALS PRICE INDEX (1970=100)							
1968		83.50		1971	101.10	1974	172.10
1969		87.10		1972	102.20	1975	197.10
1970		100.00		1973	124.20		

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 10
PRICE INDEX OF HOUSING IN CITIES



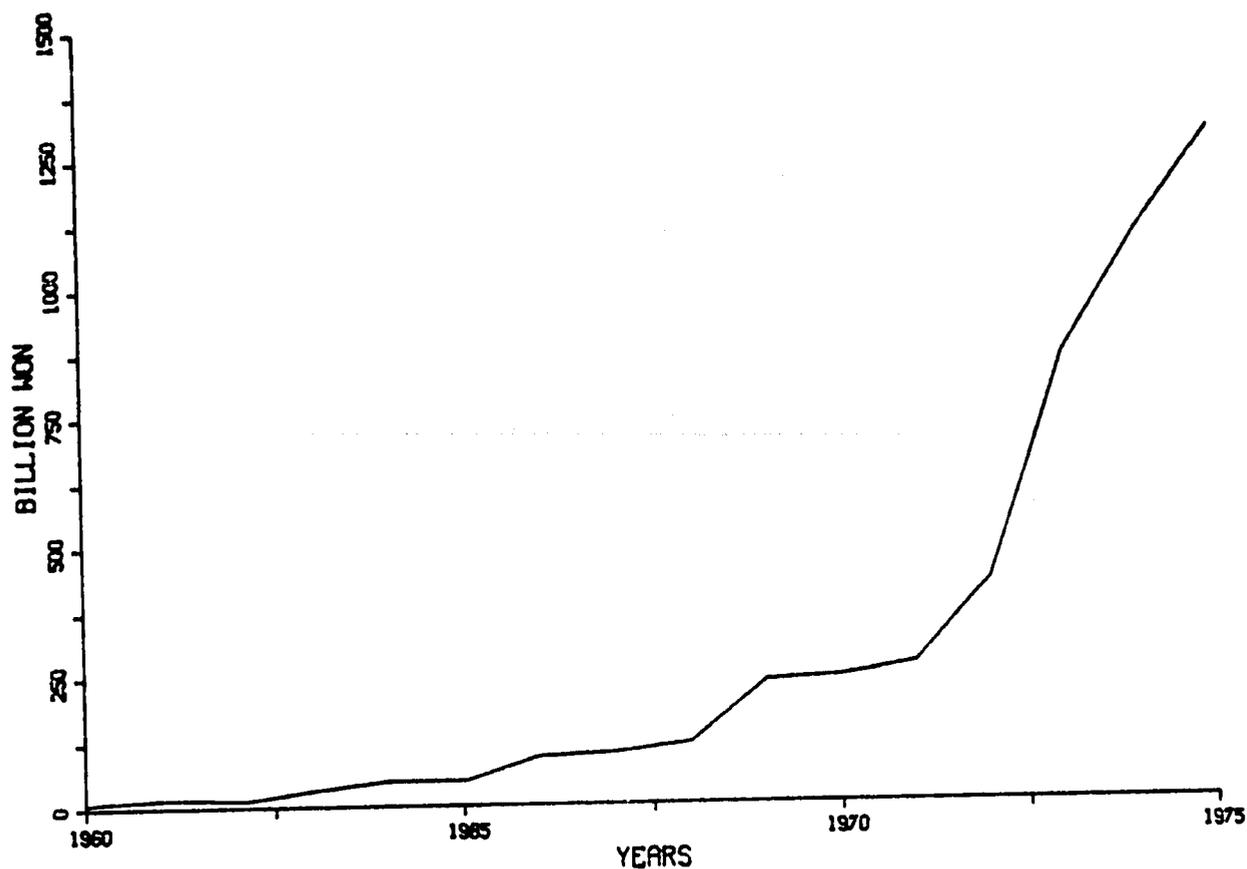
	1968	1969	1970	1971	1972	1973	1974
1969	5.6						
1970	7.2	8.2					
1971	7.3	8.2	7.5				
1972	7.7	8.4	8.2	8.9			
1973	7.0	7.4	6.9	6.6	4.4		
1974	8.3	8.8	8.9	9.3	9.5	14.9	
1975	9.3	9.9	10.1	10.7	11.4	15.0	15.2

PRICE INDEX OF HOUSING IN CITIES (1970=100)							
1968		87.00		1971	107.50	1974	140.40
1969		91.90		1972	117.10	1975	141.70
1970		100.00		1973	122.20		

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 11

GROSS PRIVATE DOMESTIC SAVINGS



Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1961		97.4														
1962		10.0	-38.7													
1963		55.0	37.3	207.6												
1964		54.2	42.1	116.3	52.1											
1965		40.3	28.8	65.0	20.9	-3.9										
1966		48.9	40.8	73.3	43.2	38.9	100.9									
1967		42.1	34.5	57.4	33.1	27.4	46.6	7.1								
1968		38.8	32.0	50.0	29.9	24.0	36.3	12.3	17.8							
1969		44.6	39.0	56.3	39.6	37.2	50.1	36.1	53.5	100.2						
1970		39.6	34.5	48.4	33.7	30.9	39.2	27.0	34.5	43.7	3.2					
1971		36.8	31.9	43.6	30.5	27.7	33.9	23.5	28.0	31.6	6.7	10.3				
1972		38.5	34.2	45.1	33.5	31.3	37.3	28.9	33.7	38.1	22.0	32.6	59.5			
1973		42.6	38.8	49.5	39.1	37.8	44.1	37.4	43.3	49.0	38.4	52.6	79.6	102.2		
1974		41.5	37.9	47.5	38.0	36.7	42.1	36.1	40.9	45.1	36.1	45.8	60.1	60.4	27.2	
1975		39.8	36.4	45.0	36.2	34.9	39.5	34.0	37.8	40.9	32.9	39.8	48.4	44.8	22.6	18.2

GROSS PRIVATE DOMESTIC SAVINGS (BILLION WON)

1960	8.55	1966	93.37	1971	268.17
1961	16.88	1967	99.96	1972	427.74
1962	10.34	1968	117.71	1973	864.68
1963	31.81	1969	235.63	1974	1099.90
1964	48.39	1970	243.20	1975	1299.57
1965	46.43				

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

TABLE 12
GROSS PRIVATE DOMESTIC SAVINGS
AS A PERCENT OF
GROSS NATIONAL PRODUCT



Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1961	02.7															
1962	-7.4	-47.4														
1963	22.4	0.8	116.7													
1964	18.5	0.0	51.7	6.2												
1965	17.0	.4	24.0	-5.5	-15.9											
1966	17.0	7.0	31.0	11.5	14.2	55.2										
1967	12.3	3.0	21.4	5.0	4.0	16.7	-12.2									
1968	9.0	3.0	10.2	2.6	1.6	8.5	-9.3	-6.3								
1969	13.9	0.9	20.9	9.7	10.4	18.1	7.9	19.6	52.7							
1970	10.4	3.7	13.3	5.4	5.3	10.1	1.1	6.0	12.7	-16.8						
1971	8.4	4.1	12.3	3.4	3.0	6.0	-1.1	1.8	4.7	-13.3	-9.6					
1972	10.1	0.2	14.0	6.1	6.1	9.7	3.0	7.0	10.7	-6	8.7	30.6				
1973	13.2	9.8	17.4	10.4	10.9	14.8	10.0	14.2	18.8	11.6	23.0	43.5	57.7			
1974	11.0	0.4	15.1	6.7	8.9	12.1	7.6	10.8	13.9	7.5	14.0	24.0	20.8	-7.4		
1975	9.0	3.9	11.7	5.7	5.7	6.2	3.9	6.1	8.0	2.0	6.2	10.6	4.6	-14.8	-21.6	

GROSS PRIVATE DOMESTIC SAVINGS AS A PERCENT OF GNP

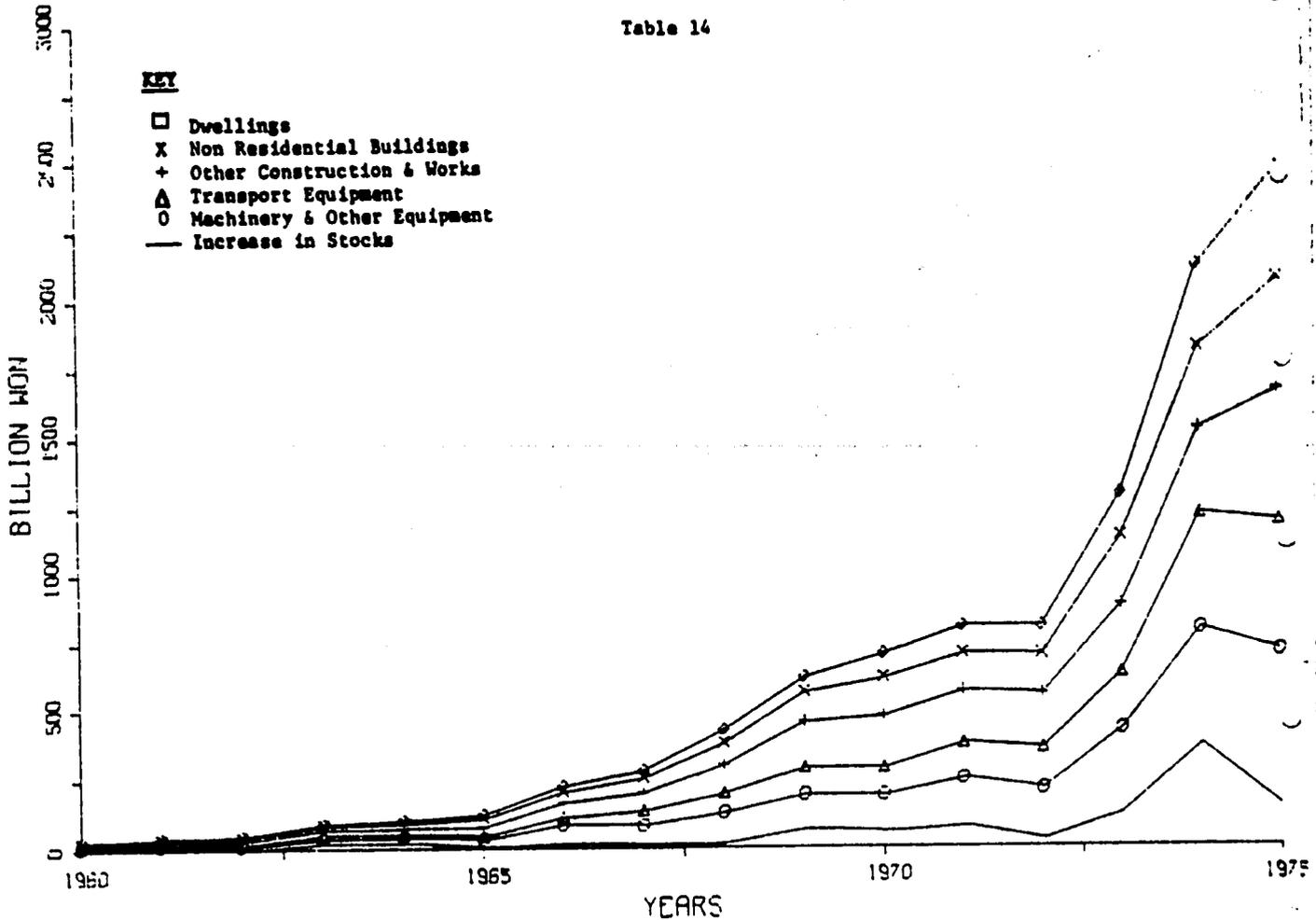
1960	3.50	1966	9.00	1971	8.50
1961	5.70	1967	7.90	1972	11.10
1962	3.00	1968	7.40	1973	17.50
1963	6.30	1969	11.30	1974	16.20
1964	6.90	1970	9.40	1975	12.70
1965	5.20				

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

Capital Investment
Table 13: page 21

GROSS DOMESTIC CAPITAL FORMATION

Table 14



	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
1961	44.7														
1962	30.3	17.2													
1963	49.9	52.5	98.5												
1964	39.8	38.1	53.0	13.3											
1965	35.4	33.2	34.0	15.3	19.3										
1966	42.5	42.1	42.1	35.5	43.2	34.0									
1967	39.9	39.1	43.9	32.9	40.1	51.9	25.2								
1968	41.4	40.2	45.3	36.5	43.0	51.9	38.1	52.3							
1969	41.9	41.4	45.3	37.9	43.4	50.2	40.4	48.6	45.1						
1970	38.7	30.0	40.9	34.1	39.0	42.0	33.1	35.9	28.3	13.5					
1971	36.3	35.4	37.6	31.5	34.3	37.0	29.1	30.1	23.5	13.9	14.3				
1972	32.3	31.9	33.3	27.5	29.4	31.0	23.7	23.4	17.1	9.1	6.9	.0			
1973	34.7	33.9	35.6	30.5	32.5	34.3	28.4	29.0	24.7	20.1	22.4	26.7	60.4		
1974	36.7	36.1	37.6	33.3	35.5	37.4	32.4	33.5	30.6	27.9	31.8	39.2	62.5	64.5	
1975	35.2	34.6	35.0	31.9	33.5	35.1	30.6	31.3	28.5	26.0	28.6	32.4	45.4	38.5	16.4

TOTAL GROSS PRIVATE DOMESTIC CAPITAL FORMATION (BILLION WON)

1961	25.63	1966	224.48	1971	805.0
1962	33.77	1967	280.97	1972	505.6
1963	45.47	1968	427.97	1973	1292.2
1964	97.25	1969	520.70	1974	2125.5
1965	102.24	1970	704.66	1975	2476.3
1966	121.32				

TABLE 14 (cont.)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	
1961	-7.7														
1962	4.3	17.8													
1963	9.3	15.4	18.9												
1964	16.4	24.6	34.3	51.7											
1965	21.1	26.7	33.8	47.0	32.0										
1966	25.9	33.8	38.2	45.3	42.2	52.0									
1967	26.8	33.7	37.1	42.0	38.9	42.0	32.7								
1968	31.4	38.7	42.5	47.8	46.8	51.7	51.5	73.2							
1969	29.7	35.3	38.0	41.5	39.5	41.2	37.7	40.3	13.7						
1970	32.3	37.7	40.4	43.8	42.5	44.6	42.7	46.3	34.4	58.9					
1971	30.7	35.3	37.4	39.9	38.2	39.2	36.7	37.7	27.6	35.2	15.0				
1972	28.1	32.0	33.5	35.3	33.3	33.4	30.5	30.1	21.1	23.7	9.1	3.5			
1973	29.5	33.5	35.0	35.7	35.2	35.5	33.2	33.3	26.5	30.0	21.6	25.0	50.9		
1974	33.3	37.1	38.9	40.9	39.8	40.6	39.2	40.2	35.4	40.1	35.8	43.6	49.1	89.5	
1975	33.4	36.9	38.5	40.3	39.3	40.0	38.7	39.5	35.2	39.2	35.5	41.2	56.6	59.6	34.4

RELLINGS (BILLION WON)

1960	5.34	1966	21.18	1971	101.14
1961	4.03	1967	28.10	1972	104.65
1962	5.81	1968	48.67	1973	157.92
1963	6.61	1969	55.35	1974	299.27
1964	10.48	1970	87.03	1975	402.13
1965	13.63				

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	
1961	3.7														
1962	30.5	64.3													
1963	30.3	45.2	29.9												
1964	37.1	40.4	29.8	29.6											
1965	37.9	45.1	43.1	50.1	73.9										
1966	35.1	42.4	37.4	40.0	45.6	21.9									
1967	35.1	41.2	37.0	35.5	42.0	28.3	35.1								
1968	36.7	42.2	35.3	40.7	43.6	34.8	41.7	48.6							
1969	36.9	41.6	35.6	40.1	42.3	35.4	40.2	42.9	37.4						
1970	36.0	40.1	37.4	38.5	40.0	34.1	37.3	38.1	33.1	28.9					
1971	32.0	35.2	32.3	32.6	33.1	27.3	28.4	26.8	20.2	12.5	-1.9				
1972	29.6	32.3	29.4	29.4	29.3	24.0	24.3	22.3	16.5	10.2	1.9	5.9			
1973	32.6	35.3	32.9	33.2	33.6	29.3	30.4	29.6	26.1	23.5	21.7	35.6	73.7		
1974	31.4	33.8	31.5	31.6	31.8	27.9	28.6	27.7	24.5	22.1	20.5	29.0	42.4	16.8	
1975	31.9	34.0	32.0	32.1	32.4	28.8	29.6	28.9	26.3	24.6	23.7	31.1	40.8	28.9	37.7

NON RESIDENTIAL BUILDINGS (BILLION WON)

1967	6.42	1966	39.03	1971	136.14
1961	5.65	1967	52.73	1972	144.16
1962	17.04	1968	78.38	1973	250.40
1963	14.21	1969	107.66	1974	292.43
1964	13.42	1970	139.82	1975	402.74
1965	32.53				

TABLE 14 (cont.)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1961	70.2														
1962	42.7	37.0													
1963	48.6	35.9	40.8												
1964	40.7	32.1	27.7	13.4											
1965	40.0	33.3	32.1	27.9	37.0										
1966	42.9	38.0	38.2	37.4	47.4	58.5									
1967	39.9	35.4	35.1	33.7	38.9	39.8	23.2								
1968	42.0	38.4	38.6	38.2	43.4	45.6	39.5	57.9							
1969	44.1	41.1	41.7	41.9	46.8	49.4	46.5	59.7	61.5						
1970	40.6	37.7	37.8	37.3	40.6	41.3	37.3	42.4	35.2	13.1					
1971	36.5	33.5	33.1	32.1	34.1	33.6	29.1	30.6	22.6	6.8	.9				
1972	33.4	30.5	29.8	29.6	29.8	28.9	24.5	24.7	17.6	5.8	2.3	3.8			
1973	32.7	30.0	29.4	29.3	29.4	29.4	24.6	24.9	19.1	10.4	9.5	14.1	25.5		
1974	32.3	29.7	29.1	29.1	29.0	28.2	24.8	25.1	20.3	13.4	13.5	18.0	25.8	26.2	
1975	33.6	31.3	30.8	30.0	31.1	30.5	27.7	28.3	24.5	19.2	20.5	26.0	34.4	39.0	53.1

OTHER CONSTRUCTION AND WORKS (BILLION WON)

1960	6.27	1966	53.38	1971	191.44
1961	10.57	1967	65.77	1972	198.65
1962	14.62	1968	103.86	1973	249.24
1963	20.59	1969	167.77	1974	314.59
1964	24.58	1970	189.82	1975	481.78
1965	33.67				

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1961	60.7														
1962	47.2	34.9													
1963	59.2	58.4	86.1												
1964	33.6	25.7	21.3	-21.0											
1965	37.3	32.1	31.1	10.1	53.3										
1966	49.5	47.4	57.7	40.5	97.2	128.7									
1967	55.9	55.1	59.5	53.4	91.4	113.8	99.9								
1968	52.1	50.9	53.8	49.0	73.1	90.3	60.1	28.3							
1969	51.1	49.9	52.2	47.2	66.7	70.2	54.2	35.5	43.1						
1970	45.0	43.3	44.4	39.3	53.1	53.0	39.4	22.4	19.6	-0					
1971	43.5	41.8	42.6	39.0	49.4	48.8	36.5	24.1	22.7	13.6	29.2				
1972	41.0	39.3	39.7	35.4	44.8	43.6	32.9	22.5	21.1	14.5	22.5	16.2			
1973	40.9	39.4	39.8	35.8	44.2	43.2	33.9	25.2	24.6	20.4	28.1	27.6	40.1		
1974	44.7	43.6	44.3	41.0	49.4	49.0	41.2	34.4	35.4	33.9	44.1	49.4	69.5	105.0	
1975	42.4	41.1	41.6	38.4	45.7	44.9	37.8	31.5	32.0	30.2	37.3	39.4	48.1	52.2	13.0

TRANSPORT EQUIPMENT (BILLION WON)

1960	2.39	1966	26.71	1971	126.59
1961	3.84	1967	53.39	1972	147.04
1962	5.19	1968	68.48	1973	206.04
1963	9.54	1969	98.01	1974	422.40
1964	7.62	1970	97.97	1975	477.39
1965	11.49				

TABLE 14 (cont.)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1961	33.9														
1962	43.4	47.4													
1963	39.7	42.8	38.3												
1964	35.0	35.4	29.8	21.9											
1965	35.4	34.8	32.2	23.2	37.0										
1966	49.5	52.9	54.3	67.0	83.4	145.5									
1967	42.5	44.0	43.3	44.6	53.1	61.8	6.7								
1968	43.9	45.4	45.0	46.4	53.3	59.1	28.1	53.9							
1969	39.7	40.5	39.5	39.7	43.6	45.3	22.0	30.4	10.6						
1970	36.3	36.6	35.3	34.9	37.2	37.2	18.7	23.0	9.9	9.3					
1971	35.6	35.8	34.5	34.1	35.9	35.8	20.6	24.3	15.8	18.5	28.6				
1972	32.9	32.8	31.4	30.7	31.8	31.1	18.1	20.5	13.4	14.4	17.0	6.5			
1973	35.1	35.2	34.2	33.8	35.1	34.9	23.9	27.0	22.2	25.3	31.1	32.4	64.7		
1974	35.4	35.5	34.6	34.3	35.6	35.4	25.7	26.7	24.9	28.0	33.1	34.7	51.5	39.4	
1975	35.3	35.4	34.5	34.2	35.3	35.2	26.5	29.2	26.1	28.8	33.2	34.3	45.1	36.3	33.2

MACHINERY AND OTHER EQUIPMENT (BILLION WON)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1960			6.12				1966		68.39			1971			174.41
1961			8.19				1967		72.97			1972			185.73
1962			12.07				1968		112.27			1973			305.83
1963			15.69				1969		124.15			1974			426.27
1964			20.34				1970		135.66			1975			567.81
1965			27.85												

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1961	1030.4														
1962	.0	.0													
1963	340.5	122.2	.0												
1964	199.1	66.6	.0	-6.4											
1965	11.0	-11.1	.0	-64.4	-86.5										
1966	98.3	29.5	.0	-10.8	-12.9	461.9									
1967	63.2	13.1	.0	-22.5	-27.2	69.8	-49.3								
1968	67.6	20.1	.0	-6.1	-6.0	79.3	1.3	102.4							
1969	85.5	40.4	.0	20.4	26.6	121.6	62.5	190.9	318.0						
1970	70.7	31.9	.0	13.7	17.4	80.9	35.3	89.4	83.3	-10.6					
1971	67.5	32.6	.0	16.5	20.3	73.1	36.8	75.3	67.1	5.6	38.9				
1972	46.4	17.0	.0	1.4	2.5	36.8	8.1	25.8	11.7	-28.0	-31.9	-66.6			
1973	60.5	31.7	.0	19.6	21.8	60.4	34.1	57.6	49.9	16.0	31.2	27.5	386.6		
1974	68.0	40.4	.0	29.2	33.4	72.0	43.4	73.0	68.5	40.5	61.5	69.9	283.3	201.9	
1975	52.5	28.2	.0	17.0	19.4	48.5	28.1	43.8	37.0	13.7	21.9	18.0	79.7	9.2	-60.5

INCREASE IN STOCKS (BILLION WON)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1960			.25				1966		15.79			1971			75.63
1961			4.87				1967		8.01			1972			25.25
1962			-3.15				1968		16.21			1973			122.86
1963			22.22				1969		57.76			1974			370.93
1964			25.50				1970		54.46			1975			146.54
1965			2.81												

Source: Monthly Economic Statistics, Bank of Korea, 9/75 and 9/76

The Role of Interest Rates in the Korean Economy and Housing Finance Market

The Korean economy is presently characterized by a mixture of credit markets ranging from government allocated credit at administered interest rates to informal credit markets involving no formal financial institutions whatsoever.

The government has chosen to use interest rates as a direct tool of subsidy in the economy and as a result formal credit markets do not allocate funds according to effective demand as might occur in a more market oriented system. The structure of interest rates is highly complex and reflects a myriad of special interest groups which benefit from the administered below-market interest rates.

The monetary board which is effectively under the control of the ministry of finance sets the upper limit on interest rates for all banks. Within those limits banks are free to adjust rates as they deem appropriate. Many rates are set through agreement among banks by the Bankers Association. A further element of interest rate intervention occurs as a result of the fact that the government is a major stockholder of five city banks which are the major private banks within the country of Korea. Government policy encompasses the provision of low cost credit to areas of high government priority. Low rates are made available to export and key industries. Because of this intervention

similar loans and deposits have different interest rates. Often these rates are arbitrarily set without rational standards. Interest rates do not always vary according to risk, cost of handling or supply and demand. Rather the interest rates are a reflection of current governmental priorities and desired investment directions.

As a result of the tight control of formal financial institutions and interest rates which they are allowed to charge, substantial informal market activity (curb market) has developed which serves credit needs not served by the banking system and provides returns to investors consistent with the financial and inflationary risks existing in the economy and in the individual business enterprise. An indication of the proliferation of interest rates which exists in the Korean economy can be gained from Table 15 and Table 16 which show the interest rates prevailing in 1976 for various types of loans and deposits in the Korean banking system. Table 15, which shows the return paid for deposits, indicates the wide range of rates which are available, ranging from a zero rate of return on checking accounts to a rate of return of over 26% per year, available on some accounts in mutual savings and finance companies, to over 40% annual return for some Curb Market investments. The proliferation of rates in the twelve to twenty percent range would seem to indicate that except for demand deposits and other special instances, it is unlikely that a sizeable portion of market funds

can be attracted at anything less than twelve percent in the Korean economy and deposit rates in the 16 to 20% range may be more realistic if a serious effort is made to generate housing funds through the private savings market. Table 16 shows the rate of interest charged on loans in the economy, demonstrating the wide variation in interest rates among institutions. The great dispersion in these rates is a reflection of the fact that a substantial amount of government intervention in credit direction occurs in the Korean money markets.

The government of Korea, acting through the monetary board, has used below market interest rates as a major tool of government policy by providing subsidized interest loans to sectors of high economic priority. The general practice of granting subsidies through interest rates effectively makes the amount of subsidy directly proportional to the amount of capital employed. Indirectly then, the government is providing an incentive for the maximum employment of capital by borrowers.

An indication of market interest rates can be gained from an examination of selective relatively free rates shown in the table. First the Bank of Korea has a rediscount rate at approximately the nineteen percent level. Commercial banks for ordinary business loans are charging 18 to 25 percent. Further evidence of the government control of credit markets is indicated by the pattern of interest rates existing in the special purpose government controlled

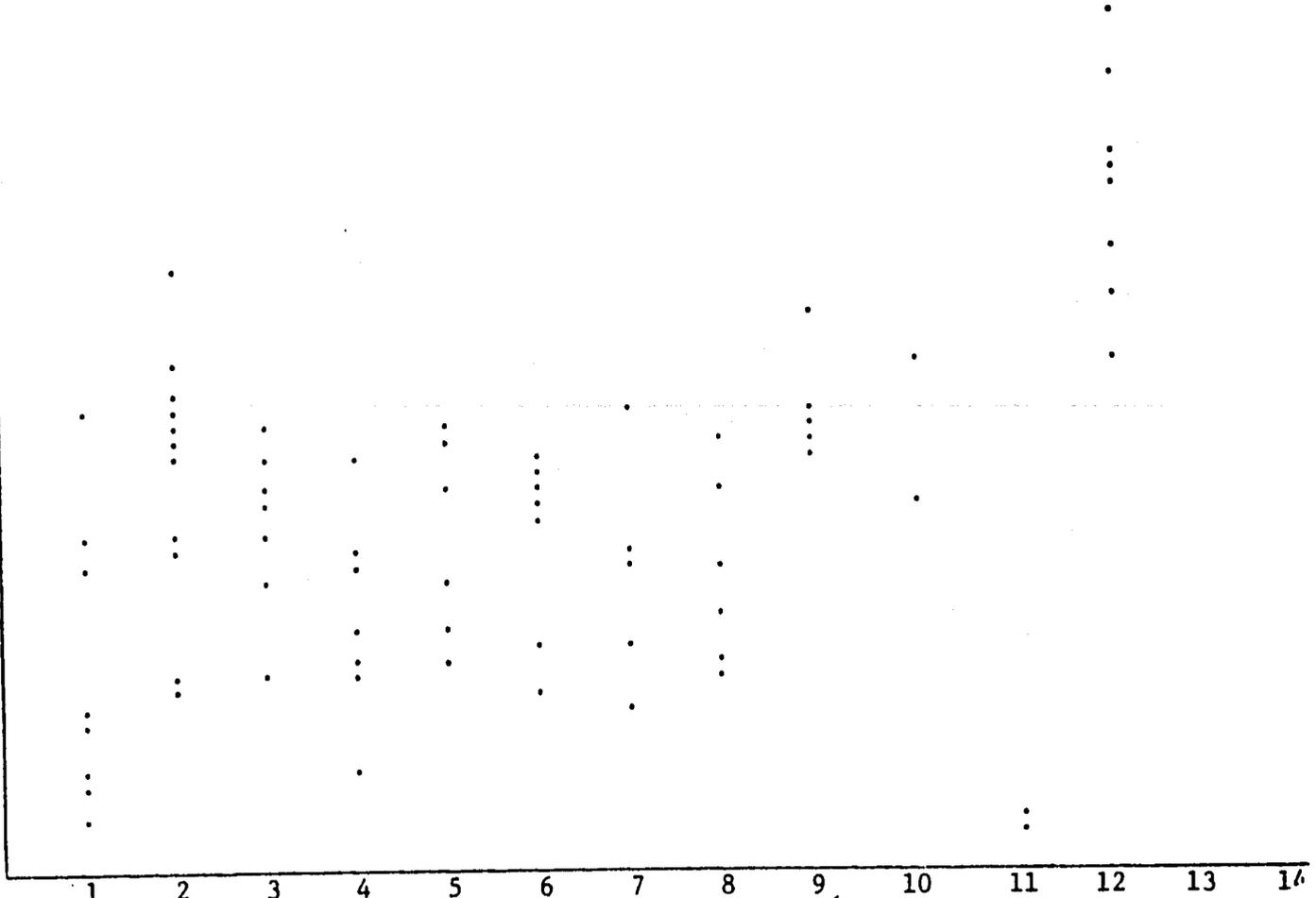
banks numbered three through eight in the table. As the table shows in these controlled banks there are no loans bearing an interest rate higher than 18 percent. The high cost of consumer and small business credit is indicated by the rates shown for the institutions 12 and 14. Mutual savings and finance companies having loan rates varying from 21 to 36 percent and the curb market with effective interest rates of 36 to 40 percent.

The interest rate tables for loans and deposits provide a substantial indication that the nation is going to have great difficulty generating substantial private housing capital under the present approaches to capital formation. Mortgage interest rates generally fall into one of three categories: 8 percent loans, 9 1/2 percent loans and 14 percent loans. Based on the evidence presented these interest rates appear to be entirely inadequate if there is a desire to attract private funds into housing investment.

TABLE 16

INTEREST RATES ON LOANS
BY TYPE OF INSTITUTION

40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2



MAJOR INTEREST RATES ON LOANS AND DISCOUNTS OF THE BANK OF KOREA -1-

Others	19.0%
Discounts for Commercial Bills:	
Others	14.0%
Prime Enterprise	13.0%
Loans for:	
Imports	6.5%
Agri member projects	6.0%
Rice Lien	4.0%
Export Prep of agri & marine	3.5%
Supplier of US offshore proc	3.5%
Exports	3.5%
Advances to Government	2.0%

KOREA HOUSING BANK -3-

Housing Fund for:	
Apartment Construction	18.0%
Other Construction	18.0%
Housing Site forming Fund for:	
Housing Corporations	18.0%
Local Governments	18.0%
Private	18.0%
Prod Fund of Cons Materials for:	
Operation	18.0%
Equipment	15.5%
Housing Fund for:	
Company Residence	15.5%
Deposits: Grade A	
(after expy)	15.5%
Grade A	
(before expy)	14.0%
Grade B	14.0%
Housing improv	14.0%
Grade C	12-16%
Public Entities	8.0%

MEDIUM INDUSTRY BANK -5-

Banking Fund For:	
Medium Industry	18.0%
Equip of Med. Industry	18.0%
Cooperative Business	18.0%
Government Fund for:	
Operation	15.5%
Cooperative Business	12.0%
Equipment	10.0%
Foreign Loan Fund From:	
AID	8.0%
IMR	8.0%
PAC	8.0%

MAJOR INTEREST RATES ON LOANS AND DISCOUNTS OF DEPOSIT MONEY BANKS - COMMERCIAL -2-

Loans Overdue	25.0%
Call Loan	20.0%
Overdrafts	19.0%
Loans on Installment Savings	17.0%
Loans with Collateral of Install	15.0%
Loans for Machine Ind. Promotion	14.0%
Loans for Equip of Export Ind.	14.0%
Loans with MIP	14.0%
Loans for Exports	8.0%
Loans for supplies in Foreign Currency	8.0%
Loans for Export Prep. of Agri. & Marine Prod.	8.0%
Loans on New Household Deposits	7.8%

AGRICULTURAL COOPERATIVES -4-

Banking Fund for:	
Various Debt Settlement	17.0%
Fishery:	
To fishery	17.0%
To Cooperative	17.0%
For Deep Sea Fishing	17.0%
For Forestry	17.0%
Agriculture and Forestry	17.0%
Agricultural Production	13.0%
Agricultural Pension Fund	12.0%
Agri. Production (govt fund)	
Short term	10.0%
Medium term	9.0%
5 to 15 years	9.0%
Loans for export prep of agri and marine prod	8.0%
Government Fund for:	
Warehouse Construction	8.0%
Irrigation	3.5%

CITIZENS NATIONAL BANK -6-

Banking Fund for:	
Remunerations:	
1st Diminishing	17.04%
Government Fund for:	
Loans on Household mfg	17.00%
Banking Fund for:	
Remunerations:	
2nd Diminishing	15.98%
Loans on mutual install.	15.50%
Loans with Collateral of mutual install.	15.00%
Remunerations:	
3rd Diminishing	14.93%
4th Diminishing	13.74%
5th Diminishing	13.74%
Government Fund for:	
Loans on Relief	8.50%
Agent Loans	5.00%

TABLE 16 (cont.)

FISHERIES COOPERATIVE -7-

Banking Fund for:	
Short Term	
Others	19.0%
Culturing Laver	13.0%
Medium and Long Term	
Cons. of Fishing Boat	12.5%
Other Equipment	12.5%
Short Term	
Assistance for Export	9.0%
Government Fund for:	
Short Term	
Fishery Loans	9.0%
Manufacturing	9.0%
Stabilizing Price	9.0%
Medium and Long Term	
Const of Fishing Boat	9.0%
Equipment of Agriculture	9.0%
Processing	9.0%
Banking Fund for:	
Short Term	
Assistance for Export	9.0%
Foreign Loan Funds	
Short Term	5.75%
Medium and Long Term	5.75%
KOREA DEVELOPMENT BANK -8-	
Counterpart Funds	
Operating	18.0%
Industrial Funds	
Internal Fund for:	
Key Industry - Operating	15.5%
Other Industry - Equip	15.5%
Operating	15.5%
Government Fund for:	
Operating	15.5%
Equipment	12.0%
Internal Fund for	
Key Industry - Equip	12.0%
Counterpart Funds	
Equipment	12.0%
Foreign Loan Funds	8-10%
Counterpart Funds	
Special	7.5%
Industrial Funds:	
Govt Funds for:	
Special Loan	7.5%

TRUST ACCOUNTS

-9-

Loans	23.5%
Loans on Usufruct:	
3 Years	18.4%
2 Years	18.2%
18 Months	17.8%
1 Year	17.6%

LIFE INSURANCE COMPANIES -10-

Mortgage Loans	22.0%
Loans by Clause	13-22 %

INVESTMENT AND FINANCE COMPANIES -11-

Discount - 3rd party	1.65%
Discount - Bank Guaranty	1.56%
Discount	1.56%

MUTUAL SAVINGS AND FINANCE COMPANIES -12-

Loans on Credit	33.6-36%
Loans on Mutual Time Deposits	
13 Months	29.98%
100 Days	29.20%
180 Days	28.48%
18 Months	26.20%
26 Months	23.98%

MUTUAL CREDIT COOPERATIVES -13-

General Loans	22.0%
Loans on Mutual Instal, sa.	22.0%
Loans on Free Inst. savings	20.4%

CURB MARKET

-14-

Curb Market	36.5, 40%
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Source: Monthly Economic Statistics, Bank of Korea, 10/76

The Korean Financial System

Housing finance in Korea operates within a structure of inter-related financial institutions under the general direction of the ministry of finance (see supplementary Tables A, B, C and D at the end of the chapter). The following discussion provides a brief overview of the structure of the Korean financial system and its relevance for the development of housing finance institutions in the country.

The Bank of Korea

The Bank of Korea is the central bank of the government of South Korea and is effectively under the control of the ministry of finance. The Economic Planning Board, the Ministry of Finance and the Bank of Korea determine the Bank of Korea policy as it effects monetary policy, money supply, monetary aggregates and targets. The Bank of Korea does not pursue an independent monetary policy, partially because the Bank has an obligation to fund the national deficit by purchasing government securities bearing an interest rate of two percent per year. A spokesman for the Bank of Korea estimated that the 1976 money supply may increase by approximately 300 billion won or approximately 25 percent of the beginning stock. Of this amount, the government deficit was expected to account for approximately 50 billion won.

The general responsibility for credit in the country is in the hands of the monetary board. The nine-member board consists of two ex-officio members: the minister of finance and the governor of the Bank of Korea. Other members are the minister of economic planning board, two representatives from banking institutions, two nominees from the agricultural sector, and two from the commerce and industry sector.

The Bank of Korea has not given a high priority to the provision of mortgage credit nor has it encouraged commercial banks to become involved in mortgage lending for residential purposes. There is a prevailing attitude in the central bank that mortgage loans represent the financing of consumption rather than production and therefore are not to be encouraged by monetary or banking policy. It appears that the Bank of Korea will not be in a position to take a major role in the assembly of housing funds within the foreseeable future.

Special Banks

The high demand for capital funds resulting from Korea's rapid growth combined with the relatively high level of inflation accompanying that growth has made it impossible to obtain long term bank loans through ordinary banking channels with funds provided from private sources. As a result of this situation and consistent with the active role of government in the national credit markets, eight

special purpose banks were established in the period from 1954 to 1969 for the specific purpose of building up the Korean economy. The banks were specially charged with providing long term loans to the various economic sectors within the country. The eight special banks are under the direction of the ministry of finance and are charged with financing the industrial sectors, often at artificially low interest rates, so as to achieve the goals in each five year plan. The special purpose banks come under the direction of both the ministry of finance and to some extent the monetary board inasmuch as they operate in several fields subject to the control of the Monetary Board. The banks were basically established using government funds, however, in recent years with a larger portion of their funds coming from the private sector, they have become competitors of the commercial banking system. The banks and a brief explanation of their purpose are as follows:

- I. The Korean Development Bank (assets, 3,015 billion won, September 1976). The Bank is charged with supporting key development projects and secondary industry in the development of the national infrastructure. The Bank borrows from the government, other national agencies and international agencies as funds are available.
- II. The Korean Exchange Bank (assets, 2,232 billion won, August 1976). The Korean Exchange Bank engages

in financing businesses related to foreign trade and in the selling and buying for foreign exchange to facilitate all types of international transactions. Bank resources are foreign currency deposits of the Bank of Korea and foreign bank borrowings.

- III. The Medium Industry Bank (assets, 322 billion won, August 1976). The Medium Industry Bank grants loans to medium and small businesses defined as businesses having assets of less than 50 million won and having a limited number of employees. The Bank obtains funds from private deposits, borrows from the government and has the power to issue government guaranteed medium industry debentures.
- IV. The National Agricultural Cooperatives Federation and Member Cooperatives (assets, 706 billion won, August 1976). The Bank provides funds for agricultural cooperatives, farming, fishing enterprises, loans to local government and related activities. Resources of the Bank come from deposit co-ops borrowing from the federation. The federation has 473 offices, the largest number of banking offices in the country.
- V. The Citizen's National Bank (assets, 321 billion won, August 1976). The Citizen's National Bank is designed to fill the banking needs of households

and small enterprises and is a type of formalization of the "MUJIN" (similar to Kye companies). Primary loans of the Bank consist of loans to depositors. The Bank receives regular deposits and deposits used to secure borrowings. It obtains funds from national savings debentures, and borrows from the Bank of Korea and the government. It also receives proceeds from the Salaried and Wage Earners Fortune Formation Savings Deposits.

- VI. The Central Federation of Fisheries Cooperatives and Member Cooperatives (assets, 75.7 billion won, August 1976). This institution is for the purpose of aiding fishermen and marine product manufacturers. Funds are obtained from deposits, and borrowings from the government and the Bank of Korea.
- VII. The Korea Export-Import Bank. The bank was organized to service long term export affairs. Although legally established in 1969, the business of the Korea Export-Import Bank is tentatively being handled by the Korea Exchange Bank due to its small scale. The only source of funds for the Bank is government borrowings.
- VIII. The Korean Housing Bank. The Korean Housing Bank being the major instrument of housing finance

in the country is discussed in the following section of the paper.

Commercial Banks

The commercial banking system is the primary system of financial institutions serving Korean businesses. Commercial banks are regulated by the Monetary Board and are financed by the Bank of Korea. Commercial banks are subject to the General Banking Act. These banks are characterized by short term loans, some of which are continually renegotiated making them in effect, long term loans. Terms and conditions may be renegotiated at each rollover of the loans.

Commercial banks depend heavily upon the Bank of Korea for a high proportion of their funds. In 1973, for example, approximately 20 percent of loans and discounts was financed by the Bank of Korea. This can be largely attributed to the general approach to credit markets, the high demand for funds generated by the economy's rapid growth, and the relatively underdeveloped private capital market.

The commercial banking industry in Korea can be divided up into several major divisions. These are:

- I. Nation-wide city banks (assets, 5,325 billion won, August 1976). These are the largest private banks in the country and all are headquartered in Seoul. The nationwide city banks have historically been heavily influenced (and owned to varying

degrees) by the government. The banks are an explicit tool of government policy and are granted interest subsidies to cover losses which would otherwise occur on certain loans.

- II. Local banks (assets, 835 billion won, August 1976). There are ten local banks all of which are entirely privately owned. The combined assets of local banks are equal to approximately one-seventh of the combined assets of the city banks. Local banks were established to maintain banking facilities outside of Seoul and to stem the flow of funds going into city banks. Local banks are allowed to pay an interest differential of 2% above the rate paid by city banks.
- III. The Korea Trust Bank (assets, 306 billion won, August 1976). The Korea Trust Bank specializes in trust business. It has 4.7% of the assets of all commercial banks.
- IV. Foreign banks (assets, 352.5 billion won, August 1976). Foreign banks, with the approval of the monetary board, are allowed to open and operate branches in Korea under the same procedures as commercial banks. Foreign banks are subject to certain regulations and restrictions under the foreign exchange control laws and obtain their

funds from somewhat different sources than the typical domestic bank.

Mortgage Lending by Commercial Banks

Commercial Banks in the Republic of Korea presently make no long term mortgage loans nor can they be expected to do so in the near future. The Bank of Korea and the Ministry of Finance have not encouraged banks to move into residential real estate lending. Over and above this official view, there are reasons for the lack of mortgage lending which are both practical and philosophical. First, on the philosophical side, the economic view of mortgage has been that mortgage lending is for consumption rather than lending for production. The banks consider themselves to be the financiers of the nation's production and business and so find mortgage lending to fall outside of that sphere. On a more practical basis, business loans bear a higher interest rate than has prevailed on residential mortgages. Commercial banks seem highly cognizant of the inflation in the Korean economy and have maintained a posture of short term lending as a strategy for dealing with this economic uncertainty. It seems unlikely that banks would find long term mortgage loans such as those issued by the Korean Housing Bank to be attractive in the present economic context. It is not clear whether the Bank of Korea or the commercial banking system would support the development of a system of savings and loan

associations or other institutions primarily devoted to mortgage financing.

Other Financial Institutions

A number of other financial institutions of varying importance exist in the Korean economy. These consist of the following:

- I. Insurance companies; there are six life insurance companies operating in the Korean economy and twelve other insurance companies. Total assets of all insurance companies equal four percent of those of commercial banking institutions.
- II. Short-term finance companies; introduced in 1972, they handle short term dealings in commercial paper and raise funds by the issuance of their own paper. Interest rates are market determined. These companies have been a growing factor in the Korean economy.
- III. Mutual credit companies; mutual credit companies operate on a smaller scale than other financial institutions. They obtain their money through installment savings and extend small loans with installment repayments. As of August 1976, assets of mutual credit companies equaled 1.1% of those commercial banks. Mutual credit companies are

essentially an outgrowth of the curb market and were formally institutionalized in 1972 when the government passed laws which attempted to formalize the curb market transactions.

- IV. The Korean stock exchange, established in 1956, trades in a limited number of corporate stocks. In August 1976 the market value of listed stocks was equal to 19.2% of the total assets of commercial banking institutions. Average yields range from 12.7% on stocks to 21.4% on bonds.

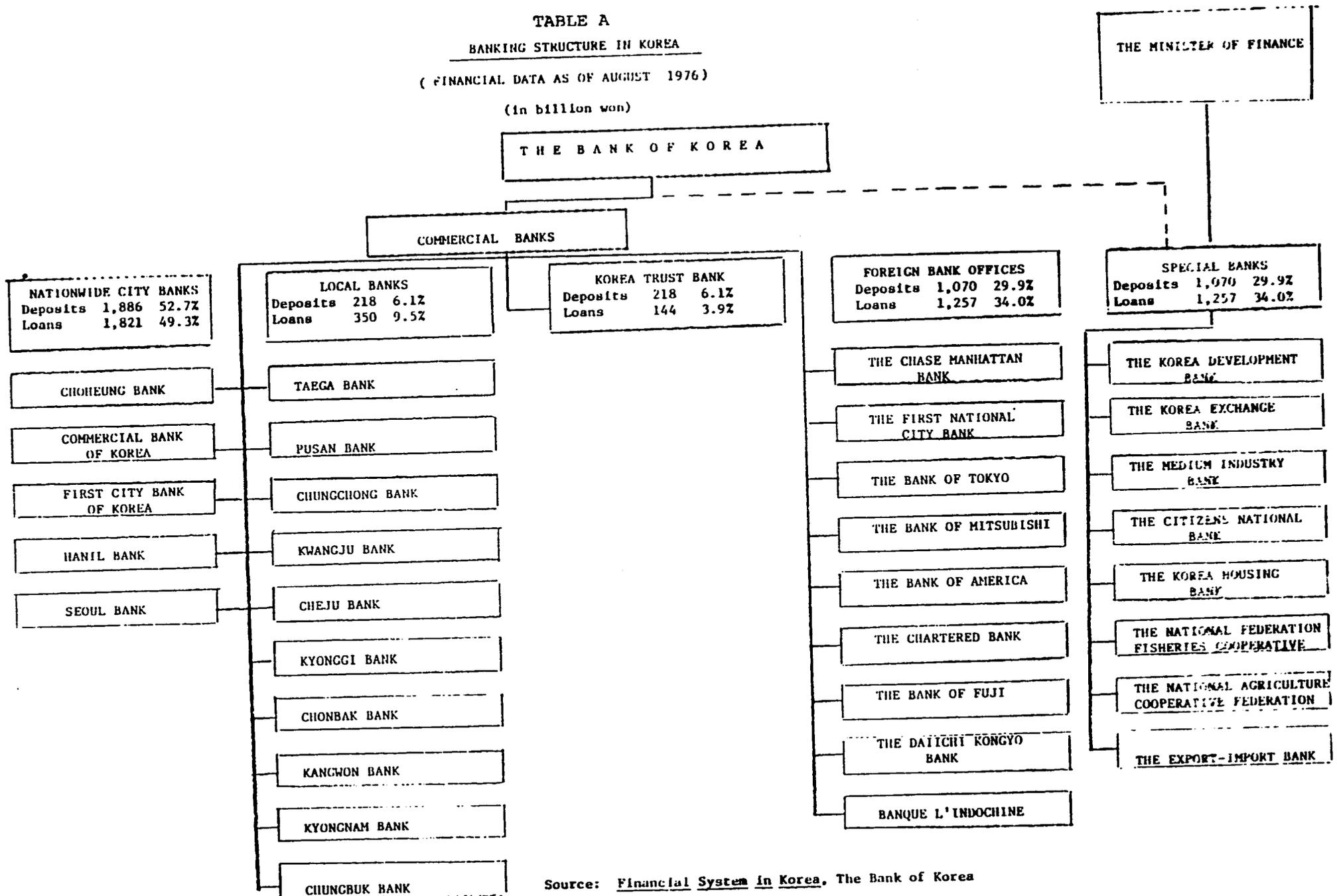
Summary and Conclusion

The present structure of the institutional financial system in Korea is highly oriented to the achievement of official government goals. The system is essentially composed of a central bank which plays an active role in providing funds often at below market interest rates to key sectors in the economy. The central bank essentially becomes an extension of fiscal policy as a result of its financing the national debt and secondly as a result of its being the source of interest rate subsidy to key industries. The central bank and the associated commercial banks are essentially uninvolved in the provision of mortgage funds. Special banks are each geared to a specific sector in the economy and are designed to provide funds and subsidies to these sectors. Commercial banks are an extension

of the general philosophy of directing credit to important sectors and operate within a framework of highly controlled interest rates. Other financial institutions have developed to fill in the voids not served by the larger established financial institutions. None of the nation's financial institutions, with the exception of the Korean Housing Bank, seem to have the interest, inclination or resources to provide significant amounts of housing funds at the present time. At the same time, the acquiescence of the present major financial interests would be necessary if additional financial institutions oriented to developing the private market for housing capital were to be established.

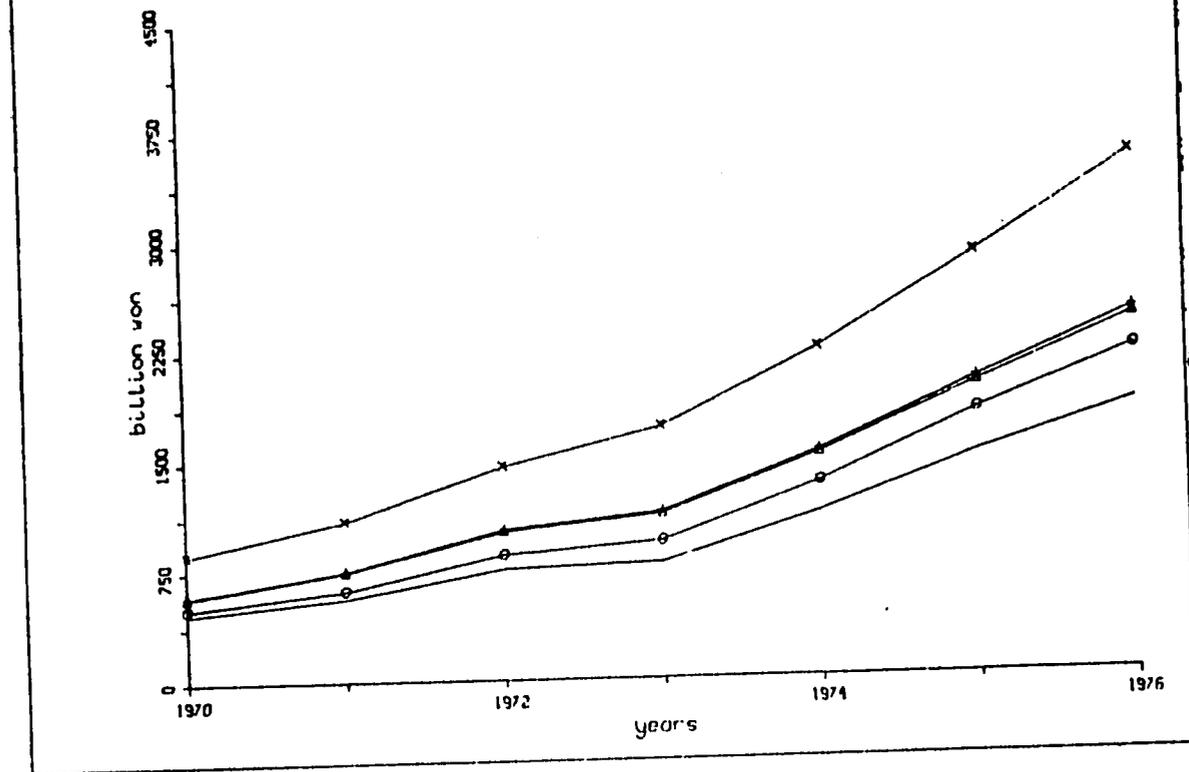
TABLE A
BANKING STRUCTURE IN KOREA
 (FINANCIAL DATA AS OF AUGUST 1976)

(in billion won)



Source: Financial System in Korea, The Bank of Korea

TABLE B
BANK DEPOSITS
By Type of Institution



KEY: X Special Banks
+ Foreign Bank Offices
v The Korean Trust Bank
o Local Banks
— Nationwide City Banks

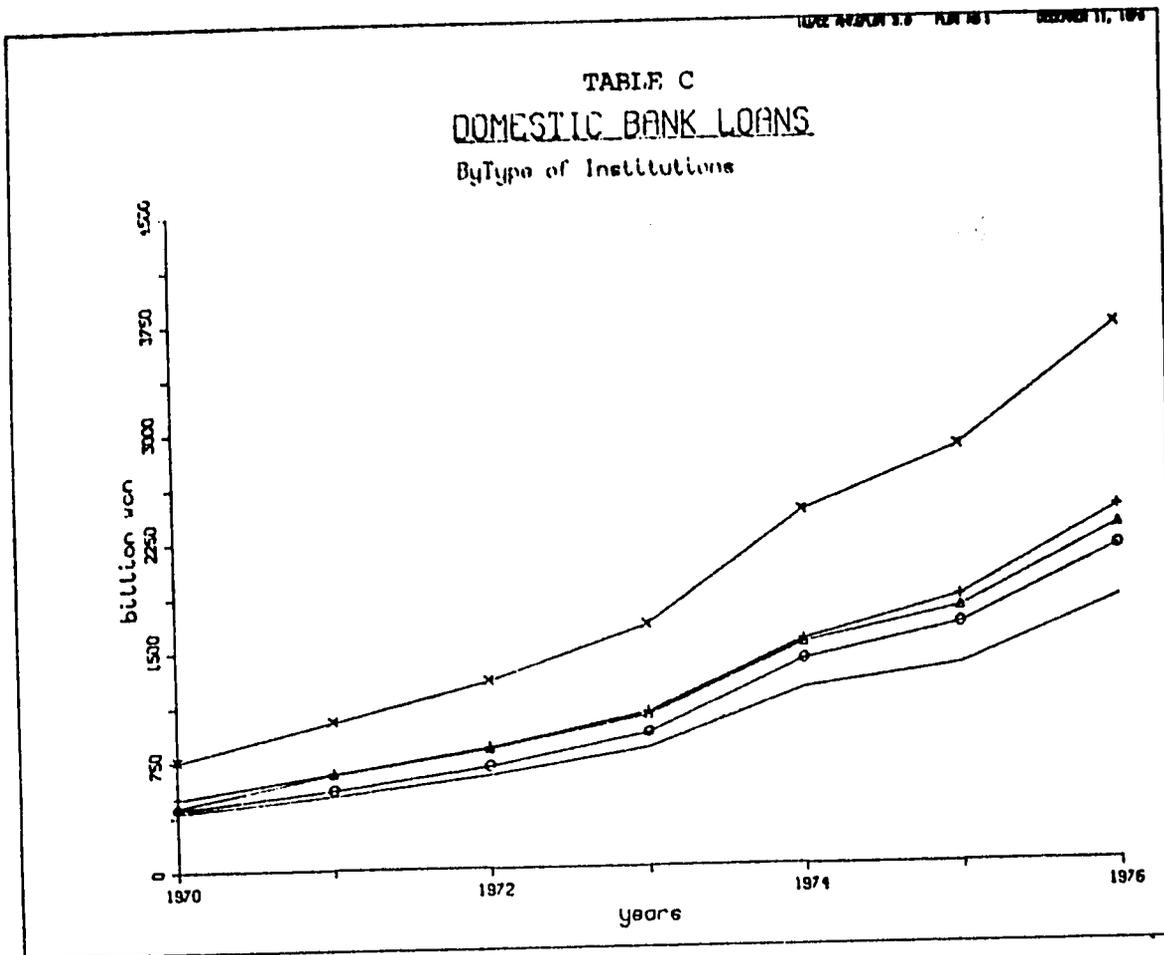
YEAR	NATIONWIDE CITY BANKS	LOCAL BANKS	KOREA TRUST BANK	FOREIGN BANK OFFICES	SPECIAL BANKS	TOTAL
1970	471,360	32,867	79,269	5,540	285,917	872,953
1971	569,643	54,863	124,831	6,520	342,897	1,098,754
1972	765,266	95,281	158,440	11,951	434,705	1,465,643
1973	797,622	146,751	182,815	17,058	578,900	1,723,146
1974	1,129,246	202,167	195,650	17,594	703,424	2,248,081
1975	1,523,100	288,151	186,452	29,882	858,847	2,886,432
1976 (Aug.)	1,866,403	363,653	217,634	39,157	1,069,885	3,556,732

(unit: million won)

AVERAGE ANNUALIZED GROWTH RATE

1970-76	27.47%	52.80%	19.50%	41.18%	26.20%	28.11%
1974-76	35.10%	42.13%	6.58%	61.45%	28.54%	31.61%
1975-76	35.44%	41.53%	25.96%	49.70%	38.81%	36.57%

Source: Monthly Economic Statistics, Bank of Korea, 10/76



KEY: X Special Banks
+ Foreign Bank Offices
Δ The Korean Trust Bank
O Local Banks
— Nationwide City Banks

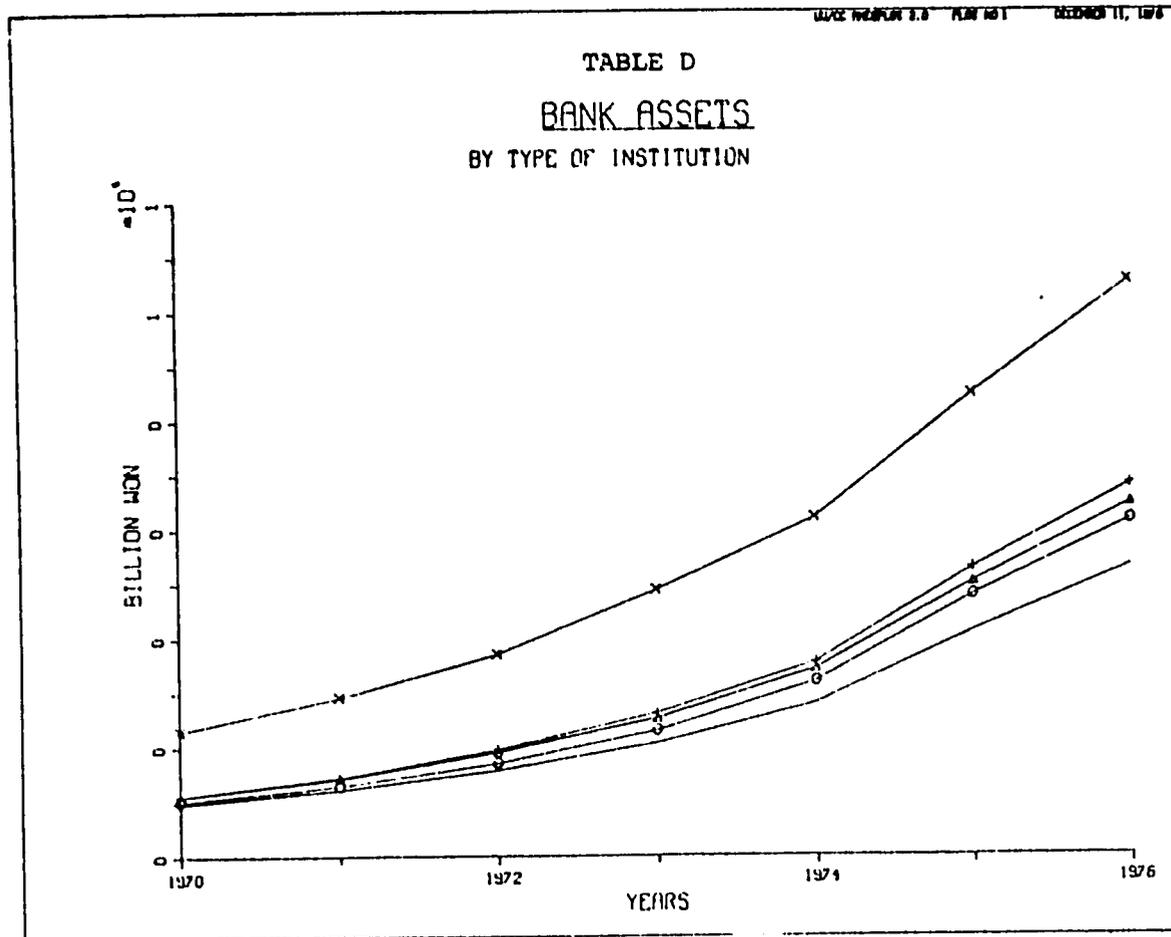
YEAR	NATIONWIDE CITY BANKS	LOCAL BANKS	KOREA TRUST BANK	FOREIGN BANK OFFICES	SPECIAL BANKS	TOTAL
1970	410,177	21,971	67,658	4,836	280,658	785,300
1971	514,707	37,085	107,924	7,823	351,109	1,018,648
1972	645,286	59,365	115,482	14,108	455,529	1,289,770
1973	818,256	101,884	122,617	19,927	599,966	1,662,650
1974	1,220,333	195,550	114,420	21,662	883,821	2,435,786
1975	1,369,124	277,620	113,857	78,687	1,027,672	2,866,960
1976 (Aug.)	1,820,771	350,277	143,928	122,946	1,257,100	3,695,022

(unit: million won)

AVERAGE ANNUALIZED GROWTH RATE

1970-76	30.08%	63.01%	14.25%	76.94%	30.27%	31.41%
1974-76	27.10%	41.73%	14.77%	182.82%	23.49%	28.34%
1975-76	53.09%	41.33%	41.99%	94.66%	35.09%	46.04%

Source: Monthly Economic Statistics, Bank of Korea, 10/76



KEY: X Special Banks
+ Foreign Bank Offices
Δ The Korean Trust Bank
o Local Banks
— Nationwide City Banks

YEAR	NATIONWIDE CITY BANKS	LOCAL BANKS	KOREA TRUST BANK	FOREIGN BANK OFFICES	SPECIAL BANKS	TOTAL
1970	971,289	40,682	86,587	14,958	1,192,195	2,305,711
1971	1,220,762	66,215	138,600	27,340	1,457,772	2,901,689
1972	1,579,949	125,614	202,173	52,839	1,738,669	3,699,244
1973	2,066,587	231,195	225,760	95,689	2,264,112	4,883,543
1974	2,798,306	393,130	235,131	120,424	2,654,565	6,201,556
1975	4,112,112	660,980	244,338	259,822	3,199,956	8,477,208
1976 (Aug.)	5,325,158	835,285	305,883	352,505	3,747,500	10,566,331
(unit: million won)						
AVERAGE ANNUALIZED GROWTH RATE						
1970-76	35.02%	70.45%	25.0%	65.6%	22.4%	30.8%
1974-76	47.10%	57.20%	17.10%	90.5%	23.0%	37.6%
1975-76	47.40%	42.10%	40.00%	58.0%	31.6%	38.9%

Source: Monthly Economic Statistics, Bank of Korea

The Korean Housing Bank

The Korean Housing Bank was established for the purpose of providing housing funds for low income families. The balance sheet of the Bank as of October 19, 1976 is shown in Table 17. Present resources in the bank are approximately 208 billion won with the bulk of the bank's assets, 70.1%, committed in the housing area. Both the deposit and loan structure of Korean Housing Bank is complex. An examination of the bank's sources of funds reveals a multitude of approaches to the raising of deposit funds.

Korean Housing Bank Sources of Funds

The Korean Housing Bank has five major sources of funds: deposits, housing debentures, national housing bonds, housing lottery funds, and borrowings from the government (Table 18). Table 19 indicates the growth in funds for the period 1970-1975. As Table 20 shows, the total funds raised in 1975 was 42.3 billion won, a somewhat lower increase than had been anticipated by the bank. A more detailed description of these sources will indicate the types of approaches which the Housing Bank has used in attempting to tap the money and capital markets.

Deposits

Table 21 shows the breakdown of the deposits held

by the bank. As the table shows, there are 15 categories. Interest rates on deposits range from no interest on checking deposits to an interest rate of 33.2% for certain low income contract savings programs. The Korean Housing Bank has attracted substantial amounts of funds even at very low interest rates. The deposits of 11.6 billion won in the pass book account having an interest rate of 1.8% provides a good example of this phenomena.

It is evident from the table that there is a great proliferation of savings accounts, many of which seem to duplicate one another in their effect. Savings accounts which pay a significant rate of interest seem to generally have restrictions on withdrawal of funds or require a minimum time period before withdrawal can take place.

Two types of account, the low income contract savings and the Housing Installment Deposit are of particular interest. The low income contract savings program officially called the Salary and Wage Earners Fortune Formation Savings Deposit is a plan available at the Housing Bank designed to promote savings among lower income workers. The account involves the participation of government and the employer each contributing a portion of the interest paid on the account. The interest rates on the savings plans are:

	<u>2 Year</u>	<u>3 Year</u>	<u>5 Year</u>
Bank	13.2%	14.2%	16.2%
Government	10.6%	10.0%	12.0%
Employer (voluntary)	1.9%	2.6%	2.9%

Source: Korea Housing Bank

The depositor makes a fixed monthly deposit of up to 30% of his monthly income. The government contribution comes from the depositor's income tax and is given to the KHB who holds it at the Bank of Korea until maturity when it is given to the depositor. The employer's contribution is voluntary and is made to the bank at the discretion of the employer. In practice, employers have been reluctant to contribute to the fund. Workers are eligible for the program only if they make under 250,000 won per month or under 16,000 won per day for workers without a contract. Overseas workers can contribute if they make under 500,000 won/month. Balances in the program at the Korean Housing Bank were 7.6 billion won on November 6, 1976. Thirty percent of the 7.6 billion won is authorized for housing. The program, while innovative and providing attractive interest rates, is hindered by its complexity and the cooperation required from three completely diverse entities. The actual effective interest rates on these accounts are actually somewhat lower than indicated because of the method of computation.

Another approach to raising funds is the Housing Installment Deposit (HID), a contract savings deposit connected with a housing loan. The depositor is able to apply for a housing loan after a specified period of monthly deposits. There are two types of HIDs currently in use. The "GAP", which is for financing of housing improvement and purchasing, has only 3% of the total HID accounts despite its higher

yield (compared to 9% for EUL) because a loan can be obtained sooner with the "EUL". The "EUL" finances mainly owner-occupied housing construction. A new form of HID is the Welfare Housing Installment Deposit which operates for financing house and housing site purchases, and housing construction.

Housing Debenture

The KHB issues government guaranteed housing debentures to raise additional funds for housing. They can be issued in the amount up to 20 times capital and reserves. Through the end of 1975, the balance was 16.3 billion won and on October 1976, this balance has been reduced to 14.7 billion won. The debenture is tax exempt and can be used as a bid bond or deposit money. Denominations range from 500 to 1,000,000 won and maturities from two to three years.

Table 19 shows the balance of KHB debentures by year. Despite an increase in the annual discount rate both in 1975 and 1976 the balance outstanding decreased 15% in 1975 and another 10% during 1976.

National Housing Funds

In addition to the private sources of funds and access to the capital market the housing bank has access to government or government sponsored funds. These funds include

borrowing from the government and the National Housing Bond.

National Housing Bonds are low interest, compulsory purchase bonds, the proceeds of which are used by the Korean Housing Bank for housing finance. Individuals or businesses entering into certain types of activities such as real estate registration, building and construction permits, obtaining business licenses, etc., must purchase a specified amount of national housing bonds. Since inflation reduces the real value of the bonds they essentially impose a tax on the purchaser inasmuch as their current rate of interest is only six percent. Face value of the bond ranges from one thousand to one million won and the maturity of the issues is five years. Because of the low interest rates there are virtually no voluntary purchases of this bond. The amount which can be sold is a function of the amount of activity taking place which requires bond purchases and the ratio of required bond purchases to the amount of activity to be undertaken. The amount of these bonds issued on an annual basis can be assumed to grow at the same rate as the national economy. For the first five years, ending in 1978, all proceeds from these issues represent a net addition to the housing funds available. Beginning in 1978, the first bond maturities must be repaid. From that time forward, the net addition to housing funds will be limited to the difference between the amount issued and the amount retired. If the Korean economy is assumed

to have a real rate of growth of 10% and if it is assumed that the issuance of National Housing Bonds matches this growth rate then the amount of funds available from this source over the next few years will be as follows:

	(000,000 won) *					
<u>Year</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Amount Issued	18,168	19,985	21,983	24,182	26,600	29,260
Amount Redeemed	0	0	0	9,342	14,601	18,168
Net Increase in Housing Funds	18,168	19,985	21,983	14,835	11,999	11,092

*EPB figures are somewhat higher but exhibit a similar pattern.

If this growth pattern were to continue, the annual amount of funds raised would stabilize at only 38% of the gross amount of housing bonds issued.

Housing Lottery

The housing lottery raises funds for low interest loans to families of war dead or low income and homeless people. Since the first lottery in 1969, 17.3 billion won has been raised, resulting in 7 billion won (40.4%) of loanable funds. The balance of housing lottery funds has grown annually at 35% (Table 19) over the past 3 years and has, since inception, kept up with projected receipts

The growth in lottery funds has been rapid during

the early years of the housing lottery. The long term outlook for lottery funds is more guarded. The most optimistic outlook for the lottery may be to anticipate a real growth of funds matching the economic growth of the nation. In the event that the housing lottery is unusually successful the funds may be siphoned off to other uses in the economy.

Borrowings from the Government

In 1975, the Bank borrowed 2.0 billion won from the government, repayable in 15 years with 5 years grace period at 4% interest. This is only the second loan on which the Bank is paying interest. In 1973, the Bank borrowed 2.6 billion won at 2% per year. All other loans, although repayable, require no interest. Total loans from government exceed 12 billion won.

The government of Korea has made wide use of the low (or no) interest rate loans to support socially desirable projects. The continued support which the housing bank may expect from this source will be determined by the priority which the government attaches to housing as opposed to other sectors of the economy. There does not appear to exist a present program to substantially increase government provided capital to the Housing Bank.

Mortgage Lending in the Korean Housing Bank

The Korean Housing Bank makes several types of loans which can generally be broken down into seven categories shown in Table 22. The bulk of these loans is accounted

for by National Housing Loans which comprise 39.2% of the Bank's portfolio and private housing loans comprising 46.1% of the portfolio. These two types of loans, in addition to having the largest loan balances, have also represented the highest rate of growth in recent years. The Bank of Korea provides its loans partially according to the source of funds from which the loans are made. Loans are made either from government funds or from the banking fund. Loans made from the government fund bear lower interest rate than loans made from private funds. This is true even though loans made from government funds may in some cases be for larger homes and higher income households than is true for a particular loan made from private funds.

Table 23 provides an extensive breakdown of the loans presently held by the Korean Housing Bank. This table provides information concerning the loan and its purpose, source of funds, other terms concerning the loan and the total amount of loans outstanding.

The weighted average return on all loans is 11.0% as of October 1976. This rate is low given the level of price increase in the Korean economy and the low rates will diminish the amount of mortgage capital recovered. Assuming inflation is reduced to 10.64% over the next five years as predicted by the fourth five year plan (which is optimistic in view of past experience), an 11.0% loan would barely recover the real value of the capital. This leaves no compensation for risk, cost of capital, or banking

charges. This situation is likely to be associated with a chronic shortage of capital.

The only real requirement for a loan is that the borrower must have a site to be used as collateral. The collateral value of the land plus the relatively high downpayment takes the place of a credit check. There are no age, occupation, income, or marital limitations. There is a nominal condition that the borrower be homeless, but this not always carefully monitored. Under a situation such as this, it is difficult to determine the extent to which the Bank is achieving its goal of providing funds to low income families.

The lack of specific control over who obtains loans combined with the chronic capital shortage and great demand for low interest loans can reduce the effectiveness of the Bank. The possibility exists that funds could be misused. Borrowers could arbitrage these funds into higher interest rate markets. There is no rigorous attempt to determine the degree of need among potential borrowers and therefore no way to assume that the government subsidy given through the loans is distributed in a rational manner.

Outlook and Recommendations for the Korea Housing Bank

The Korea Housing Bank has been able to assemble a fairly inexpensive pool of funds. Deposits cost only 10.9% per year, housing lottery funds are virtually free, the National Housing Bond costs the Bank only 6%, and the govern-

ment requires little or no interest on their funds. While the Bank relies heavily on the use of these low cost funds, it is not clear that such funds will continue to be available. Housing Debenture Funds, even in light of increased returns, have declined 3% per year over the last two years. The National Housing Bond is not selling as well as hoped and the fourth five year plan predicts a decline in funds from this source. Increases in the fund will largely come to an end in 1978 without an increase in purchase requirements. Proceeds from bond purchases after 1978 will be used to retire outstanding bonds and to cover loans already outstanding. The total amount of funds which can be generated from the Housing Lottery are clearly limited and any strong endeavor on the part of the government to increase the populace' participation in lotteries must stabilize with perhaps modest growth equal to the general growth in the national economy. The net increase in government funds for housing in 1975 was 1.7 billion won, 0.4% of the national investment in housing and only 5% of the increase in the Bank's capital. This relatively small government contribution to housing would have to increase substantially to have an impact on the housing fund situation. These funds are highly attractive to the Housing Bank as they are low interest, long term loans and in many cases they virtually have amounted to a grant to the Bank. While these funds are highly useful, the Bank has very little control over the amount of funds which the government will supply and

it is unlikely that the government will be willing to serve as a continual long run stable source of housing funds.

The other major source of funds which the Korean Housing Bank has is its deposits. This is the most successful and fastest growing source of housing funds at the Bank. There is much more potential in raising funds through deposits than any other method now employed. The Bank must be allowed interest rates on its deposits which will allow for the attracting of adequate funds from the private sector if the Bank is to be expected to generate the increased amount of housing funds which the economy will require. Although an increase in interest rates will necessarily result in higher interest rates on loans, the existence of the curb market would indicate that the availability of money is more important than its cost. In addition to drawing in more housing funds, higher interest rates would solve the capitalization problem by improving the recovery of capital on mortgage loans. The Bank will face two major problems in implementing a program of this type. First, the fact that interest rates are set nationally for all banks by the monetary board and other government regulatory authorities. Second, the fact that the structure of interest rates on mortgages does not provide adequate income to support the deposit rates which would presently attract funds in the Korean economy.

The Bank should consider the feasibility of simplifying its deposits into a few major accounts to replace the

proliferation of short term low interest rate accounts. These accounts should be as convenient for the depositor as possible. It may be that most of the accounts, such as the children's deposits, passbook deposit, call deposits, household deposit, welfare deposit and others could be replaced by one or two types of accounts. Most of the deposits previously specified might be replaced by a simple pass book type of account yielding perhaps 8-10% interest, having a modest minimum balance, no maximum balance and which could be withdrawn at the pleasure of the depositor. The deposit would receive interest from the date it was deposited to the date it was withdrawn. Simplifying the savings account structure in this manner would reduce the work load of the bank and would reduce the confusion on the part of savers wishing to place money with the bank. An account of this nature should increase the ability of the housing bank to attract short term funds because of the simplicity of the account and the attractiveness of having no minimum maturity for the savings account. It also appears feasible and attractive to offer a simple set of time deposits ranging in maturity from three months to something in the range of two to three years with interest penalties for withdrawal. Such time deposits should be set at rates which will allow the bank to attract a significant amount of housing funds. As of late 1976, such time deposits might be reasonably successful with interest rates ranging from 16 to 20 percent. A general simplification

of the deposit accounts at the bank would appear to increase its effectiveness and its efficiency. Based on the preceding recommendations, the bank might offer a product line of financial instruments composed of checking account demand deposits, a simple pass book account bearing a significant rate of interest, a time deposit structured from three months to three years maturity, and housing debentures sold in the one, two and three year maturity range at market interest rates.

Modifications such as this in connection with improved control over who receives the benefits of Korean Housing Bank loans would greatly improve the effectiveness of the Bank in providing adequate funds for low income families.

TABLE 17
KOREA HOUSING BANK BALANCE SHEET
OCTOBER 1976
(Million Won)

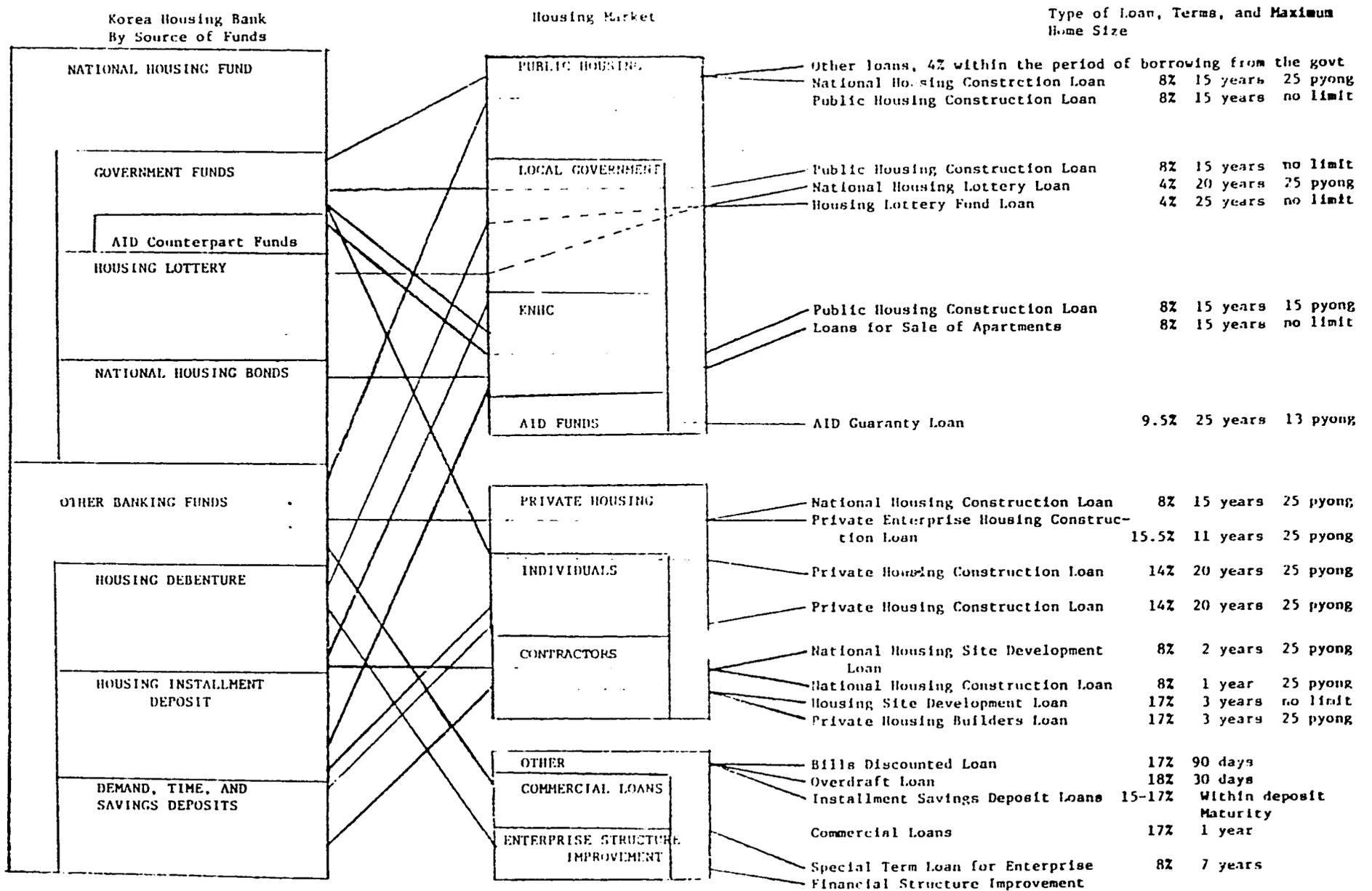
<u>ASSETS</u>	<u>AMOUNT</u>	<u>PERCENT</u>
Cash and Due from Banks	18,327	8.8
Securities	12,111	5.8
Loans and Discounts	159,804	76.8
Housing Loans	145,844	70.1
Banking Fund	137,041	65.8
Government Fund	8,803	4.2
Loans Other Than Housing	13,960	6.7
Call Loans	3,000	1.4
Personal and Real Estate	<u>5,767</u>	<u>2.8</u>
 TOTAL	 <u><u>208,156</u></u>	 <u><u>100.0</u></u>
 <u>LIABILITIES</u>		
Deposits	88,262	42.4
Demand	27,864	13.4
Time and Savings	48,832	23.5
Housing Installment	10,693	5.1
Banks	873	.4
Borrowings from Government	12,110	5.8
Housing Debentures	14,688	7.1
National Housing Bond	57,874	27.8
Special Financial Debentures Issued	928	.4
Capital	11,707	5.6
Retained Earnings	795	.4
Profit	2,772	1.3
Paid in Capital	<u>8,140</u>	<u>3.9</u>
 TOTAL	 <u><u>208,156</u></u>	 <u><u>100.0</u></u>

Source: Monthly Economic Statistics, Bank of Korea, Oct. 1976

TABLE 18

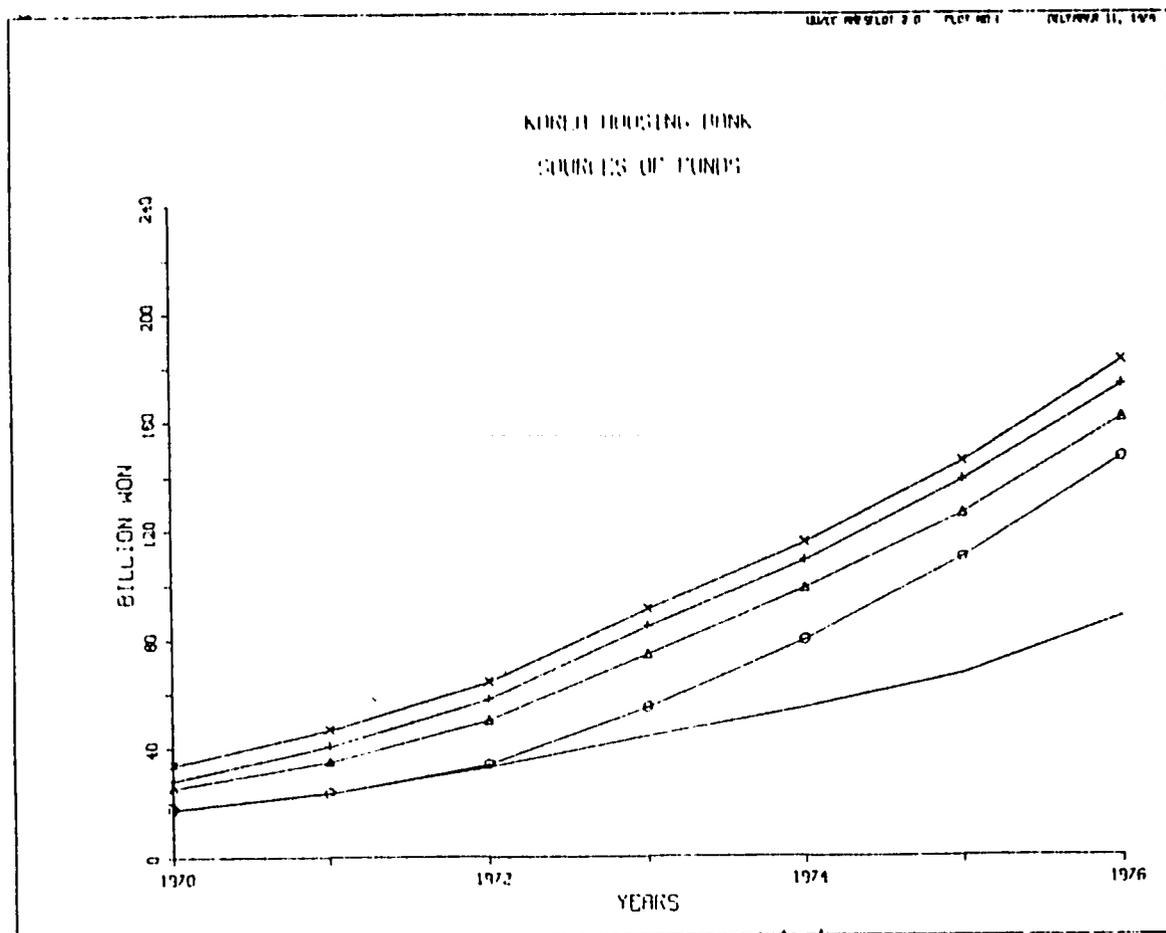
KOREA HOUSING BANK

Sources and Uses of Funds and Types of Loans



Source: Korea Housing Bank

TABLE 19



- X Paid in Capital and Reserves
 + Borrowings from Government
 Δ Housing Debenture
 O National Housing Bond
 - Deposits

Year	Paid in Capital and Reserves	Borrowings from the Government	Housing Debenture	National Housing Bond	Deposits
1970	5,671	2,800	8,095	---	17,706
1971	6,049	5,800	11,586	---	23,753
1972	6,381	7,714	16,027	---	33,147
1973	6,417	10,270	19,734	10,425	44,515
1974	6,655	10,237	19,238	25,008	54,829
1975	6,775	12,170	16,319	43,500	67,143
1976 (Aug.)	8,935	12,110	14,688	57,894	88,262

Source: Monthly Economic Statistics, Bank of Korea, 10/76
KHB Annual Report 1975

TABLE 20
KHB YEARLY SOURCES OF FUNDS

<u>Year</u>	<u>A</u> <u>Projected</u>	<u>B</u> <u>Actual</u>	<u>B/A%</u>
1970	9,000	11,361	126.2%
1971	15,592	14,563	91.3%
1972	26,784	28,562	106.5%
1973	29,703	29,414	99.3%
1974	36,391	35,503	97.6%
1975	49,311	42,342	85.9%

Source: KHB Annual Reports, 1970-1975

TABLE 21
DEPOSITS AT THE FOREIGN ROUSING BANK
20 OCTOBER 1976

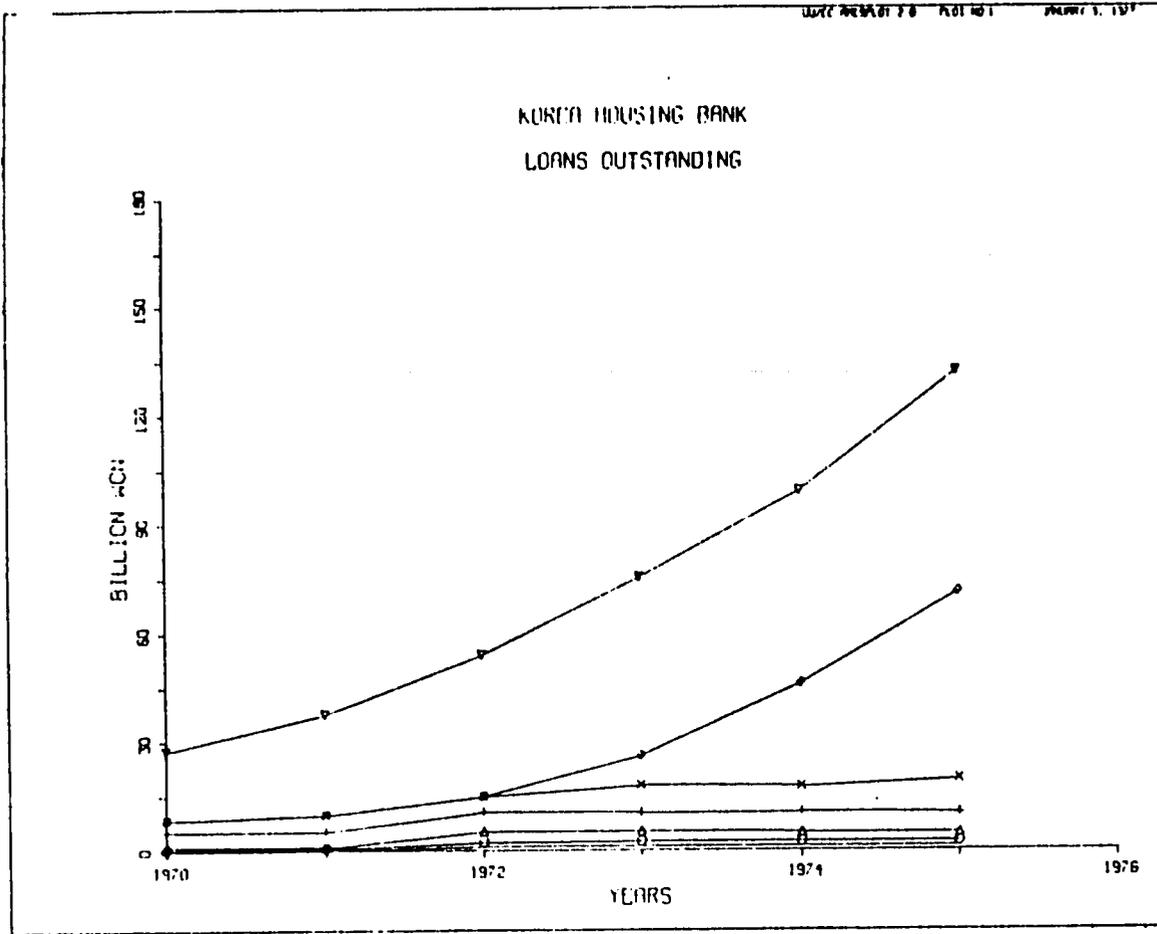
NAME OF DEPOSITS	MAXIMUM AMOUNT	INTEREST RATE	DEPOSIT TERM	BALANCE	NOTES
Checking deposits				1,222,888,227	
Temporary Deposits		1%		4,578,923,028	Deposit of fund for settlement of cashier's checks and others.
Passbook Deposit		1.8%		11,638,956,380	Passbook type
Public Deposits		1.8%		424,958,704	Local government deposit raised by receiving charges for electricity and water supply
Call Deposits		6%		1,155,766,537	1-Withdrawable over 30 days with advance notice 2-Note type
Childrens Deposits	100,000 won	6%		269,162,072	Passbook type, exempt from income tax
Household Deposits	3,000,000 won	5.9658%		4,896,681,273	Passbook type
Household Savings Deposits	1,000,000 won	18%	1 year	4,621,524,069	Exempt from income tax, note type
Low Income Contract Savings				6,394,057,000	Exempt from income tax and donation tax
5 year plan	within 30% of	33.2%	5 years	812,801,000	Passbook type
3 year plan	monthly income	27.2%	3 years	4,970,052,500	
2 year plan	max. 50,000 Won	25.8%	2 years	116,813,000	
Welfare Deposits		3.6%		212,592,356	Passbook type, interest pays an insurance premium
Time deposits				32,932,538,018	1,2,3 Note type
A Maturity after 1-2.5 years		16.2%	1-1.5 yrs 1		20,634 million won 1 to 1.5 years
Maturity after 6 months		15.6%	6 months 1		6,031 million won 6 months as of Sept 30
Maturity after 3 months		15%	3 months 1		9,466 million won 3 months
B Irregular maturity after 1 yr		15.6%	1 year ²		
After 6 months		15.0%	6 months ²		
After 3 months		14.4%	3 months ²		
C Transferable after 1 to 1.5 yrs			3		
After 6 months			3		
After 3 months			3		
D Time Deposits drawn midway					
1 year		15.6%	1 year		
6 months		15.0%	6 months		
3 months		6.0%	3 months		
1 month		1.8%	1 month		
National Savings Association Deposits		12.6%	5 years	50,194,887	Exempt from income tax, passbook type
Installment Savings Deposits					
6		9%	6 months		
1		11.2%	1 year		
1.5		11.7%	1.5 years		
2		12.2%	2 years		
2.5		12.7%	2.5 years		
3		13.2%	3 years		

TABLE 21 (cont.)
 DEPOSITS AT THE FOREIGN HOUSING BANK
 20 OCTOBER 1976

NAME OF DEPOSITS	MAXIMUM AMOUNT	INTEREST RATE	DEPOSIT TERM	BALANCE	NOTES
Housing Installment Savings deposits Class (GAP) 2-5 yrs Class (EUI)	1,000,000 won	15% 9%	3-5 years 20 years		Linked with housing loans, depositors receive a contracted amount of money and housing loans at maturity or pre-maturity.
Credit Control Deposits		2% lower than loan interest		3,479,581,311	Deposit for compensation of bad debts, Passbook type

Source: Korea Housing Bank

TABLE 22



Year	Private Housing	National Housing	Commer- cial Loan	Public Housing	Other	Lottery Fund Raising	Enterprise Structure	Total
1970	18,980		3,124	4,235	847	185		27,371
1971	27,861		4,471	4,474	338	492		37,636
1972	29,092		4,396	5,222	3,136	1,012	1,117	53,975
1973	49,277	8,285	7,599	4,996	2,840	1,311	1,077	75,385
1974	53,053	28,581	7,065	5,627	2,440	1,276	1,060	99,102
1975	60,834	51,790	9,351	5,402	2,423	1,240	1,034	132,074
5 Year Growth Rate	26.23%	150.02% (2 year)	24.52%	4.99%	23.39%	46.30%	-2.54% (4 year)	36.85%

Source: KHB 9th Annual Report, pg 63

TABLE 23
KOREA HOUSING BANK LOANS
OCTOBER 1976

NAME OF LOAN AND PURPOSE	SOURCE OF FUND	MAXIMUM AMT.	LOAN/VALUE RATIO	MATURITY	GRACE PERIOD	ANNUAL INTEREST RATE	MAXIMUM HOUSE SIZE REQUIREMENT	TOTAL AMOUNT OUTSTANDING (WON)
National Housing Site Development Loan This loan is advanced to housing site developer for housing sites of 12,000 m ² suitable for housing construction.	Banking Fund Housing Debentures		80% of the construction cost	2 years		8%	85 m ²	924,798,750
National Housing Construction Loan This loan is advanced to contractors who build housing units for sale or rent.		2,000,000 per household	80% of the construction cost	1 year		8%	85 m ²	7,304,200,000
Housing Site Development Loan This loan is advanced to housing site developers	Deposits		70%	2 years		17%		566,000
Private Housing Builder Loan This loan is advanced to contractors who build houses for sale or rent	Deposits		60%	3 years		17%	85 m ²	1,861,773,061
National Housing Construction Loan This loan is available to those other than contractors who build houses for sale		2,000,000	80%	14 years	1 year	8%	85 m ²	54,681,431,675
National Housing Lottery Fund Loan	Housing Lottery	1,200,000	80% of the construction cost	19 years	1 year	4%	85 m ²	7,061,130,574
Private Housing Construction Loan This loan is advanced to those who build or purchase their own home. Downpayment requirement is 145,000 won	Deposits	detached house= 1,800,000 apartment= 2,200,000	80% of the construction cost	19 years	6 months	14%	85 m ²	67,976,436,719
Private Enterprise Housing Construction Loan		2,000,000	80% of the construction cost	8 years	3 years	15.5%	85 m ²	861,988,700

TABLE 23 (cont.)
KOREA HOUSING BANK LOANS
OCTOBER 1976

NAME OF LOAN AND PURPOSE	SOURCE OF FUND	MAXIMUM AMT.	LOAN/VALUE RATIO	MATURITY	GRACE PERIOD	ANNUAL INTEREST RATE	MAXIMUM HOUSE SIZE REQUIREMENT	TOTAL AMOUNT OUTSTANDING (WON)
Public Housing Construction Loan				15 years		8%		817,743,736
Housing Lottery Fund Loan	Housing Lottery			25 years		4%		1,205,198,208
National Housing Construction Loan	Government Fund		80% of the construction cost	14 years	1 year	8%	85 m ²	2,228,360,048
Private Housing Construction Loan This loan is advanced to those who build or purchase their own home			80% of the construction cost	19 years & 6 months	6 months	14%	85 m ²	2,412,015,970
Public Housing Construction Loan This loan is advanced to local government			80% of the construction cost	14 years	1 year	8%		3,488,247,635
Public Housing Construction Loan	AID Counterpart fund			14 years	1 year	8%		549,041,461
Other Loans Originated from Government Fund	AID Counterpart fund		Within the period of borrowing from govt			4%		2,413,627,000
Special Term loan for Enterprise Financial Structure Improvement	Banking Fund				Downpayment 3 years in 5 years	8%		861,361,319
Special Long term Loans for Enterprise Financial Structure Improvement	Banking Fund							
Bills Discounted Loan	Banking Fund	10 million	70% of cost needed	90 days		17%		283,791,548
Overdraft Loan	Banking Fund	15 million	70% of cost needed	30 days		18%		1,031,498,239
Installment Savings Deposits Loan	Banking Fund		70% of cost needed	Within the maturity of the deposit		17%		2,597,370,407
Loans on Installment Savings Deposits	Banking Fund		70% of cost needed	Within the maturity of the deposit		15%		348,114,000
Commercial Loans	Banking Fund	10 million	70% of cost needed	1 year		17%		6,667,224,821

Source: Korea Housing Bank

The Korean National Housing Corporation

The Korean National Housing Corporation (KNHC) is a government owned corporation whose purpose it is to supply, finance, improve and manage housing to help reduce the housing shortage in Korea. Since 1962, KNHC has built 86,000 units, providing homes for 430,000 people.

Table 24
Korean National Housing Corporation

<u>YEAR</u>	<u>YEARLY CONSTRUCTION ACCOMPLISHMENTS (UNITS)</u>	<u>YEAR</u>	<u>YEARLY CONSTRUCTION ACCOMPLISHMENTS (UNITS)</u>
1962	1558	1969	1239
1963	907	1970	2423
1964	1026	1971	1845
1965	580	1972	2290
1966	1062	1973	5190
1967	1407	1974	10,152
1968	811	1975	18,498
		1976	26,076

The principle target group for the KNHC is the low income populace, but they do supply some housing for middle and upper income groups as well.

The basic direction of KNHC is to:

- reduce the downpayments of occupants,
- emphasize construction in satellite cities, industrial

cities and local areas for population deconcentration, conduct research and assist in the urbanization programs and squatter up-grading projects of local governments.

The KNHC operates under the direction of the MOC who supervises in consultation with the MOF. These ministries use the KNHC in the carrying out of Korean Government Housing Policy. The thrust of these government policies and laws is to raise maximum amounts of private capital to be invested in housing, increase public sector investment, give low income groups priority in obtaining public housing, and to create housing sites in areas of great demand such as rapidly growing urban areas so as to stabilize the escalating land costs. The impact of KNHC on the nation in implementing these government policies is limited in that KNHC contributes less than three-tenths of one percent of the national investment in housing.

Construction of all housing projects is performed by private contractors, selected through competitive bidding. KNHC provides many of their materials to reduce cost.

Cost control is a principle goal of the KNHC. The corporation conducts much research in this area. They own three subsidiaries which make housing materials to further reduce costs. Table 25 shows the cost of apartments from 1971-1975. Costs of the 13 pyong apartments have only been raised by 17.55% since 1971. This is slightly less than the rate of inflation. The cost of the 15 pyong unit actually declined 16% from 1974 to 1975 as shown in Table 25.

Prices fluctuate \pm 9% between the cities.

The KNHC has authorized capital of 50 billion won of which 23 billion is paid in. Personnel stands at 1,308.

Sources of Funds

Table 26 displays sources and uses of KNHC funds. There are five major sources of KNHC funds: profits from operations, AID guarantee loans, Korea housing bank funds, direct government contributions, and private money from purchasers.

KNHC profits accounted for 24.8% of funds used in 1976. These profits come from activities such as site development, foreigners' rental apartments, successful bidding for store construction, and middle and high income group housing. No profit is made on low income housing.

The first AID guarantee loan was granted in 1973. It amounted to \$10 million and was used in construction of a very successful trial housing project for which applications exceeded units for sale by 10-1. On the basis of this success, three more loans amounting to 70 million dollars were extended between 1973 and 1975. In 1976, a 10 million dollar loan was made for use in 1977. The KNHC is proceeding with future plans under the assumption of receiving another 25 million dollars in loans for 1977 projects. AID loans accounted for 6.9% of KNHC resources in 1976.

The Korean Housing Bank provided 12.9 percent of 1976

operating funds with money raised through the housing lottery and the Housing Bond. Terms of these loans are 20 years at 4% and 15 years at 8% respectively.

Government funding amounted to 9.7% of KNHC resources in 1976. Most of this came from a direct government subsidy with no obligation to repay. This subsidy amounted to 7.5 million won in 1976 or 7.2% of total KNHC funds.

Forty-six percent of construction costs in 1976 came from the private sector in the form of down payments, key money, or security funds for rental units.

Uses of Funds

Table 27 exhibits housing construction completed in 1976 by size and financing plan. There are five major uses of funds: AID guarantee loan apartments, National Housing apartments entrusted by other agencies, shopping centers and work started in the latter half of the year.

Table 28 shows the sales price and mortgage terms of units built by National Housing and AID funds. AID guarantee loan apartments were the smallest and among the most inexpensive built by KNHC in 1976. This reflects the effort by AID to reach the lowest income group possible. Size ranged from 7.5 to 13 pyong with average cost ranging from 2.20 to 2.76 million won. Average downpayments for these homes were also the lowest for any homes built by KNHC ranging from 38 to 52 percent. Interest on the loans are 9.5% repayable in 25 years, including 9.5 years grace

period (when only interest is paid) and 15 years during which interest and principle are paid in level monthly payments.

According to the 1976 survey of owners of 13 pyong AID apartments, 74% of the people who responded had an income 40,000 to 49,999 won per month (45,000 will be used for computations). Average sales price for these apartments in 1976 was 2.8 million won. The downpayment for these apartments ranged from 25% to 46% of cost with a mortgage for the balance. Payments for the first 9 1/2 years grace period range from 34 to 24% of the occupant's monthly income with the 15 year mortgage payment at 44% to 31% of monthly income.

Forty-four percent of the units built by KNHC were national housing units ranging in size from 13 to 25 pyong. Of these, 61% were rental units. The 13 pyong units were the lowest price National Housing apartments with an average cost of 2.7 million won. All of the lottery funds, the government capital contribution, the security fund for rental, and one third of KNHC's own funds went to build these units. Rent on these units is such that KNHC makes no profit. After one year, tenants are expected to purchase the units or leave. A very high proportion of them have been purchased. Apartments for sale range from 13 to 25 pyong and are among the most expensive built by KNHC. Twenty-one percent of the total KNHC units built fall into this category and require 47% of

KNHC funds to be built. Average downpayments range from 47% to 81% of purchase price, somewhat higher than the downpayment for AID homes. The balance is financed with proceeds from the housing bond at 8% for 15 years. The typical method of repayment of these loans under the Korean system, is to pay a constant portion of the principal each period and interest on the unpaid balance. Thus, the payment is not a level payment, but is a decreasing payment. Sale of these units contributes to the KNHC profits, which provided 24.8% of the total funds used in 1976 and 45% of the funds used on low income rental housing. Construction of these units also helps reduce the housing shortage by indirectly providing more low income housing by vacating previously owned dwellings. Construction of larger homes not only enables the KNHC to make profits which are used in subsidizing low income housing, but it provides a diversity of income groups in housing project areas which helps solve many social problems that could result from a large number of low income households in one area.

Outlook for the KNHC

The KNHC has been successful in past efforts to spearhead the nation's low income housing effort. Continuation of these efforts depends on a continued source of reliable funds. Profits, which comprised 25% of funds used in 1976, are a good source of low cost funds and are made from apartment units and stores which help upgrade KNHC housing settlements. Foreign

funds, while providing substantial amounts at low cost, are dependent on many factors outside of KNHC's control. The limitations on government and government sponsored funds have previously pointed out in this paper.

A continuing supply of capital will be needed as KNHC continues and increases the effectiveness of its efforts. Programs such as the ones being initiated with AID funds, while reaching more and more lower income families, require larger amounts of funding in that they have smaller down-payments and do not realize a profit.

The future success of the KNHC will depend in part on its ability to raise outside funds and remain profitable. Raising outside funds will require efforts to attract money from the private sector and foreign investors. Profitability will result from continuing and increased efficiency by all involved with the corporation.

Korean National Housing Corporation
Table 24: page 87

TABLE 25

Main Housing Construction Accomplishments By Year and Its Selling Price

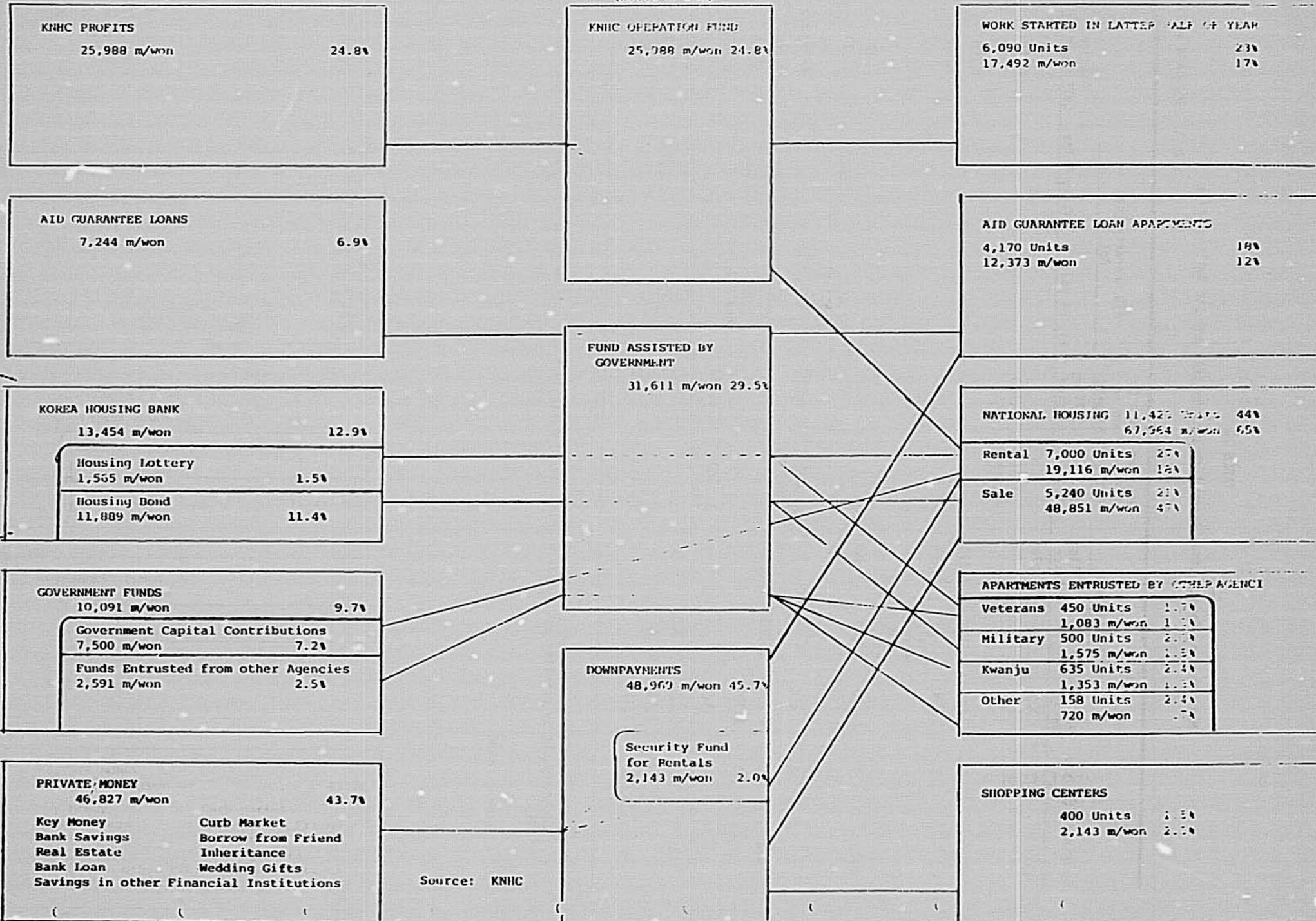
Unit: Thousand Won

By Year	By Type (Pyong)	No. of Units	Rental Apt.		Housing Built By Private Fund or National Housing		AID Guaranty Loan Apt.		Average Selling Price
			No. of Units	Selling Price	No. of Units	Selling Price	No. of Units	Selling Price	
1971	13	300	300	1,270					1,270
	22	748			748 (Heating)	3,190			3,190
1972	13	200	200	1,220					1,220
	15	109	109 (Single Detached House)	1,875					1,875
1973	13	1,500	1,500	1,360					1,360
	22	1,490					1,490 (Heating)	3,600	3,600
	32	420			420 (Heating)	5,525			5,525
1974	13	4,600	3,600	2,130			1,000	2,200	2,145
	15	2,700					2,700 (Heating)	3,400	3,400
	32	580			580 (Heating)	5,550			5,550
1975	13	12,200	6,000	2,420			6,200	2,430	2,425
	15	3,130					3,130	2,950	2,950
	17	2,410			2,410	3,400			3,400

* Housing built by private fund is the housing from 1971 to 1974 and national housing is the housing since 1975.

Source: KNHC

Table 26
 FNHC
 Sources and Uses of Funds, 1976
 (million won)



Housing Construction Plan by Type and Financing Plan in 1976

Unit: Thousand Won

Description	By Type (Byong)	No. of Units	Construction Cost	Government Contribution	Lottery Fund	Housing Bond	AID Guaranty Loan	Entrusted	Down Payment	Security Fund For Rental	KNHC's Own Fund	Remarks
1. National Housing												
Rental Apt.	13	7,000	19,116,088	7,500,000 (39.2%)	1,000,000					2,100,000 (11%)	8,516,088 (44.6%)	Seoul and other areas
Sale Apt.		5,420	48,851,389			10,314,000 (21.1%)			38,537,389 (78.9%)			
	13	400	1,384,256			735,000 (53.1%)			649,256 (46.9%)			Seoul (Non-heating)
	15	270	1,161,512			405,000 (34.9%)			756,512 (65.1%)			Seoul (heating)
	19	730	3,964,994			1,314,000 (33.1%)			2,650,994 (66.9%)			
	23	2,280	24,022,607			4,560,000 (19%)			19,462,607 (81%)			
	25	1,650	18,318,020			3,300,000 (18%)			15,018,020 (82%)			
2. AID Guaranty Loan Apt.												
		4,710	12,373,412				7,244,185 (58.6%)		5,129,227 (41.4%)			
	7.5	500	1,097,589				531,233 (48.4%)		566,356 (51.6%)			Seoul (Heating)
	10	600	1,635,584				811,250 (49.6%)		824,334 (50.4%)			Seoul (Non-heating)
	10	840	2,006,135				1,130,555 (56.4%)		875,580 (43.6%)			Seoul and Masan (Non-heating)
	13	2,770	7,634,104				4,771,147 (62.5%)		2,862,957 (37.5%)			Seoul and other 5 area (Non-heating)
3. Housing Entrusted by Other Agencies												
		1,743	4,731,734			565,000 (11.9%)	1,575,000 (33.3%)		2,591,734 (54.8%)			
Veterans	12-13	450	1,083,064			565,000 (52.2%)			518,064 (47.8%)			
Military	15-18	500	1,575,000				1,575,000 (100%)					
Kwangju IARD	15-20	635	1,353,194						1,353,194 (100%)			
Others	15-22	158	720,480						720,480 (100%)		17,472,210	
4. Letter Half Project												
	13	6,090	17,472,210									
5. Shopping Stores and Others												
	15-20	400	2,143,140						2,143,140			
TOTAL		26,076	104,687,977	7,500,000 (7.2%)	1,565,000 (1.5%)	11,885,000 (11.4%)	7,244,185 (6.9%)	2,591,738 (2.5%)	45,809,756 (43.7%)	2,100,000 (2%)	25,988,298 (24.8%)	

1. Terms of financing

- a. 1 years grace and 19 years repayment with 4% annum.
- b. Housing bond: 1 year grace and 14 years repayment with 8% per annum.
- c. AID Guaranty Loan: 9.5 years grace and 16 years repayment with 9.45% per annum.

Source: KNHC

TABLE 28

Housing Selling Price and Terms of Mortgage

Description	By Type (Pyong)	Selling Price (Thousand Won)				Monthly Payment (Won)	
		Total	Down Payment	Mortgage	(%)	Grace Period	Repayment Period
1. National Housing							
Rental Apt.	13	(2,662-2,884)	(2,442 - 2,454)	Key Money (220-430)		Monthly Rent (8,900-12,900)	
Sale Apt.	13	2,825	1,325	1,500	53.1	10,000	19,024 (60 Won month will be success decreased)
	15	4,302	2,802	1,500	34.9	10,000	19,024 (60 Won per month will be successfully)
	19	5,432	3,632	1,800	33.1	12,000	22,762 (Won per month will be successfully)
	23	10,837	8,537	2,000	19.	13,334	25,365 (79 Won month will be successfully decreased)
	25	10,855-11,157	8,855 - 9,157	2,000	17.9-18.4	13,334	25,365 (79 Won month will be successfully decreased)
2. AID Guaranty Loan Apartment							
	7.5 (Heating)	2,196	1,133.4	1,062.6	48.4	8,403	10,798
	10 (Non-heating)	2,374-2,426	735.5-1,373.6	1,207.5-1,690.5	49.6-69.7	9,549-13,368	12,270 - 17,178
	10 (Heating)	2,726	1,373.6	1,352.4	49.6	10,695	13,742
	13 (Non-heating)	2,579-2,997	647-1,372.6	1,352.4-1,932	49.6-74.9	15,278-10,695	13,742 - 19,632

Terms of Mortgage: a. Rental Apt.: 1 year grace and 19 years repayment with 4% per annum.
 b. Apt. for sale: 1 year grace and 14 years repayment with 8% per annum.
 c. AID Guaranty loan Apt.: 9.5 years grace and 16 years repayment with 9.45% per annum.

Source: KNHC

Housing Finance in the Fourth Five Year Plan

The Korean economy is characterized by a well-developed governmental system for planning and monitoring economic developments. The Economic Planning Bureau has developed a fourth five year plan for the Korean economy extending from 1976 through 1981. Substantial attention should be given to this plan, in view of the Korean ability to set ambitious economic targets and to successfully meet these targets. In view of the relevance of economic planning in Korea to actual economic performance, the anticipated allocation of national resources to housing provides a necessary beginning for the development of a system of financial instruments and institutions.

The fourth five year plan calls for continued growth in the economy, with a target of gross national product growth of 17.3% per year for the period 1976 through 1981. While this rate of gross national product growth is less than that experienced in recent years, it is accompanied by an anticipated reduction in the rate of inflation. The fourth five year plan calls for a decrease in the rate of inflation, as measured by the GNP price deflator, to an annual rate of 7% per year. This strategy is demonstrated in Table 29, which shows gross national product for the planning period in 1975 prices. The table shows the target rate of growth as 9% per year, roughly consistent with the demonstrated long run growth potential in the economy. Economic planners hope to maintain real growth in gross national product, while decreasing inflation, by decreasing the rate of growth

of money supply. This report has earlier alluded to the practice in Korea of pursuing a program involving a rapid growth in the money supply. The annual rate of growth of the money stock from 1970 to 1975 was 30.9%. The rate of growth projected for the period 1976 through 1981 is 19.7% per year (Table 30). If this strategy is successfully implemented it should result in both a decrease in inflation and a lowering of nominal interest rates. The fourth five year plan calls for continued moderation of population increases with a five year rate of growth anticipated to be 1.6% per year. A result of the total economic plan should be a continuation of the relatively rapid increase in per capita gross national product over the five year period. As real income in the Korean economy has increased, a smaller proportion of the nation's income has been devoted to consumption expenditures. In the period from 1960 to 1975, consumption expenditures as a percent of gross national product have fallen at an annual rate of 1.2% per year. As Table 31 shows, the economic plan calls for continuation and acceleration of this process. The table indicates that consumption as a percentage of gross national product is expected to fall by approximately 2.6% per year over the five year period. The reason for the targeted decrease is the desire on the part of economic planners that the Korean economy generate greater savings and hence greater investment capital. The continual decrease in consumption expenditures may prove difficult to achieve over an extended period.

The targeted decrease in consumption expenditures as a percent of gross national product results in a rapid increase in gross private domestic savings in the five year plan. As Table 32 shows, economic

plans call for an increase in gross private domestic savings of 15.5% per year over the five year period. While the five year plan calls for a rapid increase in domestic savings, it calls for decreasing proportion of these domestic savings to be invested in dwellings. Table 33 shows that investment in dwellings as a percent of gross private savings will fall from an expected 1976 rate of 32.84% to a rate in 1981 of only 19.86%. Based on the portion of savings allocated to housing, the plan shows a significant decrease in the relative priority of the housing sector. A similar conclusion results from analysis of gross domestic capital formation and the role of housing investment. During the period 1970 to 1975, investment in dwellings as a percent of gross domestic capital formation increased 5.3% per year. Under the five year plan as shown in Table 34, investment in dwellings as a percent of gross domestic capital formation is targeted to decrease by 3% per year over the five year period. An additional evidence of the relative decrease in housing priority is provided by Table 35 which shows investment in dwellings as a percentage of gross national product and indicates a targeted decrease from 4.5% of gross national product in 1976 to 3.8% in 1981, an average rate of decline of 3.3% per year over the period indicated. The final evidence of the shift away from housing investment is provided by Table 36 which shows sources of housing finance, divided into government and public sector funds and private sector funds. The table shows that the increase in public sector housing funds is expected to occur at a rate of 9% per year while the increase of private sector funds is expected to increase at only 8.2% per year. Both of these figures are well below the rate of growth of nominal per capita gross

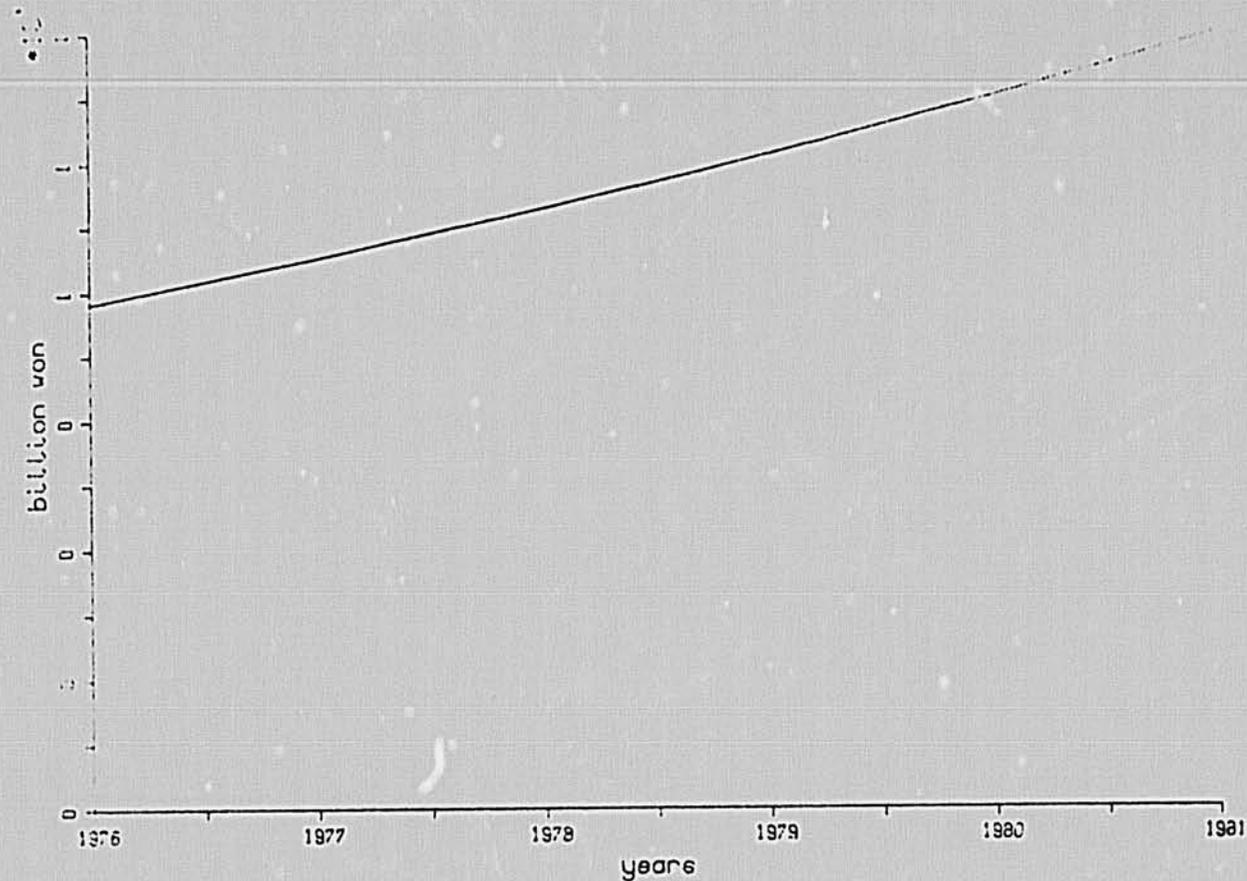
national product and nominal per capita income. It is further significant to note that the plan calls for a more rapid increase of public sector funds than private sector funds indicating a relative shift away from the private market.

The final portrait which emerges from our analysis of the fourth five year plan is one of continued rapid economic growth, an attempt to moderate the level of inflation occurring in the Korean economy, emphasis being placed on savings and capital formation and a relative shift away from consumption expenditures. The plan seems to indicate a relative deemphasis of housing throughout the period. The implications of this shift away from housing capital may be serious problems in the development of housing finance sources over the coming five year period.

TABLE 29

GROSS NATIONAL PRODUCT

Fourth Five Year Plan



	1976	1977	1978	1979	1980
1977	9.7				
1978	9.7	9.8			
1979	9.7	9.8	9.8		
1980	9.7	9.8	9.8	9.8	
1981	9.7	9.8	9.8	9.8	9.8

GROSS NATIONAL PRODUCT AT 1975 PRICES (BILLION WON)

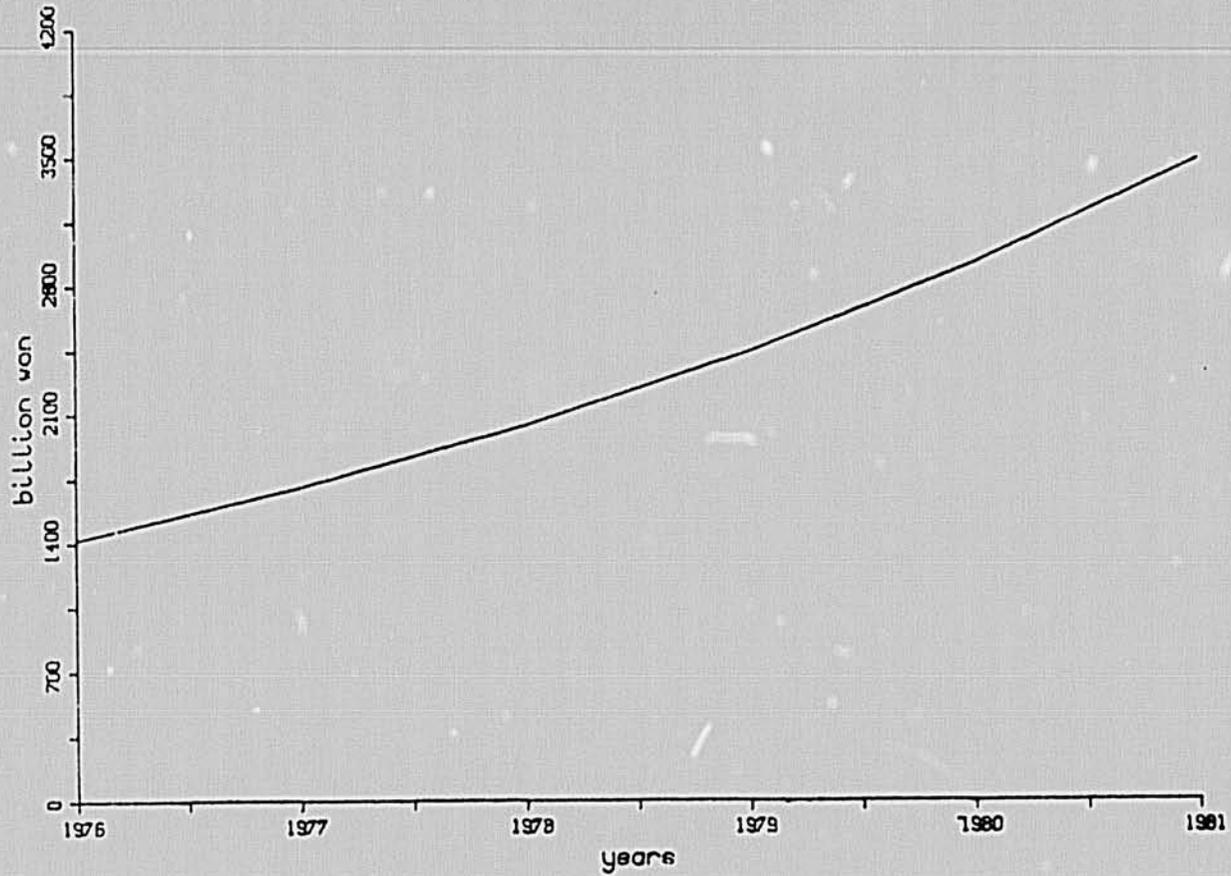
1976	9776.00	1978	11615.00	1980	13800.00
1977	10656.00	1979	12660.50	1981	15042.00

Source: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

TABLE 30

MONEY SUPPLY

Fourth Five Year Plan



MONEY SUPPLY (BILLION WON)

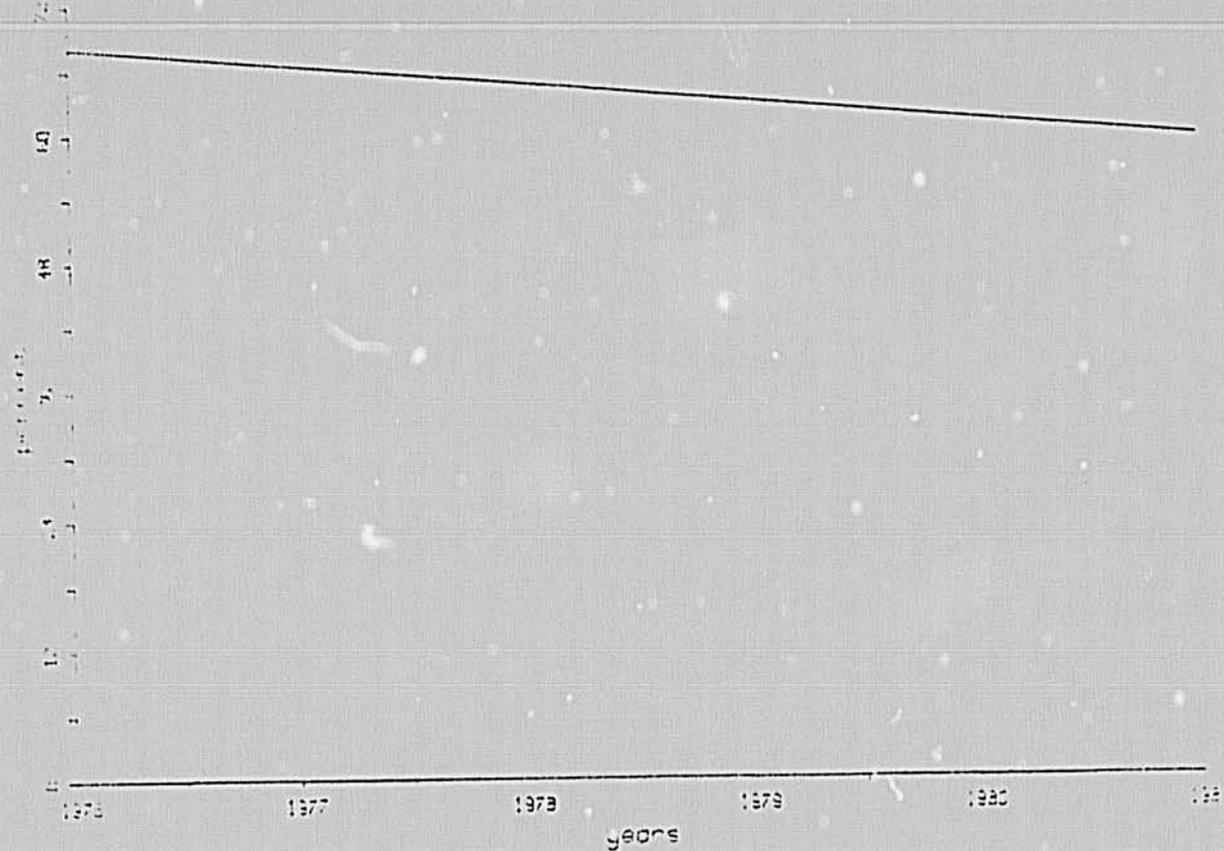
	1976	1977	1978	1979	1980
1977	20.1				
1978	19.8	19.5			
1979	19.7	19.6	19.6		
1980	19.7	19.6	19.6	19.6	
1981	19.7	19.6	19.6	19.6	19.6

MONEY SUPPLY (BILLION WON)

1976	1418.00	1978	2035.20	1980	2911.10
1977	1702.60	1979	2434.10	1981	3402.70

Source: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

TABLE 31
 PERSONAL CONSUMPTION EXPENDITURES AS A PERCENT OF
 GROSS NATIONAL PRODUCT
 Fourth Five Year Plan



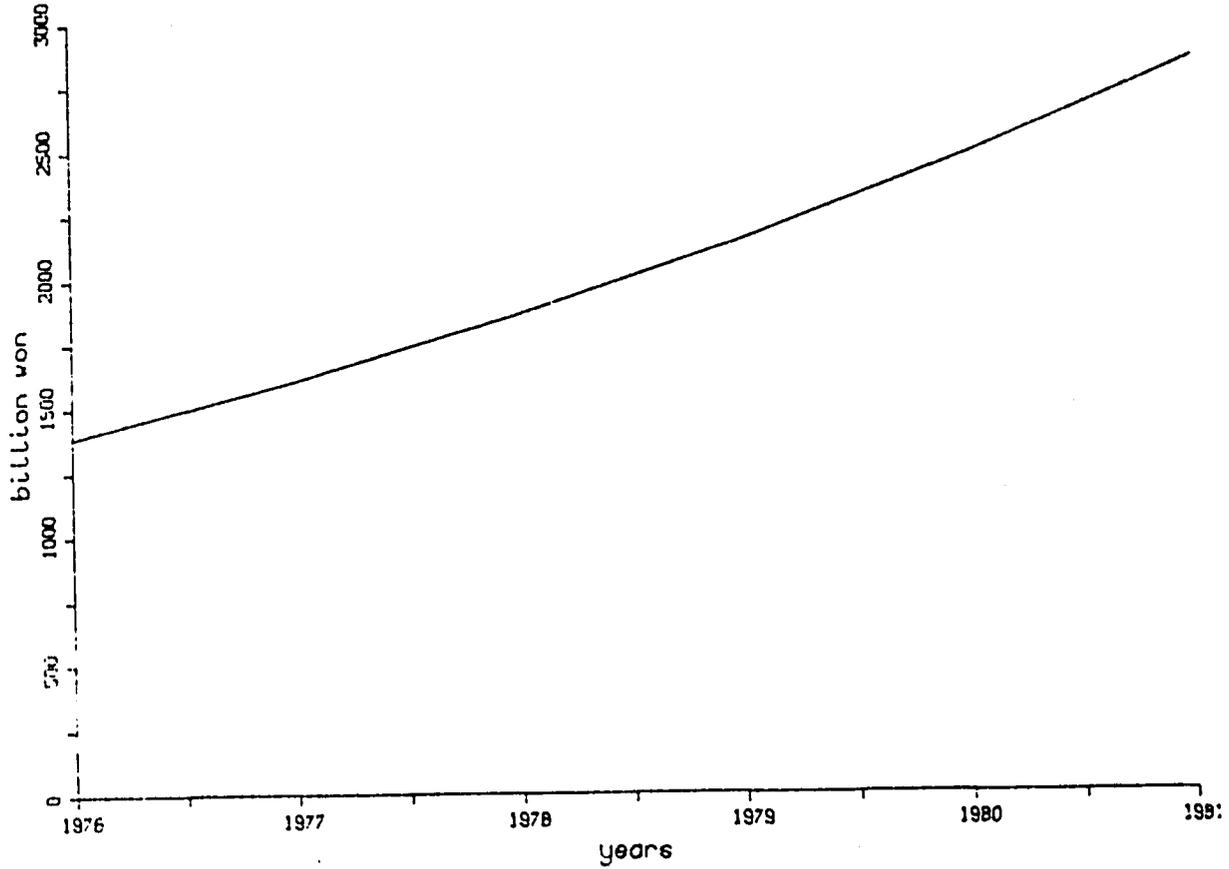
	1976	1977	1978	1979	1980
1977	-2.5				
1978	-2.5	-2.6			
1979	-2.6	-2.6	-2.6		
1980	-2.6	-2.6	-2.7	-2.7	
1981	-2.6	-2.6	-2.6	-2.7	-2.6

PERSONAL CONSUMPTION EXPENDITURES AS A PERCENT OF GNP

1976	68.00	1978	64.60	1980	61.20
1977	66.30	1979	62.90	1981	59.60

Source: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

TABLE 32
GROSS PRIVATE DOMESTIC SAVINGS
 Fourth Five Year Plan

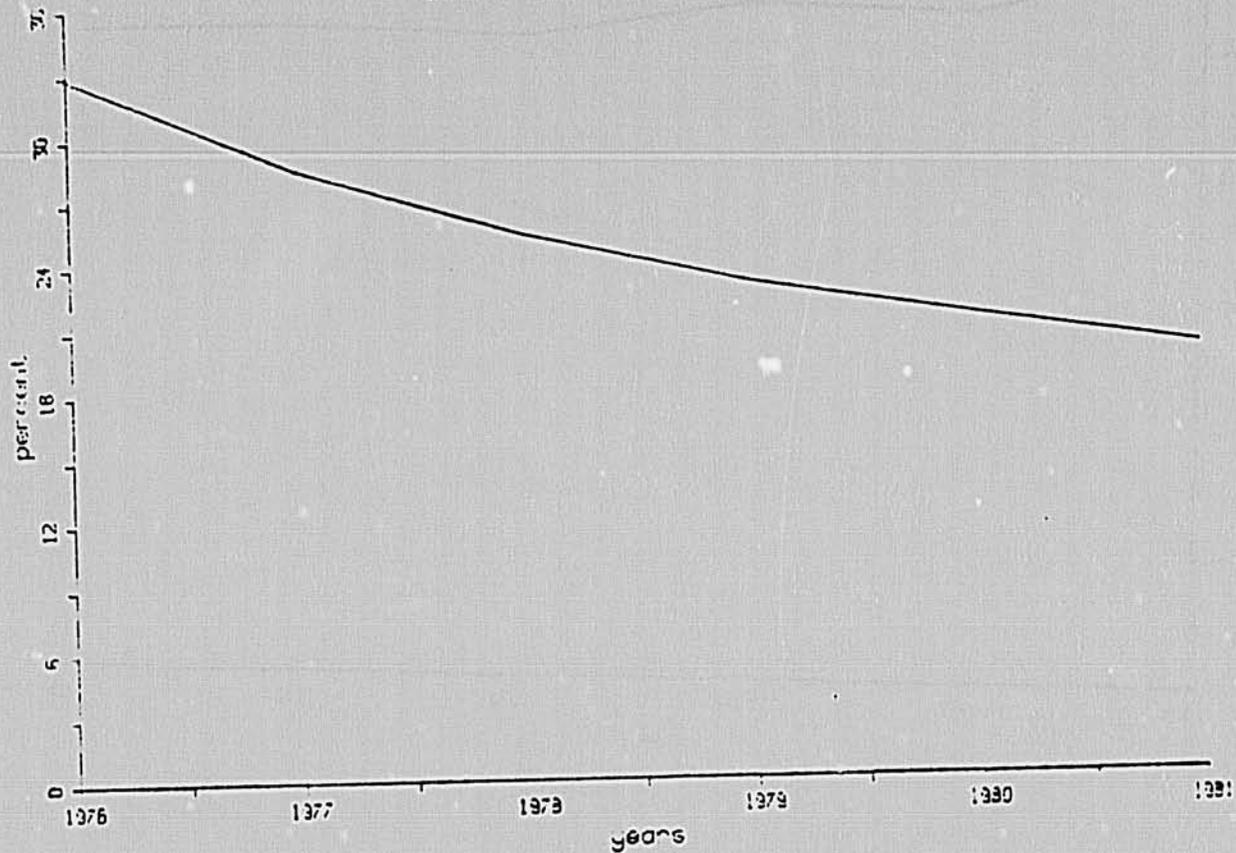


	1976	1977	1978	1979	1980
1977	15.7				
1978	15.9	16.0			
1979	15.7	15.7	15.4		
1980	15.7	15.6	15.4	15.4	
1981	15.5	15.4	15.2	15.1	14.7

GROSS PRIVATE DOMESTIC SAVINGS AT 1975 PRICES (BILLION WON)						
1976	1385.50		1978	1961.20	1980	2479.50
1977	1604.90		1979	2148.50	1981	2844.90

Source: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

TABLE 33
INVESTMENT IN DWELLINGS
AS A PERCENT OF
GROSS PRIVATE DOMESTIC SAVINGS
Fourth Five Year Plan

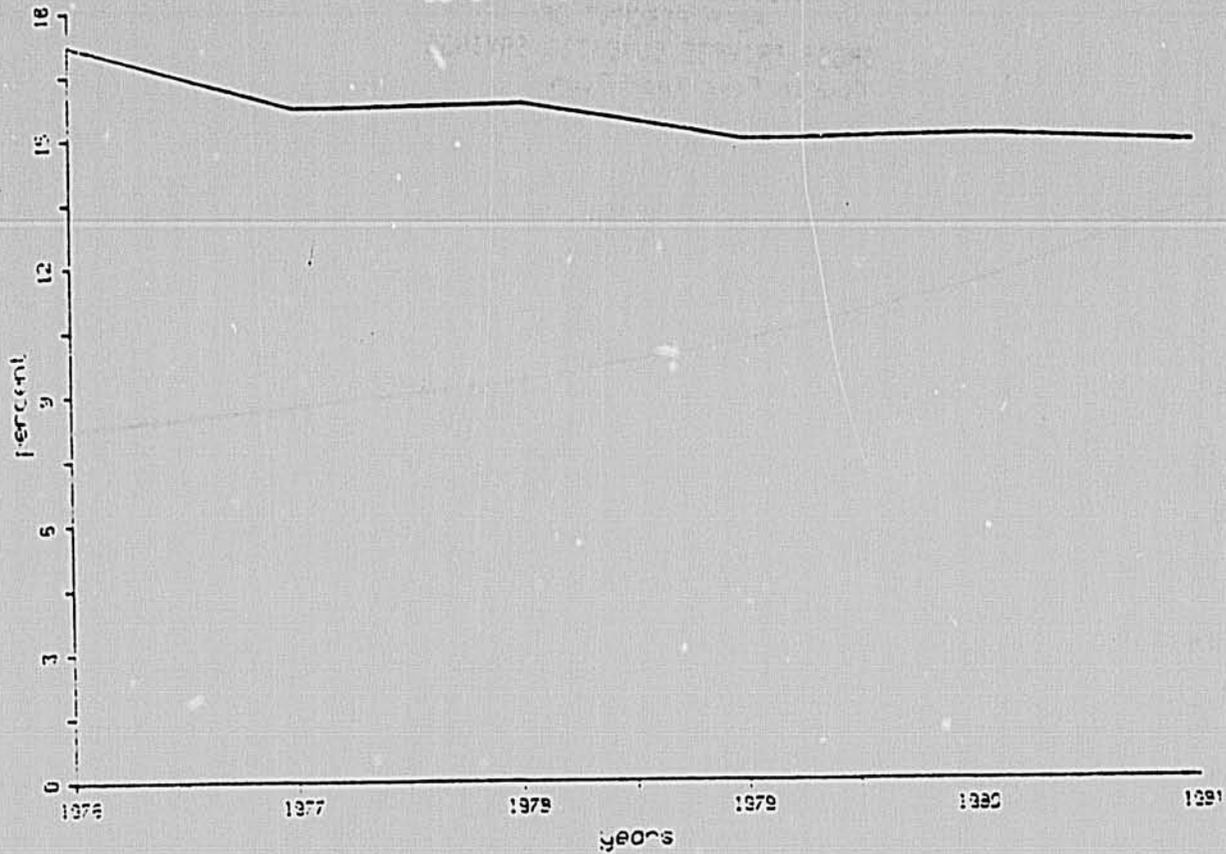


	1976	1977	1978	1979	1980
1977	-13.3				
1978	-12.1	-11.0			
1979	-11.1	-10.1	-9.1		
1980	-10.2	-9.1	-8.2	-7.2	
1981	-9.6	-8.6	-7.8	-7.2	-7.1

INVESTMENT IN DWELLINGS AS A PERCENT OF GROSS PRIVATE DOMESTIC SAVINGS					
1976	32.84	1978	25.36	1980	21.38
1977	28.48	1979	23.34	1981	19.86

Source: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

TABLE 34
INVESTMENT IN DWELLINGS
AS A PERCENT OF
GROSS DOMESTIC CAPITAL FORMATION
Fourth Five Year Plan



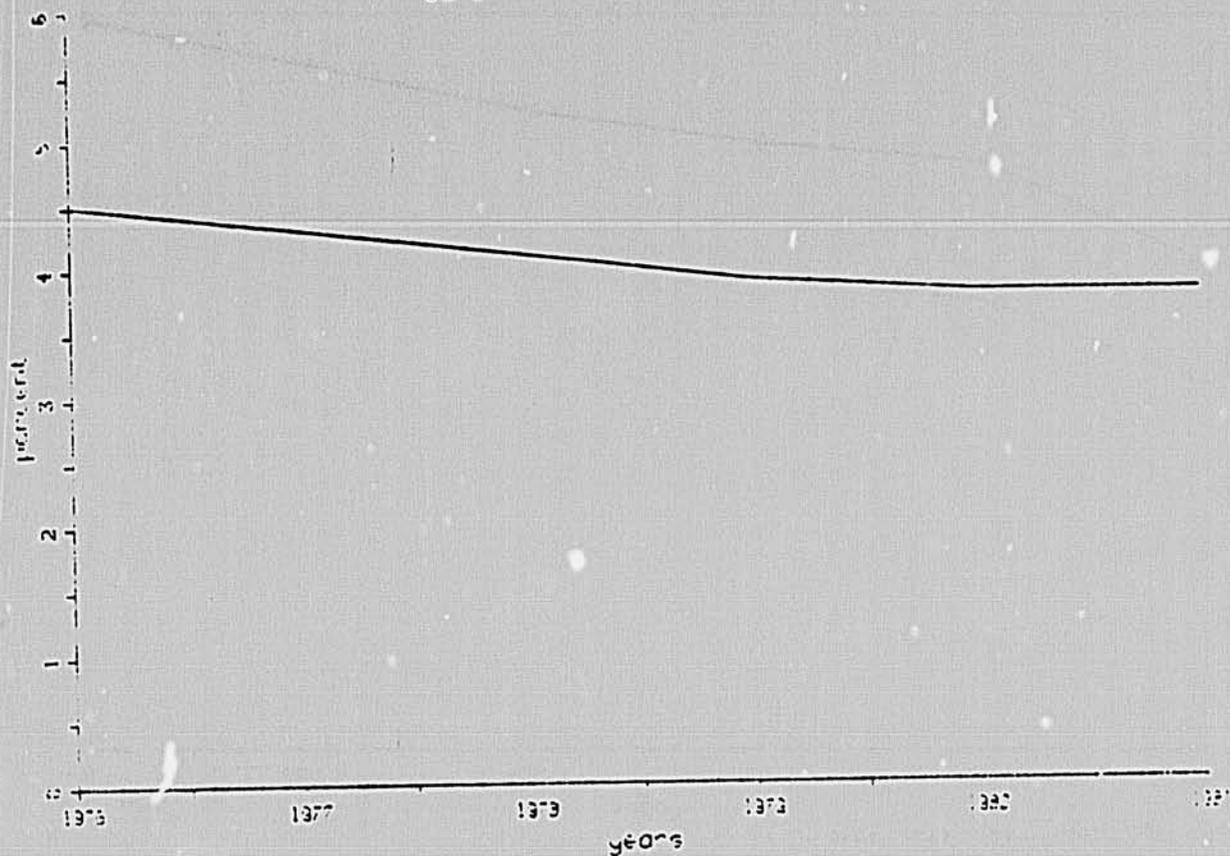
	1976	1977	1978	1979	1980
1977	-8.7				
1978	-4.2	.6			
1979	-4.7	-2.6	-5.7		
1980	-3.4	-1.5	-2.6	.7	
1981	-3.0	-1.5	-2.2	-.3	-1.3

INVESTMENT IN DWELLINGS AS A PERCENT OF GROSS DOMESTIC CAPITAL FORMATION

1976	17.20	1978	15.80	1980	15.00
1977	15.70	1979	14.90	1981	14.80

Source: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

TABLE 35
INVESTMENT IN DWELLINGS
AS A PERCENT OF
GROSS NATIONAL PRODUCT
Fourth Five Year Plan



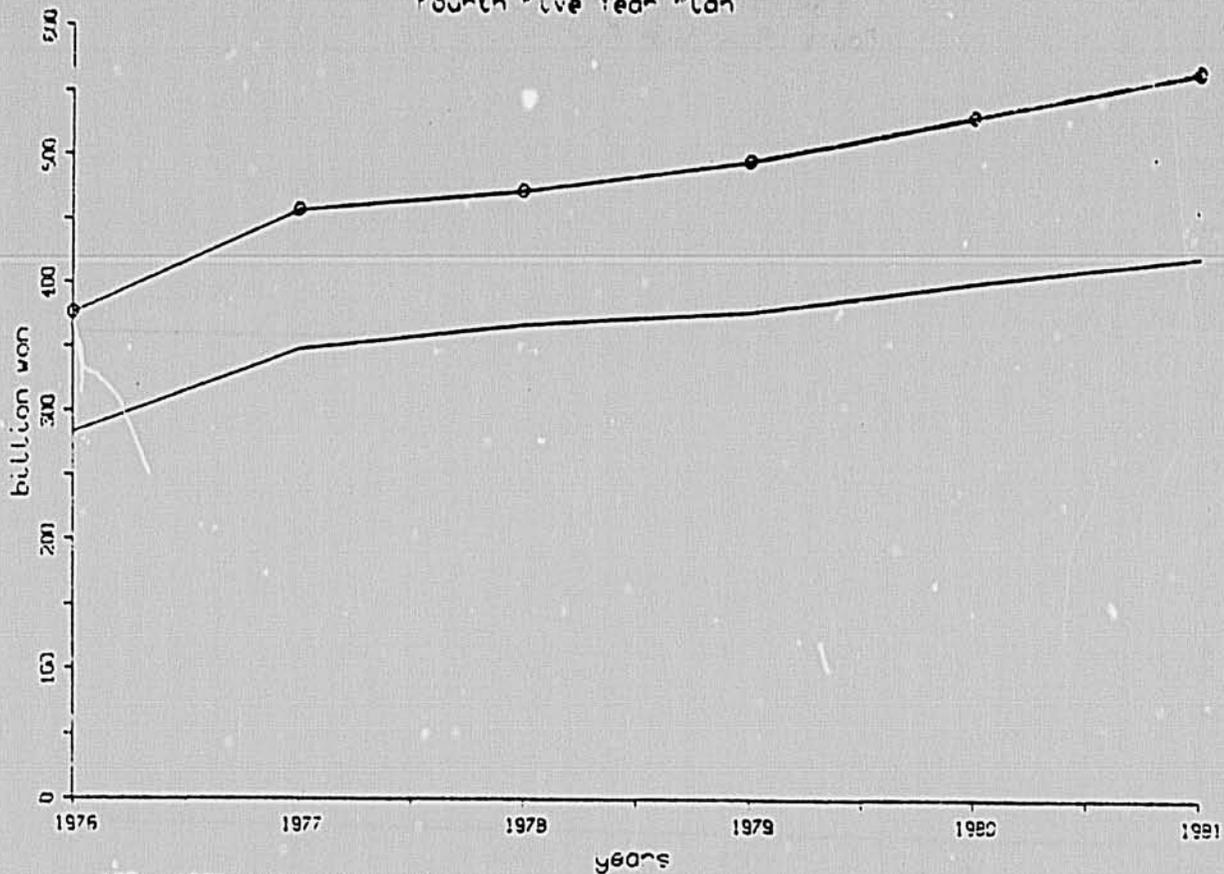
	1976	1977	1978	1979	1980
1977	-4.4				
1978	-4.5	-4.7			
1979	-4.7	-4.8	-4.9		
1980	-4.1	-4.0	-3.7	-2.6	
1981	-3.3	-3.0	-2.5	-1.3	.0

INVESTMENT IN DWELLINGS AS A PERCENT OF GNP

1976	4.50	1978	4.10	1980	3.80
1977	4.30	1979	3.90	1981	3.00

Source: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

TABLE 36
SOURCES OF HOUSING FINANCE
GOVERNMENT AND PUBLIC SECTOR
PRIVATE SECTOR
Fourth Five Year Plan



	1976	1977	1978	1979	1980
1977	26.0				
1978	5.3	-3.6			
1979	3.0	4.2	12.5		
1980	5.4	6.0	11.2	9.9	
1981	9.7	7.3	11.2	10.5	11.1

GOVERNMENT AND PRIVATE SECTOR (BILLION WON)

	1976	1977	1978	1979	1980	1981
1976	92.89					
1977	137.72					
1978			103.88			
1979			116.85			
1980					126.42	
1981					142.71	
1977	22.9					
1978	13.3	5.3				
1979	10.0	4.0	2.8			
1980	9.0	4.8	4.5	6.2		
1981	8.2	4.9	4.7	5.7	5.1	

PUBLIC SECTOR (BILLION WON)

	1976	1977	1978	1979	1980	1981
1976	284.10					
1977	349.33					
1978			367.84			
1979			376.10			
1980					401.60	
1981					422.26	

Source: Fourth Housing Plan, Fourth Investment Section, EPB, June 17, 1976

Appendix I

Curb Market

An extensive private financial system known as the "Curb Market" exists in Korea. The system is well known and widely used by citizens, but due to legal measures taken against it by the Korean Government in 1972, there is no official information published. The following discussion results from comments and opinions of many people. It was emphasized by some that many of their comments concerning the Curb Market were only opinion and not backed by fact.

The volume of funds on the Curb Market was reduced substantially after 1972 when measures were taken by the government to outlaw it. Under the Presidential Emergency Decree for Economic Stability and Growth, all Curb Market loans to business firms and the term on those loans had to be reported to the National Tax Office by both debtors and creditors. 350 billion won (23% of domestic bank credit in 1972) was reported, with an average interest rate of about 3.5% per month. Operations tend to be more hidden now to avoid paying taxes. Lately, with tight credit, the Curb Market has expanded, but, according to one source, not to the extent of being "threatening to the economy".

Curb Market capital could amount to 500 billion won or more.

There are about five "sectors" in the Curb Market. They are, in order of risk (from most risky to least), the consumer loan, the kye system, the quasi-financial market, the corporate short term borrowings, and the secondary market for commercial paper. Consumer loans, the most risky, have been known to reach 8% per month. Recently loans under 500,000 won are estimated at 4% per month and between 500,000 and 1,000,000 at 3.5% per month. In November 1976, the Chamber of Commerce estimated the average monthly rate to be 3.05%.

The Kye System consists of mutual investment funds or clubs. A group of people bank together and pool their money for investment purposes. On these funds they may earn as much as 4% per month. An individual subscribes or joins one of these societies normally on a one year basis and will contribute so much per month. For example, 666 won deposited at the end of each month for 12 months would mature at 10,000 won at the end of 12 months, providing a rate of interest of 4% per month to the Kye Society member. "Kye Clubs" exist in a legal form as Mutual Investment Companies.

The quasi-financial market consists of licensed mutual credit companies and credit unions which are not yet licensed. These mutual credit companies are completely legal institutions

except that they ignore the legal interest ceiling of approximately 25%. Interest rates at these short term financial corporations are about 2% per month on a 3 month deposit. Some estimate that 30% of the Curb Market funds may be in this quasi-financial sector. An example of this type of organization exists at a KDI, a prestigious government research institute. At KDI a type of credit union or mutual fund exists, which pays depositors approximately 2.5% per month and re-lends these funds at 3 to 4% per month.

There exists in Korean financial structure about 20 illegal brokerage firms who are involved in short term lending. Through these brokerage houses, it is possible for corporations to get up to 20 million won at a day's notice. This gives an indication of the volume and the rapid turnover of funds in these firms. These firms have a network of agents throughout the cities.

The fifth sector is the secondary market for commercial paper. This market is virtually risk free and exists because issuers can't get commercial paper rediscounted at banks.

Builders borrow construction money for "spec" homes on the Curb Market. The fact that they can borrow at 36% for these homes and make money shows that housing costs can be reduced if there are lower interest rates.

There is very little default in the Curb Market because the defaulter is put on a blacklist and can't get more credit. If a company defaults on a loan, rumors are spread

to the effect that the company is in trouble and the credit rating falls.

Other factors reducing risk are that homes are sometimes used as collateral and Korean women, although the picture of demure femininity, can reportedly be formidable debt collectors.

This highly developed system adjusts interest rates to supply and demand. The base interest rate on the Curb Market is determined by short term corporate borrowings and other rates are risk-adjusted from that base. Interest rates fluctuate daily and are often published in the local newspapers.

Interest rates are usually higher in rural areas, possibly due to higher risk and handling cost of smaller sums of money. Rates are higher around harvest time, as demand for funds increases.

The Curb Market exists for a variety of reasons. In addition to the appeal of high interest rates, the Curb Market requires much less "red tape". Many small businesses and citizens can obtain loans otherwise unavailable to them through the present institutions. Curb Market loans are immediate and not subject to any previous contract savings program. People are also reluctant to give banks title to their collateral as is required in some cases.

Depositors in the urban cities would welcome the institutionalization of the Curb Market, but many people

in the rural areas have a mistrust for financial institutions stemming from a system imposed on them by the Japanese.

The Curb Market returns are nominally subject to tax at 25% or at the lender's normal global tax rate, whichever is greater. The borrower is supposed to hold back 25% of interest due and pay it as tax. If the lender's personal income tax rate (global rate) exceeds 25%, he pays the difference. This system is ineffective because if the borrower reports and pays the 25% tax, he will have trouble finding future lenders.

While the Curb Market is illegal, participants are rarely prosecuted. The government overlooks their operations because they realize that there are many people who need money and cannot get credit at the banks. The system is illegal in that there is a lack of proper licensing and a failure to heed interest rate ceilings imposed by the government.

Suggestions offered to institutionalize Curb Market funds include: (1) contract savings programs with high returns, such as the Salaried and Wage Earners Fortune Formation savings deposit and, (2) a fundamental change in the interest structure.

Appendix II

Summary of

Study on Raising of Housing Funds and Housing Finance System

Korean National Housing Corporation, 1976

Problems

I. In meeting the goals of the fourth five year plan, the average yearly volume of housing construction will have to be four times that of the period 1961-1975. This will require an investment of 7.5 percent of the total five year year GNP, twice the 3.0 percent previously invested. These funds must be raised by the private sector since the chemical and export industries still claim priority for public funds.

II. The KHB is beset with problems. It is inadequate in raising the volume of funds needed for housing finance in Korea. It is the sole bank handling matters related to funds for housing construction.

- A. National housing bonds and housing debentures are inadequate to meet the housing needs of the fourth five year plan.
- B. New money raised by the bond will be used to retire old issues.
- C. Principal on loans outstanding is slow coming in.
- D. The Bank's role as a financial intermediary is dormant. The Bank is preoccupied with implementing government policy, not being a financial intermediary. Fund raising activities are conducted from a

III. Policy Analysis and Recommendations. Four broad objectives of the Housing policy of the Korean government are: 1) increasing the production of housing units to alleviate the housing shortage, 2) increasing the rate of ownership, and 3) increasing the household savings rates.

A. Recommendations of this report:

1. Government should encourage the flow of financial resources into the housing sector. The lack of mortgage funds, and short term development loans to builders, is a very real constraint to housing.
2. For households unable to support the mortgage payments for a modest (13 pyong) dwelling unit, the government should institute a program of sites and services aside from services to be provided with subsequent repayment by households based on a percentage of income.
3. National and local government should continue their policy of intervention designed to facilitate the assembly of building sites.

IV. Housing Finance for Middle and Upper Income Households

- A. With the exception of small amounts of funds provided by the Korea Housing Bank, mortgage funds are currently unavailable in Korea. However, some short term, high interest rate loans are available in the informal market.

- B. Up to one-half million households might demand housing units if adequate financial arrangements are available. Limitations on demand are:
1. Housing units may be excessively modest for middle income families.
 2. Homeless households may have limited ability to accumulate the required downpayment.
 3. Eligible households may not choose to allocate a major portion of income to housing over a long period of time.
- C. Reasons for credit unavailability in the Korean economy:
1. Uncertainty and financial risk in mortgage loans
 2. Inexperience of private financial institutions with long term mortgage loans.
 3. Reluctance of government to foster the flow of savings into the housing sector.
- D. Solutions for the shortage of housing funds:
1. Government guarantee against financial loss on loan.
 2. Implementation of an indexed mortgage with a set real rate of interest and a nominal rate of interest fluctuating with predetermined price indexes.
 3. Korea Housing Bank acting as a secondary mortgage market originating or purchasing mortgages and selling full faith and credit bonds to finance

these mortgages. Bonds would be indexed and the Korea Housing Bank would stand ready to purchase bonds at any time.

4. Korea Housing Bank should get out of the retail lending business leaving this to commercial banks and/or savings banks, leaving the Korea Housing Bank as a wholesale operator in mortgages.
5. The proscription against construction lending by financial institutions should be rescinded.

V. Middle and Lower Income Housing Financing:

- A. Provision of sites and services
- B. Collection of payments based on the household's ability to pay
- C. Use of minimum subsidies consistent with household ability to pay and provision of housing assistance

VI. Operating efficiently in a capital constrained economy

- A. Two alternatives to operations in a capital short economy:
 1. Shift the mix of constructions programs away from the more capital intensive to the less capital intensive. This could be accomplished by emphasizing the self-help type of housing with substantial labor investment.
 2. Increase in the financial capital efficiency each program; obtain more dwellings with a given amount of financial capital.

- B. Only make mortgage loans for new housing units.
- C. Give preference to making loans to units which conserve capital, for example, allow the purchaser to perform some of the finish work.
- D. Continue the practice of assessing a one-time excise tax on large dwelling units.

VII. General plan for development of financial institutions

- A. The Korea Housing Bank should become a wholesale mortgage lender and secondary market operation.
- B. Present branches of KHB should become independent institutions of the savings and loan type.

VIII. Allocation of capital to housing finance

- A. Amount of capital to be determined by the economic planning board.
- B. The Korean Housing Bank would translate available capital into the implied amount of mortgage funds.
- C. The Korean Housing Bank would sell indexed small denomination debentures to raise the actual mortgage funds. Interest rates would be market determined based on an auction system. These market funds would be channeled mainly to higher income households and to lower income groups after the inclusion of an explicit interest subsidy.

Appendix III

Summary of Korean Housing:

Economic Appraisal and Policy Alternatives

By: Byung-Nak Song and Raymond J. Struyk

May 1976

Korean Development Institute

I. Demand for new dwellings in urban areas is being stimulated by rising real income and the increasing number of households. Acting in the opposite direction as a deterrent of demand is the rising relative price of housing and the shortage of mortgage finance.

II. The Korea Housing Bank is the only domestic organization which is directly responsible for raising housing capital and making mortgage loans for housing.

- A. The largest sources of funds for the Korea Housing Bank are National Housing Bonds, savings deposits, loan collections and housing debentures.
- B. Deposits while a major source of funds, are decreasing in importance because of inflation and low rates of interest paid on deposit funds.
- C. Virtually all mortgage interest rates involve subsidy. Only loans to individual households at 15.5% come close to actual market rates.

Fund raising activities are conducted from a government policy point of view and there is too much emphasis on social welfare and public service aspects of the supportative functions.

III. The method of subsidizing housing poses other problems. The present rate of subsidy is too high. Due to the difficulty of identifying the beneficiary of the housing loan, the receivers of this limited subsidy may not be the most needy. Target groups of the subsidy are not clearly defined. The original idea of "support with bank loans" has been degraded into one of "provision of the benefits of bank loans".

IV. The existing mortgage market is extremely complex. This is due to the complexity of procedures and the confusing system of subsidizing. Classic banking mechanisms are intentionally blocked making smooth creation and supply of funds to all classes difficult. One consequence is that low income beneficiaries of housing program funds are supplying funds to other low income families.

V. A lack of consistent housing development efforts further complicates the situation.

VI. Contributing to the underdevelopment of the housing mortgage market is a lack of social stability and mutual trust. Therefore, public institutions must still be used for housing finance.

Solutions

The more specific solutions stated later all focus on these broader more general goals that Korea must pursue in

order to adequately house the populace:

Housing Goals

I. Increase the percentage of GNP invested in housing from 4 to 7.5%.

II. Due to the limited public funds available, efforts should be made to absorb floating private funds and rely on the private sector for housing finance.

III. Efforts should be made to maximize both supply and demand for housing.

IV. A privately led housing industry should be established with specific subsidies applied where needed and institutionalized government support of that system.

V. The groundwork should be laid for a long term, stable supply of huge funds by the establishment of a consistent long range effective mortgage system with due consideration given to its interrelationships with other banking institutions.

Specific Solutions

I. By differentiating income groups benefiting from the housing program and supplying them with housing funds by different means, specific groups could be selected and provided with specific subsidies. Spontaneous inflows from non beneficiaries could be ensured via general banking mechanisms.

II. The Korea Housing Bank could be improved with a number of changes. The government policy implementation function of the bank should be restricted to low income groups. The Bank should be restricted to low income groups. The Bank should become a self-supporting financial intermediary for middle and

upper income groups following the nature of a savings and loan system with preferential interest rates on deposits. Under such a system, no new agency would be required. All persons would be eligible for depositing and there would be an affiliation formula to take into account income of the depositor and conditions of the deposit. Depositors would have priorities on loans.

Loans would be granted to the builder who would transfer it to the homeowner upon completion of the house. This would serve two purposes: 1) to avoid the misuse of funds, and 2) the granting of loans to private construction companies would enhance their reputation to better enable them to lead the housing industry.

Other suggestions for the KHB are:

- A. Equate the loan and deposit rate.
- B. Offset downpayment terms with housing trust and installment money to eliminate inverse interest rates and insure balance in the supply and demand for money.
- C. Establish a secondary market as an additional means of supplying funds.
- D. Use an index tied to income of the borrower in adjusting the maturity of the loan. This would raise or lower the monthly payment, allowing the debt burden of lower income people to match their income.

Problems with the above system would be as follows:

- A. There would be an initial shortage of working capital.
- B. A readjustment of the overall interest structure in the country would be necessary.
- C. A secondary market would need to be established.
- D. The bank would operate at a deficit due to equal cost of funds and interest on loans.

III. Another solution to the present housing situation would be the encouragement of companies to construct housing for employees. These costs would be written off as a loss. This would occur by passing laws requiring companies in industrial estates to construct company housing, firms in cities with adequate finances to house their homeless employees, and requiring other firms to contribute towards a housing construction fund.

IV. The effectiveness of the KNHC could be enhanced by its issuance of debentures. The debenture would bear 18.6% to be paid at maturity. Purchasers would be general investors and higher income people who would be given priority in purchasing lots. From an estimated two billion won in proceeds from each issuance, 1,310 individual plots (total area = 65,500 pyong) could be developed and sold making KNHC self sufficient in a continuing program of developing and distributing land plots.

- V. Other recommendations can be summarized as follows:
 - A. Introduce a loan issue against housing as collateral.
 - B. Improve the housing savings and trust systems.

- C. Phase out all subsidy policies.
- D. Unify and integrate the mortgage banking system to simplify procedures.
- E. Absorb floating private funds and start a secured mortgage market.

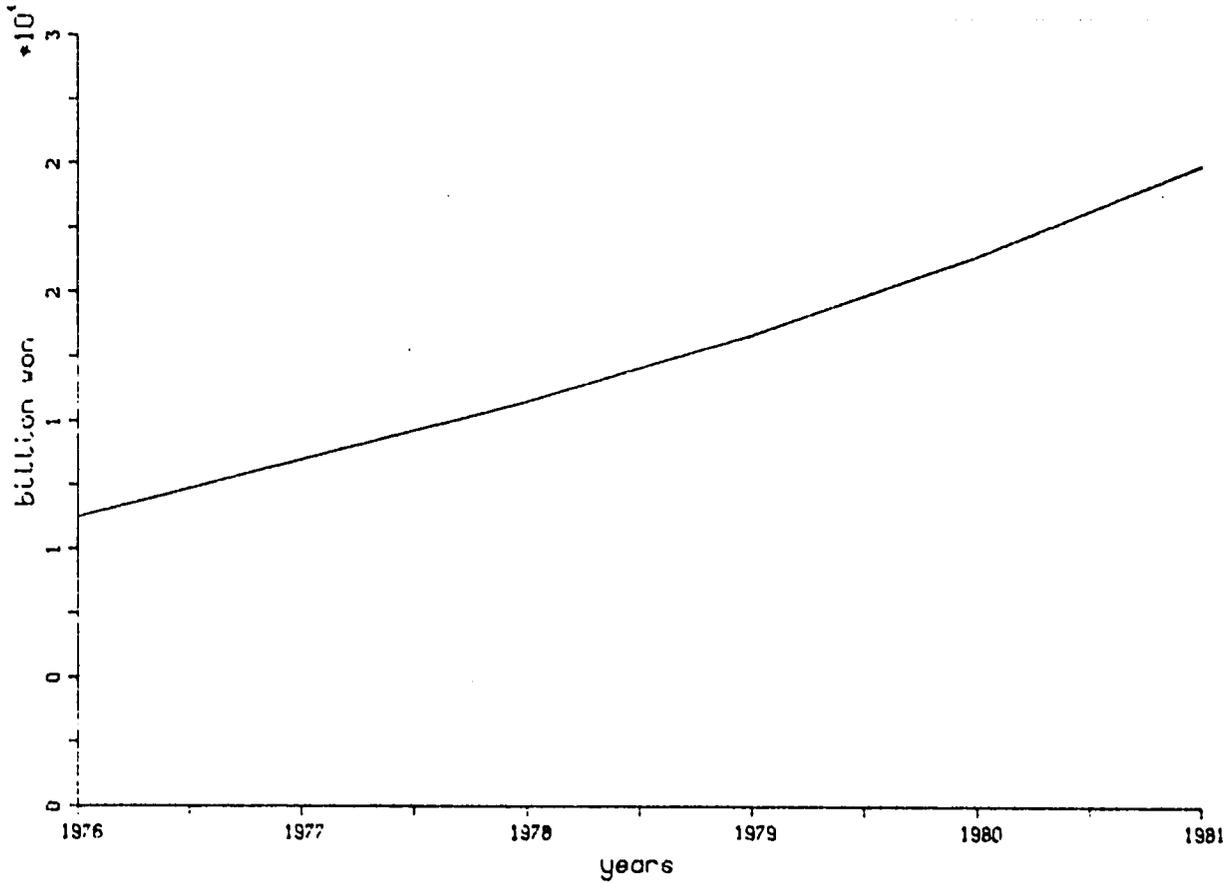
Appendix IV
Statistical Appendix
Fourth Five Year Plan

1. Gross National Product
2. GNP Price Deflator
3. Population
4. Per Capita GNP
5. Gross Domestic Capital Formation
6. National Investment in Dwellings

Source for all tables: Major Economic Indicators of the Fourth Five Year Economic Development Plan, Economic Planning Bureau, 1976

GROSS NATIONAL PRODUCT

Fourth Five Year Plan



GROSS NATIONAL PRODUCT IN CURRENT PRICES (BILLION WON)

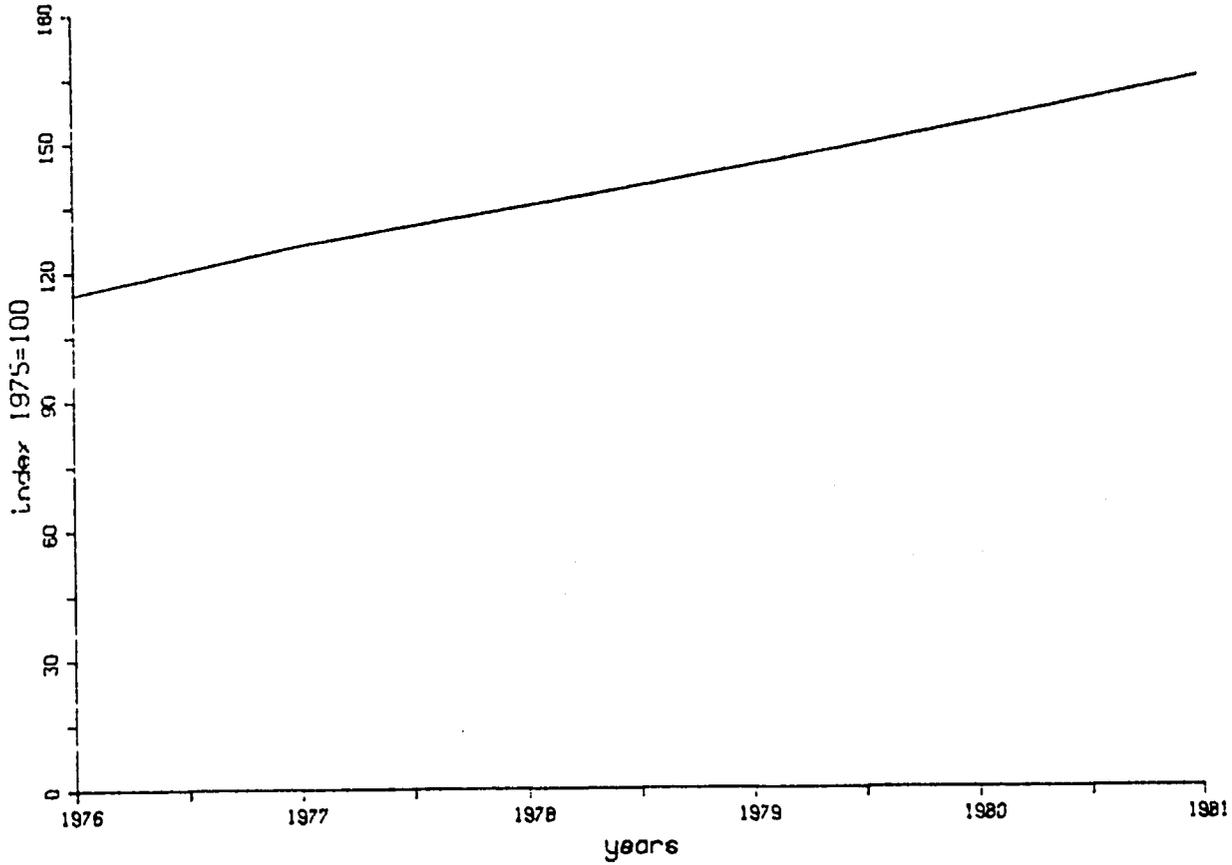
	1976	1977	1978	1979	1980
1977		19.9			
1978	19.3	16.7			
1979	17.7	16.6	16.6		
1980	17.4	16.6	16.6	16.7	
1981	17.3	16.6	16.6	16.6	16.6

GROSS NATIONAL PRODUCT IN CURRENT PRICES (BILLION WON)

1976	11242.00	1978	15726.00	1980	21309.00
1977	13480.00	1979	18332.00	1981	24939.00

GNP PRICE DEFLATOR

Fourth Five Year Plan

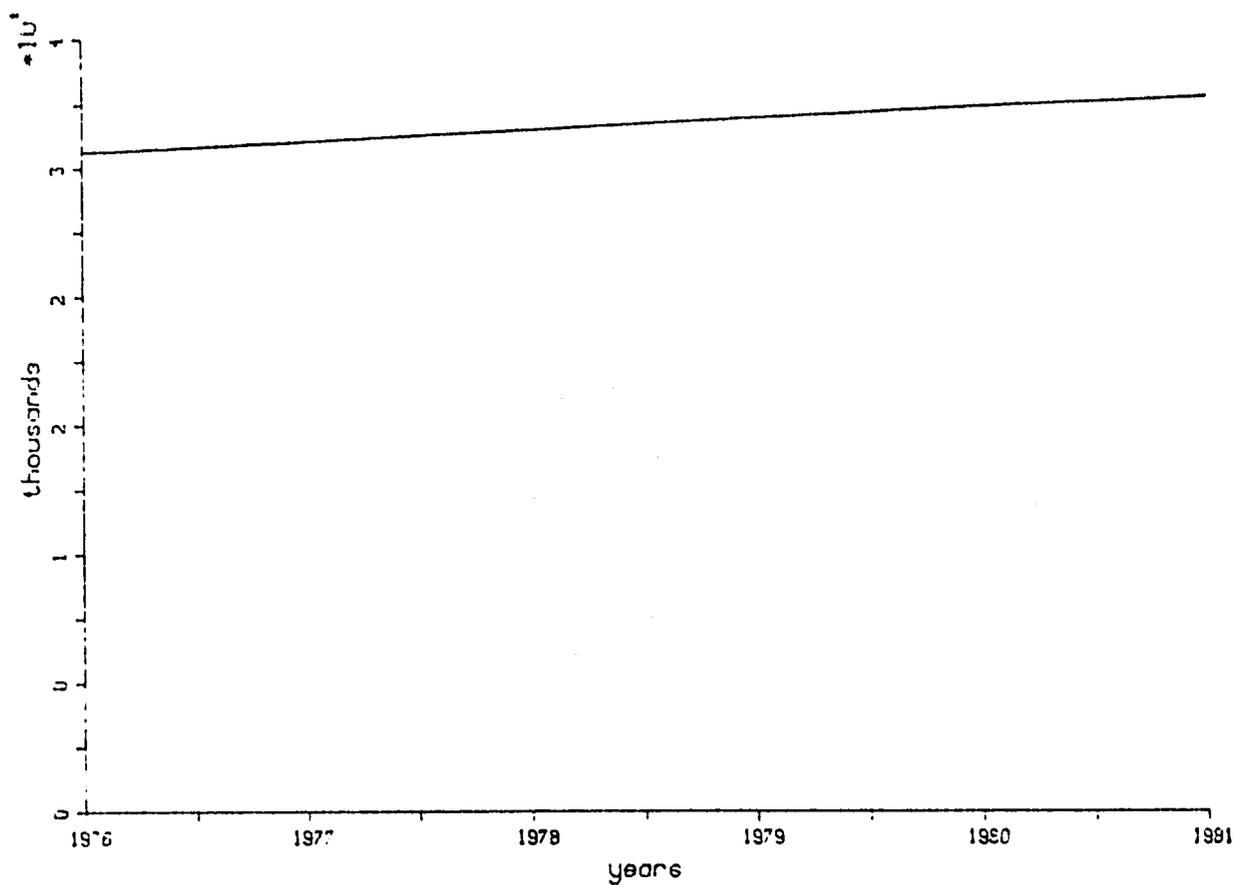


	1976	1977	1978	1979	1980
1977	10.0				
1978	3.5	7.0			
1979	8.0	7.0	6.9		
1980	7.7	7.0	7.0	7.0	
1981	7.5	7.0	7.0	7.0	7.0

GNP PRICE DEFLATOR 1975=100							
1976		115.00		1978	135.40	1980	155.00
1977		126.50		1979	144.80	1981	165.80

POPULATION

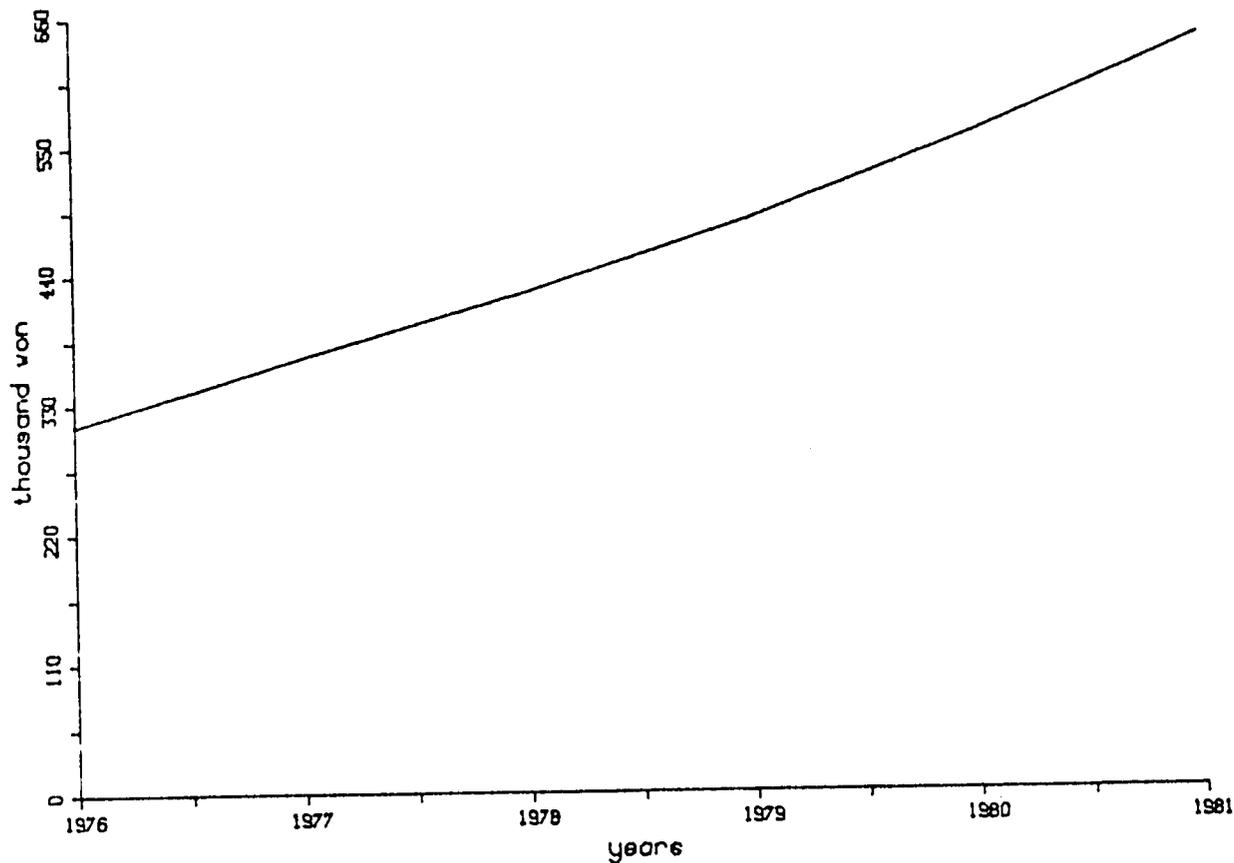
Fourth Five Year Plan



	1976	1977	1978	1979	1980
1977	1.4				
1978	1.4	1.6			
1979	1.7	1.7	1.8		
1980	1.4	1.7	1.7	1.6	
1981	1.6	1.6	1.6	1.5	1.4

POPULATION (THOUSANDS)					
1976	35875.00		1978	37029.00	
1977	36450.00		1979	37681.00	
				1980	38291.00
				1981	38835.00

PER CAPITA GNP
CURRENT PRICES
Fourth Five Year Plan



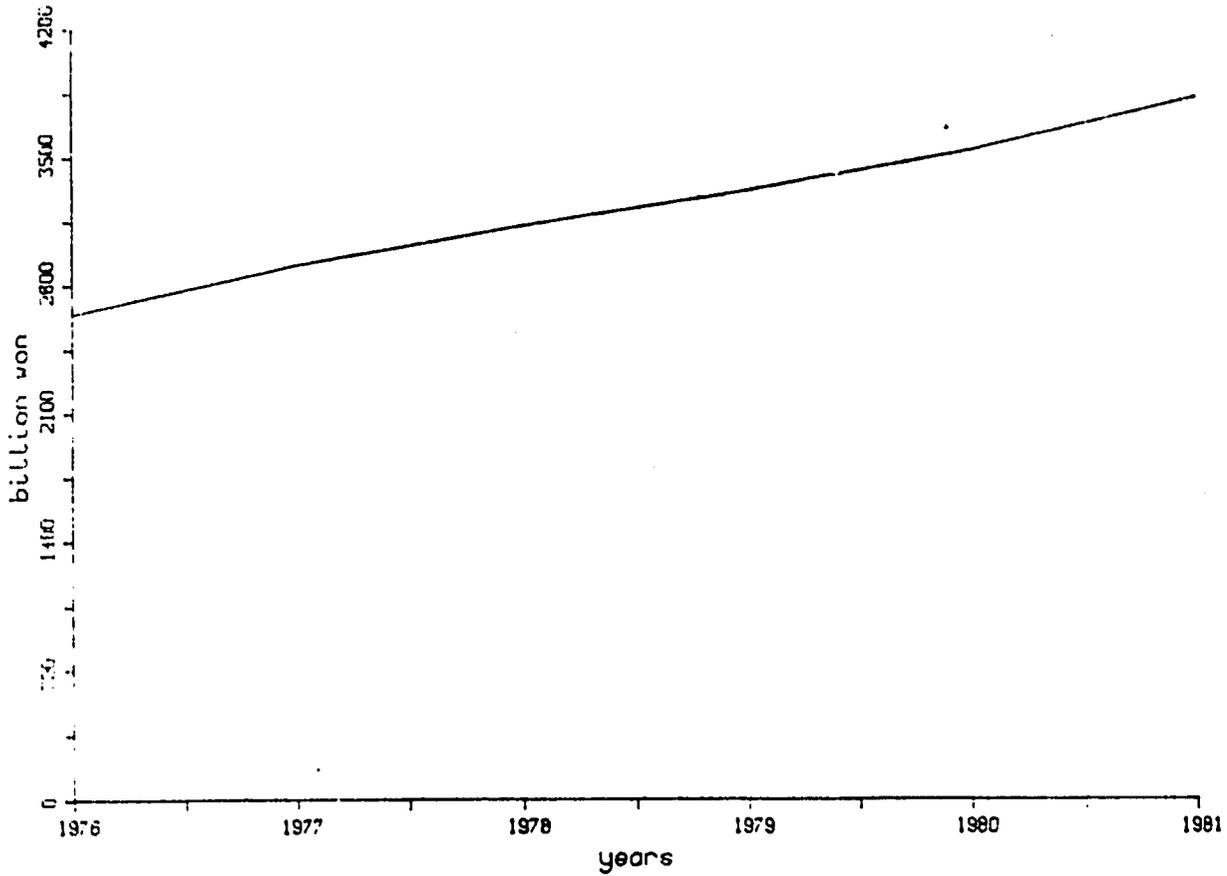
	1976	1977	1978	1979	1980
1977	18.2				
1978	16.5	14.9			
1979	15.9	14.7	14.6		
1980	15.7	14.8	14.6	15.0	
1981	15.5	14.8	14.7	14.8	14.6

PER CAPITA GNP IN CURRENT PRICES (THOUSAND WON)

1976	313.00	1978	425.00	1980	560.00
1977	370.00	1979	487.00	1981	642.00

GROSS DOMESTIC CAPITAL FORMATION

Fourth Five Year Plan



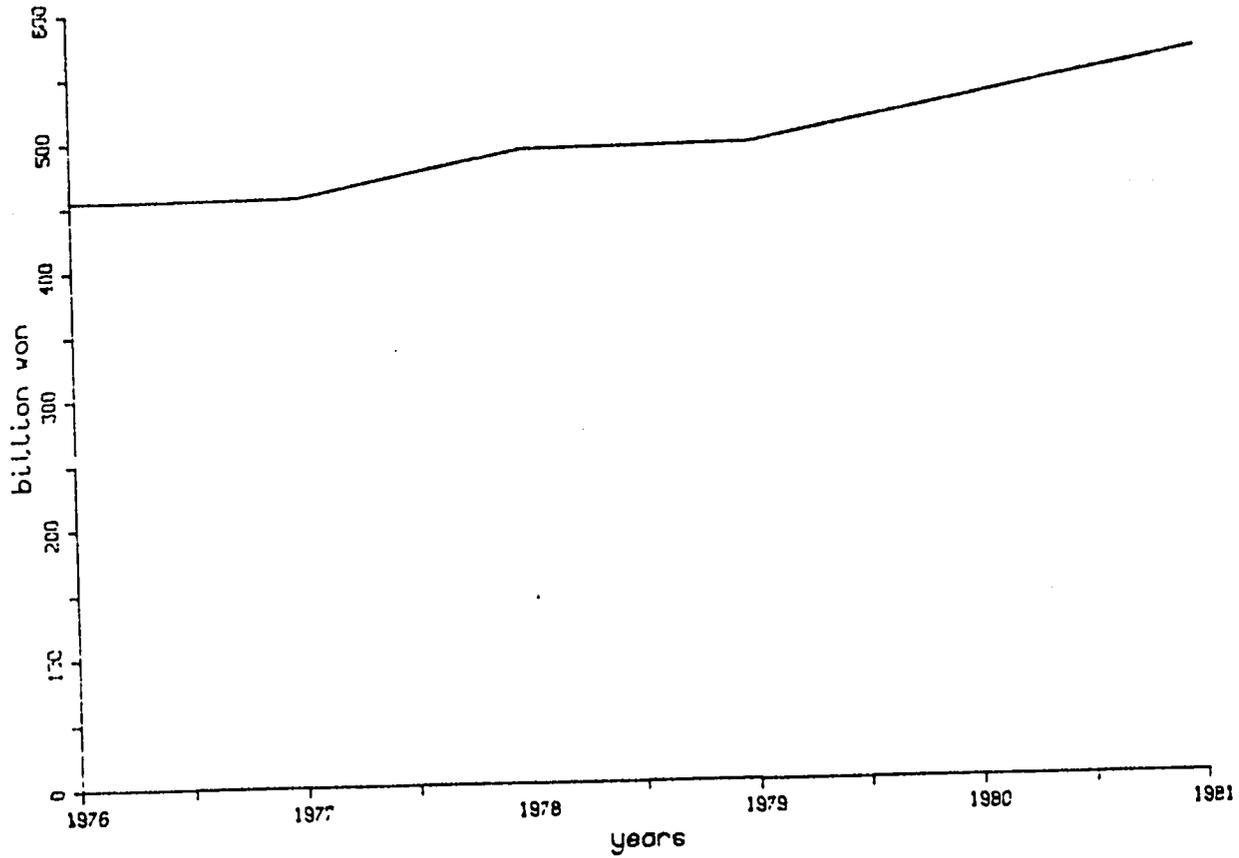
	1976	1977	1978	1979	1980
1977	10.0				
1978	6.6	7.3			
1979	7.8	6.7	6.1		
1980	7.5	6.7	6.3	6.6	
1981	7.6	7.0	6.9	7.4	8.2

GROSS DOMESTIC CAPITAL FORMATION IN 1975 PRICES (BILLION WON)

1976	2645.00	1978	3122.00	1980	3531.00
1977	2910.00	1979	3313.00	1981	3819.00

NATIONAL INVESTMENT IN DWELLINGS

Fourth Five Year Plan



	1976	1977	1978	1979	1980
1977	.4				
1978	4.0	7.7			
1979	2.8	4.1	.6		
1980	3.9	5.1	3.5	7.1	
1981	4.4	5.4	4.7	5.8	6.6

NATIONAL INVESTMENT IN DWELLINGS AT 1975 PRICES (BILLION WON)

1976	455.00	1978	492.00	1980	530.00
1977	457.00	1979	495.00	1981	565.00

Appendix IV

Some Subsidy Considerations for the Korean Economy

The existence of housing subsidies is found in many countries ranging from the least developed agrarian societies to the most highly developed industrial nations. The generally stated purpose of such subsidies is to improve the quality of housing in that nation and a broader implied purpose is to improve the quality of life.

Housing subsidies do not reduce the national cost of housing. For a given level of housing production, or investment, the economic cost is essentially independent of the existence of a subsidy. The cost of housing is the cost of capital, material and labor resources which are devoted to the housing sector. Subsidy programs may redistribute housing costs among groups but they cannot reduce these costs. A housing subsidy is a transfer of income to a household for the purpose of providing them housing services greater than that which they could or would consume from their incomes.

Housing subsidies, whether to all households or limited to lower income groups, are rooted in the belief that households will choose a less than optimal level of housing investment and must be induced to purchase greater housing services. The existence of poverty or low income-income

households does not provide sufficient rationale for housing subsidies. The existence of impoverished households within the economy may be a justification for a downward income redistribution, however, it does not justify channeling redistributed funds directly into housing.

A housing subsidy should not generally be used in place of an income supplement. Under most circumstances households do not have a "housing problem", they have only an "income" problem. Housing is generally available for those who have the ability to pay. Housing services are inadequate because households do not have sufficient income to afford higher housing standards. Unless it is believed that "special" social benefits derive from housing, households will benefit more from an unrestricted increase in their income than from being provided housing services of equal value.

An example may make this clearer. Assume that a Korean household has an annual income of 800,000 won and that based on its needs for food and other necessities, the household wishes to invest 17 percent of its income in acquiring a housing unit. This household then has an ability to pay 136,000 won per year for its housing services (17 percent x 800,000 won). This housing payment will allow the purchase of a unit costing approximately 750,285 won.^{1/}

^{1/} 750,285 won is the size of a loan which could be paid off with monthly payments payable with 136,000 won per year over a thirty-year period at 18 percent interest.

If the Korean government is willing and able to provide this family with a dwelling costing 1.5 million won, the cost in providing the capital for this unit may be approximated as 271,900 won per year.^{2/} By providing this unit, the government has theoretically increased the household's income by 135,900 won per year, or 17 percent, and has substantially increased the amount, and percent, of income used for housing.

If, instead of providing the house, the government were to provide the family with an additional 135,900 won per year, the family would have a total spendable income of 935,900 won per year. If the household received this income as cash and if their desire for housing still approximated 17 percent of income, their actual desired housing expenditure would be 159,103 won per annum. This would be consistent with a housing unit having a value of 877,740 won. Thus, the government has placed the family in a home having a value approximately 128,000 won greater than that which they would choose if they were given an income rather than a housing supplement. By providing a deep housing subsidy the government has provided more housing services than the individual household wishes to consume given its income.

The provision of direct and deep housing subsidies

^{2/} This is the annual payment necessary to pay off the 1.5 million won unit at an interest rate of 18 percent per year over a thirty-year period.

in the Korean economy can be expected to have the following results:

1. The development of an uneven housing stock composed of a few units of excessively high physical standard and a great proliferation of substandard units.
2. Inequitable income distribution between the few households receiving high quality subsidized housing and the many receiving no housing assistance.
3. Consumption of housing services in excess of those desired by low income assisted families, given their implied total income including what the government provides in a housing subsidy.

Subsidies to Stimulate Economic Activity

The use of certain subsidies to increase the general level of housing investment in Korea can be supported on economic grounds. Increased housing production may provide jobs and income that would otherwise not exist. Much of the labor employed in housing construction can be either unskilled or of a skill level which can be achieved by relatively short training periods.

In Korea certain types of housing units can be almost entirely constructed using non-strategic indigenous materials. Housing subsidies which encourage new construction may provide increased employment and income and upgrade the quality of housing while having little adverse effect on the consumption of strategic materials or the nation's balance of payments. If these goals are to be sought, the subsidies used should be specifically tailored to provide

the maximum incentive to the housing industry while using the minimum feasible governmental subsidization and administrative involvement.

Methods of Subsidy in the Korean Housing Program

A number of direct and indirect housing subsidies exist in the Korean Housing Program. These include the following:

1. The provision of funds from the Korea Housing Bank at rates that are below the true cost of long-term capital.
2. The provision of funds from the Bank of Korea to the Korea Housing Bank at rates that are below the true cost of funds.
3. Direct government contributions and other government loans to the Korea National Housing Corporation.

Each of the above subsidies can be expressed as one of two major types. The first of these is the interest rate subsidy involving the lending of funds by a governmentally supported unit at less than the market rate of interest. This type of subsidy is provided in the Korean Housing Bank. The second general type of subsidy is the capital subsidy which is provided when a housing asset or improvement is provided at less than cost or fair market value.

Interest Rate Subsidies

Interest rate subsidies are commonly used in providing housing in the urban areas of Korea. The Korea Housing

Bank makes a variety of long term mortgage loans of below market interest rates. The subsidy is provided by low interest loans from the Bank of Korea and forced sale of low interest bonds.

The amount of government resources involved in providing interest rate subsidies can be substantial. Table IV.1 shows the monthly subsidy which is involved for a twenty-year loan of one million won for various levels of the actual cost of funds and the rate of interest which the mortgage loan bears. For example, if market interest rates are 16 percent while the mortgage to the dwelling unit purchaser bore an interest rate of 8 percent, the monthly subsidy would be 5,548 won. Similarly, if the actual cost of money were 18 percent and the rate on the mortgage were 14 percent, the monthly subsidy would amount to 2,998 won per one million won of mortgage.

When interest subsidies are not accounted for as specific amounts, the nation's housing program can be seriously jeopardized by the increasing amount of subsidy required to maintain a housing program of a given size. The subsidy necessary to meet the difference in interest payments continues on a year to year basis during the entire time that the mortgage loan is outstanding. When the housing program is in its fourth year, subsidies are required not only for the production of housing in the fourth year, but to pay the continued subsidy on units completed in the third

year, second year and first year.

Table IV.1

MONTHLY SUBSIDY PER 1 MILLION WON
FROM LENDING BELOW THE COST OF MONEY

(Assumes 1 million won loan, 20-year maturity)

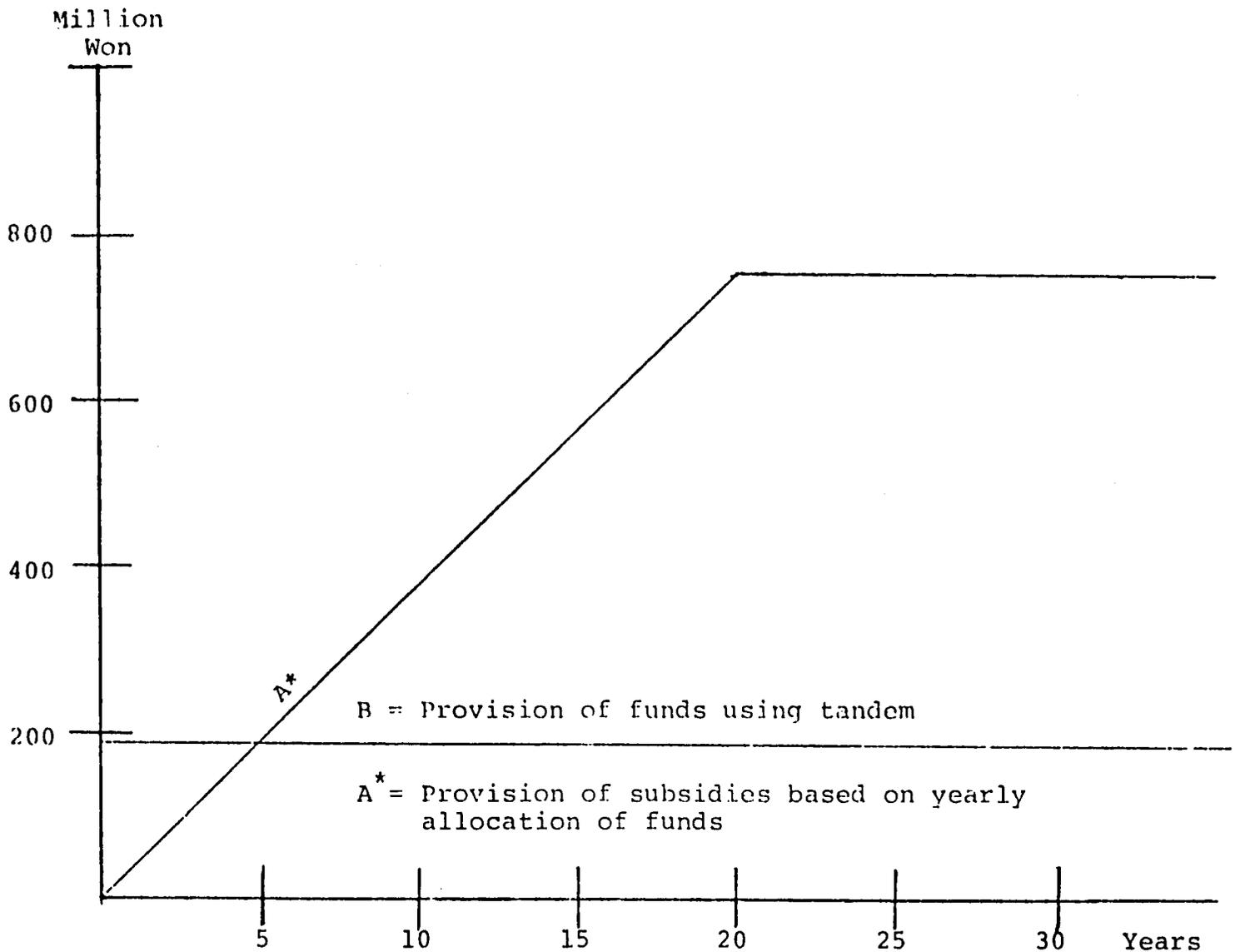
Interest Rate on Mortgage	Monthly Subsidy in the Actual Cost of Money				
	10%	12%	14%	16%	18%
8%	1,286	2,646	4,071	5,548	7,069
10%	0	1,361	2,785	4,262	5,783
12%		0	1,424	2,902	4,422
14%			0	1,477	2,998
16%				0	1,521
18%					0

Exhibit IV.1 shows the yearly subsidy required to maintain a lending program of 1,000 loans per year, each loan of one million won, assuming that the interest rate subsidy is generated by money costing 18 percent which is re-lent to the home purchaser at 14 percent. As line A in the exhibit shows, if a constant level of housing production is to be maintained, the required subsidy increases each year over the maturity of the loans. For example, by the tenth year, the annual subsidy as read from the exhibit is approximately 350 million won per year. The yearly subsidy would peak under these circumstances in the twentieth year with the annual subsidy level reaching approximately 720 million won.

EXHIBIT IV.1

YEARLY SUBSIDY REQUIRED TO SUPPORT
THE GRANTING OF 1,000 LOANS PER YEAR
OF 1 MILLION WON

(Assumes Cost of Money is 18%, Mortgage Rate 14%,
and 20-Year Maturity)



* Subsidies are based on the difference in annuity payments necessary to pay off one million won loan at 18% versus 14%. As a result the pattern is somewhat different than would exist if actual yearly allocations were plotted, however, the implications are identical.

The actual impact of a program of this type may be better illustrated by using the exhibit in association with numbers relevant to a possible housing program in Korea. A substantial national program might produce 100,000 units a year, each eligible for an interest rate subsidy from an 18 percent cost of funds down to a 14 percent mortgage loan. The mortgage recipient would receive a twenty-year loan of one million won on each unit.^{3/}

The annual subsidy required would be 36,000 won per one million won of loans. The 100,000 units would require an equivalent of 36 billion won for the first year of the program, the annual interest subsidy by the 20th year would amount to 720 billion won per year. In the twentieth year only 36 billion won or 5 percent of the total annual subsidy would be going to support current production. The remaining 95 percent would be required to support subsidies on past production. In each additional year, for at least the first two decades, a smaller and smaller portion of the yearly subsidy will be available for current production, while a greater and greater portion will be required to subsidize payments on loans made in previous years.

Tandem Program or Discounted Loan Program

Interest rate subsidies can be provided which do not

^{3/} The Fourth Housing Plan has a goal of producing 512,000 public units in the period 1977 to 1981 or an average of over 100,000 units per year.

require annual allocations for subsidizing past production. This is done by providing the subsidy through a one-time original discount on the mortgage. Under this program the lender would provide mortgage funds at the current market interest rate. The mortgage loan would be made at a rate determined by the existing subsidy policy. The mortgage would then be valued based on the subsidized rate to the home owner. This value would be less than the unpaid principal of the mortgage as a result of the subsidy involved. The government would then make a one-time payment to the lender equal to the difference in value between the subsidized and unsubsidized loan. The original lender would earn the full interest rate which it agreed to in making the loan, the home owner would pay the lower subsidized interest rate and the government would have to provide for the subsidy for a given unit only once in its budget. Exhibit IV.2 provides an example of this process.

In the example, the potential home owner has requested a loan of one million won at the subsidized interest rate of 14 percent. This loan will involve payments of 12,435 won per month for twenty years. The lender is willing to make a loan of this type at an interest rate of 18 percent. The effective interest rate which the lender earns is derived from two sources. One is the monthly payment which he receives and the second is fees or lump sum payments received at the time the loan is originated. In this case , a lump

EXHIBIT IV.2

TANDEM PLAN FOR
SUBSIDIZED INTEREST RATES

I

Home Purchaser Applies
for 1 Million Won Loan
at 14% Interest
20-Year Maturity

VI

Borrower Pays 12,435 Won
Per Month For 20 Years
Effective Interest Rate
of 14% on 1 Million Won Loan

II

Purchaser Granted Loan
Monthly Payments of
12,435 Won^a Per Month
for 20 Years

V

Lender Receives Monthly
Payments of 12,435 Won.
One Time Fee of 194,252 Won.
Lender Earns 18% on Funds
lent

III

Lender Books Loan
of 1 Million Won. Charges
Ministry Fee of 194,252 Won^b

IV

Government Pays
One Time Amount
to Lender of
794,252 Won

^aPayment necessary to amortize 1 million won loan over 20 years at 14% interest.

^bThe fee paid by the government is just sufficient to give the lender a yield of 18% on his loan of 1 million won given that payments are based on amortization schedule of 14%.

sum payment of 194,252 won combined with the monthly payment of 12,435 won will provide the lender with a return of exactly 18 percent effective interest rate over the life of the loan. The government wishing to subsidize the home purchaser, pays the 194,252 won. The borrower pays an effective 14 percent interest rate, the government pays a one-time subsidy payment and the lender earns an effective 18 percent return.

This method of providing interest rate subsidies does not jeopardize future housing production or subsidy programs. No future payments of governmental funds are required to support existing units and there is no possibility of the program being jeopardized by having insufficient funds to support existing units. Line B in Exhibit IV.1 shows the cost of subsidizing 1,000 loans per year using the system.

Using this suggested tandem approach the interest rate subsidy becomes equivalent to a one-time capital subsidy. Table IV.2 shows the capital subsidy resulting from a divergence in the actual cost of money and the rate at which money is lent. For example, by going to the table, it is shown that if mortgage money is lent at 14 percent when the actual cost of such funds is 18 percent, the implied capital subsidy 194,252 won. This interest rate subsidy is equivalent to a 19.4 percent capital subsidy.

Table IV.2

CAPITAL SUBSIDY PER 1 MILLION WON
FROM LENDING BELOW THE COST OF MONEY

(Assumes 1 million won loan, 20-year maturity)

(000 won)

Interest Rate on Mortgage	Actual Cost of Money				
	10%	12%	14%	16%	18%
8%	132	240	327	399	458
10%	0	124	224	306	375
12%		0	115	209	287
14%			0	106	194
16%				0	98
18%					0

The Ability to Pay and Interest Subsidy

In addition to recognizing the total capital subsidy associated with interest rate subsidies the present program of providing the same interest rate subsidy to each subsidized household should be reexamined. The present approach to interest rate subsidies can be replaced by a program which bases the interest rate subsidy on the household's ability to pay. The subsidy based on the ability to pay can be adjusted from time to time as the ability to pay changes.

Table IV.3 provides a comparison of subsidies based on the ability to pay approach and the straight subsidy. The table examines the subsidization of a household purchasing a dwelling unit costing 2.5 million won. A downpayment of 60 percent or 1.5 million won is required. The amount

to be financed is one million won and it is assumed that the basic cost of mortgage money in the unsubsidized market is 18 percent and that a twenty-year term is available. Under the straight interest subsidy, the loan is made to the household using a 14 percent mortgage having a level yearly payment of 149,222 won for the twenty-year period. Under the ability to pay alternative the mortgage payment is based on 15 percent of the household income until a maximum interest rate of 18 percent is reached. The example assumes that the original income of the household is 800,000 won per year, by 1980 this has risen to one million won and by 1986 that it has risen to 1.2 million won per year. Under the 14 percent mortgage, the payment remains constant over the entire life of the loan. Using the ability to pay approach the original payment is set at 15 percent of income or 120,000 won per year which provides an original effective interest rate on the loan of 10.32 percent. In 1980 when the household income is reevaluated, the payment is raised to 150,000 won per year providing a 14.38 percent effective interest rate on the remaining 16 year loan. In 1986 when the household income is again reevaluated, the loan payment is raised to 171,560 won providing an effective interest rate of 18 percent, the same as that existing in the unsubsidized mortgage. This rate continues for the balance of the life of the mortgage. The lower portion of the table shows that in the unsubsidized case, the total payments under the loan would be 3,736,400 won.

Table IV.3

INTEREST RATE SUBSIDY
STRAIGHT SUBSIDY VERSUS ABILITY TO PAY

House Price Without Subsidy	2,500,000 Won
Down Payment @ 60 Percent	1,500,000 Won
Amount Financed	1,000,000 Won
Annual Mortgage Payment @ 18 Percent, 20 Years	186,820 Won

<u>Date</u>	<u>Income</u>	<u>Housing Budget</u>	<u>Straight 14% Mortgage</u>	<u>Mortgage Based On 15% Income Max. 6.5% Rate</u>
12-76	800,000	120,000	Payment = 150,986 Won	Original Payment = 120,000 Won Original Rate + 10.32%
12-80	1,000,000	150,000	Payment = 150,986 Won	Unpaid Bal. = 921,663 Payment raised to 150,000; Interest = 14.38%; Remaining Maturity = 16 Years
12-86	1,200,000	180,000	Payment = 150,986 Won	Unpaid Bal. = 771,008 Payment raised to 171,560; Interest Rate = 18%; Remaining Mat. = 10 Years

COMPARATIVE RESULTS

	<u>No Subsidy</u>	<u>14% Mortgage</u>	<u>Variable Subsidy</u>
Payments Received	20 @ 186,820	20 @ 150,986	4 @ 120,000 6 @ 150,000 10 @ 171,560
Total Payments	3,736,400 Won	3,019,720 Won	3,095,600 Won
Subsidy Expended	0	716,680	640,800 Won
Units Supported per 1,000,000 Won Subsidy	---	1.4	1.6

Under the variable subsidy, 3,095,600 won is collected and the subsidy amounts to 640,800 won. The final line in the exhibit shows that per one million won, of public funds available, only 1.4 units could be supported under the straight subsidy, while under the subsidy based on the ability to pay, one million won would support 1.6 housing units. In the example the modified plan would support 14 percent more units than the straight subsidy program.

Minimization of Subsidy and Recovery of Subsidy Payments

Deep interest rates subsidies are granted to nearly all individuals able to obtain loans from the Korea Housing Bank or Korean National Housing Corporation.

Because of the present subsidies involved per unit, it is not possible for Korea to provide housing of the presently produced size and quality for a significant portion of the population. By appropriate modification to the subsidy programs, more housing can be produced with the available public and private resources available in the nation. A modified program should be based on the following principles:

1. Housing subsidy should not be used as a general income supplement.
2. Households should recognize the cost of housing services and be given incentives to conserve these resources.
3. Subsidies should be limited to the difference between the ability to pay and the minimum quality housing unit which the government is willing to advocate for a given household.