PN-AAU-583
ISN 43958

THE KOREA HOUSING BANK:

AN ANALYSIS

OF

POLICY AND OPERATIONAL PROCEDURES

July 14, 1978

000875
000358
=
000073
S

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

FOREWORD

The report which follows reflects the results of a joint effort of the National Savings and Loan League, under contract to AID, and the Korea Housing Bank.

The study was undertaken as a part of the analysis of housing finance in Korea pursuant to the agreement between AID and the Economic Planning Board of the Government of the Republic of Korea. The objective of the study was to carry out an analysis of the existing operational procedures of the Korea Housing Bank in order to develop specific recommendations for improvements in its operational efficiency, including cash flow management, savings mobilization, and liability and asset management, with the specific purpose of identifying actions which could be taken by the KHB to expand its activities among low-income groups.

The initial field work was carried out during the period from April 24 to May 8, 1978, by Mr. Sun Won Kang, Chief, Foreign Loan Section of the Korea Housing Bank, and Mr. John M. O'Brien, Consultant to the National Savings and Loan League and President, Central Pennsylvania Savings Association. Further analysis and preparation of the final draft report were carried out in Washington by Dr. James Christian, Senior Vice President, and Mr. Howard Kane, Financial and Management Analyst, National Savings and Loan League.

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

We hope, however, that the Korea Housing Bank will find the report useful as it develops and implements its policy and operational procedures.

Peter Kimm

Peter Kimm
Director
Office of Housing

CONTENTS

SUMMARY OF FINDINGS AND RECOMMENDATIONS

The Korea Housing Bank (KHB) was established in 1967 as a quasi-governmental institution, dedicated primarily to the mobilization of domestic saving and to the provision of long-term home financing for low- and moderate-income families.

The KHB is organized as a centralized institution with a nationwide branch network, which by the end of 1977 had grown to 50 branches and 25 subbranches. Approximately 2,900 people are employed by the KHB.

The KHB is fundamentally a depository institution, offering demand, savings, and time deposits, including several installment savings plans. In addition, the KHB issues tax-exempt housing debentures and enjoys the proceeds of the compulsory sales of National Housing Bonds. National Housing Bonds alone accounted for 30 percent of outstanding KHB liabilities at the end of 1977.

During its relatively short eleven-year history, the KHB has grown into the fifth largest housing finance system in the developing world, with assets at the end of 1977 of US$826.9 million. While the growth of the Korean economy has been nothing short of spectacular over this same period, with per capita gross national product rising from US$156 at the end of 1967 to US$864 at the end of 1977, KHB assets have grown at roughly twice the rate of growth of the Korean economy. While general economic growth accounts in large measure for the KHB's performance over the past decade, the strength of the demand for housing, the priority attached to housing in government policy, and the strong saving tradition among the Korean people, together with an effective KHB savings mobilization effort, must be considered as important additional causal factors.

The 1977-78 AID Housing Guaranty Program for Korea placed emphasis on the housing finance components of the shelter delivery system, with a view toward increasing the availability of long-term housing finance for low-income families. The program was designed for implementation in two phases, the first focusing on policy decisions affecting housing finance. Implementation of the second (1978) phase of the program is contingent upon the demonstration of acceptable progress by the Government of the Republic of Korea and the KHB in implementing the 1977 program and the policy decision attendant thereto, as well as the development of operating policy and procedures by the KHB to provide mortgage financing more effectively to lower income families.

The present study was undertaken as a part of the analysis of housing finance in Korea preparatory to implementation of the second phase of the 1977-78 Housing Guaranty Program. Pursuant to the agreement between AID and the Economic Planning Board of the ROKG, this study was designed to

". . . carry out the analysis of KHB's existing operations and procedures with the objective of developing specific operational recommendations for KHB consideration in terms of achieving improved efficiency of its operations, cash flow management, savings mobilization, and lending programs and procedures. A major purpose of this analysis is to identify specific actions, procedures, and policies KHB could implement to increase savings and lending programs directed at the low-income group."

The context in which this study was carried out has an important bearing on the findings and the recommendations. Generally, housing supply has been unable to keep pace with housing demand. Consequently, construction costs and land costs have been rising rapidly. Construction costs, for example, have risen 118% over the 1975-77 period, or 3.4 times the 27% increase in the consumer price index during the same period. Average residential construction costs per m^2 which were ₩34,598 (US$71.50) in 1975 had risen to ₩75,341 (US$155.66) in 1977, such that a 40 m^2 house which cost ₩1,383,920 (US$2,859) to build in 1975 would have cost ₩3,013,640 (US$6,226) in 1977, exclusive of the cost of the land. Part of this increase can be attributed to materials shortages, particularly cement, which became so acute in May 1978 that construction of various types of structures, including large single-family dwellings, was prohibited by the ROKG. In spite of substantial increases in family income during the recent period, construction cost increases and supply shortages on the scale presently being experienced in Korea have made home acquisition particularly difficult for low-income families.

Furthermore, KHB's ability to respond to these circumstances has been limited by the Monetary Stabilization Policy of the ROKG, which was prompted by a dramatic reversal of the net foreign asset position of the Bank of Korea (BOK), the central bank. In 1974 and 1975, the BOK showed negative net foreign asset balances of ₩118,312 million (US$244 million) and ₩160,939 million (US$332 million), respectively. In 1976 and 1977, however, these balances turned sharply positive, to ₩391,625 million (US$809 million) and to ₩785,006 million (US$1,622 million), respectively. To prevent a massive upward surge in the domestic money supply, the Monetary Stabilization Policy was implemented to neutralize these net inflows. At the same time, the ROKG instituted an import liberalization program to bring net foreign financial inflows into line with domestic monetary policy, and it is anticipated that as the import liberalization policy takes hold in 1978, the Monetary Stabilization Policy will be relaxed.

Meanwhile, however, the effect of the Monetary Stabilization Policy on the KHB has been profound. The policy was applied to the financial sector by increasing the amount of deposits which financial institutions were required to hold with the BOK. During 1977, deposits of the KHB with the BOK, net of borrowing from the BOK, rose by 712.6%, from 7.1% of assets to 28.6% of assets. Indeed, almost all of the

₩99.8 billion increase in net savings inflows experienced by the KHB in 1977 was absorbed by the KHB's reserve balance with the BOK; this balance increased in 1977 by ₩98 billion. Although there is some evidence of relaxation of the Monetary Stabilization Policy in early 1978, inasmuch as the BOK absorbed only ₩68.4 billion of the ₩110 billion increase in savings flows during the first quarter of 1978, reserves of the KHB on deposit with the BOK still increased to 34% of assets. Thus, the Monetary Stabilization Policy remains an important aspect of the current environment in which the KHB is operating.

In assessing the past and current performance of the KHB, there is much to praise. The savings mobilization effort has been impressively successful, and except for the period during which the Monetary Stabilization Policy has been in effect, the KHB has consistently maintained a ratio of housing loans to total assets in excess of 70%. The results of the present study nevertheless suggest several areas of KHB operations and policy which could be improved. It is, therefore, with a view toward strengthening the financial viability of the KHB and broadening its market to include a larger number of low-income families that the following recommendations are offered.

RECOMMENDATION 1

The weakest aspect of KHB performance is to be found in its capital account, which provides the key indicators of a financial institution's soundness and cost effectiveness.

Capital provides a cushion against losses from operations and, thus, insures the institution's survival. Measures of capital adequacy are subjective, but one rule of thumb which is generally accepted is that a housing finance institution should have net worth (capital) equal to approximately 5% of its assets. Sometimes this ratio is refined to 5% of risk assets to suggest that solvency could be maintained if no more than 5% of risk assets had to be written off because of default. That is, the institution would still be able to pay all of its creditors (depositors) by liquidating all of its assets and writing off the defaults against its net worth.

The KHB has displayed a net worth to total assets close to 5% during the 1973-76 period, but in 1977, the ratio fell drastically to 3%. Although the authorized capital of the KHB was increased on 1 January 1978 from ₩10 billion to ₩50 billion, the fact that the ratio of net worth to total assets has been declining almost steadily since 1973 is indicative of the fact that KHB's net earnings have not kept pace with its asset growth. Consequently, maintenance of capital adequacy has come to depend upon new capital to be paid in by the shareholders, in this case the ROKG.

The table below contains key ratios reflecting this performance in recent years:

KHB CAPITAL ACCOUNT RATIOS
1973-77

Year	Rate of Net Return on Investment	Earned Surplus and Surplus Reserves to Net Worth	Net Worth to Total Assets
1973	0.31%	7.74%	6.78%
1974	0.24%	11.05%	5.34%
1975	0.21%	13.08%	4.23%
1976	0.18%	10.14%	4.75%
1977	0.43%	18.35%	3.06%

By subjective rules of thumb, a mature financial institution should realize a net rate of return (income after all operating expense) on its portfolio of earning assets (investment) of about 1.5% to provide for earnings retention--to increase net worth--to maintain capital adequacy--to permit further growth in assets. Clearly, the KHB is performing below this standard, a fact which is reflected in the ratio of earned surplus and surplus reserves to net worth. After eleven years of operation, the KHB had managed at the end of 1977 to accumulate only ₩2,247 million (US$4.6 million), or 18% of total net worth, to augment its paid-in capital of ₩10 billion.

There are several possible reasons for such a weak performance. First, the gross spread between the institution's average cost of funds and its average yield on assets may be too narrow because of the interest rate structure; imprudent liability management may be promoting high-cost saving instruments, and/or conservative lending policies may result in carrying an excessive amount of non-earning or low-yielding liquid assets; or the institution may consistently be experiencing default losses; or its administrative and operating costs may be too high relative to the gross spread between the cost of funds and the asset yield. The only one of these factors which applies with some force in the case of the KHB is that of administrative and operating cost.

For 1976, the only recent year for which carefully constructed data are available, the gross spread between the average cost of funds and the average yield on earning assets amounted to 3.37 percentage points; administrative and operating costs, however, absorbed all but 0.42 points of this spread. Put differently, administrative and operating costs amounted to 25% of gross income. Conventional performance standards for administrative and operating costs suggest a target of around 15% of gross income. Given that a gross spread of 3.37 percentage points is considered adequate, even generous, the KHB could have retained in 1976 as much as ₩2.4 billion if it had held administrative and operating cost to 15% of gross income. The potential earnings retention <u>in this year alone</u> thus could have slightly exceeded the <u>cumulative</u> earnings retention during the KHB's eleven-year history. Had the KHB been achieving the 15% target during the 1973-77 period, cumulative retained earnings could have amounted to ₩12 billion at the end of 1977, or 55% of total net worth. Moreover, the ratio of net worth to total assets in 1977 would have been 5.5%, which would have precluded the necessity for the authorization of an additional W40 billion capital subscription.

There are at least two additional reasons for contending that the KHB should become more sensitive to its administrative and operating costs. The first of these is that the investment of retained earnings serves to lower the average cost of funds and thereby increase the gross spread or permit more aggressive savings promotion efforts through offering higher yields on deposits. The second reason, and one of far more immediate concern, is that the restructuring of both deposit rates and lending rates which took effect in 1978 will probably narrow the gross spread considerably. For 1976, the average cost of funds was 8.16% and the average yield on assets was 11.53%, and while the average cost of funds for the KHB depends significantly on the composition of its liabilities, which bear different interest rates, the average cost of funds in 1978 is expected to reach and perhaps exceed 10%, whereas the average yield on assets is unlikely to exceed 12%. Such a narrowing of the gross spread raises the distinct possibility of net losses unless administrative and operating costs are reduced.

For the foregoing reasons, it is recommended that all aspects of administrative and operating costs be reevaluated by the KHB, but with special attention accorded to the following areas:

Recommendation 1.1:

The KHB, like most housing finance institutions, has two principal cost centers--the liability management section (i.e., funds mobilization and administration) and the asset management section (i.e., loan origination and servicing). Overhead costs incurred by management and other support functions (personnel administration, research, planning, etc.) are allocated between these two cost centers. Absolute costs, including overhead, of the asset management section is considered to be meeting conventional performance standards. The liability management section (funds mobilization and administration) appears, however, to be incurring costs, including overhead, substantially in excess of conventional performance standards. To illustrate, loan origination and servicing, plus allocated overhead cost, amounts to approximately 0.5% of earning assets, which can be considered efficient even by developed-country standards. In this context, such costs should account for approximately 40% of all business and administrative expense, including overhead. Yet in the case of the KHB, these costs account for only 22% of business and administrative expense, plus overhead, while liability management expense accounts for 78%. Given, then, that the costs of asset management are felt to be reasonable in absolute terms, it follows that if total business and administrative expense, including overhead, is deemed excessive, those excess costs must either be incurred directly in liability management or indirectly through a combination of excessive overhead costs and/or through an inequitable allocation of overhead costs to the liability management function.

The available data do not permit a more precise identification of whether direct costs or indirect costs (overhead) attributed to liability management is the more appropriate target for cost reduction. It is clear, however, that if the absolute costs of asset management were held to their 1976 levels and if these costs had represented 40% of total business and administrative expense, the costs attributed to liability management would have been less than half their actual level (₩1.633 billion vs ₩3.800 billion). Moreover, the level of total business and administrative cost incurred in 1976 would have fallen from its actual level of ₩4.960 billion to ₩2.722 billion. This lower level of cost would have represented 14% of gross income, slightly below the conventional performance standard of 15%.

Recommendation 1.2

In a general sense, the KHB has a large staff relative to its total assets. At the end of 1977, the KHB had 2,900 employees and ₩400.1 billion in assets (US$826.9 million), or slightly more than 7 employees per billion won of assets, which is about 7 times the number of employees which would be found in a comparably sized U.S. housing finance institution, including a comparably sized branch network. Such a U.S. institution would have about 400 employees, the equivalent of 1 employee per billion won of assets. Of course, the comparably sized U.S. institution would be heavily computerized; the opportunity to computerize operations, however, presently exists for the KHB.

KHB planning currently calls for the expansion of its branch network to 120 offices and 5,400 employees by the end of 1981. To achieve comparability with U.S. institutions in its staffing level, the KHB would have to reach ₩5,400 billion (US$11 billion) in assets by the end of 1981, the possibility of which is difficult to conceive.

It is recommended, therefore, that the KHB proceed as rapidly as possible with the computerization of operations while substantially revising downward its plans to increase staff. Implementation of this recommendation should serve to lower operating costs generally and particularly in the liability management section, where one teller terminal could easily preclude the necessity for the involvement of four different employees in each transaction, as presently practiced.

<u>Recommendation 1.3</u>

As part of an overall program of cost reduction, it is recommended that the KHB reconsider its present method of overhead allocation, which appears to be based on some form of inventory analysis (e.g., the number of appraisals made by a cost center, number of cash slips processed, etc.). Although probably accurate and conceptually sound, the procedure is burdensome and time consuming. Consequently, cost data are published with about a six-month lag. At this point, the information is mainly of historical interest and does not contribute significantly to planning, policy formulation, or managerial control.

Whatever method is employed, full computerization of cost analysis should reduce the time lag in the availability of these data. Nevertheless, it is felt that a somewhat simpler method of overhead allocation than the one presently in use would facilitate managerial cost control and thereby improve the cost efficiency of KHB operations.

Recommendation 1.4

It is recognized that the branch expansion program of the KHB has virtually been mandated by the ROKG in conjunction with its overall economic development effort. Perhaps as a consequence, the criteria for branch expansion appears to give little attention to the financial viability of new branches.

It should be emphasized that it is further understood that the ROKG, as the major shareholder, with 85% of the stock of the KHB, has every right to ignore financial viability in establishing new branches if it chooses to do so. Nevertheless, from a financial point of view, given the present levels of costs incurred by the KHB, it is recommended that the ROKG and the KHB proceed with branch expansion only after careful consideration has been given to the probable financial viability of each branch. Implementation of this recommendation need not necessarily alter any of the branch expansion plans of the

KHB, but it would insure that each new branch had been evaluated in terms of the likelihood of its making a positive contribution to retained earnings and net worth.

Recommendation 1.5:

Even though the asset management section (loan origination and servicing) is considered to be operating cost-efficiently, it is recommended that serious consideration be given by the KHB to recovering at least some of the costs of loan origination from the borrower at the time of closing of the loan. Such charges are known conventionally as "commitment fees" or "closing costs" and their collection is common practice among housing finance institutions in most parts of the world. These costs are presently absorbed by the KHB, rather than passed on to the borrower. Implementation of this recommendation would permit the KHB to recover some of its business and administrative cost by means other than cost reduction in the liability management section.

It is clearly understood that collection of such charges is not a part of Korean financial tradition. It is also understood, however, that Korean banking law does not forbid the practice. Given, then, that such charges are common mainly among housing finance institutions and given that the KHB is the housing finance institution in Korea, it would seem to follow that the KHB is in a position to establish financial tradition as it relates to housing finance.

RECOMMENDATION 2

The KHB was established with the explicit ". . . primary purpose of supporting the formation of capital in favor of low and moderate income housing and assuring the effective supply and management of housing funds" (KHB, The Korea Housing Bank--Its Functions and Activities, 1978, p. 7). The Housing Promotion Law of 1974, however, places minimum size limits of 12 py (40 m^2) on the housing units which the KHB is permitted to finance. Given the substantial increase in construction costs which has occurred in Korea in recent years, however, a 40 m^2 housing unit is scarcely affordable by an urban family receiving income equivalent to the median of the urban income distribution. Over the 1975-77 period, residential construction costs rose by 118%, such that the 40 m^2 unit which cost ₩1,383,920 (US$2,859) to build (exclusive of land) in 1975 cost ₩3,013,640 (US$6,226) in 1977.

From year-end 1975 to year-end 1977, median family income grew by 62.7%--a very significant increase, but still substantially below the increase in construction costs. (Median family incomes used in this illustration are ₩61,832 per month at year-end 1975 and ₩100,602 per month at year-end 1977.)

Given these data and assuming KHB loan terms of 100% financing of the construction cost, land cost considered to be the homeowner's equity or downpayment, 20-year loan maturity, 14% interest, and repayment on a conventional, level-payment basis, a 40 m^2 housing unit would have absorbed 28% of the monthly median income in 1975 and 35% in 1977.

Put differently, assuming the same loan terms but restricting the allowable percentage of income devoted to mortgage repayment to 25%, a 40 m^2 housing unit in 1975 would have been affordable by families at the 60th percentile of the income distribution and above, but in 1977, a 40 m^2 unit would have been affordable only by families at the 75th percentile and above. Clearly, the rate of increase of construction costs and the rigidity of the law which limits the minimum size unit which can be financed by the KHB to 12 py (40 m^2) are forcing the KHB away from the income groups which it was established to serve and which are still considered to be its primary clientele.

The specific recommendations which follow are offered in the interest of permitting the KHB to achieve its primary purpose of facilitating homeownership for low- and moderate-income families.

Recommendation 2.1:

It is understood that Korean aspirations, given Korea's particularly strong economic growth performance over the last decade, point toward higher housing standards, in terms of size and quality of construction. Inasmuch as improvement in the standard of living is the fundamental objective of economic growth, the opportunity to enjoy higher housing standards should not be denied to those who can afford those standards. Social and economic equity, however, which should also be a fundamental purpose of economic growth and development, argues against denying improved housing standards to all who participate and contribute to the economic growth and development of the nation.

As noted above, the effect of the 12 py (40 m^2) minimum size limit imposed by the Housing Promotion Law has been to deny direct access to KHB financing to those families below the 75th percentile of the income distribution. In so doing, the law fails to recognize the potential for innovative construction technologies and for self-help approaches to improving housing conditions.

Whether or not the KHB ever finds it prudent to offer financing for housing units smaller than 12 py, the law should not prohibit the bank from making that decision.

Accordingly, it is recommended that steps to taken to eliminate the minimum-size limitation from the Housing Promotion Law.

Recommendation 2.2:

Innovation in facilitating access to improved housing need not be limited to physical solutions. Financial innovations are also possible. Graduated Payment Mortgage (GPM) plans have been proved successful by the Korea National Housing Corporation (KNHC) in conjunction with an earlier AID Housing Guaranty Program, and illustrative GPM approaches have been developed recently for the KHB.

GPMs have the characteristic of lowering initial payments below the amount required of a borrower under a conventional level-payment mortgage. Subsequent payments under the GPM increase along a predetermined schedule which assumes that the increases in payments will not exceed the increases in the borrower's income. GPM schedules also provide for the financial institution a rate of return at least as great as that borne by conventional mortgages. Access to housing finance can thus be provided to borrowers whose current incomes are too low to afford conventional level payments without jeopardizing the financial institution's rate of return.

GPMs, however, have special cash flow configurations; during the early years of the loan the cash flow to the institution is less than, and during the later years greater than, the cash flow from a comparable conventional (i.e., level-payment) mortgage. This characteristic poses special problems for an institution like the KHB which is already generating a limited retained earnings stream from its conventional mortgage portfolio.

Even considering that the substantial block of funds being held by the KHB with the BOK under the provisions of the Monetary Stabilization Program could provide the resources for a massive GPM lending program, the KHB would be ill-advised to convert these funds into GPMs, given its present cost structure. Any substantial amount of GPMs absorbed into the KHB portfolio at this time would serve to reduce the KHB cash flow in the near term and possibly induce a decline in net worth, hence in the capital adequacy of the KHB.

This could nevertheless be carried forward if the ROKG paid in capital against the new level of authorized capital at a rate at least sufficient to compensate for declines in net worth attributable to the near-term cash flow characteristics of the GPMs. Such an approach would, however, weaken the incentive of the KHB to improve that cost structure, the if no steps were taken to improve the cost structure, the performance profile of the KHB, as reflected in the capital account, would continue to appear weak.

The AID Housing Guaranty Program loan offers a near-term solution to this dilemma. The terms of this loan are likely to be more favorable than the 1978 average cost of funds to the KHB. Employment of the proceeds of this loan in a GPM lending program would enable the KHB to develop and refine the techniques attendant to GPM lending and to begin to reestablish the KHB's market among low-income families while the necessary cost reforms were carried out. Assuming, say, a two-year implementation phase, the KHB would, by the end of 1980, be prepared to launch a significant GPM lending program using its own funds to resume its lending to low- and moderate-income families.

Accordingly, it is recommended that steps be taken to secure the AID Housing Guaranty Program loan for the purpose of initiating GPM lending to low-income families prior to the completion of the cost reduction program outlined under Recommendation 1.

Recommendation 2.3:

Home improvement loans represent another means of facilitating access to improved housing for low-income families, and although the KHB is authorized to grant such loans, it has not in fact promoted them nor do home improvement loans represent a significant portion of the KHB portfolio. As of the end of 1977, home improvement loans outstanding accounted for only 0.3% of the portfolio.

Given the fact that the origination and servicing of home improvement loans probably contribute proportionately more to origination and servicing costs than mortgage loans and given that the KHB already has cost problems, it is recommended that the KHB maintain its present policy with regard to home improvement loans.

It is further recommended, however, that the KHB take the initiative in wholesale lending for such purposes in order to contribute to expanded access to housing finance for lower income families.

Loans to other institutions (i.e., wholesale lending) is the most cost-efficient type of loan which the KHB currently makes. As such, an expansion of this type of lending should contribute to improving the flow of KHB retained earnings as well as to reestablishing the KHB's low- and moderate-income market.

The AID Housing Guaranty Program loan contains provisions for allocating some of the loan proceeds to this type of activity. The KHB could take advantage of these funds to open new channels for wholesale lending, for example, with the Korean credit union system.

Recommendation 2.4:

Korean banking law presently forbids the assignment, sale, or pledging of mortgages, a feature which effectively precludes any potential for establishing a secondary mortgage market in Korea.

Although the strength of the capital market in Korea offers the opportunity for sale of secondary mortgage market instruments and could, therefore, provide an important supplementary source of funds for housing finance, a major change in Korean banking law will have to be made to go forward in this direction.

It is recommended, therefore, that a detailed study of the Korean capital market be made to ascertain its absorptive capacity for secondary market instruments and the likely terms upon which such instruments would trade prior to taking any steps to revise the law.

22

THE KOREA HOUSING BANK:

AN ANALYSIS OF POLICY AND OPERATING PROCEDURES

I. KHB OPERATIONAL PROCEDURES AND POLICIES

Since 1973, the assets of the Korean Housing Bank (KHB) have increased at an annual compounded rate of 42.1% so that by year-end 1977, total assets were ₩400.2 billion (US$826.9 million). Assets increased by more than 70% between 1976 and 1977. The rate of asset growth is not, however, the sole determinant of a financial institution's success. Fulfillment of objectives, sources and uses of funds, maximization of returns, and management policies must be considered in order to adequately assess an institution's track record and strengths.

A. Asset Management

1. Types of Loans Offered: The KHB places the majority of its loans into long-term financing of new housing construction. These housing loans fall into two general categories: national housing loans and private housing loans.

a. National housing loans are made to local governments, the Korean National Housing Corporation (KNHC), and building contractors whose projects have been approved by the Ministry of Construction. These loans can be made only with funds raised through the sale of national housing bonds, revenue generated through housing lotteries, and through certain principal repayment reinvestments. At the end of 1977, these loans comprised slightly more than 50% of the KHB loan portfolio.

b. <u>Private housing loans</u> are made to individuals who have successfully subscribed to one of two types of contract savings plans which can have a contract term of up to 5 years. On December 31, 1977, private housing loans accounted for 41.5% of all KHB lending. This type of loan is also found under the following categories:

i. <u>Partnership housing loan</u>: a loan to a housing association or cooperative that will build more than 20 units on one site. The partnership must be composed of co-workers who must meet the same requirements of a private housing construction loan. Information was not readily available to indicate the actual KHB activity in this type of loan.

ii. <u>Company housing loan</u>: a loan to an enterprise that will build more than 20 units and sell them to employees at prices below cost. These loans presently represent a small percentage of KHB lending.

iii. <u>Builder's housing construction loan</u>: a loan to a builder to construct more than 50 units and sell them to the general public. No information was available to indicate total lending in this category.

c. <u>Other forms of loans</u> can also be made by the KHB. Although these loans are primarily housing related, they have not been promoted as much as the long-term construction loans.

i. Existing house purchase: a loan to a private individual for the purpose of purchasing a primary residence. The applicant must qualify by meeting the requirements of one of two types of contract savings plans of up to 2 years in term. Available information indicates that this type of lending plays a very small role in the total KHB housing loan program.

ii. Home improvement loans: this loan is made for the purpose of repairing or expanding an existing home over 2 years old. The total floor area cannot exceed 85 m^2 after the remodeling is completed. At the end of 1977, these loans totalled only ₩555,000 or 0.2 of 1% of total KHB assets.

iii. Housing site development loans (lot loans): this loan is made to individuals for the purpose of acquisition and development of a housing lot not to exceed 12,000 m^2. The borrower must intend to build his own house on the site. KHB investment in this type of loan has been virtually nonexistent. At the end of 1977, no lot loans were included in their portfolio. Recently, however, probably due to a rapidly rising land prices in Korea, the KHB has registered a significant number of applications for this purpose.

iv. Housing construction material production loans: a loan to a firm for the production of housing materials or for funding the management of a construction materials facility. The last time this type of loan was made was 1974; none currently exists on KHB books.

v. Commercial loans: these loans are made primarily to KHB customers who have contributed substantially to the bank's funds mobilization. These loans can take the form of discounts on bills, overdrafts, loans against installment savings accounts, or collateralized or non-collateralized loans. These loans earn the bank between 15% and 18% per year and currently comprise almost 8% of KHB loans outstanding.

2. Loan Terms: Table 1 gives the terms on housing loans. Almost all the long-term loans have a 20-year term including a 1-year grace period. The home improvement loans and lot loans carry terms of 5 and 10 years, respectively. Interest rates were standardized at the beginning of 1978 so that individuals will pay 14% on their loans; corporations and builders will pay slightly higher rates.

Loan-to-value ratios as shown in Table 1 are misleading by U.S. standards. In Korea, mortgage loans involve the mortgagee (lender) taking back two mortgages for one loan. One mortgage is placed on the land and one is placed on the improvements. As such, the loan-to-value ratios as stated by the KHB account only for the amount of the loan against the value of the house. Land values in urban Korea are high and can account for as much as 50% of the total value of a house/land package. Therefore, an 80% loan-to-value ratio by KHB standards is actually as low as a 40% loan by U.S. standards.

Moreover, it does not appear that the KHB accepts lien subordinations in granting first-mortgage loans; the loan applicant's lot must be paid off before the KHB will make a loan. Thus, a large percentage of KHB mortgage customers have as much as 60% equity in their property at the time of loan settlement.

The 14% interest rate (20-year term) that the KHB grants on almost all of its end-user loans was implemented in early 1978 so as to begin a nationwide standardization policy and also to bring rates more in line with prevailing money and capital market conditions. In previous years, KHB loan rates varied widely (4% to 18%), as did amortization periods.

In accord with the 1974 National Housing Promotion Law, limits were set on the maximum and minimum size of homes eligible for financing by the KHB. National Housing loans made to municipalities and the KNHC appear to limit home sizes from a minimum of 7 pyeong (23.1 m^2) to a maximum of 15 pyeong (49.5 m^2). Housing loans made out of Bank funds (savings mobilized, housing debentures, and other nonpublic sources) presently limit home sizes to a minimum of 12 pyeong (40 m^2) to a maximum of 25.7 pyeong (85 m^2).

3. Asset Portfolio Management: As previously mentioned, asset growth within the KHB has been significant, registering an annual average rate of increase of 42.1% from 1973 through 1977. However, the composition of the KHB's assets has been changing.

Table 2 and Table 3 show the KHB's 1973-77 consolidated balance sheets and the KHB's portfolio growth history respectively. During 1977, housing loans outstanding decreased as a percentage of assets, moving from 64.5% in 1976 to 52.2% in 1977. Since year-end 1975, total loans as a percentage of assets has shown a decline, dropping from 79.0% to 62.1% in 1977.

The main reason for this has been the Monetary Stabilization Policy of the Ministry of Finance. Under this policy the KHB has been required to deposit with the Bank of Korea (BOK) large amounts of funds mobilized, above the normal KHB reserve requirements that are held by the BOK. These deposits earn approximately 12% per annum for the KHB. Between 1976 and year-end 1977, total deposits with the BOK increased by 591.0%.

In 1976, these deposits totalled ₩16.578 billion, or 7.1% of the KHB's total assets; by year-end 1977, the total was ₩114.557 billion, making up 28.2% of total assets. During the first three months of 1978, deposits with the BOK grew to ₩183 billion (US$378 million) or over 34% of total KHB assets.

With the KHB's discretion limited by present ROKG policy, absolute cash flow maximization cannot be achieved due to the lower rate of interest accruing on the sequestered funds and to the fact that reinvestment opportunities have been curtailed. Therefore, considering the environment in which the KHB is working, cash flow <u>optimization</u> should be pursued by maintaining a satisfactory equity position as a cushion against losses. Although the KHB is not an institution oriented totally towards profit, as noted in the 1978 KHB functions and activities report, capital growth, in proportion to asset growth, is important in assuring an institution's solvency. For example, if 5% of an institution's assets go into default, the institution's ratio of net worth to assets must be at least 5% to prevent bankruptcy.

In January 1978, the KHB's authorized capital was increased from ₩10 billion to ₩50 billion. The capital will be paid in between 1978 and 1981. Based on current assets, this injection of capital will bring the equity ratio up to a very stable 13%. However, a continuation of this practice will only serve to make the KHB's financial viability suspect, especially in the eyes of international lenders.

Within the discretion available to the KHB in the field of asset management is their ability to monitor principal repayments and reinvestments from their present loan portfolio. The KHB sources and uses of funds statement covering 1973-77 is presented in Table 4. Under "sources of funds" in Table 4 are shown principal repayments collected on loans during the year. When measured against the corresponding year's average loans receivable, a portfolio turnover rate can be derived. In 1977, the turnover rate was 6.83%, meaning that the portfolio has an approximate life of 14½ to 15 years. This portfolio life expectancy is high compared to U.S. standards (10 to 12 years). Because the "loans collected" amount is an aggregate, including repayments on short-term commercial loans, the KHB average life of the housing loans is probably even higher than 15 years.

The turnover rate has been lower in previous years, ranging from 6.21% in 1973 to 4.48% in 1975. One reason for the low turnover rates is fairly obvious: with the KHB offering savings rates on some accounts that exceed the interest rates they charge on mortgages, there is likely no incentive for a homeowner to prepay his loan (see section I-B).

Although the 1977 portfolio turnover rate shows an improvement over previous years, the KHB should begin closer monitoring of principal recuperations with the goal of increasing them to a predetermined amount.

B. Debt Management: Sources of Funds

1. Customer Accounts: Customer savings accounts and deposits have always comprised by far the largest percentage of KHB funds sources. In 1977, these accounts reached almost ₩200 billion and funded over 49% of the bank's assets. These accounts can be classified into three types:

a. Demand deposits: Comprising 7.4% of total funds sources, these accounts are withdrawable upon customer demand. There are basically six types, including checking accounts, passbooks, and household deposits which pay savers interest as high as 10%.

b. Time deposits: There are eight types of time deposits with maturities as high as 5 years. Included in these forms of accounts is the Fortune Formation savings account with contract rates as high as 16.2%. These accounts made up 34.2% of KHB sources of funds at year-end 1977.

c. Housing Installment savings deposit: This is the account that the KHB has stressed as its principal instrument for mobilizing funds for housing loans. It is a contract form of savings that qualifies individuals for housing loans. Interest rates range between 9% and 15% per annum. In 1977, HIDs, as they are commonly called, accounted for nearly 6% of total KHB sources of funds.

2. National Housing Bonds (NHBs): These bonds are beginning to play and important role in KHB funds sources. Since

1973, when the bonds accounted for 9.5% of funds sources, the number of NHBs sold grew significantly, such that at year-end 1977 they totalled W118.4 billion and accounted for nearly 30% of the sources of funds. These bonds are redeemable in 5 years and pay the holder 6% per annum. NHBs are compulsory purchase instruments for conducting most forms of business in Korea. For example, their purchase is a requirement in the process of obtaining liquor licenses, opening a "tea room," or purchasing firearms. As such, the KHB can enjoy the proceeds from the sale of these bonds in almost direct proportion to the economy's growth rate. There appears to be an intent by the ROKG to raise the interest paid on these bonds from 6% to 12% sometime in 1978.

3. Housing Debentures: Once representing a major source of funds (20.1% in 1973), housing debentures have not been promoted in recent years. As of December 31, 1977, they totalled W13.0 billion and made up only 3% of funds sources. The debentures paid the holder ROKG-guaranteed principal and interest as high as 21.9% (tax free) over a 3-year term and as such represented an extremely high-cost money source for the KHB.

4. Other Sources of Funds: These include housing lotteries, borrowing from the BOK, and reserves and capital.

C. Debt Portfolio Management

In monetary terms, the growth of customer deposits in the KHB has been enormous. The average compounded growth rate from 1973 through year-end 1977 was nearly 45%, moving from

₩44.5 billion to ₩196.4 billion (US$405.8 million). The KHB annual savings growth target have been exceeded in practically every year. The largest year for savings growth was 1977, when a 103.3% increase was realized. This increase was due primarily to new customer deposits. Although current information is not available, it is estimated that total number of accounts increased from 838,393 to over 1,200,000.

Accurate cost-of-money figures for 1977 were not yet available. Cost data for 1976, however, did reflect a total weighted average cost of money of 8.16%. Given that the weighted average yield on assets was 11.53% for the same year, the KHB's gross operating spread came to 3.37%. Compared against similar data for other developing countries, this spread is adequate.

Under the interest rate restructuring program, the KHB is setting all housing loan rates at 14%, which should increase their weighted average yield on assets close to this mark. However, in discussions held with KHB personnel, it was disclosed that the savings rate reorganization will likely raise the cost of money close to 13%. Although this information is not concrete, it nevertheless leads one to believe that the KHB's operating spread will be reduced in the future.

Although savings programs, closely linked to government policy, have proved enormously successful as a source of funds, they have also made the KHB vulnerable to changes in in their operating spread should deposit composition change drastically. A good example of this is the Fortune Formation savings program, newly implemented in 1976. Under this type of savings account, an individual contracts to deposit a fixed sum each month (not to exceed 30% of his income) for terms ranging from 2 to 5 years. The KHB pays the depositor interest as high as 16.2% per annum depending on the length of the contract term.

In addition to KHB interest, the depositor also receives a government bonus and sometimes a voluntary bonus paid by his employer. Savers under this program can then earn as much as 31% per year on their deposits.

Since 1976, when the program was introduced, Fortune Formation accounts have grown rapidly, increasing from 325,302 accounts with paid-in installments of W10.5 billion to 488,715 accounts and paid-in installments of W40.6 billion by year-end 1977. This type of savings accounted for nearly 21% of total KHB savings balances during 1977, while only making up 11% of savings in 1976. Savings migration out of lower paying savings accounts into this type of higher paying account could serve to raise the KHB's average cost of money and reduce their operating spread. From all available information, however, this does not appear to be taking place, although the potential exists.

Nevertheless, while accepting the coincidence of high-interest-rate savings accounts and the Monetary Stabilization

Program, the KHB should be formulating liability management plans of action in the event their cost of funds rises to insupportable levels.

II. KHB ADMINISTRATIVE COSTS

A. Cost of Asset Management

The KHB's loan underwriting procedures are outlined in detail in Appendix A. The procedures appear adequate, and similar in some respects to accepted U.S. methods, especially with regard to private construction loans. Credit review procedures appear satisfactory in light of extremely low delinquency rates KHB is experiencing (0.3 of 1% as of December 31, 1977). Loan processing time also appears adequate, with individual private construction loans taking 15 hours apiece to underwrite and National Housing Construction loans accounting for 106 hours per loan. The NHC loans probably take longer to underwrite due to the project nature of this form of lending. For these reasons, KHB loan underwriting is rated as satisfactory in terms of procedure, thoroughness, and time consumption.

The KHB supplied costs calculated from their 1976 operations. As previously mentioned, the 1977 costing procedure had not been finished during the fieldwork. Table 6 breaks down the costs of originating and servicing each major risk asset category. Although the figures apply to 1976, originating and handling costs as a percentage of portfolio balance can probably be applied to 1977 as well.

Of the total business and administrative expenses of ₩4.956 billion for 1976, risk asset origination and servicing costs totalled ₩1.090 billion or 22%. Salaries amounted to ₩0.747 billion and other expenses (supplies, indirect costs) totalled ₩0.342 billion.

One major item to come out of the cost study was that the cost of originating and servicing home mortgage loans was only 1/2 of 1% of the total average loans receivable. Out of this, costs were broken down as follows:

Type of Loan	Cost of Origination and Servicing
All Housing Loans	0.50%
NHB Proceeds Loans	0.05%
Lottery Proceeds Loans	0.11%
Private Housing Loans	0.97%
GOK Borrowing Loans	0.22%

The NHB proceeds loans are the least costly of all types of housing loans due probably to the wholesale aspect of this type of lending.

Commercial loans represented the highest cost loans in terms of originating and servicing. In 1976, these costs accounted for 3.3% of the average loan balance. Interest rates reflected these higher costs in that the average weighted yield on commercial loans was 16.21%, nearly 5.5% higher than the average yield on housing loans.

It would be very difficult to make recommendations for improving direct cost efficiency in asset maintenance because the costs do not appear excessive and because time did not allow the observation of each transaction that would occur in this area of the KHB. One item, however, was apparent--the costs of loan origination were not separated from the costs of servicing. This distinction could possibly give KHB management a better cost planning tool.

B. Cost of Debt Management

The cost of mobilizing funds ranks as the highest of all attributable costs within the KHB. Using the data supplied in Table 7, it can be seen that the total cost to mobilize 1976's debt was 2.29% of the average sources of funds. This is much higher than the 0.66% it takes to maintain assets of the same amount. Certain categories of funds sources cost much more than they could earn for the KHB. For example, Fortune Formation savings deposits handling costs are, on the average, 14.44% of the total amounts mobilized. When the interest paid on this account is added, total costs amount to 29.74%, 15.74% above what these funds can earn when invested in mortgages. Another type of account, the "Children's Deposit," cost a full 86% of the amount mobilized. Together with interest paid, the cost was 93.89%. Salaries alone, attributable to this source of funds, were in excess of interest paid.

One reason for these high costs might be the nature of the accounts. Fortune Formation savings accounts have only been in existence since 1976 and are being promoted heavily by the bank. Extra advertising expenses and the cost of adding staff to handle these fast-growing accounts are probably increasing the cost attributable to Fortune Formation account maintenance under the KHB costing system. In the case of the Children's Deposit, account sizes are just not cost effective. As of December 31, 1976, the KHB was maintaining more than 54,000 Children's Deposits, totalling only ₩283 million. This translates to an average account balance of only ₩5,200 (US$10.75). However, Children's Deposits, while perhaps not being a cost-effective savings instrument, are nevertheless important because they tend to promote and maintain what is already a strong savings tradition among the Korean people.

Costs are high, however, throughout the savings department. This suggests that the procedures used in this department could be a cause. The procedures employed by the KHB in processing savings accounts is outlined in Appendix B. Deposit and withdrawal servicing is an extremely cumbersome procedure involving four staff members for each transactions (teller, cashier, accounting machine operator, assistant manager). In the United States, one teller with an on-line computer terminal is used for each type of transaction. This is definitely an area in which the KHB could begin to employ its computer. Implementation costs for the on-line terminals would be high, but in the long run economies of scale would come into play as the capital investment was recuperated through reduction in account servicing costs.

The KHB should also consider reducing direct costs by reducing the number of employees per 1 billion won. This can be accomplished by keeping the present-sized staff as the KHB continues to grow. Clerical staff functions were observed to fall within a narrow range of responsibilities. By expanding staff responsibilities the same number of people could do more work and managers would be allotted more time for oversight and supervision. It also appears that there exists too much compartmentalization among the various departments. In other words, one department will perform a single function and nothing more. By merging some departments, functions would become integrated and more responsibilities would be assumed by fewer people.

C. Overhead Costs

The KHB's method of overhead allocation differs from the normally accepted practice of using common costs among cost centers as the distribution basis. Under this concept, costs not related to direct banking functions (i.e., top management salaries, personnel department, appraisal department) are accumlated into what is called an overhead pool. A method must be found to allocate these costs among various bank activities (cost centers) on an equitable basis. The conventional distribution method is the basis of common costs existing among the various cost centers. For example, assume an organization has two cost centers. The first cost center has total salaries and fringe benefits of $75,000 and the second has the same costs of only $25,000. Under this basis, the first cost center would be allocated 75% of the overhead pool and the second would receive 25% as expenses.

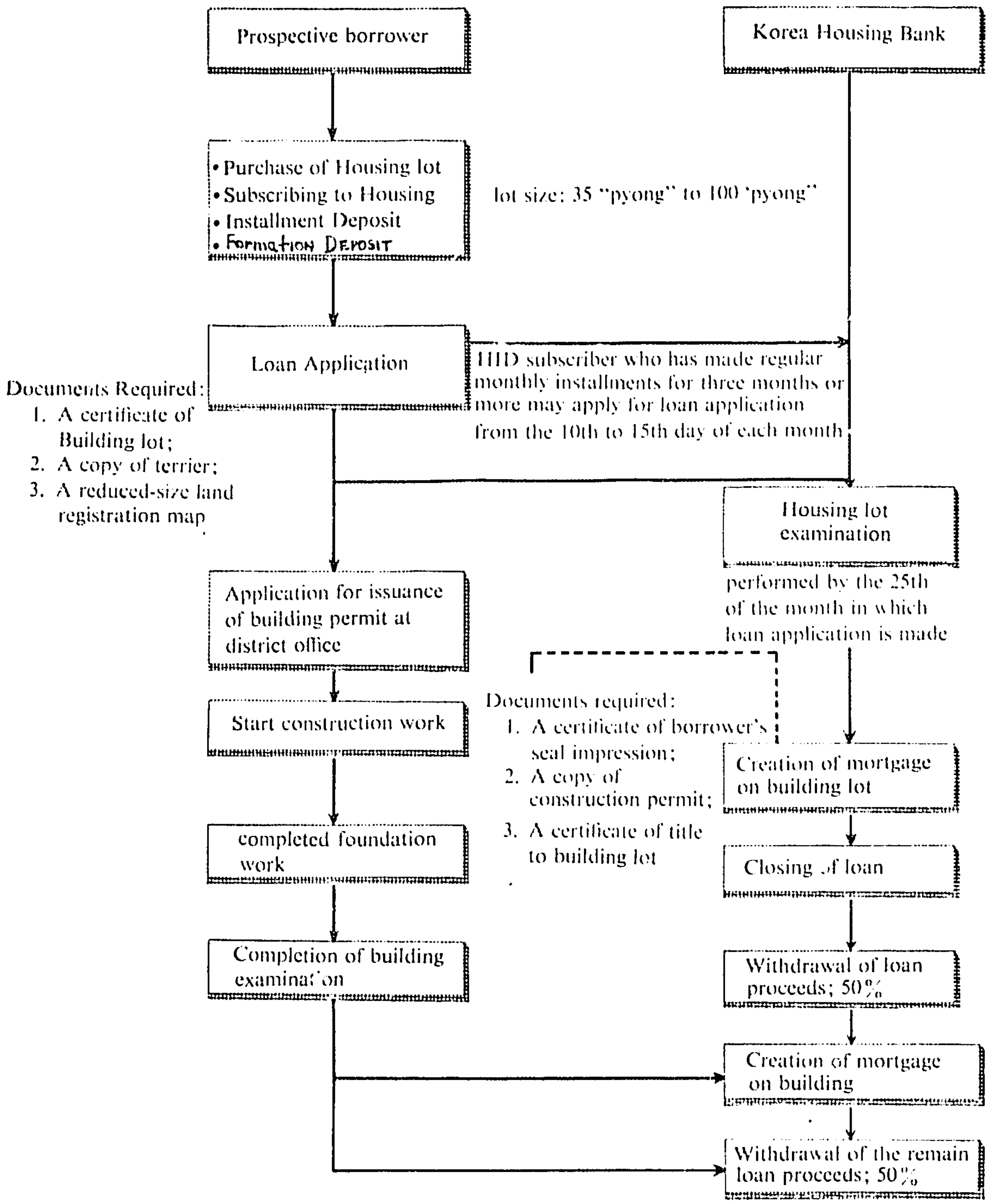
The overhead distribution procedure employed by the KHB likewise divides various nonbanking sections into overhead departments (pools), but the distribution basis, while difficult to understand, appears to be based on some form of inventory analysis (e.g., the number of appraisals made by a cost center).

While this method is perhaps accurate, the procedure is burdensome and time consuming. As a result, actual cost data are not published by the KHB until 6 months after a year's close of business. This does not serve KHB management in any useful way, for the current year is half over before they receive information which might be used productively for planning and managerial control.

A more useful method of overhead allocation would be to convert to a common cost system and maintain it on a current basis. Again, the KHB computer system could prove useful and cost effective in this regard.

APPENDIX "A"

PRIVATE HOUSING LOAN PROCEDURE



CONTRACTOR'S LOAN PROCEDURES

1. Receipt of loan application
   (a) Loan application will be received during the period from March until December.
   (b) Eligibility for application:
      (1) Contractor intending to build more than 50 housing units in a housing site and to sell the units to homeless families.
   (c) Documents needed for loan application:
      (1) Loan application forms
      (2) Resolution of Board of Directors
      (3) Housing project program
      (4) A copy of registration of judicial person
      (5) A copy of land terrier
      (6) A copy of business tax payment certificates
      (7) A layout of building construction, a ground-plane, a cross-section
      (8) By-laws of the contractor
      (9) A copy of builder's license

2. Credit Analysis of the prospective borrower
   (a) Credit Research Department will conduct an examination of the documents submitted, managerial ability to carry out housing project, marketability of the houses to be sold by the contractor, the location of housing project, etc., and also visit the contractor's office to look into the present operation and to find any problems associated with the housing project, and also analyze financial statements, the ability to repay the loan. After finishing the procedures above mentioned, the result of the examination will be forwarded to the branch concerned.
   (b) Technical Services Department will go to the place where the housing project is going to be undertaken and examine the suitability of the place for housing construction project.

3. Submission of preliminary application of loan
   (a) The Branch concerned will submit preliminary application of loan with the result of credit analysis and examination of housing site appended.
   (b) Credit Control Department will examine:
      (1) The prospective borrower's capability to carry out housing project and financial ability to raise funds needed for housing project
      (2) The contents of the application form submitted whether they are consistent with the Bank's housing loan policy or not
      (3) The location of housing project and the future project of the sale of housing units to be built under the project

      After completing a variety of examinations above mentioned, the Credit Control Department will give notice of the preliminary approval of loan application to the branch office concerned.

4. The Branch office concerned will request the Technical Services Department to carry out technical examination on the project, associated with structural analysis, construction cost breakdown, design drawing, and specification.

41

5. Technical Examination
   (a) Technical Services Department will examine the rationality of documents submitted in their contents
   (b) Technical Services Department will examine whether the design drawing is legal or not in terms of laws concerning construction
   (c) Technical Services Department will examine expenses of construction

   After completing the above examinations, the Technical Services Department will send the results of the examination to the Branch concerned.

6. The Branch concerned will apply for the loan with loan application forms and other necessary documents required.

7. The Credit Control Department will carry out overall examination on the loan application and place it under the review of loan Review Committee.

8. The Credit Control Department will send approval of loan application to the Branch concerned.

9. Preliminary measures taken by the Branch concerned prior to loan disbursements:
   (a) Creation of mortgage on the land at the public office
   (b) The Branch concerned will request the Technical Services Department to confirm completion of construction work

10. The procedures that follow after completion of the above procedures are the same as the case with private housing construction loans.

11. Loans for purchasing housing units built by the contractor:
    (a) The Branch concerned requests the contractor to submit the names of prospective purchasers
    (b) The Branch concerned requests the prospective purchaser to submit documents necessary for loan application
    (c) The Branch concerned appraises the value of the housing units
    (d) Loans made to purchasers will be used for compensating the loan repayment of contractor to the bank

NATIONAL HOUSING CONSTRUCTION LOAN PROCEDURE

1. Credit Control Department will receive a request from the Ministry of Construction, asking the Bank to investigate the projector's capability of carrying out housing projects. The Credit Control Department will request the Credit Research Department to analyze the projector's credit standing and the Technical Services Department to examine housing sites on which to build houses. After receiving the results of examinations from the abofe two departments, the Credit Control Department will give notice to the Ministry of Construction of a comprehensive opinion on the projector and its housing project.

2. After the Credit Control Department has received an approval of the housing project from the Ministry of Construction, the Department will give notice to the Branch concerning the approval.

3. The Branch concerned will notify the projector of the fact that the housing project has been approved by the Ministry of Construction. The projector will submit loan application forms to the Branch concerned, and the Branch will apply for the loan to the Credit Control Department.

4. The Credit Research Department will examine the coincidence of the loan application submitted by projector with the approval of housing project from the Ministry of Construction. Also, the Department will examine if there would be any deficiency of loan application forms in preserving loan claims. After examining the above matters, the Credit Control Department will notify the Branch concerned of the fact that the loan application has been approved.

5. Loan Closing:
   The Branch concerned will take procedures for preserving loan claims including creation of mortgage on land. The procedures that follow are the same as the case with private housing construction loans.

APPENDIX "B"

SAVINGS MOBILIZATION PROCEDURE

1. Savings Mobilization Plan
   (a) The Savings Promotion Department will prepare the savings mobilization plan in which the target amount of mobilization, by type of deposit, is set, under the consideration of the accomplishment attained in the preceding year and operational program for the year concerned, followed by the allotment of target amount for each branch to mobilize, at the beginning of the year concerned.
   (b) The allotment of target amount to each branch will be made under the consideration of those factors as the increasing rate of average balance in the preceding year, the number of personnel, and surrounding conditions under which the Branch is placed.
   (c) The Savings Promotion Department will establish savings promotion strategy for deposits (demand and time and savings deposits) and installment deposits.

2. Advertisements for Savings Mobilization
   (a) The Savings Promotion Department will collect data necessary for establishing savings mobilization plan and analyze them.
   (b) Basic advertisement program will be formed
   (c) Advertising in newspapers or using other news media
   (d) Evaluating the effect of the advertisement

3. Deposit Servicing
   (a) Receipt of deposit:
      (1) Teller receives money or checks from the depositor at the window with passbook or certificate of deposit
      (2) Teller makes a slip on which deposit amount is written down and passes it to a cashier
      (3) Passbook and ledger will be sent to accounting machine calculator
      (4) Cashier will calculate the money deposited and send it to accounting machine calculator
      (5) The accounting machine operator types the amount of deposit on the ledger and passbook in accordance with the slip sent by cashier
      (6) The operator will send the passbook and ledger with slip to an Assistant Manager concerned
      (7) The Assistant Manager will confirm the amount credited to the ledger with that of passbook and slip
      (8) The Assistant Manager concerned will send the passbook to the teller and the teller will give it to the depositor
   (b) Withdrawal of deposit:
      (1) The teller will receive passbook and slip on which the amount of withdrawal is written, and the teller will give him a number-plate
      (2) The teller will identify the coincidence of the seal impression on the ledger with that on the slip for withdrawal and pass them on to the accounting machine operator
      (3) The operator, after typing the withdrawal amount on the ledger in accordance with the slip, sends them to an Assistant Manager concerned.
      (4) The Assistant Manager will identify the coincidence of the seal impression on the slip with that printed on the ledger and send the passbook and ledger to cashier
      (5) The cashier will pay the amount requested after receiving the number-plate

4. Miscellaneous operation incidental to deposit servicing
   (a) Sending checks and bills uncleared to the clearing house and receiving checks and bills presented through the clearing house
   (b) Issuing cashier's checks and paying the check
   (c) Issuing certificate of outstanding balance to a customer
   (d) After closing the door, each section calculates the total amount of the transaction made during the day and confirms the aggregate amount with that of the accounting section.
   (e) Transferring deposit amount between branch offices
   (f) Calculating the interest amount accruing from each account at a certain interval of frequency
   (g) Settling the accounts
   (h) Making a variety of reports to be submitted to head office concerned

KHB TERMS ON HOUSING LOANS
1977

A. Construction Loans including Purchasing Loan (Loan Ceilings)

In thousand won

type of dwelling \ by region	Large cities (A)	Other cities (B)	Other than (A) and (B)
Single Detached House	up to 2,500	up to 2,200	up to 1,800
Row House	up to 2,000	up to 1,800	up to 1,500
Apartment			
Larger than 12 "pyong" up to 15 "pyong"	up to 2,200	up to 2,000	up to 1,800
Larger than 15 "pyong" up to 20 "pyong"	up to 2,500	up to 2,200	up to 1,800
Larger than 20 "pyong" up to 25.7 "pyong"	up to 3,000	up to 2,500	up to 2,200

Note: 1 not applicable to loan for company house construction.
2 The large cities include Seoul, Busan, Incheon, Masan and the capital city of each province.

B. Loans for House Purchase
a. Single detached house: same as construction loan.
b. Row house: up to 1,500,000 won.
c. Apartment unit: up to 1,800,000 won.

C. Loans for House Remodeling
a. for expansion: up to 1,000,000 won.
b. for repair: up to 500,000 won.

D. Loans for Acquisition of Housing lot
Up to the contract amount of Welfare Housing Installment Deposit, but not exceeding 2,000,000 won.

Table 1 continued:

Other Terms

Classification		*Type of loan repayment*	*Term*	*Interest rate*	*Loan to cost ratio*	*Loan to value ratio*
Private Housing Construction Loan		monthly level payment	repayable in 20 years including one year of grace period	14%	up to 80%	up to 80%
Partnership Housing Construction Loan		monthly level payment	repayable in 20years including one year of grace period	14%	up to 80%	up to 80%
Company House Construction Loan based on "Salary and Wage Earners Fortune Formation Law"	to employer during construction period	loans on bills	up to 3 years	14%	up to 70%	up to 80%
	to employees after sale	monthly level payment	repayable in 20 years including one year of grace period	14%	up to 80%	up to 80%
Company House Construction Loan based on the Bank's law		monthly equal principal payment	repayable in 10 years including 6 month grace period	15.5%	up to 80%	up to 80%
Builder's Housing Construction Loan including loan to purchaser	to builder	loans on bills	up to 3 years	Preferential builder: 15% other builder: 16%	up to 70%	up to 80%
	to purchaser	monthly level payment	repayable in 20 years including one year of grace period	14%	up to 80%	up to 80%
Loan for Purchase House		monthly level payment	repayable in 20 years including one year of grace period	14%	up to 80% of the value appraised	up to 80%
Loan for Remodeling		monthly equal principal payment	repayable in 5 years	14%	up to 80%	up to 80%
Loan for Purchase of Housing Lot		monthly level payment	repayable in 10 years including 6 month leave	14%	up to 80%	up to 80%

TABLE 2

KHB
COMPARATIVE CONSOLIDATED BALANCE SHEET
1973-1977
(in billions of Won)

	1977 W	1977 %	1976 W	1976 %	1975 W	1975 %	1974 W	1974 %	1973 W	1973 %
ASSETS										
CASH	6.317	1.6%	3.209	1.4%	3.080	1.8%	2.025	1.6%	1.845	1.9%
DUE FROM BOK	114.557	28.6	16.578	7.1	14.102	8.4	12.827	9.9	10.367	10.6
SECURITIES PORTFOLIO	8.498	2.1	19.302	8.2	2.368	1.4	.911	0.7	2.726	2.8
LOANS RECEIVABLE	248.671	62.1	178.377	76.2	132.074	79.0	99.114	76.7	75.274	76.7
PROPERTY OWNED (foreclosed)	.513	0.1	.449	0.3	.604	0.4	.626	0.5	.690	0.6
INVESTMENTS	.020	-	.020	-	.020	-	.020	-	.020	-
DEFERRED ASSETS	.085	-	.066	-	.065	0.1	.011	-	-	-
FIXED ASSETS	7.705	2.0	5.498	2.3	4.898	3.0	3.897	3.0	3.102	3.2
OTHER ASSETS	13.834	3.5	10.549	4.5	9.932	5.9	9.865	7.6	4.128	4.2
TOTAL ASSETS	400.200	100.0%	234.049	100.0%	167.143	100.0%	129.296	100.0%	98.152	100.0%
LIABILITIES & CAPITAL										
SAVINGS ACCOUNTS & DEPOSITS:										
- DEMAND DEPOSITS	29.605	7.4%	25.838	11.0%	20.344	12.2%	13.142	10.2%	11.850	12.1%
- TIME & SAVINGS	136.669	34.2	57.048	24.4	36.381	21.8	32.580	25.2	25.021	25.5
- HOUSING INST. DEPOSITS	23.039	5.8	11.493	4.9	8.787	5.3	7.204	5.6	5.927	6.0
- OTHER DEPOSITS	7.132	1.8	2.217	0.9	1.940	1.2	1.902	1.5	1.717	1.7
BORROWINGS FROM BOK	11.850	3.0	12.050	5.1	12.170	7.3	10.237	7.9	10.270	10.5
SPECIAL LONG TERM BOND ISSUE	.556	0.1	.822	0.4	1.034	0.6	1.060	0.8	1.078	1.1
HOUSING DEBENTURES	13.019	3.0	15.067	6.4	16.319	9.7	19.238	14.9	19.734	20.1
NATIONAL HOUSING BONDS	118.385	29.6	67.424	28.8	42.116	25.2	23.948	18.5	9.347	9.5
HOUSING LOTTERIES ISSUED	-	-	-	-	-	-	-	-	.089	0.1
LOTTERY PRIZES (unpaid)	.212	0.1	.174	0.2	.149	0.1	.095	0.1	.089	0.1
CREDIT GUARANTY RESERVE	.876	0.2	.676	0.3	.516	0.3	.400	0.3	.306	0.3
OTHER RESERVES	32.309	8.1	18.579	7.9	12.963	7.8	8.141	6.3	4.211	4.3
OTHER LIABILITIES	14.301	3.6	11.532	4.9	7.360	4.3	4.446	3.4	1.858	1.9
TOTAL LIABILITIES	387.953	96.9	222.920	95.2	160.079	95.8	122.393	94.7	91.497	93.2
PAID-IN CAPITAL	10.000	2.5	10.000	4.3	6.140	3.7	6.140	4.7	6.140	6.3
RETAINED EARNINGS	2.247	0.6	1.128	0.5	.924	0.5	.763	0.6	.515	0.5
TOTAL CAPITAL	12.247	3.1	11.128	4.8	7.064	4.2	6.903	5.3	6.655	6.8
TOTAL LIABILITIES & CAPITAL	400.200	100.0%	234.048	100.0%	167.143	100.0%	129.296	100.0%	98.152	100.0%

TABLE 3

KHB: PORTFOLIO GROWTH HISTORY
1973 - 1976
(in millions W)

	1976 W	1976 # HOMES	1975 W	1975 # HOMES	1974 W	1974 # HOMES	1973 W	1973 # HOMES
TYPE OF LOAN:								
HOUSING CONSTRUCTION	50,920	43,952	35,938	40,854	29,176	38,417	22,167	33,429
LOTS	-	-	-	-	-	-	5	-
HOUSING MATERIALS PRODUCTION	-	-	-	-	100	-	-	-
COMMERCIAL	2,912	-	1,682	-	(534)	-	2,663	-
NATIONAL INVESTMENT FUND	6,665	-	1,459	-	230	-	-	-
TOTAL LOANS MADE DURING YEAR	60,497	43,952	39,079	40,854	28,972	38,417	24,835	33,429
LESS:								
PRINCIPAL REPAYMENTS	7,167		5,174		4,903		4,075	
PLUS:								
PRINCIPAL BALANCE AT END OF PREVIOUS YEAR	133,249		99,344		75,275		54,515	
PORTFOLIO EALANCE END OF YEAR	186,579		133,249		99,344		75,275	
INTEREST EARNED ON LOANS (RATE (%) ON AVERAGE PORTFOLIO)	16,575 (10.36)		12,699 (10.92)		10,324 (11.82)		7,130 (10.99)	
DELINQUENCY AS % OF PORTFOLIO	0.3%		0.4%		0.6%		1.0%	

TABLE 4

KHB: SOURCES AND USES OF FUNDS
1973 - 1977
(in million W)

	1977	1976	1975	1974	1973
SOURCES OF FUNDS:					
DEPOSITS RECEIVED	53,297	15,642	11,003	8,851	8,857
FORTUNE FORMATION DEPOSITS	30,091	10,519	-	-	-
HOUSING INSTALLMENT DEPOSITS	11,546	2,706	1,583	1,277	1,606
HOUSING DEBENTURES ISSUED	4,992	6,514	6,785	7,025	7,211
HOUSING LOTTERIES SOLD	2,380	2,507	2,116	1,937	-
NAT. HOUSING BOND ISSUE	50,961	25,308	18,168	14,600	9,347
GOK BORROWINGS	<-200>	3,740	1,934	803	2,557
LOANS COLLECTED	14,576	7,167	5,174	4,903	4,075
RESERVES	11,258	4,975	2,907	4,985	501
OTHERS	5,656	759	6,569	2,200	1,335
TOTAL SOURCES	184,557	79,837	56,239	46,581	35,489
USES OF FUNDS:					
NHB LOANS	42,147	28,723	22,636	17,849	8,287
HOUSING LOTTERY LOANS	4,216	2,663	1,955	2,880	326
PRIVATE HOUSING CONSTRUCTION	29,697	18,652	11,334	8,412	13,405
COMPANY HOUSING CONSTRUCTION	712	882	-	-	-
NATIONAL PRODUCTION (housing construction)	-	-	13	135	154
RESERVE REQUIREMENTS	10,728	3,182	2,090	1,416	1,683
SUB-TOTAL	87,500	54,102	38,028	30,692	23,855
REDEPOSIT AND INTEREST PAID	8,817	10,043	11,807	9,662	4,392
COMMERCIAL LOANS	7,439	2,912	2,285	<- 634 ->	2,663
SMALL LOANS	537	-	-	-	-
NATIONAL INVESTMENT LOANS	13,902	6,665	-	-	-
OTHERS (cash, etc.)	66,362	6,115	4,119	6,861	4,579
SUB-TOTAL	97,057	25,735	18,211	15,889	11,634
TOTAL USES	184,557	79,837	56,239	46,581	35,489

ව

KHB: COMPARATIVE INCOME STATEMENT

1973 - 1977

(in millions W)

TABLE 5

	1977		1976		1975		1974		1973	
	W	%	W	%	W	%	W	%	W	%
OPERATING INCOME										
INTEREST EARNED:	32,227	95.9%	18,453	94.6%	14,877	94.9%	11,215	94.2%	8,575	81.8%
LOANS	24,823	73.9%	16,575	85.0	12,699	81.0	10,324	86.7	7,130	68.0
DEPOSITS WITH BOK	7,349	21.8	1,852	9.5	2,145	13.7	873	7.3	1,197	11.4
OTHERS	55	0.2	26	0.1	33	0.2	18	0.2	248	2.4
GUARANTY FEES	194	0.6	138	0.7	-	-	-	-	-	-
FEES & COMMISSIONS	-	-	1	-	87	0.6	57	0.5	63	0.6
HOUSING LOTTERY INCOME	1,169	3.5	907	4.7	706	4.5	633	5.3	1,842	17.6
TOTAL INCOME	33,590	100.0%	19,499	100.0%	15,670	100.0%	11,905	100.0%	10,480	100.0%
OPERATING EXPENSES										
INTEREST PAID:	23,159	71.3%	13,288	68.3%	10,083	65.6%	7,683	65.2%	7,408	69.6%
DEPOSITS	14,785	45.5	6,362	32.7	5,966	38.8	4,244	36.0	4,128	38.8
HOUSING DEBENTURE	1,692	23.7	5,098	26.2	4,113	26.8	3,431	29.1	3,275	30.8
OTHERS	682	2.1	1,828	9.4	4	-	8	0.1	5	-
COMMISSIONS PAID	52	0.2	46	0.2	45	0.3	35	0.3	32	0.3
CREDIT GUARANTY FUND CONTRIBUTIONS	80	0.2	58	0.3	50	0.3	39	0.3	37	0.3
SECURITIES ISSUING EXPENSE	908	2.8	903	4.6	814	5.3	732	6.2	609	5.7
DEPRECIATION	256	0.8	191	1.0	155	1.0	116	1.0	110	1.0
BUSINESS & ADMINISTRATIVE EXPENSES	8,028	24.7	4,956	25.6	4,218	27.5	3,179	27.0	2,442*	23.1
TOTAL EXPENSES	32,483	100.0%	19,442	100.0%	15,365	100.0%	11,784	100.0%	10,638	100.0%
PROFIT (LOSS) ON OPERATION	1,107		57		305		121		(158)	
NON-OPERATING INCOME	100		165		186		265		438	
NON-OPERATING EXPENSES	13		19		184		138		43	
EXTRAORDINARY INCOME	222		153		-		-		-	
DEFENSE TAX	141		28		24		-		-	
NET PROFIT FOR PERIOD	1,275		328		283		248		237	
NET RETURN ON AVERAGE ASSETS	0.4%		0.2%		0.2%		0.2%		0.3%	
B & A EXPENSES ÷ AVERAGE ASSETS (%)	2.5%		2.5%		2.8%		2.8%		2.9%	

*(includes W149 million bad loan loss)

TABLE 6

KHB: COST OF ASSET MAINTENANCE
1976 - BY ACCOUNT
(W 000's)

	1	2		3		4		5		6		7		8	
		INTEREST EARNED		HANDLING COST: SALARIES		HANDLING COST: OTHER		HANDLING COST: TOTAL		COST OF RAISING FUNDS (mobilizing)		TOTAL COST (5+6)		NET RETURN (2-7)	
	AVG. BALANCE	W	% RATE	W	% RATE	W	% RATE	W	% RATE	W	% RATE	W	% RATT	W	% RATE
DUE FROM B.O.K.	2,406,834	288,293	11.98	6,798	0.28	3,168	0.13	9,966	0.41	331,512	13.77	341,478	14.19	-53,185-	-2.21
SECURITIES	8,297,280	1,225,751	14.77	2,501	0.03	1,024	0.01	3,525	0.04	1,142,846	13.77	1,146,371	13.82	79,380	0.95
HOUSING LOANS	140,406,062	15,100,341	10.75	482,813	0.34	222,278	0.16	705,091	0.50	13,929,903	9.92	14,634,994	10.42	465,347	0.33
-NHB PROCEEDS LOANS	(55,850,520)	(4,510,310)	(8.08)	(17,371)	(0.03)	(10,993)	(0.02)	(28,364)	(0.05)	(4,068,390)	(7.28)	(4,096,754)	(7.34)	(413,556)	(0.74)
-LOTTERY PROCEEDS LOANS	(7,108,016)	(257,309)	(3.62)	(5,266)	(0.07)	(2,673)	(0.04)	(7,939)	(0.11)	(338,058)	(4.76)	(345,997)	(4.87)	(88,688)	(-1.25)
-PRIVATE HOUSING CONST. LOANS	(66,104,907)	(9,478,787)	(14.34)	(444,076)	(0.67)	(199,515)	(0.30)	(643,595)	(0.97)	(8,980,103)	(13.59)	(9,623,698)	(14.56)	(-144,911)	(-0.22)
-GOVERNMENT BORROWING LOANS	(11,342,619)	(853,935)	(7.53)	(16,100)	(0.14)	(9,093)	(0.08)	(25,193)	(0.22)	(543,352)	(4.79)	(568,545)	(5.01)	(285,390)	(2.52)
COMMERCIAL LOANS	11,119,211	1,802,100	16.21	252,249	2.27	114,742	1.03	366,991	3.30	1,427,346	12.84	1,794,337	16.14	7,763	0.07
-BILLS DISCOUNTED	(262,678)	(46,056)	(17.53)	(13,024)	(4.96)	(6,175)	(2.35)	(19,199)	(7.31)	(36,179)	(13.77)	(55,378)	(21.08)	(-9,322)	(3.55)
-OVERDRAFTS	(846,760)	(150,591)	(17.78)	(31,754)	(3.75)	(15,014)	(1.77)	(46,768)	(5.52)	(62,308)	(7.36)	(109,076)	(12.88)	(41,515)	(4.90)
-INSTALLMENT LOANS	(2,382,530)	(379,504)	(15.93)	(40,565)	(1.70)	(18,638)	(0.78)	(59,203)	(2.48)	(396,917)	(16.66)	(456,120)	(19.14)	(-76,616)	(-3.21)
-COLLATERALIZED LOANS	(365,212)	(50,891)	(13.93)	(16,391)	(4.49)	(8,695)	(2.38)	(25,086)	(6.37)	(60,843)	(16.66)	(85,929)	(23.53)	(-35,038)	(-9.60)
-GENERAL PURPOSE LOANS	(7,262,031)	(1,175,058)	(16.18)	(150,515)	(2.07)	(66,220)	(0.91)	(216,735)	(2.98)	(871,099)	(11.99)	(1,087,834)	(14.98)	(87,224)	(1.20)
CALL LOANS	4,026,311	753,835	18.72	2,852	0.07	1,163	0.03	4,015	0.10	554,573	13.77	558,588	13.87	195,247	4.85
TOTAL	166,255,698	19,170,320	11.53	747,213	0.45	342,375	0.21	1,089,588	0.66	17,386,180	10.46	18,475,768	11.12	694,552	0.42

TABLE 7

KHB: COST OF FUNDS MOBILIZED
1976 - BY ACCOUNT
(W 000's)

	1	2		---------3--HANDLING COSTS---4--------				5		6	
		INTEREST PAID		-----SALARIES----		------OTHER------		---------TOTAL----		TOTAL COST (2+5)	
	AVG. BALANCE	W	% RATE	W	% RATE	W	% RATE	W	% RATE	W	% RATE
CHECKING ACCOUNTS	1,318,785	450	0.03	63,771	4.84	32,820	2.49	96,591	7.32	97,041	7.36
CASHIER's CHECKING	3,075,262	-	-	190,428	6.19	121,333	3.95	311,761	10.14	311,761	10.14
PASSBOOK DEPOSIT	8,737,966	113,046	1.29	375,050	4.29	215,845	2.47	590,895	6.76	703,941	8.05
HOUSEHOLD DEPOSIT	2,880,275	229,883	7.98	214,526	7.45	124,144	4.31	338,670	11.76	568,553	19.74
CHILDREN's DEPOSIT	165,523	11,969	7.23	98,054	59.24	45,383	27.42	143,437	86.66	155,406	93.89
NOTICE DEPOSIT	1,331,511	90,370	6.79	19,275	1.45	13,135	0.99	32,410	2.43	122,780	9.23
TIME DEPOSIT	24,208,878	4,094,297	16.91	62,983	0.26	76,050	0.31	139,033	0.57	4,233,330	17.48
TIME INSTALL. DEPOSIT	6,571,449	755,964	11.50	205,242	3.12	133,564	2.03	338,806	5.16	1,094,770	16.66
SPECIAL HOUSEHOLD DEPOSIT	2,929,487	625,126	21.34	49,241	1.68	28,986	0.99	78,227	2.67	703,353	24.01
FORTUNE FORMATION DEPOSIT	3,010,831	460,708	15.30	205,159	6.81	229,746	7.63	434,905	14.44	895,613	29.74
HOUSING INSTALLMENT DEPOSIT	10,102,060	1,161,120	11.49	313,789	3.11	167,991	1.66	481,780	4.77	1,642,900	16.26
CREDIT CONTROL DEPOSIT	2,705,182	273,204	10.10	18,109	0.67	9,305	0.34	27,414	1.01	300,618	11.11
CALL LOANS	69,634	11,335	16.28	2,501	3.59	1,024	1.47	3,525	5.06	14,860	21.34
AGENT ACCOUNT	305,592	-	-	11,571	3.79	6,087	1.99	17,658	5.78	17,658	5.78
DOMESTIC EXCHANGE	215,400	-	-	155,299	72.10	97,363	45.20	252,662	117.30	252,662	117.30
B.O.K. BORROWINGS	12,119,485	577,042	4.76	2,501	0.02	1,024	0.01	3,525	0.03	580,567	4.79
SPECIAL BONDS	921,131	50,801	5.52	2,501	0.27	1,024	0.11	3,525	0.38	54,326	5.90
HOUSING DEBENTURES	14,828,689	1,707,336	11.51	18,452	0.12	12,181	0.08	30,633	0.20	1,737,969	11.71
NATIONAL HOUSING BONDS	53,691,000	3,395,734	6.33	179,800	0.33	195,411	0.36	375,211	0.70	3,770,945	7.02
HOUSING LOTTERIES	5,436,201	-	-	73,133	1.35	34,654	0.64	107,787	1.98	107,787	1.98
CAPITAL	2,188,020	-	-	2,501	0.11	1,024	0.05	3,525	0.16	3,525	0.16
OTHERS	9,443,337	15,815	0.17	-	-	-	-	-	-	15,815	0.17
TOTAL	166,255,698	13,574,200	8.16	2,263,886	1.36	1,548,094	0.93	3,811,980	2.29	17,386,180	10.46