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HOUSING AND FINANCIAL INSTITUTIONS IN DEVELOPING COUNTRIES

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FOREWORD

One of the important objectives of the International Union, working through its Housing Finance Development Committee, is to encourage and assist in the organization of housing finance institutions in developing countries. To this end, the Union is pleased to publish this most complete and constructive manuscript authored by Dr. Bertrand Renaud, Senior Economist at The World Bank.

This manuscript was brought to my attention some months ago and I recognized it as probably one of the most worthwhile expositions on the subject of housing and finance institutions in developing countries that has ever been written and a manuscript that deserved widespread distribution. Making it widely available could clearly further the objectives of the Union with respect to its interest in housing finance.

The International Union thus offered to print the manuscript as a contribution to the organization of appropriate types of housing institutions in developing countries. We were pleased to have an opportunity to collaborate with The World Bank and Dr. Renaud in this project.

Dr. Renaud is a French citizen who holds the Ingenieur INA degree from Paris and a Ph.D. degree from the University of California at Berkeley. He has taught and done research at universities in the United States and Korea. Before his present position, he was chief of the Urban Affairs Division of the Organization for Economic Cooperation and Development in Paris. Currently he is Senior Economist at The World Bank where problems of housing finance are a part of his responsibilities.

NORMAN STRUNK
Secretary-General
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PREFACE

Experience shows that discussions of problems of housing finance and the examination of possible ways to finance housing in developing countries are too often fragmentary. As long as the scope of a financial problem is confined to a single publicly supported project and to the question of how best to finance a limited number of housing units, a partial approach taking existing financial conditions as given can be quite adequate. But as soon as concerns become sectoral and imply a series of projects, the type of lending actions and the types of institutions that should be encouraged become important issues requiring more comprehensive evaluations. To remedy this tendency toward partial treatment, a first step is to make an inventory of the various issues that are frequently arising during the creation and expansion of housing finance systems.

This monograph began as a review of housing finance problems in developing countries to see what lessons had been learned over the last ten years. This review itself was first intended for the use of the World Bank staff and was expected to remain closely tailored to operational needs. However, as the work progressed, it became apparent that, in addition to a document meeting immediate internal needs, there was also a place for an overview of what has been learned over the last decade about the nature of housing markets in developing countries, their role in the national economy and the problems of encouraging the growth of financial institutions that will serve the housing sector effectively.

One of the striking facts encountered by the review is that housing finance institutions play a limited role in financing total national housing real investment. In many developing countries, the level of financial intermediation measured by the ratio of the value of the annual loans made to the corresponding value of total residential investment estimated in the national accounts is much less than 20%. Why is the level of financial intermediation often as low as 5% to 8%? What are the constraints existing in the housing markets? What are the constraints placed on the development of capital markets and more specifically on the growth of housing finance institutions?

There is much complementarity between this monograph and an earlier one prepared by James W. Christian entitled *Housing Finance for Developing Countries*, published by the IUBSSA in 1980. While the present discussion focuses on the economic context in which housing finance institutions operate and the policy problems that arise, the earlier monograph

focuses on the management of financial institutions, on techniques for savings mobilization and lending and support facilities for management systems. For lack of space neither of these two monographs could discuss directly in any detail the ways in which the five vital internal policy areas of liquidity, credit risk, interest rate, profitability and capital management which determine the growth of a financial institution in a mature financial system can be adjusted to the context of a specific developing country. However, the analyses presented should facilitate the understanding of the actions to be taken in the development of viable housing finance institutions.

The author should like to thank the IUBSSA for the publication of this monograph. The views presented here are entirely his own and they should not be interpreted as reflecting those of the World Bank nor of its affiliates.

Bertrand Renaud

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I. INTRODUCTION

A. What is the Housing Finance Problem?

There is more than one way to look at housing finance and according to the viewpoint chosen significantly different answers are given to the question of what constitutes "the" housing finance problem. From the viewpoint of a household the problem is the possibility of obtaining a loan at affordable terms. For ministry of housing officials the problem is the lack of resources to carry out public housing programs. From the viewpoint of ministries of finance and central banks the problem is to prevent financial instability and to maintain confidence in the financial system. National planning agencies are interested in the contribution that housing finance can make to the mobilization of resources and their effective use. For the manager of a housing bank the problem is how to expand the scope of financial services while maintaining a viable institution. In the case of a capital market analyst the housing finance problem is that of mobilizing short term resources while providing long term financing (term transformation) in an inflationary environment; in other words, how to generate long-term loans. For international agencies with a mandate to make loans which will reach the lowest 50 percent of the household income distribution, the problem is to develop sustainable financial programs for low income housing. To examine how these various definitions relate to one another one needs to look at housing finance institutions in their role of financial intermediaries.

The focus on financial institutions has immediate implications. First, as their name indicates financial intermediaries constitute the interface between the housing market on one hand, and capital markets on the other. This is not as trite a reminder as it may seem, considering that one of the recurrent problems of public policy discussions and consequently of programmatic activities is that conditions on one or the other of these two markets are being ignored.

It is still a common occurrence to read a "housing finance sector review" which details the financial institutions operating in a country but provides little or no indication of the types of households being served nor of the exact role of institutional financing in the total housing supply in the country. Conversely, many LDC "Housing sector reviews" deal with the structure and behavior of the housing market and tend to treat the problems of financial institutions in a limited and superficial way, if at all.

Most reviews of housing sector for developing countries are essentially concerned with the imbalance between the growth in the number of households and the number and types of units produced annually. Their discussion of financial problems focus on affordability and on the difficulties that households face to achieve home ownership. They tend to ignore institutional issues in the provision of financial services and the constraints that the level of development of national capital markets imposes on the type of institutional financing which can be developed. Often, what they consider as housing finance analysis is limited to the development of financial techniques that could make housing project affordable to beneficiaries, basically in five ways: by lowering interest rates, lengthening maturities of mortgages, using graduated payments, increasing the equity base through various subsidies or cross-subsidies, reducing the cost of houses by lowering standards or a combination of all these. Interest in the housing finance system as a whole is often limited to the question of how more resources can be made available for low-income housing. One of the best treatments of this limited approach is found in the book by N.O. Jorgenson.

From a policy perspective, LDC governments have two distinct responsibilities. The first one is the regulatory responsibility of encouraging the development of viable housing institutions and of maintaining the credibility of the banking system. The second one is to address effectively the needs of the vast majority of low income households and in particular to find ways to finance their housing needs. An overview of housing finance in developing countries cannot be limited to a discussion of the financing of low-income housing, it must also consider the problems of developing effective financial intermediaries. The exclusive concern for household beneficiaries leaves completely untouched the question of the constraints which financial institutions encounter and which might explain that housing lenders are not providing the types of loans which policy makers say they should provide.

In this paper, we shall define the housing finance problem as the need to reconcile three partially conflicting objectives: affordability for the households, viability for the financial institutions and resource mobilization for the expansion of the sector and the national economy.

B. The Current Context of Housing Finance Development

Developing and developed countries alike are presently going through extremely difficult economic conditions. Following the two consecutive oil shocks of 1974 and 1979, many countries have been suffering from a deleterious mix of inflation (often very high), rising energy costs, sluggish growth of export markets with the volume of world trade actually shrinking for the first time in many years, deteriorating terms of trade, high current accounts

deficits and debt repayments that sometimes are reaching half of export earnings. Anticipating an extended period of scarce capital resources, effective investment strategies and a practical framework for domestic development are of critical importance. Good planning and institutional reforms to utilize domestic resources more efficiently are important to the housing sector which must often compete with other sectors such as agriculture and industry receiving higher priority from the government. The possibility of inducing net real savings mobilization through the encouragement of home ownership maybe an additional reason for encouraging the growth of housing finance systems even though it remains an unsettled issue among economists. It is true that, at any given time, aggregate financial savings are fixed and that encouraging housing finance will mostly lead to shifting resources from other sectors to housing. But, over time, a dynamic housing finance system can enhance significantly the level of savings by the household sector.

In spite of a more difficult economic environment, the urban population of developing countries will continue to grow at very high rates over the next twenty years. Because so much of the most dynamic economic activities takes place in cities, an efficient urban environment is necessary to improve the competitive international position of a country as well as its domestic economy. As a part of a more efficient and more effective financing of urban development, the emergence of a strong and adaptable system of housing finance capable of meeting the expanding needs of the urban economy is important for several concurrent reasons:

(a) residential investment is directly tied to urban infrastructure investment and the internal efficiency and productivity of cities;

(b) in most developing countries a very high proportion of residential investment is provided through private individual initiative without the support of effective and responsive financial institutions. The existing institutions are typically serving a minority of households at a high cost with limited results. The informal financing of housing generally leads to major gaps between housing construction proper and the needed complementary urban infrastructure to the great detriment of urban development;

(c) meeting the housing needs of a large low-income labor force will require sustained efforts and stronger institutions;

(d) the fragmented nature of the housing finance services obtainable within the informal sector and the narrow reach and effectiveness of existing regulated financial institutions reduces the mobilization of domestic savings in the form of financial assets from most of the household sector of the economy;

(e) to improve the potential of their housing finance system, LDC's need a clearer understanding of the various alternatives open to them both in

terms of viable institutions and of effective technical innovations. Their development plans for a housing finance system cannot ignore either the constraints affecting the entire financial sector or those related to the operation of the housing market.

C. Organization of the Discusion

Because household incomes are low and demographic growth is very rapid, housing conditions in developing countries are very poor—particularly in the largest cities where annual population growth rates between 6% and 9% are common. Generally, the housing sector is the single largest investment sector in the economy and housing investment typically ranges from 15% to 25% of total annual investment. In contrast, the share of institutional financing in that investment, the level of financial intermediation, is surprisingly small.

Financing the production of housing in LDC's is often difficult because of constraints such as inadequate land registration systems or inappropriate land use laws as well as inefficient planning and engineering standards which are imposed on the private developers and public agencies alike. These constraints limit investment in serviced land and housing, in spite of comparatively high prices and a strong demand. The lack of a developed system of financial institutions is another serious limitation imposed upon the sector.

Before discussing the development of housing finance institution it is therefore useful to look at the role of the urban economy and to review the place that the residential sector and housing finance occupy. Chapter II briefly shows that in most developing countries—even the poorest—the urban economy is now the dominant source of national output. Even with large farm populations and rural housing conditions that are often extremely poor, the problem of housing is mostly an urban problem because of the environmental and social problems generated by the rapid concentration of largely poor populations in cities.

The next chapter has two main objectives. First, chapter III provides a quantified illustration of the structure of an LDC housing market and of the relative weights of the legal and of the unregulated segments of the housing market in these countries. The second objective is to explain the typical dynamics of housing investment for a large majority of households as we have come to understand it over the last ten years. This particular chapter may be unusual for a discussion of housing finance but it is hoped that a presentation of the dynamics of the housing market in LDC's will generate different perspectives on housing finance intermediation and on the meaning in developing countries of the six services which financial intermediaries should typically provide to the housing sector: risk reduction through

diversification, maturity (or term) intermediation, reduction in the cost of contracting, information production, management of payment systems and the provision of insurance. Chapter III raises the question of whether the financial services that many housing finance institutions are attempting to provide are adequately tailored to the actual financial needs of the majority of households, particularly in light of the progressive nature of housing investment which is observed in the large unregulated housing sector.

Chapter IV can be considered more conventional as it shows the determinants of the overall level of financial development and the potential growth of housing finance institutions. It stresses three major points: first, that there are important distinctions between the level of realized physical investment and the level of financial savings. Second, in contrast with the government and the business sectors, the household sector is a consistent net saver in the economy and housing is the investment priority for almost all households. Third, the relationship between the level of financial development and the real per capita income of a country is a loose one because the growth of financial institutions can be profoundly affected by government attempts to direct credit, to force arbitrarily low interest rates and to avoid fiscal responsibility through inflation financing.

Chapter V focuses on the development of a housing finance system and on what differentiates housing finance from the financing of other sectors such as industry or agriculture. It illustrates the variety of housing finance systems that can be encountered in developing countries, a variety that feeds a continuing debate about the merits of specialized vs. non-specialized housing finance system. In order to clarify this debate a list of the functions that housing finance systems must fulfill is proposed.

Chapter VI examines the sometime confusing variety of housing finance policy questions that are encountered in LDC's. A natural way to present these policy issues is obviously to rely on the format of financial statements (balance-sheet and income statements in particular) because all these policies have an impact on the assets, liabilities and profitability of housing finance institutions.

The final chapter looks at cricital factors influencing the development of housing finance system and suggests possible directions in the work needed to understand better how to raise the level of financial intermediation in the housing sector and how to address the particular problems of financing housing for low income households.

II. THE URBAN ECONOMY, THE RESIDENTIAL SECTOR AND HOUSING FINANCE

The urban economy is an essential part of the national economy. Leading economic activities take place in the urban sector, innovations are diffused and flows of goods and services circulate through the network of cities, therefore the efficiency of cities is vital to the competitive position of a country's economy. Even in low income countries like India, where only 24% of the population is urban and about 76% of the labor force is in agriculture, over 60 percent of GDP originates outside agriculture.

The economy of a given city can be conveniently viewed as divided into two major components: its economic base and its residential sector. The economic base consists of all the business firms (large and small) that are generating income for the residents of the cities. Some of them are oriented towards exports, others are producing intermediate goods for these export firms or are serving the needs of local residents. In particular, construction, utilities, and service firms have a dual role: they provide the infrastructure that will be used by the business sector and the housing and neighborhood services that are necessary to the urban residents.

The provision of infrastructure and labor services for both the economic base and the residential sector of a city has a major impact on the competitive position of the city. Inadequate infrastructure, e.g. inefficient urban transport systems and interregional terminals, poorly designed road networks, the lack of water and sewage facilities, unreliable utilities, all limit the growth potential of firms on which they impose serious costs. And the greatest majority of businesses, even the majority of manufacturing firms, numerically as well as economically, cannot insulate themselves from these problems through location in industrial estates.

Because there are occasional misunderstandings in the discussion of urban financial problems in developing countries, it must be clear that housing finance in this review is limited to the financing of the residential sector and does not cover the broad variety of problems arising in the financing all aspects of urban development. The priority given here to the residential sec-

tor covers the financing of land, infrastructure and housing and reflects the need to improve the design and implementation of urban operations to meet the rapid expansion of LDC's shelter needs for the majority of low-income households. The question then is how it is possible to improve the way the household sector can finance its own urban requirements.

By contrast the totality of urban development needs includes, in addition to the residential sector, employment and industry, offices, shopping and commercial facilities, transportation, health and social services, and other local services including those for leisure and recreation. These non-residential urban investment requirements typically involve different financing arrangements and cost recovery methods. To put it differently, if primary urban infrastructure relates to the needs of the entire city (for instance water reservoirs and water mains), secondary infrastructure relates to district level investment and tertiary infrastructure to neighborhood facilities and dwelling connections, the residential sector is or could be directly accountable for tertiary investment and could share the cost of secondary and primary urban infrastructure with commercial and industrial users of urban facilities. The multiplicity and complexity of financial arrangements between local government and central government, the public and the private sector, the resources involved and the much longer planning horizon generally required have led to a great variety of financial arrangements for non-residential investments which deserve separate treatment.

A comprehensive accounting of total urban investment as defined above has been found unfeasible, because most of it is more easily recorded under industrial sector activities or lumped together with other accounts in government investment programs. On the other hand, national accounts do report gross investment in residential construction exclusive of land which is a non-depreciable asset, and of part or all of off-site services investment which appear in other accounts as related to "construction" or "social overhead investments". There is a non-linear relationship between the share of housing in GNP and the level of income of a country, the range being about 1.5 percent of GNP at the lowest levels of development to a maximum of about 7 percent for some middle and upper income countries which are urbanizing very rapidly. Given the significant infrastructure and land components missing from these estimates the financial resources required by the residential sector are seen to be quite important.

Thus, housing finance is directly related to the residential sector and indirectly to the provision of the complementary neighborhood and city-wide infrastructure which individual households cannot provide for themselves. But the role of the housing finance system does not stop at the provision of shelter, it is also very important to the mobilization of domestic savings. In

most developing countries, the household sector provides between 40 and 60 percent of domestic savings, the rest being provided either by businesses or the public sector, see Bhatt and Meerman (1978). Shelter being one of the first priorities of households and a leading reason for savings, the housing finance sector can and should play a central role in the mobilization of resources by households. Some of these savings can then be used for the immediate production of new urban infrastructure because serviced land is the critical bottleneck to expanding housing while the balance can be used to expand the directly productive base of the economy, thereby offering employment to urban and rural populations.

Housing finance systems in LDC's are seriously deficient in their coverage of populations to be served and in the quality of the services they provide. As banks they often do not fulfill their three major functions toward investment in the residential sector which are: (1) to improve financial discipline within the sector and use resources more effectively, (2) to stimulate efficient technology and appropriate planning by making resources available to innovative suppliers and to (3) mobilize household savings in financial form in contrast with savings consisting of real assets in the form of jewelry, land or equipment and materials.

III. DYNAMICS OF LDC HOUSING MARKETS AND CONTRIBUTION OF FINANCIAL INSTITUTIONS

A. Introduction

The specific problems of financing housing as one of the major sectors of the economy cannot be understood without examining first what has been learned about housing markets in developing countries. Because of the focus of many national housing policies and of multilateral and bilateral lending agencies on the problems of lower income groups, significant progress has been made in understanding LDC housing markets. We have come to realize that the examination of existing financial services was not necessarily productive because such services often are adequate for only a very small section of the housing market. In a large number of LDC's, analyzing only the formal financial sector is very much like looking at spots where the light is the brightest while missing the vast but darker area where most housing investment truly takes place. Therefore, three questions should be addressed here: What is the typical structure of LDC housing markets? How much do we know about progressive housing investment in the informal sector? What are the implications of the observed dynamics of LDC housing markets, especially for the financing of housing for low income households housing which is a priority area for public policy?

B. Three-Tier Structure of LDC Housing Markets

The dynamics of the residential sector in LDC's leads to a *three-tier market.*[1] First, at the top of the income scale we have households able to afford housing of high quality in fully serviced neighborhoods of low density which make

[1] Obviously, further market segmentation of these three categories exists and should be used for detailed planning. See, for instance, the concept of a "stock-usor matrix" developed by Paul Strassmann, (1982).

up a large proportion of the residential land of cities. The financial needs of these groups are met either through specializing housing finance institutions or through other means as their resources are substantial. Second, there is a relatively narrow strata of middle-income households who are the main users of specialized housing financial institutions, particularly public ones. This group is the major beneficiary of available public subsidies and is predominantly composed of civil servants or wage and salary earners working for large private companies and public sector corporations. The third and numerically largest group consist of low-income households whose housing is provided by the private sector often in a clandestine and illegal fashion in the sense that housing and other urban development laws are ignored or disregarded for a variety of reasons. The net result is that in LDC's only a very small part of annual housing investment receives financing from formal institutions.

C. Illustrations: Tunisia and Other Countries

Keeping in mind that there are significant quantitative variations from country to country according to their levels of income and the structure of their capital markets and financial policies, the typical LDC housing market structure can be better understood by looking at a specific country such as Tunisia.

1. The Tunisia Housing Market[2]

Tunisia is a small country of about 6.5 million people with a per capita income of $1120 in 1979 which grew at a high rate of 4.8% a year over the period of 1960-1979, with a fairly high literacy level of 62%. It is already more urban than rural (52% urban in 1980), with a declining rural population, still a rare occurrence in developing countries. These are conditions which could *a priori* be considered favorable to the development of a well structured system of housing finance.

The evolution of the housing stock over 1975-1980 shows a net loss of 24,500 units in rural areas and a net gain of over 129,000 units in urban areas. But these net figures hide a complex combination of new construction, upgrading, subdivision and demolition of units. In fact 316,000 units were constructed: 199,000 in urban areas and 117,000 in rural areas over the period 1975-80 as follows:

[2] Much of the evidence presented here is based on the 1982 Tunisia Housing Sector Review done by World Bank staff, which remains unpublished at this date.

Construction of Units	Urban Areas	Rural Area	Total
new units	199,000	117,000	316,000
demolition	60,000	141,500	201,500
net gain	139,000	–24,500	114,500
total stock	605,000	515,000	1,120,000

Modification of Units			
upgraded/enlarged	21,000	21,000	42,000
subdivided units	72,000	22,000	94,000

The number of modified units does not affect the total number of *new* units, but it certainly implies a significant housing investment concentrated mostly in urban areas.

In urban areas, in spite of the construction of 200,000 units and a 27% net expansion of the number of units, occupancy rates have increased markedly, yielding an average of 6.7 persons per unit or 2.4 per habitable room. The number of families per dwelling rose from 1.09 in 1975 to 1.16 in 1980. Over 40% of new housing consisted of one-room dwellings built by the private sector resulting in an increase in the number of urban families living in one-room units from about 17% in 1975 to 26% in 1980. Yet the good quality of construction led to a significant reduction in substandard units.

A key aspect of the housing supply situation is that about 52% of urban housing built between 1975 and 1980 by-passed municipal development regulations and outpaced the ability of the public sector to guide and control urbanization. This is all the more striking in that, compared to less dynamic and less urbanized countries, Tunisia has developed an extensive system of institutions to structure the housing sector: housing development agency (SNIT), land development agency (AFH), redevelopment agency (ARRU), financial agency (CNEL) and various financial programs (such as FOPROLOS, FNAH). Nevertheless, present Tunisia still exhibits the *typical three-tier housing market structure of developing countries:* (1) A high to middle income "legal" private sector; (2) a heavily subsidized, mostly middle-income public sector and (3) a large, rapidly growing low-income "informal" private sector which could be further broken down into a "clandestine" or "unauthorized" part of fairly good quality and "slums."

Most housing developed by the *"legal" private sector* is of relatively low density (15-30 dwelling units per hectare) with a resulting high infrastructure

development cost. This sector is largely self-financed and is therefore highly sensitive to the evolution of incomes and the propensity to save of the population. Assuming a 1980 cost of dwelling to be of the order of TD 4,600[3] and financing to a 15-year loan at 10% interest resulting in a monthly shelter cost of TD 50, it appears that only about 20% of the urban population would be able to acquire housing through this sector.

The effectiveness of the *public sector's* participation in the housing sector in Tunisia during 1975-1980 is the outcome of its triple role as developer, lender and subsidizer. As a developer it produced 41% of housing investment in value and 26% of new housing units. As a lender it provided financing equivalent to 8.8% of total housing investment, in addition it provided direct subsidies equal to an additional 5.3%.

The Ministry of Housing is authorized to license private developers to construct both private and public housing. Prior to 1975 there were only a dozen licensed developers, at present there are over 70. Their role is marginal, however, as they built only 3,700 dwellings the value of which was less than 4% of housing investment. In most cases privately developed, subsidized projects are undertaken on AFH land on behalf of either CNEL savers or the employees of such large public or semi-private agencies as SONEDE, STEG, the Societe Tunisienne de Banque, Tunis Air, etc.

The ability of current public programs to address the housing needs of lower income households is difficult to assess in the absence of precise household income data and information on the propensity to save at various income levels. However, it is possible to construct indicators of need that can be compared with the various levels of subsidization proposed by public programs. Population targeted by programs vary considerably; yet all programs, except those intended for rural or slum relocation housing, anticipate an equity contribution in the form of a downpayment of more than TD 1,000. Considering that median household incomes in urban areas are in the order of TD 1,450 per annum, 75% of state aided housing constructed between 1975 and 1980 was *not* reaching low-income households.

The *"informal" sector* is far from disorganized, although it is illegal insofar as it does not adhere to existing development standards and bureaucratic procedures and is often built on land either owned by the government or whose title is unknown. In contrast to the shanty towns of the early 1970's, it develops large residential areas of good quality which are well maintained. These *de facto* residential zones are developed at high density and without infrastructure or community facilities. The quality of construction is improving continually, in part because of the work of small builders who are willing to

[3] One Tunisian Dinar = U.S.$2.00.

take on jobs of any scale.

This type of housing is generally incremental: initially a single room is built and the plot fenced in; at an estimated cost of TD 850 this minimum development is still on the order of 1.3 times the average annual income of these households. As resources become available or employment of the household head more stable, building materials are stockpiled in the courtyard. Finally, a permanent compound wall is built and the dwelling enlarged over a period of three to five years.

To summarize this description of the typical three-tier structure of housing markets in LDC's we can look at the Tunisian situation over the period of 1975-1980 from three convergent viewpoints: (a) the relative contribution of each tier to total housing output; (b) the situation along the household income distribution of beneficiaries of each tier and (c) the scope of public and private financial institutions in the financing of total housing output. This structure is presented in summary form in *Table 1*. In terms of volume of investment it controls or regulates, the public sector is dominant in Tunisia, which is not the case in less urbanized countries. However, since a significant volume of urban infrastructure is involved, the number of housing units affected is much less in the public sector than in the private sector.

What is most striking is the undeveloped state of financial institutions mobilizing resources for housing: institutional financing represents only 7.7% of the "legal" private sector investment. This ratio rises only to 34.4% of public sector investment and 16.7% of total housing. If public sector subsidies are excluded, the share of financing by financial institutions drops to 11.4%. The detailed breakdown is presented in *Figure 1*. Compared to the level of financing provided, an important indicator of a mismatch between household needs and the financial services provided to the housing sector is that the financial agency (CNEL) has been extremely successful in mobilizing housing savings and collected more than half of all national household savings in 1983.

2. Limited Reach of Financial Institutions in Other Countries

The limited role of institutional housing finance in the provision of housing found in Tunisia is matched by the experience of other countries. In Thailand in 1981, financial institutions provided less than 33% of total investments: 76% of the institutional funds went to upper income groups, 15% to middle income groups and only 6% to low-income groups. In the Philippines in 1977 only 25.5% of housing investment was financed by institutions with a distribution of beneficiaries as skewed toward high-income groups as in Thailand. In Portugal over the three-year period 1976-1978, the average formal financing of housing investment was only 20%. There is only limited

TABLE 1
THREE-TIER STRUCTURE OF A HOUSING SECTOR: TUNISIA 1975-1980

		(1) Share of Housing Investment (millions of TD)	(2) Number of units (1,000)	(3) Households Served	(4) Institutional Financing (including subsidies) (excluding down-payments)
I.	"Legal" Private Sector	urban 268 rural 4.3 total 272.3 (34.2%)	urban 58.3 rural 6.1 total 64.4 (20.5%)	100th to 80th percentile (top 20%)	TD 21 million (7.7%)
II.	Public Sector Controlled Con	urban 265 rural 63.2 (41.2%)	urban 38.3 rural 42.1 (25.6%)	90th to 30th percentile	TD 113 million (34.4%) (including subsidies)
III.	"Informal" Sector (urban & rural)	urban 144.6 rural 50.9 total 195.5 (24.6%)	urban 96.4 rural 72.8 total 169.2 (53.9%)	50th percentile & below	zero
IV.	TOTAL	TD 796 million (100%)	314.0		TD 134 million (16.8% of column one).

Source: Tunisia Housing Sector Review 1982, The World Bank, unpublished (1 Tunisian Dinar equals US$2.00)

systematic evidence about fluctuations in the level of financing over time LDCs. During the three years for which the ratio is available for Portugal it ranged between 6.5% and 35.4%. Limited evidence from other countries indicates that these fluctuations can be sharp even over short periods of time; especially during the last five years because of overall economic conditions.

D. Progressive Housing Investment in the Informal Sector

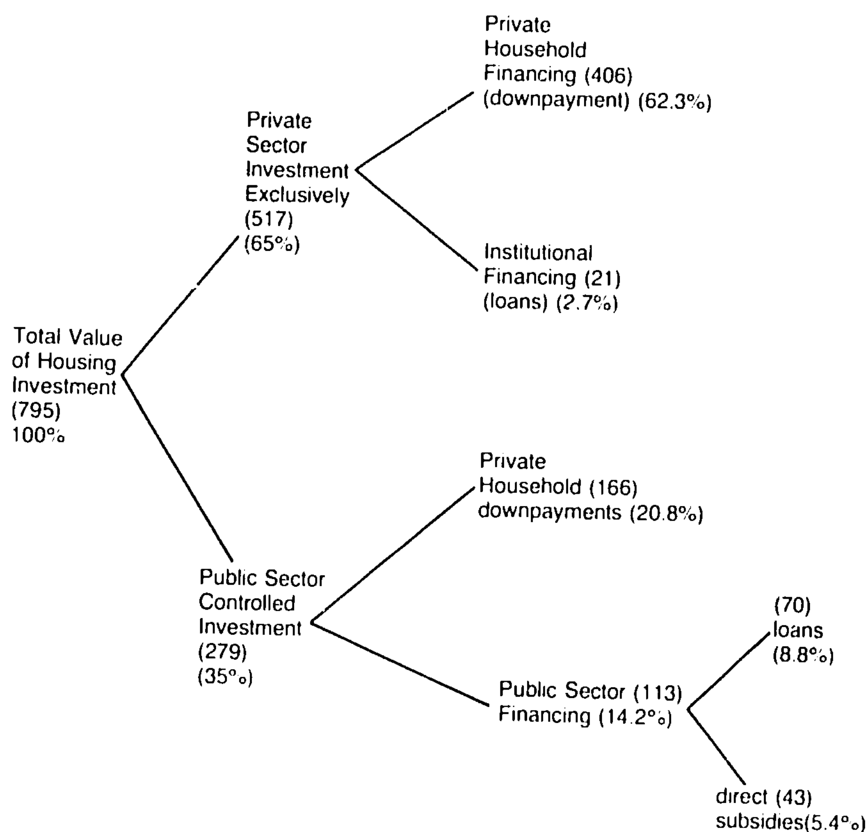
1. Policy Questions Raised by the Informal Sector

The high proportion of housing that is built in the third tier of the market without relying on institutional finance in developing countries raises several

Figure 1

TUNISIA HOUSING FINANCE SYSTEM 1975-1980

(Millions of Tunisian Dinars)



$$\frac{21 + 70}{795} = 11.4\%$$

Share of loans in total financing:
i.e., Role of Institutional financing in the provision of housing.
(If subsidies are included, the percentage rises to 16.8%.)

Source: Tunisia Housing Sector Review 1982, *World Bank*
(1 T.D. equals US$ 2.00).

major questions regarding the formulation of housing finance policies: How much is understood of this progressive housing investment process whose outcomes are everywhere to be seen? Is this kind of housing supply appropriate or does it have serious shortcomings? Is housing finance the only constraint on expanding the supply of housing? The main one? What are the significant policy implications of progressive housing investment, especially regarding the financing of low income housing?

2. Progressive Housing Investment in the Informal Sector

Without a prior examination of progressive housing investment in the informal sector, it is not possible to discuss effectively the formulation of housing finance policies toward low income households. Over the last 10 years progress has been made in understanding the dynamics of the informal housing markets and in identifying the conditions which are favorable to investments both in the production of new housing and the upgrading of existing ones. As could be seen in the case of Tunisia, progressive investment can be defined as a method of housing construction or upgrading characterized by *staged* development. It is a mode of investment in which the foundations and part of the house are built by a contractor in a fairly short period of time. Then the rest of the shelter is completed incrementally by the household which hires a contractor and/or laborers according to its current income position and the availability of construction materials; see Keare and Paris (1982).

The flexibility and diversity of housing arrangements that can be encountered in developing countries is remarkable. For instance, a variety of tenure arrangements can be encountered in most rapidly growing cities: renting a room, renting a complete unit, owning the structure built on a site over which the household has no legal control (squatting); owning the structure but holding a lease on the site; owning both the structure and the land and subletting parts of it; owning and occupying the unit and the land. A wider dispersion of income levels than in advanced economies has spawned this greater diversity of housing arrangements which can be interpreted according to four different dimensions of housing demand: the choice of tenure, the housing services provided, the demand for land, and the demand for structure.

When a household must make a housing decision it has to identify the combination of the elements of demand that is most satisfactory. It considers its employment conditions and available income, the size of the family, the savings and assets that it has accumulated, the intra-family transfers on which it can rely as well as what it can borrow in the informal or the formal financial market. In principle, the tenure decision is the most critical one for housing finance: it is the decision which differentiates housing consumption

from investment in the assets that generates the housing services. However, in LDC's the lesser degree of tenure security may prevent the use of the property as a collateral for conventional or, rather, institutional financing. It can be expected that informal financial arrangements will be tailored to the various shades of tenure that are found in the large low-income housing markets of LDC's, but very little is known yet about the various defects and market inefficiencies associated with these arrangements, particularly with regards to the critical impact that the order in which various decisions are made has on the investment.

One such important decision in the investment behavior of homeowners, at the low end of the income scale, is the taking of tenants who rent one room and share the unit with the family of the homeowner. Experience shows that these homeowners who rent rooms invest differently from those who do not. Renters appear to play a crucial role in progression of housing investment as they allow owner-investors to control a greater amount of housing equity sooner than would otherwise be possible, until the time when they reach the required level of sustained income. The renting of rooms is quite significant to low income housing policy, for instance, in the Tondo area of Manila, over 40% of owners share their units with renters, see NHA, Philippines (1982). It is already clear that prohibition against room rental in low income housing programs is not well advised, but not enough is known yet about this observed investment strategy of a large number of households to formulate better low income housing finance policies.

In spite of the flexibility of staged investment in the informal sector there are problems of lumpiness (minimal feasible investment) to overcome in achieving home ownership. Minimum consumption levels exist even in slum room rental and, as is the case in rich economies, the very poor appear to devote a much greater proportion of their meager resources to shelter than is the case for even moderately better off groups. Housing investments are not infinitely divisible and minimum resources are required to move from one type of tenure to another. A household may be squatting because it has enough resources for the structure itself, but the legal control of the land is beyond its reach and therefore it accepts uncertain tenure over the land because this reduces the price of the asset; see Dunkerley *et al* 1983. An economically successful household may change status over time from room renter to squatter; then from owner of the structure and renter of the land to owner of both. While climbing these various steps the household may also increase the level of housing services by upgrading the quality of the unit and expanding its floor area, but no obvious path in the progression has yet been documented.

3. Non-Financial Constraints on the Supply of Housing

In addition to low income levels and the difficulty of saving underscored by the pervasive pattern of progressive investment, there are other constraints of a regulatory nature which can seriously restrict the supply of housing. Whenever they are encountered, these regulatory constraints affect all income categories of the market with the possible exception of the highest income groups which can afford high quality housing.

Inadequate land registration, excessive land development standards, rent control and excessive construction standards frequently increase the difficulty of providing financing to middle-income as well as low income families. For instance, rent control in Bombay has had a very severe impact on the quality and total stock of housing available. The implementation of the 1976 Land Regulation and Ceiling Act of India has had an effect opposite to that intended by the legislators and has reduced the supply of land for housing in every city.

Because a better housing finance system is expected to increase the supply of housing and to improve its quality, it is useful to consider financial services as an input to the production of housing in a manner comparable to labor, land or construction materials and standards. It is generally the case that a series of improvements in the provision of these complementary inputs is required in order to facilitate the supply of finance and to increase housing output. Inappropriate regulations, instead of improving investment in the informal sector, make it more difficult and accentuate fragmentation in the progressive investment process.

E. Implications of the LDC Market Structure for Housing Finance

The review of the Tunisia housing market has shown how only a small proportion of new housing investment benefits from institutional financing and the discussion of progressive housing development has clarified why this happens. Even though our knowledge is not complete, the obvious questions then are whether financial institutions are needed at all and what are appropriate directions for the development of a housing finance system.

1. Multiple Benefits of Institutional Housing Finance

From an urban development viewpoint there is much scope for improving the sector. At present, middle-class and low income households are forced by poor regulations and lack of financing to develop their housing in piecemeal inefficient ways. They can produce structures of fairly good quality, but they have major problems with the provision of clear and secure tenure, water supply and sanitation and other urban infrastructures that each household individually cannot provide for itself. If more than 50% of total

housing supply bypassed local government institutions in Tunisia, it was partly because of inappropriate public regulations and also because the undeveloped housing finance system could not mobilize financial resources on the scale needed for the provision of at least on-site infrastructure. The short age of serviced land would be lessened if residential construction by private as well as public developers could be supported by large scale, flexible institutional financing over all phases of housing development: land development, construction, interim financing and mortgage financing.

There is a circular causation between the provision of secure, serviced land and increased savings by households. At present most household savings are not mobilized in financial form by regulated financial institutions. Homeownership is the highest priority for asset formation for most households in any country and housing finance programs should be developed to trigger and mobilize household savings with the help of efficient financial instruments. Present methods of financing involve high risks and large transaction costs compared to the sums involved; they are neither very good for the user of funds nor for the provider of funds who should be offered more flexibility, more security and higher yielding saving instruments. In the progressive development method of housing there is no requirement that a young household move through each investment step in a predetermined way over the life cycle of the family. In fact the object of public policy could be described as making several of these steps unnecessary by reducing existing constraints in the supply of land, public services and the provision of housing finance. Finally, by increasing investment opportunities housing finance stimulates also the growth of a sector that generates between 15 and 30% of total national investment every year and is a leading generator of low to medium skill jobs requiring only a limited amount of foreign exchange compared with other investment sectors.

2. Policy Implications

The dynamics of the housing market as it is observed in developing countries has strong implications for housing finance policies toward the informal sector.

The heterogeneity of the informal sector indicates two distinct but complementary policy directions: at the upper end of the informal market the housing policy objective is to increase the reach of the legal sector into the low-to-middle income "clandestine" or extra-legal market which involves considerable resources. This requires a redirection of financial institutions concurrently with the reduction of irrealistically high design and buildings standards, a review of the impacts of land regulations, improved land administration to clarify ownership conditions. and a review of occupancy and ten-

ure protection laws which virtually preclude households from being evicted for non-payment of debts such as mortgages. Once these constraints are removed the rate of return of both public and private investment in the sector should be considerably improved. Beyond that the design of better adapted instruments will improve the quality of services by financial intermediaries.

Increasing the penetration of the legal sector could be compared to a portfolio allocation problem. As can be seen in Table 1, Tunisia could increase the number of units produced without even expanding the financial resources required if smaller, cheaper units could be traded-off for larger more expensive ones and/or larger down-payment required. At present, the legal private sector controls 34.2% of housing investment and produces only 20.5% of the units; even more serious, given the intended social role of the public sector, public sector controlled units absorb 41.2% of resources and represent only 25.6% of all the units produced; together the legal private sector and the public sector absorb 75.4% of resources to produce 46.1% of the units. If expansion of financial resources together with resource reallocation at the margin could be achieved, the impact on the number of units produced would be quite significant.

At the lower end of the income scale the situation is quantitatively and qualitatively different, especially for low income countries. In such cases, the public sector priority lies in mobilizing resources and developing specific programs with a major focus on urban public infrastructure and the rapid supply of serviced land—on the "public goods" which households cannot provide individually—while allowing private formal or informal arrangements for the financing of the housing units themselves. It is an open question whether both upper-end and lower-end programs can be executed by the same institution: sources of funds, populations to be served and types of output are all different.

3. Financing Low-Income Housing

The problems of financing low income housing continue to be vexing ones for national governments. The orientation of most international development agencies regarding housing and urban residential investment can be summarized in six points: (a) to improve substantially the low-income housing situation; (b) to provide affordable standards of construction and infrastructure; (c) to ensure the financial viability of the institution involved in the sector and the replicability of the operation; (d) to improve cost recovery in order to eliminate, or at least reduce significantly the need for subsidies from public funds; and (e) to maximize the contribution of urban investments to the local and the national economy and (f) to improve the domestic mobilization of resources for the sector.

At present, part of the difficulties in formulating programs arises from the lumping together of public policies concerning a wide spectrum of significantly different households. As noted in the example of Tunisia, there is scope for significant improvements in the "clandestine" or "unauthorized" sector of the markets which is made-up of low and middle income households. On the other hand, the problems raised by the residents of slums are quite different. In general the latter have neither the equity base nor the capacity to borrow to achieve some form of fully legal ownership. Only a minority among them could contemplate financing on terms comparable to the better-off groups in the "unauthorized" settlements. The problem is not to finance housing but basic infrastructure, sanitation and neighborhood services which are the first priority over the building itself. The minimum amount of services that they deserve is in the nature of a "merit good" and typically involves some form of direct subsidy or cross-subsidy.

The progressive investment pattern and the wide variety of methods used in the informal sector to mobilize resources lead to the central question of LDC housing finance: to what extent and under what conditions can housing finance institutions grow out of the extensive interpersonal networks which represent up to eighty percent of housing investment resources? In other words, how do you correct the mismatch between the financial services that institutions can provide on one hand and the equity base and borrowing capacity of LDC households?

There are familiar and important limitations to the income qualifications required from potential borrowers: an adequate level of income, regular stable employment, a verifiable income and satisfactory collateral, i.e., collateral in the form of conventional marketable assets. There are also restrictions on loan terms which make access to financing difficult such as: minimum sizes of loans that are too large, high downpayments in absolute terms and small loan-to-house value ratios, very long maturities out of all proportion with of many low-income households the short time horizons, requirements for fixed and regular amortization payments, inconvenient office locations, high housing finance cost burdens, complex loan terms and conditions which are difficult to understand and/or to comply with; see United Nations (1978).

Addressing this question more fully requires a discussion of resource mobilization and capital markets in developing countries. However, at the end of this review of the housing market one can already anticipate two types of barriers to institutionalization. The first one is technical and relates to economies of scale and efficiency in the provision of financial services. The second could be labelled socio-political and relates to the reluctance of many participants of the informal financial markets to rely on public sector organizations or government regulated banks. Even for business activities most

potential borrowers would rather join trade organizations and enter into financial arrangements run by a private group for several reasons but most particularly to avoid contact with tax agencies. This is particularly true at lower levels of development in Africa.

Public policy is expected to encourage the growth of rotating credit associations, credit unions and cooperative movements stemming from present interpersonal networks based on common trade, family, religion and province of origin. Such an objective is very difficult to pursue because in most countries public authorities restrict the definition of housing policy to what the government and public agencies can do in housing and to the allocation of public resources. For international organizations, it would be even more difficult to set-up "a non-conventional housing credit intermediary" where "efforts should first be devoted to organizing formal and/or informal groups." as is sometime proposed; see United Nations (1978), p.109. In India, for instance, official support to the housing cooperative movement has led to its increasing identification with public sector activities and dependence on public resources. Managers of state level cooperatives identify themselves easily with officialdom and cooperative membership is essentially middle- and upper-middle class and has for its main objective to gain easier access to tightly regulated resources such as serviced land or preferential financing.

The question of how one can move from one-shot financing operation by groups of relatives and friends to the institutional financing of low-income housing must now be examined from the viewpoint of capital markets.

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IV. HOUSING FINANCE INSTITUTIONS AND CAPITAL MARKETS

A. Introduction

The examination of the housing market side of housing finance intermediaries has shown that policies toward the financing of housing must address two distinct problems: one is to deepen the reach of financial institutions into the upper part of the informal sector, the other is to locate the resources necessary to provide the lowest income groups with the basic services (the public goods) which they need and which public policy has determined they should have. It has also shown that the availability of financing is not the only constraint on expanding the supply of housing and that there are also regulatory and income constraints operating on the housing market. It is now necessary to consider the extent to which capital market constraints also contribute to making institutional financing such a small proportion of total housing investment in most LDC's. The anticipated benefits of financial intermediation are already clear, but what are the characteristics of housing finance that differentiate it from the other sectors? What are the functions that a housing finance system is expected to play? How is its growth linked to the overall level of financial development in a country and to the development of long-term credit markets? In other words, what is the dynamics of capital markets and what is its impact on housing finance?

B. Level of Economic Development and Supply of Financial Resources

At any given time, the pool of financial resources available in domestic capital markets is finite and from the viewpoint of finance ministries or national planners to give more resources to housing, or industry, or agriculture, means to give less to some other sector. It is beyond the scope of this paper to discuss in detail the factors determining the total volume of financial savings at various levels of development. But many housing policy reviews would have benefitted from taking closer account of the level of development of the capital markets, their actual size, and the degree of priority given to housing in comparison with other sectors. Too often projections of future housing output

based on "needs" are inconsistent with the financial resources available, even after taking into account the role of the informal sector.

To characterize the level of financial development of various economies, theorists often refer to their "financial deepening" and to the extent of "financial repression". Financial depth reflects the degree of development of the financial sector and how it is expected to increase with the level of income. It shows how far a country has progressed from self-sufficiency in the rural areas, to barter, to trade based on money, to fiat money and beyond to the use of a whole range of financial instruments. However, two countries with similar levels of per capita GNP do not necessarily show the same degree of financial depth. Financial repression refers to the inability of financial services to grow as rapidly as could be expected in view of the growth of the economy. Financial repression occurs when lenders and borrowers by-pass official institutions due to over-regulation and is essentially caused by government attempts to maintain nominal interest rates below inflation rates as well as other regulations aiming to force interest rates below the cost of capital. Thus one expects the degree of financial depth of an economy to be a first indicator of the extent to which the housing finance system is developed and of the degree to which it would be possible to make improvement without requiring also major changes in other parts of the system. In the case of housing finance institutions, financial repression leads to a larger role for the informal sector than economies of scale and transaction costs in the production of financial services might justify.

For a very long term perspective on financial development, the growth of the U.S. system measured by the assets of financial intermediaries averaged over 10-year periods has been estimated as follows in 1982 dollars: [1]

Year	Financial Assets per Head ($)	Year	GNP per capita($)	Ratio
1850	108.95	1869-1878	1,512	7.2%
1880	273.85	1879-1888	2,205	12.4%
1900	712.01	1900	2,880	24.7%
1929	2,009.22	1929	4,760	42.2%
1949	2,830.78	1949	6,187	45.8%
1952	2,999.44	1952	7,169	41.8%

[1] See Raymond Godsmith, *Financial Intermediaries in the American Economy since 1900*, N.B.E.R., Princeton University Press, 1958. Table 8, p.62. Note that the figures presented are distorted by the change of index base: the original Goldsmith asset estimates were calculated in 1929 dollars and the per capita GNP figures were originally estimated in 1958 dollars; see *Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Issue*, Bureau of Census, U.S. Department of Commerce, p.258.

Both rising incomes and changing financial technologies have been important factors in the growth of the U.S. financial sector.

The International Finance Corporation has compiled ratios for selected countries in 1977 to facilitate comparisons of financial depth and illustrate its link with the income level, see IFC, 1980. Table 2 presents these ratios grouped by region and ranked according to per capita GNP. The indicators presented are: M-1 money, "broad money" or M-7 (defined as a financial aggregate composed of: currency, all deposits and any financial instrument with a maturity of one year or less); "commercial bank assets;" "other deposit bank assets" which include housing finance institutions, savings and other deposit intermediaries such as postal savings systems; "Total Deposit Bank Assets," which is the sum of the first two; and, finally "Total Financial Aggregates" defined as the sum of total deposit bank assets and outstanding securities.

As could be expected, the monetization of the economy rises rapidly with the level of development. However, while M-1 and M-7 rise most rapidly at low to modest levels of development, M-1 begins to level off relatively soon; at high income levels it even declines as the technology permits other means of payment. These patterns are also applicable to "broad money" M-7 although they are less distinct and the range of variation is significantly wider. The deepening of the financial system with economic growth is also quite obvious, but the relationship is not linear with GNP because the ratio of total financial aggregate to GNP is also influenced by the degree of financial repression, inflation and hyper inflation.

For instance, in the East Asia region, financial depth increases with per capita GNP very markedly (see Table 2, column 6). On the other hand, the degree of financial depth in Latin America is less than could have been expected because of inflation as seen for Chile and Brazil. Similarly, the degree of government control, credit allocation and manipulation of interest rates appears to lead to much smaller financial systems as appears to be the case for Turkey. This situation can be contrasted with a more positive approach to the development of financial services in Thailand and the Philippines which has resulted in greater financial depth at much lower levels of income. Another factor at play is the role of foreign banks as in the case of the African countries represented here. Unfortunately, the degree of development of long-term credit markets which is especially important to housing finance cannot be established from the data of Table 2. Still it is worth noting that there appears to be a non-linear positive relationship between level of

TABLE 2
INCOME LEVELS AND DEVELOPMENT OF FINANCIAL SYSTEMS
(Financial Depth)

Region and Country	(1) "M-1" Money	(2) Broad Money "M-7"	(3) Commercial Bank Assets
(Percent of GNP, 1977-78 - US dollars)			
East Africa			
Kenya	21.8	32	28
West Africa			
Senegal	22.3	28	50
Nigeria	18.7	34	32
Ivory Coast	24.2	33	29
East Asia			
Indonesia	10.0	17	19
Thailand	11.3	42	42
Philippines	9.0	41	44
Korea	10.8	42	64
South Asia			
India	13.7	43	38
EMENA			
Morocco	35.1	39	27
Jordan	–	66	55
Turkey	20.2	23	22
Portugal	41.4	82	58
Spain	28.0	75	52
LAC			
Bolivia	10.2	14	16
Colombia	12.9	23	17
Ecuador	15.4	23	31
Dominican Republic	12.4	29	32
Mexico	10.3	25	11
Chile	4.7	16	21
Brazil	12.2	36	22
Argentina	6.6	29	28
Industrial Countries			
United Kingdom	15.4	56	121
Japan	31.1	116	74
France	25.8	87	56
Netherlands	23.3	89	62
Germany	16.7	73	36
U.S.	16.7	66	67

(4) Other Deposit Bank Assets	(5) Total Deposit Bank Assets	(6) Total Financial Aggregates	(7) Per Capita GNP 1978
8	36	57	330
n/a	50	52	340
n/a	32	39	560
6	35	37	840
n/a	19	19	360
6	48	63	490
4	48	74	560
38	102	123	1,160
2	40	58	180
5	32	36	670
8	63	113	1,050
(–)	22	22	1,200
19	77	n/a	1,990
26	78	122	3,470
1	17	17	510
6	23	29	850
(–)	31	41	880
3	35	n/a	910
15	26	32	1,290
8	29	40	1,410
20	42	57	1,570
3	31	35	1,910
3	124	199	5,030
56	130	204	7,280
33	89	112	8,260
34	96	135	8,410
64	100	145	9,580
32	99	221	9,590

development and the proportion of assets in GNP in the same manner that the share of housing output increases with the level of income as mentioned earlier; see also Leland S. Burns and Leo Grebler (1977).

In spite of the direct relationship between level of economic development and the growth of financial institutions, the variability in the volume of financial savings within a group of countries of comparable per capita income is great; it is also significant within a country over time. The growth of housing finance institutions is dependent on and contributes to the rise of the national volume of financial resources. It is necessary to consider now the problem of resources mobilization which is one of the three major elements of what has been defined earlier as the housing finance problem.

C. Resources Mobilization and Constraints on Housing Finance

There are essentially six ways to mobilize resources in an economy: (a) public sector savings through taxation and a positive balance in the government current accounts, (b) savings by public sector enterprises (especially in the energy sector), (c) inflationary financing, (d) private savings by the corporate sector, (e) private savings by the non-corporate sector including personal savings, and (f) foreign borrowings. In the national accounts the relationship between aggregate domestic savings and financial savings is not rigid: a country can have a good savings rate of the order of 20% to 25% of GNP with financial savings significantly below that ratio. The gap is generally due to the dominant role of savings retained by businesses and households in the form of non-financial assets, which is seen in the form of real as opposed to financial investment.

The level of aggregate domestic savings and the methods chosen to mobilize resources constitute macro-economic constraints of significance to the potential growth of housing finance institutions. If the national savings rate is very low the economic environment is not going to be favorable to the growth prospects of housing finance institutions. In addition, financial authorities will not pay them much attention because the problem is likely to be the lack of control over public sector expenditures and poor management of public enterprises and that will demand all their attention. Moreover, the housing finance system tends to be small and underdeveloped compared to the banks and the other financial intermediaries. On the other hand, to the extent that housing institutions rely on private non-corporate savings, they depend on the healthiest source of savings in the economy.

For instance, a recent study of private savings mobilization based on 1973 data for 26 African countries shows that the ratio of gross domestic savings to GNP varied enormously that year from -2.2 percent in Upper Volta to 33.7% in Algeria. Variations in public savings were even wider, and private

savings which represented 83% of total domestic savings for the entire sample played a stabilizing role for the level of aggregate savings. In Mali, where public savings were negative, private savings were positive and amounted to 5.7 percent of GNP. In Nigeria, aggregate savings were 29.8 percent and public savings were 18.6 percent, implying a less dominant investment role for private savings that year. Note again that high aggregate levels of savings do not imply that all or even the greatest proportion of savings mobilization took place through the financial sector. In Africa, in particular, the informal sector is very important. For more details, see Sani Geadah, August (1981).

When governments resort to inflationary finance, the prospects for a healthy housing finance system are dim because inflation is essentially a tax on money balances, which discourages financial savings. The housing finance sector is often more severely affected by such policies than other sectors because governments typically establish nominal interest rates for housing below inflation rates in the name of social objectives and for political reasons: the consequence is that interest rates are low but there is little mortgage money available to lend. In addition to its impact on savings mobilization, inflation also deeply affects the demand for mortgage credit.

Another important macro-economic constraint with which the housing sector has to contend is the perception of housing as a consumption item and the low priority that the sector typically receives in national plans. This low degree of priority accorded to housing is essentially a political decision which is dictated by national preferences, the level of urbanization of the country and its rate of growth. The opportunity cost of capital and the rate of return to other types of construction activities are such that the share of GNP going to residential construction is relatively low (1% to 1.5%) at low levels of economic development and rises with the income level and the associated level of urbanization (up to a maximum of 6.5 to 7.0%).

There are common features of resources mobilization in developing countries. Public sector savings through taxation and a positive balance in the government current accounts have typically not exceeded 3% of GDP in the past, except in countries such as Korea and Brazil during their period of very high growth. Savings through public sector enterprises have proven very elusive since many utilities and public sector firms are prone to running deficits. Corporate savings have not played a dominant role because of the smallness of the sector in many LDC's. Inflationary financing, while tempting to governments because it generates forced savings, has too many drawbacks for the growth of the financial system and the external competitive position of the economy. Finally, reliance on foreign borrowings is now running up against sizeable foreign debt burdens and expanding foreign loan

amortization requirements in most LDC's during this decade.

For all these reasons the household sector is of crucial significance: as noted earlier, in most low-income and middle-income countries it represents between 40% and 60% of domestic savings. It is the household surplus sector where savings exceed investments permitting the growth of the public and the corporate sectors which are deficit sectors and borrow from the household sector. Raising the household level of saving and improving allocation through efficient resource mechanisms is very important. The housing finance system has its role to play in utilizing savings in coordinated fashion with other financial institutions serving small and medium-size family-controlled businesses. It is necessary to develop convenient financial instruments, to offer facilities for borrowing at reasonable terms and to provide financial assets as an alternative to retaining earnings and savings in inefficient low return forms.

1. Household Income and Savings

a. Income Level, Household Income Distribution and Savings

The possibility of mobilizing personal savings through a formal housing finance system is dependent on the per capita income level of a country. In addition, the income distribution has a strong influence on the organization and behavior of the housing finance system. This obvious constraint is clearly seen in the pattern of savings by household income deciles in Sri-Lanka, Malaysia and Taiwan which are three Asian countries with significantly different per capita income levels. We have the following patterns in household surveys:

	Per Capita Income 1979	Expenditure Share of Lowest 40% Households	First Decile showing Net Savings	Average Savings Ratio of Households
Sri-Lanka (1970)	$ 230	21.2	8th	–0.3%
Malaysia (1974)	$1,450	13.8	5th	15.5
Taiwan (1973)	$1,900	20.6	1st	15.1

(Source: Pravin Visaria, *Poverty and Living Standards in Asia*, October, 1980, The World Bank)

In Sri-Lanka where per capita income is low, it was very difficult in 1970 to save at all levels of income and only the highest 8th, 9th and 10th decile show positive savings. In Malaysia in spite of a much higher level of income, only the six top deciles are consistent savers as a group, partly because the income distribution is more skewed than in Sri-Lanka and Taiwan, two economies noted for their high degree of economic equality. In fact, in Taiwan all

household deciles were saving in this 1973 survey.

Even though Malaysia and Taiwan show comparable average saving ratios over all households, the housing finance system that could be developed in Taiwan on the basis of the existing structure of *financial* savings could be more extensive and more diversified than in Malaysia. In fact, a housing finance system mobilizing household savings directly can have a broader social base than is indicated by the net savings per decile shown by surveys because within each income decile a significant proportion of households are able to save. In Sri-Lanka 11.3% of households in the lowest decile saved, in Malaysia 15.5% and in Taiwan 80.1%. Evidence for Mexico and other Latin American countries shows similar conditions.

In the specific case of low-income households, the number that could be served by general financial institutions will generally not be large in spite of the significant proportion of households that is savings in cash form for essentially three reasons: (a) their incomes are very irregular, (b) the preference for direct interhousehold transfers is very high and the proportion of dissavers remains higher than that of savers, and (c) the transaction cost of relying on formal financial institutions may be very high because available methods of savings collection and loan origination are not adapted to the special needs of very low-income groups, see D. Kaufmann (1982).

b. Ownership Opportunities and Saving Response

During the last ten years of low income housing experiments it has been confirmed that home ownership can be a powerful motivator for saving even by very poor households. Surveys of beneficiaries of low-income housing projects who obtained their housing under hire-purchase agreements show that they were able to mobilize a significant amount of resources for down payments through interhousehold transfers and that consumption patterns were modified significantly to maintain monthly payments.

For instance in India, in the case of households with income not exceeding Rs. 350 or US $38 per month—the social group designated as EWS: "Economically Weaker Section"—the sources of the down payments were found to be: [2]

Own Savings:	43%
Loans from Friends and Relatives:	40%
Loans from Banks:	6%
Withdrawal from Provident Fund:	4%
Gifts:	3%
Mortgage or Sale of Property:	4%

[2] Mulkh Raj, Allotment of a House on Hire-Purchase and its Impact on Savings and Consumption Expenditures, HUDCO, New Delhi, June 1982.

It was strongly felt by the analyst that the 40% share of down payments due to interhousehold transfers could not have been mobilized for other purposes than housing.

It was also found that the purchase of a house leads to an increase in savings and a noticeable fall in the percentage of expenditures on entertainment, clothing, transport, etc. Most importantly, the zero savings rate prior to purchase became positive even after excluding monthly payments as a form of savings-investment. Monitoring of projects in El Salvador suggests also that household secondary workers had more incentive to work to cover increased housing payments. The figures for the EWS group in India were as follows:

Expenditures	Percent of Income 6 Months Before Purchase	Percent of Income 6 Months After Purchase
(1) Food Items	63 8	56.8
(2) Education, Entertainment, Clothing, Books, Transport	30.4	19.0
(3) Rent or Monthly Payment	5.8	17.9
Savings	zero	6.3

These data show that under very adverse conditions the desire to own housing with the upward social movement that it implies can be a powerful saving motivator. However, when considering the savings propensity of very low-income groups at any given time, one should differentiate between the ability of a minority of poor households to mobilize savings for housing and the fact that, as a group, households in low-income deciles are not able to save much even in the form of non-financial assets. [3]

While the objective of owning a house can trigger positive savings on the part of poor households which have the *actual* opportunity of acquiring a unit, as seen in the Indian survey, a significant saving capacity already exists as one moves up the income scale. The problem there is that inflation, inadequate financial services, inaccessible facilities or low levels of literacy combine with traditions to induce savings in real, safe and generally very illiquid assets. A survey of potential depositors in Morocco which covered *mostly salaried* workers showed that 63% had accumulated savings. [4] Among those

[3] A comparable unwarranted extrapolation has sometimes been used to justify slum clearance: it was said that because a minority of slum residents (10% to 15%?) in a certain area can afford standard housing elsewhere in the city but choose not to move, all other area residents could also afford to move and, therefore, the slum could be cleared.

who accepted to give estimates of these savings, the structure of savings showed that only 17% took the form of financial savings deposits. The reported breakdown was:

Real Estate:	21%
Jewelry:	18%
Precious Objects:	9%
Monetary Savings:	52%
Consisting of:	
– cash kept at home	26%
– cash in the bank	57%
– National Savings Bank (C.E.N.)	5%
– Postal Savings	5%
– Others	7%

It is an open question whether such a portfolio distribution of savings is consistent with the relative risk of various types of assets. The large proportion of monetary savings in the form of cash balance shows why it is tempting for so many governments to rely on inflationary financing of their programs. As could be expected, the portfolio composition changed with the volume of assets:

Class Level of Assets	Cash Balances or Financial Savings (%)	Jewelry (%)	Real Estate (%)	Other Valuables (%)
0 – 10,000	58.8	24.8	--	16.5
10 – 20,000	64.1	27.5	–	8.3
20 – 30,000	53.9	24.0	17.6	4.4
30 – 40,000	59.5	7.4	14.5	18.5
40 – 50,000	42.8	8.3	48.9	–
50 – 100,000	36.7	4.5	58.8	–
100,000 +	19.8	4.6	72.5	3.1

This survey does not indicate directly the income level of savers, but by comparison, the poverty line in Morocco in 1980 was estimated to include 28 percent of the population and monthly household incomes were estimated by the World Bank as follows: for the Second Lowest Decile (D_2): DH 800/month; Third Lowest Decile (D_3): DH 930/month; Fifth Decile (D_5): DH 2,000/month. The positive relationship between the level of savings and the

[4] Source: Credit Immobilizer et Hotelier, Casablanca, Morocco. Unpublished survey, June 1980, Dh 1.00 = US$ 0.187 as of December, 1981; 59% of the survey respondents had a monthly income under DH 2,000.

proportion of real estate in the asset portfolio of Moroccan households—except for the top 5% which have a very different behavior—is a pattern which prevails almost everywhere. The reliance on cash balances, jewelry and other valuables at lower levels of savings suggests the difficulty that a financial system has in offering safe and attractive types of financial assets and the unrealized potential for expansion of a housing finance system.

c. Employment Conditions and Household Income Stability

The type of jobs held by household members and the others sources of household income have a crucial impact on the diffusion of housing financial services among households and on the kind of clientele that housing finance institutions usually serve. A major dichotomy exists between wage and salary earners who are the prime target of housing finance institutions and self-employed workers who experience considerable difficulties in gaining access to housing finance.

For instance, in many African countries the small size of the formal sector and its very high content of public sector employment has had a significant impact on the types of housing finance systems that have developed. Some estimates of public sector and formal employment in these countries are:

Country	Year	Percentage of "Formal" Employment in the Active Population	Share of Public Sector Employment in the "Formal" Sector
Ghana	1972	10.1%	73.9%
Tanzania	1974	6.3%	66.4%
Zambia	1976	14.2%	71.5%
Ivory Coast	1970	10.2%	–
Kenya	1977	12.5%	41.7%
Malawi	1976	9.6%	39.2%
Uganda	1970	5.9%	42.2%

(*Source:* World Bank, *Accelerated Development in Sub-Saharan Africa*, 1981, p. 41)

Because of the continued effect of a low level of income on financial savings and of the small proportion of formal sector employment, most African housing finance systems remain at an embryonic stage. In addition, because of the very high percentage of public sector employees in the formal sector, whatever housing finance programs exist have been tailored to their needs. The consequence is that the social housing programs involving elements of income redistribution have been turned *de facto* into fringe benefits and

transfers to public sector employees.

In countries where the majority of the households draw their income from the informal sector in an irregular way from month to month, financial institutions need to adapt their operations to meet the need of their clientele. Housing banks which are already short of funds are not interested in self-employed households as potential borrowers because they find it too difficult to determine income sources and borrowing capacity. Since they have little hope of receiving a mortgage in later years, self-employed households lose interest in making deposits in these housing finance institutions. The paradox is that because of the irregularity of their earnings self-employed workers do tend to have high marginal savings rates which are not capitalized upon by financial institutions.

In addition to the source and regularity of income there are other factors affecting household savings such as wealth, interest rates, the price level and its stability, demographic characteristics and the family life-cycle, the socio-economic characteristics of the population and interhousehold transfers as well as the financial structure of the country. In developing new financial instruments for a housing finance system these factors should be reviewed and the evidence on local conditions carefully evaluated. Even though there are still many grey areas surrounding the determinants of savings behavior many housing finance reviews tend to stress qualitative institutional and legal aspects at the expense of more complete quantitative evaluations. [5]

2. Resources Mobilization and Housing Policies

If there is one characteristic of the housing finance work done by the World Bank during its first generation of projects that stands out, it is the almost exclusive concentration on accessibility to financing and on the problems of beneficiaries. [6] Discussions concerned with savings mobilization have dealt with the determinants of household savings and the proportion of income that could go into housing. Little attention has been paid to savings mobilization by financial intermediaries and the problem of developing viable systems of savings for housing finance.

This limited attention paid to savings mobilization resulted from the priority given to designing affordable projects for the majority of the urban population and to the almost exclusive involvement with public sector construction

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[5] For a review of savings behavior, see Katrine W. Saito, *The Determinants of Savings Behavior: A Survey of the Evidence*, Studies in Domestic Finance No.35. Public and Private Finance Division, D.E.D., The World Bank, 1977.

[6] See World Bank, *Learning by Doing: World Bank Lending for Urban Development, 1972-1982*, Washington, D.C., 1983.

agencies rather than with financial institutions. Whenever financial institutions were actively involved, it was mostly in a mortgage loan servicing capacity.

In addition to the high priority given to designing appropriate urban projects for low-income groups, a more fundamental factor may have been at work in many countries: it is that savings mobilization is generally inconsistent with policies of low-interest lending. As was pointed out recently by Vogel in the case of agricultural finance: "Savings mobilized by financial institutions at relatively high cost cannot realistically be on-lent at low rates of interest. In addition, officials of financial institutions have so far found it easier to bargain with their own government or international donors on conditions for obtaining subsidized resources than to face the task of mobilizing savings from the rural population.", see Vogel (1981). He goes on to say that "the desire to maintain subsidized low interest rate lending policies and not the arguments against savings mobilization, is the main reason for the neglect of savings mobilization."

In all urban projects the level of interest rates has been a difficult issue to resolve because of the great reluctance to raise them on the part of the country agencies involved and also because the broader system-wide financial implications of significantly positive interest rates cannot be treated easily within the context of a relatively limited, single urban project. The question has been the same everywhere: "should the international lender recommend positive, real lending rates to the institutions through which it lends for a specific project regardless of the rates being charged by other financial institutions in the country?"

In the urban sector the necessity for international lenders to move from demonstration projects to fully developed sector lending combines with the scarcity of international capital and high interest rate levels to make it necessary to look at savings mobilization and housing finance system in a more systematic way. Internally, the scarcity of foreign capital and high debt levels are leading member countries to take a harder look at the mobilization of domestic resources: given the low foreign exchange component of urban investment, LDC governments expect urban investments to draw essentially on domestic resources.

3. Benefits of Positive Real Interest Rates

Nowhere has the confusion of public policy objectives between the expansion of a viable housing finance system and the distinct and specific needs of public programs for the lowest income groups been as harmful as in the setting of inadequate interest rates for the entire housing sector. Positive *real* interest rates to savings depositors constitute a crucial requirement for

the development of financial services. Poorly designed low interest rate lending policies for the housing sector prevent resources mobilization and have four undesirable consequences: (a) they have a negative impact on income distribution, (b) they distort resource allocation, (c) they affect the viability of financial institutions and (d) they blunt project incentives.

A policy of low interest loans typically leads to a concentration of a small number of relatively large loans to better-off households. Low interest leads to an excess demand for credit which financial institutions will be obliged to ration as best as they can. Confronted with an imbalance between their assets (loans) and liabilities (deposits), the most rational strategy is to minimize the cost and the risk of providing financial services by avoiding borrowers without good collateral and who are costly to serve. If regulations impose on housing finance institutions to target some of their loans to low-income borrowers, financial institutions will also attempt to ration loans away from them by raising transaction costs (limited location of branches, reduced hours, extensive paperwork, etc.). The discussion of housing finance found in the World Bank's staff appraisal reports consistently comment that existing institutions are confining their resources to a very narrow group of middle-income households.

Low interest rates (particularly, negative *real* interest rates) prevent housing finance institutions from fulfilling their role as financial intermediaries. If they are forced to lend at unrealistic low rates, housing finance institutions will have little incentive for savings mobilization and will rely on central bank rediscounts, government loans and/or budgetary allocation if they are in the public sector and loans from international donors. It is much faster and much cheaper to them than opening and maintaining branches close to depositors.

Essentially these housing finance institutions stop functioning as true financial intermediaries collecting relatively small deposits from a broad base of depositors while making loans that are on average larger to a more limited number of borrowers; they are also unable to mobilize long-term credit from the capital markets on a competitive basis. The lack of services to small depositors deprives low-income households from earning positive real interest on the small amount of savings that they typically keep for emergency needs. The cash that they keep is then exposed to the "inflation tax", and the other inflation hedges that they have such as jewelry and other valuables involve such high transaction costs for conversion into cash that savings are discouraged. As the Indian surveys of project beneficiaries show, when safe savings vehicles are made available to them even low-income households can make remarkable saving efforts.

The *second* important reason for strengthening financial intermediaries, and among them housing finance institutions, is that when the right services are available, resources are moved away from non-productive investments such as the large proportion of inflation hedges noted in the case of Moroccan savers. However, improving resources mobilization by providing adequate returns to the depositors of housing finance institutions is difficult to implement in heavily regulated banking environments.

Aggressive savings mobilization through housing finance institutions is generally discouraged by national economic planners as simply leading to a transfer of resources to the housing sector at the expense of higher priority sectors. To this it can be replied that if depositors are moving their deposits it must be because they are better off and that it will be the institutions earning the higher returns on their assets which will be able to compete most effectively for deposits and household savings. The need for more effective savings mobilization through the housing finance system has sparked lively debates in advanced countries on the merits of specialized housing finance systems in order to insulate the housing and residential construction sector from the impact of inflation and business cycles. [7]

In housing finance, savings mobilization has been closely tied to government social objectives and subsidies. Arbitrarily low interest rates are a threat to the viability of housing finance institutions. This threat explains the great reluctance that market-oriented institutions have either to developing or to taking over low-income programs sponsored by the government in many countries. In particular, even if they have attracted massive volume of funds by providing positive real returns to depositors as was the case in Korea in the mid-1970's with the "Workers Assets Formation Savings Program," they may not be permitted to lend these funds at rates that would provide positive spreads. The Korea Housing Bank (KHB) survived financially because about 50% of the resources so collected were then mandatorily redeposited in the National Investment Fund supervised by the Bank of Korea, carrying high interest and used for heavy industry investment programs. In addition, the government directly subsidized the interest paid on deposits and cheap resources were also mobilized through the compulsory sale of bonds with considerably negative real interest to the purchasers of expensive houses, cars, etc. This convoluted form of intermediation mixing housing and non-housing objectives has been replaced in 1981 by a clearer structure with two separate windows under the same KHB roof: a market-oriented KHB structure and a National Housing Fund financing low-income housing with resources coming from public subsidies, compulsory housing bonds and a

[7] See for instance the reports of the OECD Financial Market Committee on *Housing Finance, Present Problems*, OECD, Paris 1974 and *Flexibility in Housing Finance*, OECD, Paris 1975.

lottery. One of the reasons for this reorganization is that housing and urban investment has recently been assigned a much higher degree of priority to stimulate the Korean economy and generate employment through the construction sector.

The *third* benefit of household savings mobilization through housing finance institutions is that financial intermediaries who serve a large number of depositors and borrowers have a much more accurate knowledge of their current and potential markets, are more efficient in their loan origination and servicing procedures and are less likely to incur high rates of delinquency and default than institutions which are acting as pass-through agencies for public funds. This is why there is always a great deal of interest in the growth of housing financial intermediaries mobilizing resources directly from the public such as building societies, savings and loan institutions and mutual savings banks. They are more apt to know their local market thoroughly and to be effective at cost recovery than agencies depending on public funds or international donors for their viability and the expansion of their activities. Also, it is possible that potential delinquent borrowers are likely to be more responsible if the funds they have received originate from their own community. But the development of local level intermediaries must be closely tailored to the rest of the banking and housing finance environment.

There seems to be little alternative to these full local housing finance intermediaries if the needs of self-employed households are to be met. Households with incomes that are either irregular or difficult to verify are generally excluded by institutions which rely on indirect savings mobilization. Because they have no way to establish their credit through their past deposit record, these households are simply ignored in lending operations. Contractual savings schemes have been one of the leading methods, to remedy this problem; they could be complemented effectively by mortgage insurance programs.

Fourthly, and finally, the lack of attention paid to savings mobilization in individual public projects can make long-term housing programs indefinitely dependent on series of central government transfers or on international loans to pursue their objectives. The level of activity of housing finance institutions is no longer a function of the potential of domestic market conditions but of the availability of external resources. Can it then be said that institutional development objectives are being achieved?

D. Some Policy Implications

Several important implications flow from this review of capital markets and their impact on the growth of housing finance institutions. First, housing finance policies are subordinated to the overall capital market development

policies followed by a country. The degree of sophistication in reforms of the financial system that can be proposed is closely related to the level of income in the country. In particular, interest rates policies at the macro-economic level and their differentiation across sectors will determine to a great extent the viability of housing institutions which should develop into genuine financial intermediaries as opposed to remaining simple pass-through institutions for public resources.

Second, the desirability of mobilizing resources through the housing finance system reinforces the earlier finding that workable finance development strategies consist of two complementary but distinct parts. First, there should be consistent policies for the development of viable institutions that will reach the broad market of better-off households of the informal sector which are already producing unserviced housing of relatively good quality in addition to serving the few who already have access to housing finance. Second, there should be separated programs for the worse-off part of the informal sector who cannot have access to ordinary housing finance without public assistance. For this second group there are serious questions about the optimal use of public resources and the optimum design of public programs. The confusion of these two policy objectives generally leads to inefficiency, inequity and waste.

Third, meeting the financial saving and investment needs of the low-to-middle class households which are self-employed is an obvious priority in economies where salaried workers still make-up the minority of the labor force. Since the desire for a house is a strong motivator of savings, financial and non-financial regulatory constraints on the supply of housing should be eliminated simultaneously. Only then could the full benefit of financial intermediation to the housing sector be achieved.

Fourth, as already noted above, policy makers should review more systematically the objectives that they are trying to achieve when they subsidize housing for the lowest income groups. In particular, the merits of low nominal interest rates in an inflationary environment should be more closely reviewed: What can they achieve in the short-run and in the long-run?

V.
DEVELOPING A HOUSING FINANCE SYSTEM

A. Introduction

Having first looked at the types of financial needs that the dynamics of LDC housing markets generate in Chapter III and then having looked at the savings base available for financial support in Chapter IV, the present section goes into a more detailed presentation of the issues encountered in the creation and development of housing finance intermediaries and of the housing finance system. It raises questions such as: What differentiates housing finance from the financing of other sectors? Even if there is one diagnosis of the LDC housing finance problem, is there only one model of housing finance development? What are the functions that a housing finance system should perform? How should financial intermediaries mobilize their resources? Must they be deposit institutions? What are the ways to protect a housing finance system against inflation? Should housing finance be provided by specialized institutions or be part of general purpose financial intermediaries? Should housing finance institutions be run by the public sector? Should market lending operations and government low-income housing programs be run through two windows of the same institution or two separate institutions? Some of these questions can be answered fairly completely while others are still actively debated. In this overview, the emphasis is on the presentation of a structured and consolidated view of these housing finance issues.

B. Financing Housing Compared to Other Sectors

In addition to exhibiting the symptoms of lack of depth and financial repression which characterizes its broader financial environment, the housing finance sector is confronted with specific problems tied to the nature of its operations:

(a) *It must deal with households* on the lending as well as on the deposit side and this leads to substantial risks and high transaction costs compared to the size of the loans involved. In addition, the legal value and the liquidity of the collateral varies greatly and servicing costs as well as payment collections are high.

(b) The structure of lending presents major problems of *intermediation:* more than most others, housing finance institutions are expected to lend long even though they are borrowing short.

(c) Because of this extensive term intermediation they are *extremely sensitive to inflationary environments* and need to have sufficient flexibility to operate successfully under a wide variety of economic and monetary conditions.

(d) Because of the long-term nature of their operations *public confidence* in housing finance institutions is closely related to their level of *capitalization* and their effectiveness at *loan recovery;* public confidence is a prime consideration of banking supervisors;

(e) Another element that differentiates the housing finance sector from the financing of agriculture, industry or the export sector is that it finances a very *long term fixed investment* producing a flow of services over several decades, which, given the low degree of mobility in many LDC housing markets, tends to be consumed by owner-residents instead of being sold on the open market. This direct consumption of services by home-owners goes a long way in explaining the high proportion of self-financing in the sector.

For all these reasons a specialized knowledge of housing is required of successful lenders.

C. Alternative Structures and Functions of Housing Finance Systems

1. Some Determinants of Institutional Structure

A wide variety of institutions can be involved in housing finance. In developing countries most of these are specialized institutions because commercial banks often are either not interested in or prohibited from getting involved in the sector. On the private sector side, one encounters thrift institutions (savings and loans, building societies, mutual savings banks, credit unions, housing cooperatives, etc.), mortgage bankers, commercial banks, credits fonciers and other types of development banks as well as non-bank financial intermediaries (private pension funds and life insurance companies). On the public sector side, one encounters public sector housing banks, targeted government funds, social security systems and provident funds.

The number of institutions encountered in a country reflects local conditions and the economics of providing financial services such as the minimum cost of entry into the business and economies of scale in providing services through branches. This number is influenced by the total resources of the country, its population, its degree of urban concentration and geographical scale. It will also reflect the structure of financial policies in the country and the regulatory environment. Some countries encourage consolidation of insti-

tutions in contrast to others which favor decentralization. In a number of developing countries where the government wants to encourage housing there is only one institution organized by the government as either wholly owned by the central government or dominated by it through a majority of equity shares and control of the majority of board members. Such an approach can be caused by a policy of government control of the economy and the financial system or by impatience with the time required to develop a fully private housing finance system, often both.

If one were to perform a flow-of-funds analysis of various housing systems to trace the origin of financial resources and their use, two fundamental systems would be seen. One system based on the mobilization of deposits directly from the general public which could be called the British-US model in recognition of its historical origins; the other, based on the indirect mobilization of financial resources through the sale of debentures of various maturities to the capital markets, could be called the Continental-European model. Each one of these two basic models has its advantages and shortcomings. In the building society or savings and loans model, the institutions solicit deposits of funds from the general public to lend to households that want to build. Borrowers do not need to be depositors and savers do not necessarily plan to take a mortgage in the future. Each institution is faced with its own term-transformation problem and tries to induce long term deposits by offering a variety of savings instruments. For such environments deposit insurance can play a major role in the development of the housing finance system.

A building-society or savings-and-loan system constitutes a specialized system of housing finance based on independent local institutions for which national regulatory institutions and specialized tax advantages have developed over time. It originates from a banking tradition of decentralization and local control reenforced by the regulatory framework. This model of housing finance presents many attractive features for developing countries: the typical S&L is relatively simple to manage and is a community based institution which, like credit unions, is a natural extension of the informal "rotating credit associations" prevalent in many societies. However, because it performs term intermediation within a single market, borrowing short and lending long for a single activity, it is very sensitive to inflation.

The U.S. housing finance system which, until now has been the most complete and most developed S&L system and has been used as a model in many countries, is undergoing very rapid changes. It is becoming less specialized and its evolution since 1974 shows that the reason there were so many small S&L institutions was not so much their successful adaptation to changing needs or their innovative capacity as to the fact that they have been sheltered from competition by State and Federal regulations. Breaking away

from traditional resource mobilization methods, mortgage bankers have been much more enterprising than the S&L's and have tapped directly into the capital markets (life insurance companies and retirement funds). They have expanded very rapidly providing almost one third of all U.S. home mortages in 1981.

The opposite archetype for housing finance systems is the Continental European model. It is based on specialized banking institutions which mobilize resources for home mortgages in the national capital markets or even abroad. Their major advantage is that they have a much easier time matching maturities between their assets and liabilities. They are also in better position to take advantage of economies of scale for the production of financial services to lower their administrative costs. On the other hand, they may have to pay a higher rate for their loanable funds than what S&L would pay to household depositors. Most importantly, it is clear, in this alternative approach, that the capital market investors will dictate the terms of the mortgage instruments that will be offered to borrowers. Their growth in LDC's will also depend on the willingness of regulatory authorities to let them have easy access to the fairly limited capital markets.

In practice a variety of institutions can be present within the same country and they tend to play a complementary role. For instance, in Germany, the Bausparkassen is a system of contractual savings which complements the mortgages provided by commercial banks. In Latin America, Savings and Loans patterned after the U.S. experience coexist with specialized housing banks which do not mobilize their resources directly from the general public.

To illustrate the diversity of housing finance systems encountered around the world, Table 3 shows the results of a 1981 survey of specialized institutions; see IUBBSA, 1982. The data presented is only indicative of conditions in each country rather than exhaustive. It covers individual building societies, savings institutions and specialized home banking institutions and ignores mortgage lending by other institutions. For instance, the share of savings assets controlled by specialized institutions varied between 3% for Argentina and 46% for the UK in a sample of 25 reporting countries. The share of the housing mortgage market they served varied between 5% in New Zealand and 96% in South Africa. What Table 3 illustrates is the degree of development of various systems as reflected by the ratio of Assets to GDP; concentration measured by the number of institutions; the diffusion of services measured by the number of offices and branches and assets per capita; the scale of operations measured by assets per institution and assets per office.

2. Four Country Profiles

A quick glance at India, Morocco, Brazil and the Philippines can illustrate the variety of systems that can be encountered between the two poles of either fully specialized institutions based on intermediation between the capital markets and the borrowing public or of institutions dealing directly with the public both on the savings collection side and the lending side.

India is an example of a yet undeveloped housing finance system, operating in a centralized environment of close government control and relying on the capital markets rather than directly on the public for its resources. At present the greatest proportion of housing financial needs (over 95%) are met through informal arrangements. National institutions are just in the process of expanding their activities throughout the states. The capital markets of India operate under a system of credit allocation and tight regulations by the Reserve Bank of India. The housing finance system consists of two institutions at the national level. One, the Housing and Urban Development Corporation of India (HUDCO) is a public agency serving the lower income groups drawing long-term resources essentially from two nationalized insurance companies as well as benefitting from some budgetary inputs. The second, Housing Development Finance Corporation (HDFC) is a very recent financial corporation specializing in Housing. At the moment it is serving a population of income higher than the groups served by HUDCO. It is mobilizing its resources from the regulated capital markets and is confronted with a decision whether to move into the direct collection of deposits from households.

Morocco, which has been influenced by the French institutional experience, provides an illustration of the continental model at an intermediate stage of development. There is only one financial institution the Credit Immobilier et Hotelier (CIH) involved in housing finance at present, both for the middle class and low income group.

The CIH does not rely directly on household savings collected through an extensive network of branches, rather it relies on medium-and long-term securities subscribed to by the Caisse de Depot et de Gestion (CDG) and insurance companies. The CIH floated 23% of all long-term issues in 1978 and 28.4% in 1981. The actual intermediation role is played by the CDG which collects the deposits from the postal savings system, the social security system, and the savings banks. This CDG centralization of deposits implies close control of the government over the allocation of long-term credit. To a great extent the CDG has substituted itself for competitive capital markets for long-term credits. At present, the diffusion of financial services to the housing market of Morocco is limited and covers less than 15% of annual housing investment. To the extent that the CIH has reoriented itself toward

TABLE 3
INSTITUTIONAL DIVERSITY IN HOUSING: SPECIALIZED INSTITUTIONS IN SELECTED COUNTRIES 1981 1/

Region and Country	Total Population	Specialized Institutions (Number)	Number of Offices
East Africa			
Kenya	15.9	3	10
Zimbabwe	7.4	3	48
Malawi	6.0	1	6
West Africa			
Ivory Coast	8.6	1	–
Nigeria	–	1	10
East Asia/Pacific			
Indonesia	–	1	3
Philippines	47.9	87	182
Korea	38.5	1	116
South Asia			
India	673.2	1	8
EMENA			
Morocco	20.1	1	9
Turkey	45.4	–	1
Portugal	9.8	3	297
Tunisia	6.4	1	16
Latin America			
Bolivia	5.6	12	36
Colombia	26.7	10	58
Ecuador	8.4	11	43
Dominican Republic	5.4	15	63
Peru	17.6	19	187
Brazil	118.7	92	8,382
Argentina	27.7	26	80
Industralized Countries			
United Kingdom	55.6	251	6,454
Japan	–	–	–
France	53.5	3	83
Germany	60.9	31	n.a
Canada	–	60	–
United States	227.3	4,347	22,135

Source: International Union of Building Societies and Savings Associations, *1982 Fact Book*, Chicago, Illinois 1982.

1/ The information presented in this table is indicative and not exhaustive. It is based on reports made to the International Union by the national associations. It covers individual building societies, saving associations and specialized home financing institutions. The number of institutions listed and the coverage of assets does not represent the totality of resources available to the housing finance sector.

Total Assets (US$ m)	Assets per Institution (millions)	Assets per Office	Assets per Capita (US$)	Assets as Percent of GDP
160	53.3	16.0	11	2.41
856	285.3	17.8	116	18.45
15	15.0	2.5	3	1.05
400(est)	400.0	–	47	4.03
–	–	–	–	–
–	–	–	–	–
273	3.1	1.5	6	0.79
1506	1,506.0	13.0	39	2.57
568	568.0	71.0	0.84	0.36
495	495.0	55.0	24.6	3.11
134	134.0	–	3	0.20
8499	2833.0	9.5	867	36.73
240	240.0	15.0	38	2.88
77	6.4	2.1	14	2.42
2,400	240.0	41.4	90	7.60
289	26.3	6.7	35	2.83
400(est)	26.7	6.3	74	6.45
1,356	71.4	7.3	77	8.23
25,965	282.2	3.1	219	10.67
952	36.6	11.9	35	1.43
117,958	470.0	18.3	2,110	26.64
–	–	–	–	–
2000(est)	666.7	24.1	38	0.32
63,361	2043.9	n.a	1,040	7.65
–	–	–	–	–
663,844	152.7	30.0	2.921	25.71

meeting low income needs, the mode of expansion of financial services to the rest of the population and alternative forms of resources mobilization remain open questions.

Brazil has a housing finance system which includes elements of both the Continental model and the UK/US model. A housing finance system (SFH—Sistema Financiero da Habitação) was initiated with the National Housing Bank as the lead agency (BNH—Banco Nacional da Habitação) financing public local executing agencies (COHAB—Companhias da Habitação Popular) as well as supervising the activities of a private sector consisting in Federal and State Savings Banks, Real Estate Credit Companies and Savings and Loans Associations (SBPE—Sistema Brasileiro de Empréstimo e Poupança) which is one of the four largest in the world and the largest in Latin America. On one hand, BNH solves its long-term credit and intermediation problems by receiving an earmarked share of social security funds (FGTS—Fundo de Garantia do Tempo de Servico). On the other hand, the SBPE system mobilizes resources directly from households. At present the Brazilian SFH constitutes a dynamic and powerfully structured system in a banking environment where government intervention can be quite significant since government financial institutions provided 51% of all lending in 1978 and in addition contributed 44% of the funds lent by other institutions.

The Philippines provide an illustration of a system based on a decentralized approach to banking and reliance on S&L's for housing finance. But this approach strongly influenced by the US experience has led to a shallow and fragmented pattern of extremely small institutions which experience serious difficulty in mobilizing resources and in meeting their long term credit needs. It is a system where the differentiation of financial functions has run ahead of needs, which will sooner or later undergo some consolidation. Government impatience with the inability of S&L's to mobilize enough resources from the public and difficulties in term-intermediation have led to the creation in 1978 of the Home Development Mutual Fund, first a voluntary provident system made mandatory in 1980 becoming effective in 1983. This new housing finance system is still in the rationalization phase; see World Bank (1982).

These four brief illustrations could be pursued farther to show that the level of incomes, the degree of urbanization, income distribution, the national financial philosophy and institutional tradition have been very important factors in the growth of these HF systems. In addition, further analyses would show that vigorous government in support of financial innovations is crucial whether there is a preference for a decentralized or a centralized approach to finance. In the first case, government support might lead to a set of sectoral regulations and incentives, in the second it is likely to lead to new specialized

public financial institutions.

3. Functions of Housing Finance Systems

The comparative analysis of housing finance systems in developing countries has barely begun. Even for a single country, the evaluation of housing finance systems requires criteria which, unfortunately, are not well developed. The first step lies in the determination of the range of functions which these systems are expected to perform. It should then be possible to develop methods and measures to evaluate how well these functions are fulfilled by existing institutions. Typically a housing finance system is expected to:

(a) mobilize household savings into the mortgage and home improvement loan markets;

(b) provide maximum incentives for increasing the volume of financial savings into the economy;

(c) allocate the supply of loanable funds among households;

(d) provide policy controls over the allocation of resources between the urban sector and other sectors of the economy;

(e) direct the demand for housing and community facilities toward unused or ineffectively used resources;

(f) stimulate efficient methods in planning and construction of residential areas which might require large lump-sum investments;

(g) improve the financial and commercial evaluation of projects;

(h) extend financial services to all segments of the population in particular self-employed and lower income households;

(i) reallocate funds from relative surplus to relative deficit areas; and

(j) facilitate the flow of domestic and international resources into priority areas.

VI. A CONSOLIDATED VIEW OF HOUSING FINANCE POLICY ISSUES

A. Impact of Policies Seen Through Financial Statements

To understand the nature and current operations of a housing finance system a first step could be to perform a flow of funds analysis, which would have to be specific to each country. Given the wide diversity of institutions and their extensive interactions arising in the development of housing finance systems, when it comes to policy issues, a natural way to classify them is by reference to balance-sheets and income statements. Whether the problems arise at the level of an institution, a program or a specific instrument, financial results can always be consolidated with respect to the sources of funds (the liability side) the uses of funds (the asset side) and the profitability of the system and its viability (the net worth element).

The consolidation of housing finance issues is presented in the following three tables (4, 5, 6). In Table 4, concerning the mobilization of resources, the issues are listed according to the source of funds and whether they imply voluntary schemes , mandatory schemes or government transfers. The typical instruments used, the policy objectives, the problems encountered and the typical actions generally taken are listed. On the lending side (Table 5), the various assets of housing finance institutions are listed together with the type of activities financed and, as in the case of the sources of funds, the policy objectives, the problems and the types of action that can be considered. Finally, the elements of the capital base and profitability of the housing finance system are outlined in Table 6 since they reflect the lending capacity and the viability of the system. Ultimately, the confidence that the public has in housing finance institutions rests in principle on their net worth, when they know it.

The viability of a housing finance system is dependent on a balanced management of its assets and liabilities. As noted earlier, insufficient attention is being paid to savings mobilization or to the impact of lending regulations on the liability side. Resources mobilization is considered first in Section B, and the issues arising in the use of these funds in section C.

TABLE 4

A CONSOLIDATED VIEW OF HOUSING FINANCE PROBLEMS AND POLICIES

SOURCES OF FUNDS (The Liability Side)

		POLICY OBJECTIVES
VOLUNTARY SCHEMES		
From Individuals	–demand deposits –time deposits	–encourage use of banking facilities –encourage savings
	–installment deposits, contractual savings	–improve terms of liability –raise level of net savings
	–housing lotteries and related schemes	–tap a wider, low income market based on national preferences
From Institutions	–debentures (housing bonds etc.)	–improve terms of liabilities –increase flow of resources into housing
COMPULSORY SCHEMES		
Individual	–retirement pay deduction	–rechannel savings through formal financial system –increase housing finance resources –improve term structure of liabilities
Institutions	–regulation of retirement funds –insurance companies etc.	–improve flow of resources into housing –improve term structure of HF liabilities –diversify portfolios
GOVERNMENT TRANSFERS		
Borrowing from Central Bank		–improve position of HF system –provide cheap resources
Subsidies	(i) **explicit subsidies:** budget allocations (ii) **implicit subsidies:** –tax exemptions to HF institutions	–to address particularly severe low income problems –increase HF resource level
	–tax exemption to individual borrowers	–increase access to housing by lowering financial cost
	–tax exemptions to other financial institutions or corporations	–to encourage support to housing investments or as compensations for compulsory investments

PROBLEMS	TYPES OF ACTION
–inconvenient to households –not competitive with Banks	–improved branching structure –review regulations
–must be tailored to local unstable income. Terms not competitive with informal market	–change actuarial structure –consider interest subsidies for certain groups
–encourages speculative attitude in low income groups	–a national decision. More attractive deposit terms preferred
–debentures terms not competitive with other type of debentures or approved volume too small	–a financial policy decision which can be reviewed
–incomplete coverage of scheme –inequitable use of resource –use of funds for non-ho[illegible]ng purposes	–review actuarial structure –review lending terms –review rates of return to savers
–cost of resources channeled to housing higher than returns provided. Implicit cross-subsidies not reviewed adequately	–review implicit subsidy structure in light of national and urban objectives
–inflationary method –terms significantly below market rate structure –frequently a compensation for excess regulations elsewhere –main beneficiaries are higher income groups	–determine conditions under which the system can move closer to competitive market conditions
–never large enough to meet identified need, benefitting only a minority –Ad Hoc approach, which may be inconsistent with overall financial policies –indirect increase of capital cost of other sectors	–review in context of financial policies objective and housing objective
–a redistributive approach favoring high income groups –open ended commitment –misallocation of resources	–should be rejected if not yet in place. Should be contained by means of deduction ceilings otherwise
–frequently open-ended tax expenditures –resource misallocation, high macroeconomic cost	–should be reviewed, eliminated in favor of market related incentives

TABLE 5

A CONSOLIDATED VIEW OF HOUSING FINANCE PROBLEMS AND POLICIES

B: USES OF FUNDS (The Assets Side)

		POLICY OBJECTIVES
LOANS	**Housing Loans:** New Units	to increase supply of new units
	Existing units	increase efficient allocation of the housing stock
	for home improvement	facilitate discontinuous investment in housing
	Commercial Loans: housing developers	stabilize construction phase of housing, increase developer capitalization
	commercial developers	improve neighborhood quality and employment local
	material production	improve efficiency of building industry
	Infrastructure Loans:	facilitate overall urban development, increase urban efficiency
SECURITIES	**Government Securities:**	liquidity regulations require purchase of approved securities
	Other Securities:	managerial objectives of positive interactions with other parts of finance system
PREMISES AND EQUIPMENT		large number of branches needed for access to loans and savings mobilization
CAPITAL IN AFFILIATED CONCERNS	–land corporations –savings banks –housing co-operative associations –etc.	encourage the development of efficient specialized institutions coordination of policies sharing of rare managerial resources

PROBLEMS	TYPES OF ACTION
–loan criteria limited to high unit standards, high income households –small number of large loans –loan terms decided by sources of funds not household type –inflation	–reduce loan amount –standardize terms –make HF system responsible for blending of funds –alternate mortgage investments
–often not available	–determine what level of HF development would permit such loans
–high loan origination cost and risk	–use bulk loans to intermediate agency handling screening and spreading risk
–may not be required from HF system if funds available for commercial banks	–based on local conditions
–not considered an appropriate function of HF system –must be consistent with housing policy objectives	–use to influence type and location of commercial development/raise rate of return of portfolio/use cross-subsidization.
–terms of loan (low rate, long maturity) not consistent with liability structure of HF system	–according to local conditions government guarantees, capital participation in specialized institutions, indirect lending through government debentures
–high proportion of savings subsidized by HF system withdrawn to meet other development objectives (industrial investment, national debt, etc.)	–base on national priorities closely tied to clarification of savings **displacement** controversy.
–a function of the orientation of HF system (centralized vs, decentralized structure).	–dictated by financial institutional structure and policies
–managerial problems of cost effectiveness and capital immobilization (but inflation hedge)	–piggy-backing on other existing networks –reliance on mobile units
–haphazard process not reflecting housing policy objectives	–establish a central agency for policy control: supervision, auditing, provision of charters, seed capital, technical assistance, etc.

TABLE 6

A CONSOLIDATED VIEW OF HOUSING FINANCE PROBLEMS AND POLICIES

C: CAPITAL BASE & PROFITABILITY (The Net Worth Element)

	POLICY OBJECTIVES
Authorized Capital	–determine the statutory range of activities of each institution
Paid In Capital	–provides resources for the institution
Legal Reserves	–protection against risk and stabilization of financial system
Voluntary Reserves	–based on management objectives
Earnings/Profits	–indicator of effectiveness of (1) asset/liability management (2) internal management of institutions

PROBLEMS	TYPE OF ACTION
–may be a limit to lending activity	–review the need for capital increase, determine feasibility
–actual paid-in capital small percentage of authorized amount	–determine feasibility of capital increase (budget authorization)
–raised high to meet macroeconomic objectives	–determine whether lower level still consistent with broad national objectives
–level inadequate in planning new schemes	–review financial stability under sharply different situation
–none	–require subsidies on merger if inadequate. A major element of **public confidence** in HF institutions and formal banking system

B. Sources of Funds: Issues in Resources Mobilization

There are only three methods of collecting funds for housing finance: to rely on voluntary schemes, to resort to mandatory schemes or to depend on government transfers. In developing countries it is frequent for an institution to rely on all three methods at the same time, and each source of funds tends to generate its specific problems.

1. Major Issues for Voluntary Schemes

There are at least five important policy issues in the voluntary mobilization of resources: providing positive real rates of interest; indexing assets and liabilities to protect individuals and institutions against the impact of severe inflation as well as fluctuations in interest rates; stabilizing deposits through contractual schemes; attracting of institutional and corporate long-term deposits; and encouraging branching and improving the quality of financial services provided.

a. Real Interest Rates

The primary requirement for effective savings mobilization from households, of any income level, is to provide them with a real positive return on their deposits. The raising of a low nominal interest rates will not trigger any significant response from depositors as long as these new levels still yield negative **real** rates. The Korean experience in the mid-1970's with the Workers Assets Foundation Schemes offering rates competitive with the unrelated market rates (after adjustment for risks) shows that such a positive real interest rate strategy is effective. However, this strategy implies that the overall interest rate structure be adjusted, otherwise a subsidy element from the government may be required. In the case of Korea the government was willing at that time to provide short-term interest subsidy because another objective was to mop up excessive consumer liquidities partly due to foreign remittances from the Middle East. In addition, if the overall financial interest structure is not reviewed, high deposit rates for housing may simply trigger a displacement of savings. However, the problem in most developing countries is that in the name of social objectives most governments insist on housing lending rates which are negative in real terms, or at least are not consistent with the opportunity costs of capital. This is clearly seen by comparing regulated rates with those practiced on the informal markets or by private finance companies.

b. Inflation and Indexation ("Monetary Correction")

Long maturities are required for urban investment and inflation is the curse of housing finance. Because so many LDC governments find it convenient to resort to inflation to mobilize resources and because the open economies of LDC's also import inflation from large dominant advanced economies, LDC housing finance systems must offer savings vehicles adapted to inflation. In this period of worldwide inflation and high and fluctuating interest rates it is hard to believe that the original concept of Credit Foncier was developed in France in the 1850's on the basis of *private* 60-year mortgages at 2% interest.

Four countries stand out for their extensive use of "indexation" or "monetary correction:" Brazil, Chile, Colombia, and Israel. Other Latin American countries like Peru have been very interested in the technique of indexation to protect individual depositors and the capital base of lending institutions.

Originally, it was expected that temporary indexation would contribute to the control of inflation by increasing contractual and voluntary savings, accelerating tax payments and reducing reliance on inflationary finance. However, indexation has turned out to be a means to "live with inflation" in these countries.

Of the three Latin American countries, Brazil is the country which has made use of indexation most extensively since the financial plan of 1964. However, large discretionary changes have prevented 100 percent links to the price level particularly regarding exchange rates, tax brackets and financial instruments not all of which are indexed. The financial areas where indexation is complete involve long-term transactions, long-term loans and Treasury bonds, social security deposits and housing finance. For more complete descriptions and discussions of the Brazilian experience see among others: Jack D. Guenther, (1974); Alber Fishlow, (1974); Roger J. Sandilands, (1980).

Monetary correction has succeeded in helping the development of housing finance systems and the rate of urban investment has improved significantly above previous levels. However, this procedure is far from being universally approved. First, it is a cure of the symptoms and not of the causes of inflation. Second, monetary correction induces severe distortions between indexed and non-indexed areas of the economy. Third, as the Brazilian case shows what started as a three-year transitional plan runs the risk of becoming a permanent financial feature of the economy.

A more complete review of indexation applied to housing finance than is possible here would be desirable. Even after indexation, interest rates have not been free to move completely with market forces because the rates have been set by the government. Modifications have been introduced from time

to time reducing the real interest rate, sometimes making it negative, ceilings have been imposed, taxes have been imposed on the earnings of depositors and exempted on the interest paid by borrowers. Moving averages have been used when inflation accelerated. Tinkering with the index base has occasionally caused severe drains of savings from the housing finance system.

c. Contractual Savings Schemes

In order to mobilize resources at a low cost which would permit future lending at low interest, many countries have been interested in developing contractual savings schemes along the German model of the Bausparkassen or the French Savings-for-Housing Schemes (Epargne-Logement) originally inspired by the German experience. Such programs essentially generate a specialized financing system where the guarantee of a future housing loan at low cost encourages personal savings at deposit rates that may not be high. The idea was originally derived from cooperative and mutualist credit associations.

The applicability of the concept of contractual-savings to a new environment must be carefully evaluated. In the German case two crucial factors for success are often overlooked when discussing plans for other countries: first, a very stable price level during the post World War II period until recently favored long-term contracts; second, the availability of complementary loans arranged by lenders guaranteed that housing would effectively be bought at the end of the savings period. One could mention a third and self-evident factor: at any period of time there were more depositors than borrowers.

The remarkable success of the French version of contractual savings scheme after 1966 also stimulated interest in many countries. In the French system savers are not obliged to use their savings for housing. Three conditions were necessary for the success of the program for which 4 out of 10 French households signed up: savings rates that were competitive with other forms of deposits, a high proportion of savers who were not using their right to a housing loan, a small but growing and open-ended interest subsidy to the scheme. The scheme developed successfully in a mild inflationary environment and complementary loans were available because housing was excluded from credit controls in periods of tight monetary policies. By contrast, the first attempts at contractual savings in Morocco and Tunisia did not develop well because all these conditions were not met and, at the end of their savings phase, contractors could not buy housing with the small loan offered to them compared to the value of a housing unit. Since 1980, the French system has experienced a reversal of trends with loan amounts rising faster than new deposits. For instance, in 1982, deposits increased by 9%

when loans shot up by 53%. The structure of the system has changed from a loan to deposit ratio of 22% in 1978 to a value of 46% in 1982. This latter value of 46% is close to the calculated long term ceiling needed for the long term viability of the system. The causes of the change are, on the deposit side, inflation and more attractive rates elsewhere; on the loan side, more maturing contracts.

A systematic evaluation of the potential of a contractual savings scheme seems desirable in many countries as this approach seems to be one of the most promising ones to finance housing for the self-employed. As was seen earlier, such households are typically excluded from standard borrowing in most countries because the verification of their income and the determination of their credit worthiness is either impossible or administratively too costly. Through a contractual savings program self-employed households, who make up a substantial share of the labor force in every country, have the opportunity to establish their credit worthiness. This group of workers could also expand substantially the resource base of the housing finance system.

d. Institutional and Corporate Deposits

Housing finance institutions can raise resources by floating debentures if rates offered are competitive with other debentures and compatible with interest charged on loans. One area of significant potential lies with industrial corporations trying to develop staff housing to stabilize their labor force. These corporations could not afford to finance such projects internally but often can develop mutually beneficial plans with housing finance institutions. This approach has been a source of rapid growth for HDFC in India.

e. Branching and Quality of Financial Services

Financial intermediation is a service the quality of which has a major impact on the mobilization of securities. Branching is one of the most important decisions for a growing institution. As noted earlier, under serious financial repression housing finance institutions—especially public ones—find it much easier to rely on central bank rediscounts at low nominal rates, on budget transfers, or international donors than to reach out for their intended clientele. Premature branching can compound the managerial problems of a young institution as proved to be the case with the National Mortgage Bank of Nigeria which was asked to open branches in each of the 22 states at once, thus diluting its scarce managerial resources. Low cost alternative strategies to reach household depositors exist such as mobile branches in low density areas, agents working on commission such as was done for the "pigmy deposits" of the Syndicate Bank of India and is presently being considered by other institutions also in India; reliance on the more

extensive networks of commercial banks is also feasible and leads to a non-specialized housing finance system. In France, the leading institution for the "savings-for-housing" program is the Credit Agricole which has the largest network of branches (including in large cities!). The economics of branching must be carefully reviewed. The two constraints for branching are the (a) services provided be competitive with those of informal money lenders; and (b) that the branch be self-supporting within a reasonable period of time after opening.

2. Issues in Mandatory Schemes

Mandatory savings schemes have developed all over the world, particularly in Latin American countries where domestic savings were considered insufficient to achieve the growth and employment objectives pursued by governments and, in addition, private institutions encountered serious term-intermediation problems accentuated by inflation. Households save contractually in a variety of forms: life insurance pensions (both public and private), repayment of mortgages, repayment of principal on loans for durable goods, employee termination compensation and related forms of payroll savings. Given the need for long-term financing in urban residential investment, these various forms of contractual savings look very attractive to housing policymakers. Whenever possible they have attempted to earmark some of these long-term funds for housing or to change them from contractual to mandatory schemes, often both.

Mandatory savings schemes while very widespread have yet to be analyzed systematically for their impact on overall savings performance: are they a tax? Do they displace other savings activities? Once collected, is government using them properly? Issues of particular interest are (a) the degree of substitutions between discretionary and mandatory savings; (b) the impact of inflation; (c) the interest yields of these schemes compared to other forms of savings; (d) their redistributive impact through preferential access given to limited groups of beneficiaries; (e) the relationship between periodic changes in income, consumption, prices and discretionary saving in contrast to mandatory savings; (f) the degree of effectiveness in the use of resources; and (g) loan recovery.

a. Schemes Imposed on Individuals

Essentially all mandatory schemes applying to individuals are based on the employment relationship, they consist of mandatory financial contributions prorated to wages and salaries which are either applied unilaterally on the employee or on the employer, or both. In LDC's where monthly salary employment is not widespread, the benefit and costs of such schemes are

bound to be unevenly spread and the schemes become easy mechanisms for income transfers as well as opportunities for internal cross-subsidies.

Among some of the best known systems are Brazil's, the Philippines' and Mexico's. In the case of Brazil the rapid growth of the Housing Finance System (Sistema Financeiro de Habitação) led by BNH (Banco Nacional da Habitação) is based on a 1966 law mandating employers to contribute part of employee salaries into a special account supervised by the Central Bank: the FGTS (Funda de Garantia de Tempo de Servicio) which is a part of the social security system. In 1967 it was decided that BNH would manage the Employee Guarantee Fund (FGTS). At present BNH total assets are well over $10 billion equivalent and the resources that it controls through its operations are more than double that amount. This large resource base has allowed BNH to function as a comprehensive urban development bank for the financing of integrated urban development, local government planning, sanitation, construction, electricity and highways. In addition, BNH works closely with a second tier of financial institutions, in particular, the savings and loan system SBPE (Sistema Brasileiro de Emprestimo e Poupança).

Because of its influential role on other systems, the Brazilian system should be more closely evaluated for its long-term prospect when the Employee Guarantee Fund (FGTS) will have to fulfill its original mandate as a social security system and beneficiaries begin to retire. The uses of resources and the loan recovery experience in various types of investment should be also carefully studied since many low-income groups may perceive the FGTS as a tax or a government redistribution program and may be reluctant or unable to maintain regular repayments.

In Mexico, a similar system was set up in 1972 with INFONAVIT (Instituto del Fondo Nacional de la Vivienda para los Trabajadores). Its resources come from a 5 percent payroll tax on employers. In addition, the government as an employer contributes 5 percent of the wages for its employees. The payment by companies is deductible for corporate income tax purposes. The financial viability of INFONAVIT is constantly exposed to the twin pressures of inflation and public policies of low interest rates to its borrowers. At times the gap between market interest rates and mortgage loan terms has been so significant that the agency has had to rely on a lottery to allocate the benefits among applicants.

In the Philippines, the housing finance system has recently been reorganized and the original 1978 voluntary program popularly known as "Pag IBIG" of the House Development Mutual Fund (HDMF) was made mandatory after July 1981. Under the scheme all persons employed in the formal sector of the economy see a share of their income deducted at the source. This money is complemented by an equal matching amount from the employer

and is deposited into the HDMF fund. The funds deposited earn a minimum of 7.5% compounded annually and the total amount is to be retrieved 20 years later at maturity. Originally, employees contributed 1%; they were expected to contribute 3% in 1983 and thereafter. Participants are given two mutually exclusive options: to receive the lump sum payment after 10 years or to be given a 25-year home mortgage from an accredited bank at 9% for a maximum of $100,000 per member with up to three HDMF members being entitled to pool their rights.

In addition to the new HDMF scheme, the Philippines housing finance system can also draw on the resources of the private social security system (SSS) or those of the separate Government Services Insurance System (GSIS). In 1980, the family sources of funds of the Philippines housing finance system were:

– Social Security System (private sector)	20% (declining)
– GSIS (public sector employees)	42%
– Commercial Banks	32%
– Savings Banks and others	6%

Clearly, these mandatory savings now form the core of the formal Philippines housing finance system. After reviewing the current structure of the Philippines system, some concerns have been expressed about its actuarial stability the viability of the current programs when fixed rate loans are made in an inflationary environment, the degree of protection workers included in the program could actually expect and the fairness of the system to the extent that a limited number of high-income beneficiaries could deplete quickly all the resources available, see World Bank, 1982.

In general, compulsory schemes based on salaries are very attractive to government because they minimize the cost of mobilizing resources and give the central administration total control over a large pool of resources which they can allocate according to politically accepted priorities. One way to evaluate these schemes is to compare the quality of the financial services they provide with other type of locally available housing finance services, since beneficiaries must receive a fair return for their loss of control over their own resources.

b. Mandatory Schemes for Businesses

Distinct from the contributions that employers have to make by matching employee mandatory contributions, there are additional programs requiring employers to invest the equivalent of 1% of their wage bills for housing. Such schemes have been used in various countries such as France, Italy or Japan. Indian public corporations are investing significantly in worker housing, and

in former African British colonies the right to migration to towns as well as to housing was tied to employment. While experiences in industrial worker housing are diverse, the mobilization of resources from business enterprises may be of some value provided that a great deal of flexibility be left to individual firms about the form of their investment. It can be made directly (through own construction, acquisition of property, loans and subsidies to employees) or indirectly (through payment to non-profit organizations, professional associations, building societies, family allowance funds or low-income housing programs).

It is not clear who would benefit from such benefits in many developing countries. One must note also that employer-provided housing is frequently overlooked as a significant component of public housing policy. For instance, in India, public corporations have very large investment programs which might well include 1 to 3 percent of the resources going to housing. The aggregate impact and nature of such publicly financed housing has yet to be quantified and evaluated.

c. Regulations Imposed on Financial Institutions

One of the most attractive ways for housing finance institutions to raise long-term resources is to have the government to cause commercial banks, life insurance companies and retirement systems to earmark a fixed--preferably large--proportion of their resources for housing. Then it is no longer necessary to develop extensive networks to collect savings directly from households, the resource base becomes relatively predictable and, because the regulated financial institutions have no choice for the use of their funds, their rates might be significantly lower than the opportunity cost of capital and prevailing market rates. In India for instance, the greatest part of the formal resources flowing into housing finance come from the nationalized Life Insurance Corporation which is required to invest every year a fixed proportion of its net accretions into housing. In such a context, the resource mobilization strategy for the chief financial officer of a housing finance institution then becomes a bureaucratic game of getting the central bank to increase the quota allocated to housing and to have one's debentures rated as acceptable for liquidity and reserve requirements of commercial banks and other financial institutions.

The benefits of such mandatory schemes are that they improve the flow of resources into housing, they improve the term structure of housing finance liabilities by their long maturities and allow a diversification of sources of funds. The drawbacks are that the cost of resources channeled to housing are higher than the returns actually provided to the forced buyers of debentures and that the implicit cross-subsidies which are part of such arrangements are seldom reviewed adequately.

In some countries, like Korea, the purchase of five-year housing debentures issued at low nominal interest and at times negative real rates of interest, is mandatory for the households who are deemed to be privileged beneficiaries of urban growth. These mandatory purchases of housing bonds are enforced for land transactions, automobile purchases, purchases of high-value houses and a significant number of other items. The bond proceeds are then allocated to the National Housing Fund to finance public sector low-income housing programs. This implicit form of taxation does not show up in budgets but involves some administrative costs. In essence, these bonds are government-mandated, private-sector transfers.

3. Government Transfers to Housing

Government transfers and subsidies to housing via the housing finance system do not represent the totality of subsidies which could be made available to households, but they constitute a significant part of it. A comprehensive review of the housing subsidy issue should be a high priority in urban sector work as there are significant gaps between the intended policies of the countries and the realities of the programs. Housing finance subsidies are one of the three channels available for housing subsidies, the other two being demand side subsidies (in the form of income or rental subsidies) and supply side subsidies (through land costs, construction costs and favorable taxation of construction companies). Subsidies to the cost of capital can involve interest rates, taxation, the treatment of capital gains and depreciation.

a. Borrowing from the Central Bank

As a compensation for government intervention in their lending programs many housing finance institutions—especially in countries with central credit allocation systems—enjoy privileged access to cheap funds through a line of credit at the Central Bank or the Treasury, for instance in Tunisia and Korea. These lines of credit tend to be a standard feature of public housing banks. The fact that they are available does not imply that they are always used. But they can be a source of inflation and they are not conducive to tight cost control of operations. Finally, the level of profitability of the institutions through which public sector programs are being financed often drops to a low level of priority as their managers are evaluated on the basis of a wide variety of other "public sector" criteria such as volume of lending, number of units financed and target population served.

A Central Bank's line of credit provides cheap resources and improves the position of the housing finance system. The terms offered are significantly below prevailing market rates and could be seen as a compensation for excess regulations elsewhere in their housing finance operations.

The main beneficiaries are higher income groups which are also the main users of formal housing finance.

b. Explicit Subsidies—Budget Allocations to Housing

Budget allocations to housing finance institutions are rather infrequent in most LDC countries. They are meant to address particularly severe emergency low-income needs and typically fall short of the resources that appear to be required in part because the demand for free funds will always exceed their supply. A more appropriate use of budgetary allocations would be for the financing of the paid-in capital of public sector housing finance institutions which will expand their borrowing capacity to finance the sector. Where public programs are concerned there are often ambiguities about the nature of government funds and whether they constitute loans or grants.

c. Implicit Subsidies: Tax Exemptions and Tax Expenditures

The most extensive form of subsidy to housing finance systems are tax exemptions. These open-ended "tax expenditures" will grow with the institutions and after a few years become firmly embedded in their structure of housing finance systems. They may take the form of tax exemptions to the housing finance institutions themselves, of exemptions to individual savers or of exemptions to other financial institutions or corporations purchasing housing debentures.

Their objectives are to increase the level of resources in the formal housing finance system, to increase access to housing by lowering capital costs and to encourage support to housing investment or to act as compensation for mandated low-income housing investments. Such tax subsidies are often triggered by short-term difficulties and the level of resources involved may appear to be small at first, but as the housing sector grows these implicit entitlements become politically very sensitive and are almost impossible to remove. *Ad hoc* tax incentives may be inconsistent with the overall objectives of financial policies, they may indirectly increase capital costs to other sectors, they imply a redistributive approach favoring high-income groups which are the main and largest users of the housing finance system.

In financial sector work and in more specific reviews of housing finance, the estimation of the subsidies involved through budget allocations, tax exemptions and direct interest rates subsidies is of primary importance. In the 1982 Philippine Housing Finance Review it was estimated that tax expenditures on the new housing finance system during the first year of operations were already almost equal to budget allocations to public housing programs.

F. Uses of Funds:

1. Conventional Lending

As noted previously, the insufficient development of conventional lending for housing has two major consequences: poor financial discipline over housing investments in the form of technical and commercial evaluation of projects submitted for financing and the reduction of the ability of financial institutions to encourage technical innovations or to steer housing investment in desirable directions. Regarding housing loans, in addition to the bias toward relatively few large mortgages for high cost and high income units, there is not enough attention paid to making loans for home improvement. In a period of rapid urban growth a substantial amount of investment takes the form of upgrading of existing units for rental accompanied by land use intensification. Little effort is made to evaluate the kind of profitable financial services which could be developed in the form of short-term loans for such operations. The other major flaw of conventional lending programs is the systematic exclusion of a large percentage of self-employed households with good earning power. A third area of conventional lending that should be systematically reviewed is the financing of housing developers through whom more efficient types of housing can be provided. At the moment, many housing finance institutions focus too exclusively on individual borrowers, they could also provide support to housing cooperatives and building societies.

The financing of commercial facilities to improve the quality of neighborhoods is another area that offers great potential for profitable lending. For instance, project level cross-subsidies to improve housing for lower-income groups are systematically used in Korean public housing projects and in many Bank integrated urban development projects.

The use of appropriate financing to induce private sector firms to supply more low-income housing is an area which is just beginning to be explored. It offers the promise of a more adequate division of responsibilities between the public sector on the one hand which would define objectives, identify priority areas for investment and facilitate financing and the private sector firms on the other which are inherently more flexible and more adaptive than public sector construction agencies in implementing projects. Given the need for large amount of low-cost, if not necessarily *very* low-income housing, the potential of the private sector to produce large amounts of low-cost housing to meet rapidly growing needs should be strengthened. This concept that public housing agencies, whether national or state, should move toward the role of policy makers with the private sector becoming the developer operating inside a set of performance specifications is being explored

through various projects in Morocco, Pakistan, the Philippines, Manila, Egypt, Korea and Kenya.

Finally, because of the lack of well-articulated housing policies, housing finance institutions have seldom been asked to support the development of more standardized residential construction products nor to improve the efficiency of residential construction firms. There is little evidence that commercial banks are frequently solicited either. Confusion should not be made here between the standardization of building *inputs* and industrial housing. Industrial housing around the world has proven itself just as ineffective in providing low-cost/low-income housing as new towns have been unsuccessful in absorbing large proportions of rural-urban migration at low cost; frequently for the same reasons. See Strassman (1978).

2. Capital Investment in Subsidiaries and Other Institutions

In some countries with fairly developed housing finance systems, some of the largest housing finance institutions have shown a tendency to invest capital in other types of public o[illegible]te corporations operating in the urban sector such as land corporatio[illegible]gs banks, sometimes even providing the capital for housing coope[illegible]ssociations. The objectives are to encourage the development of [illegible]nt specialized institutions, to improve the coordination of policies and to share scarce managerial resources. It is not possible to be dogmatic about such capital investments. However, when the institutions providing the capital have been entirely public institutions, very frequently the new affiliated concerns have not been as effective as originally anticipated.

The role of a central agency for policy control responsible for supervision of the various housing finance institutions, auditing, provision of charters, seed capital, technical assistance, etc. is generally a useful question to review before determining how housing sector policy and housing finance policies can be brought more closely together. At present, coordination among housing institutions, when it is effective, takes place mostly among public sector institutions which may then be quite reluctant to allow new private institutions to enter the sector.

VII. CONCLUSION

A. Appropriate Housing Finance Strategies

This overview of housing finance in LDC's has started with a definition of the housing finance problem as the need to reconcile the three different objectives of affordability for households, viability for financial institutions and resource mobilization for national economic planners. The role of government should be divided into two distinct activities. The first is to encourage financial innovation to provide housing finance to households on a financially viable basis; this implies organizing the market and generating financial services for fully serviced residential investment. The second objective consist in developing specific programs for the low income households with a major focus on the urban infrastructure that individual households cannot provide for themselves but which is central to efficient long-term urban development. This second role goes much beyond housing finance proper and overlaps with the broader issue of financing urban development.

We need to have differentiated objectives can best be met when a central government body can become responsible for the supervision of the various financial institutions, their crediting, the provision of charters, seed capital, technical assistance, etc. It should help determine how housing sector policies and housing finance policies can be brought more closely together. At present whatever coordination takes place is generally limited to public sector institutions and ignores much of the activities of private institutions.

While housing finance institutions will expand with the growth of the economy, the primary objective in raising the level of financial savings may not be so much to increase national savings but to spread the benefits of financial intermediation by reducing the degree of fragmentation of the economy where old and new technologies with sharply diverging rates of return might be found; by facilitating larger scale investment and by removing the constraints imposed by self-financing on the adoption of more efficient, higher return production techniques. In addition, in the case of housing, there is evidence that increases in savings rates do also occur with housing investment as home ownership is a powerful incentive for households to reduce consumption and increase savings both before and after access to ownership.

An important point of entry for expanding housing finance is the largely unserviced group of self-employed households who have serious difficulties in gaining access to housing finance institutions. Too many housing finance programs have been geared exc' :sively to a minority of salary and wage earners and systematic efforts should be made to include the majority of self-employed households. The choice of strategy will depend on the level of economic development of each country.

Plans for the development of a housing finance system or the ratior:ali-zation of the existing institutional structure are dependent on national priorities regarding the overall development of the financial sector including macroeconomic policies, priorities in the allocation and pricing of financial resources and national preferences (or more exactly past experiences) regarding alternative forms of institutional development. For national financial authorities, who have to play a crucial developmental role, housing is only one of the major sectors to be financed, they are also quite concerned with industry and agriculture. Since the actions of one policy can be unintentionally blocked by another policy it is important that proposals for reforms and development of the housing finance systems be congruent with the overall financial development strategies of the country. Ideally, reviews of the housing finance sector should be part or follow comprehensive financial sector reviews. In that case, the place of the housing sector in the national economy and the development process as well as the levers that it can provide to help achieve national development objectives can be fully understood. Housing finance is still treated in isolation from other development finance needs.

B. Critical Factors for the Growth of Housing Finance Systems

1. Policy Environment and Regulatory Role of Governments

The policy environment is the foremost factor in the growth of a housing finance system in three ways: by being favorable to financial development, by being supportive of housing objectives and by providing consistent and coherent actions in support of the shelter sector.

Arbitrary controls over the interest rate structure, as well as bad monetary and fiscal policies can have a very severe impact on financial resource mobilization. When the financial sector as a whole does not fulfill its resource mobilization role well, what can be the prospects for housing finance institutions?

There is no set of government regulations more extensive than that of financial instiiutions, see Virmani (1982). The Central Bank exercises close control over banks and non-bank financial intermediaries. In addition there

are special regulations of housing finance with several objectives and often "special circuits" to isolate the housing sector through "preferential" measures. This regulatory environment is replete with conflicting objectives: on the one hand housing is expected to be encouraged but resources should not be drawn away from other priority investments; low-income needs should be the government's priority concern but badly needed middle-class savings should be encouraged; depositors should be encouraged but interest rates should not be too high lest they push up the entire rate structure; low-income households should be given affordable mortgages but they should pay the opportunity cost of capital.

When giving a low priority to housing finance, governments overlook two important aspects of housing. One is the high proportion of tertiary and secondary urban infrastructure investments in housing needed at low-income levels and the difficulty of financing it privately because of their many "public goods" dimensions. Financial intermediation to increase the scale of projects and facilitate the provision of this infrastructure is very important. The other point is the frequent confusion between long-lasting housing units and the annual flow of services which they produce. If the rates of return on housing were small or zero there would be no landlord left in the cities, which is not the case, and the implicit rental value of owner-occupied dwellings would disappear too.

Traditionally the central banks of LDC's have taken a very strict regulatory attitude rather than stressed their developmental role and they have tended to be quite wary of financial innovations. One of the difficulties in changing a financial structure is that because money is fungible, a comprehensive framework to appraise the joint effects of specific policies on the financial system at large—or on housing finance in particular—needs to be established. There is abundant evidence that the actions of one policy can be unintentionally blocked by another policy. Even in the absence of a systematic framework, country specific evaluations of trade-offs between policies and interactions between institutions within a housing finance system are nonexistent.

Even if the financing needs of urban residential investment are large and rapidly growing, the evolution of specific financial intermediaries must take place in a way that will not promote further fragmentation of the capital markets. Too often policy recommendations have been limited to specific institutions, and reforms of the financial structure have not been based on a comprehensive data analysis of savings and of the flow-of-funds structure. Isolated operations typically lead to further fragmentation. In particular, a housing finance system with a large number of institutions may be quite incomplete when a well-balanced system serving all its functions may require

a small number of institutions. In many LDC's a proliferation of institutions may simply waste scare managerial resources. Proposals for creating new institutions with specialized functions are too frequently the outcome of limited evaluations in the absence of an adequate prior evaluation of the broader macro-economic context and the capital market structure of the country. The creation of a new institution must go beyond the assumptions that increased competition cannot hurt and that some financial innovations might follow.

The three principles of financial regulation are clear. They are: to improve competition, to increase efficiency and to stimulate long-term finance. In contrast, the trends in actual regulatory environments are not so evident. Dominating the scene at present is the debate on the merits of universal banking vs. specialized financial institutions. The new emphasis in developing and developed countries is to move in the direction of multipurpose financial institutions which are expected to provide long-term financing, to increase competition and to lower the cost of intermediation. In the new environment, financial policies would consist in broad sector regulations defining the framework within which any multipurpose institution would have to operate. Such an approach contrasts with the prevailing situation in LDC's where financial regulations tend to be highly specific to each specialized institution. In the case of housing finance the verdict on universal banking is far from clear. In fact, the limited IFC experience with housing finance suggests that in a multipurpose institution the housing function will lose out because of the serious housing finance long-term intermediation problem compared to other commercial forms of bank lending. Further evaluation of the merits of multi-purpose banking is clearly necessary.

2. Income Level and Development Opportunities

Quite clearly, in countries at low levels of income, especially in sub-Saharan Africa, the level of demand for financial services is not very high and the effective demand for housing not very strong. This explains the frequent emphasis on government housing institutions which function *de facto* as pass-through agencies for government or even international funds. The extent to which government housing banks could function as apex lending institutions encouraging the growth of credit unions or other forms of financial association better suited to the need of the self-employed majority has not been well explored. The quality of management as well the lack of clarity of housing policy have also delayed such a form of public support to financial innovation.

In middle-income countries opportunities for the development of financial services are much greater. Higher household income levels

together with a greater density of demand for financial services and a larger volume of transactions create economies of scale adequate for the growth of financial intermediaries, even if there remain sharp geographical differences in the growth of these services. As the volume of institutional financial services increases there are further opportunities for the development of differentiated market functions. Among them the development of a secondary mortgage market to improve the flow of long-term resources into housing and to give more flexibility to financial operations may be an important one.

3. Encouraging Appropriate Institutions

At least three separate levels of issues must be differentiated in designing appropriate institutions. First, there is the need for appropriate financial intermediaries as seen in the context of financial deepening and the differentiation of financial functions performed by type of activities and borrowers as financial market growth permits. Second, and most important for the public sector, is the choice of public instruments for low income housing policies. The unsatifactory performance of both financial and construction functions by public housing agencies already noted, needs to be reviewed. The third group of issues is related to the functions that should be performed by public financial institutions and in particular the role of what are sometimes called *apex* institutions.

A full examination of the role of apex housing finance institutions, their potential strength and current limitations is a high priority because country after country has found it necessary to create such organizations. What should be their role in housing sector development? How can they advance sectoral objectives? What kind of impact should they have through the use of their funds? On the types of projects financed? On their geographical distribution? How can they promote the deepening of the financial structure? By establishing links with other types of institutions? By institutionalization functions performed by the informal curb market? Could they enter into cooperative agreements with regional banks to improve the geographical spread of housing finance services? Could they influence positively long-term debentures? Should they take equity participation in other institutions? Are they financially viable?

4. Specifity of Low-Income Housing Needs

In the housing finance sector there has been a major and continuing confusion between "public policy" toward housing and the housing finance sector, on the one hand, and "public sector activities" regarding housing on the other. This confusion parallels the typical housing policy evolution that one can observe over time in LDC's. At first, there is no explicitly articulated

housing policy. Then "housing policy" means what the public sector does through public agencies for housing. And, finally, the government realizes that public sector investment will remain a very small part of total housing investment and that the incentives and regulations to strenthen quantitatively dominant private sector activities are essential to the overall success of the national housing policy. It also is necessary to distinguish clearly between the need to increase the market penetration of housing finance institutions into the higher segments of the informal market (financial deepening) from the financing of public services in very low income residential areas which, because of poor or no cost recovery, rely on government subsidies or cross-subsidies.

The deepening of financial services requires coordinate policies to release non-financial constraints on the supply of housing (especially confused land titles, inappropriate building codes, and rent controls) as well as better financial services. It may include the development of mortgage insurance, new deposit methods and mortgage loans to the self-employed, and the offering of a broader range of services for all phases of residential investment (land development, construction loans, interim financing, mortgages). Also in periods of rapid urban growth a substantial amount of investment takes the form of upgrading of existing units for rental accompanied by land use intensification. Often, little effort is made to evaluate the kind of profitable financial services which could be developed in the form of short-term loans for such operations.

Under stable prices, there are several convergent reasons not to expect the demand for mortgage credit by low-income households to be very large. First, the income elasticity of demand for housing services has been found consistently smaller than unity. Second, given the low-income elasticity of demand, the demand for mortgage credit can be expected to be even smaller since most dwellings cannot have 100 percent financing. Third, irregular incomes tend to reduce further the desired consumption of housing. For these reasons, the residents of "slums and squatter settlements" raise a different kind of problem from those of "clandestine" settlements. Only a minority among them could realistically contemplate some form of legal ownership at any period of time on terms comparable to the better-off group in "unauthorized" or "clandestine" settlements. The problem then is not to finance housing but rather basic infrastructure, sanitation and neighborhood services which are the poor's first priority over the building itself. The minimum amount of services that they desire is in the nature of a "merit good" and involves some form of direct subsidy or cross-subsidies, typically channelled through public sector construction agencies.

There has been some question as to whether these construction agencies should increase the scope of their responsibilities. Should they handle all low-income activities under one roof? For instances, in Thailand and the Philippines the National Housing Authority which was originally a construction agency has been drawn into the loan origination and servicing business to disburse the funds it received from international donors. The same is true of many Latin American agencies. Is this a viable long-term orientation?

If greater stress is placed on resource mobilization rather than on the production of housing only, it seems desirable to separate the financial function from the construction function since the types of services provided are sharply different. As noted earlier, the loan origination function will be greatly strengthened if potential borrowers are already known as regular savings depositors. The separation of the financing phase from the construction phase will make it easier for the households to have choices in their housing rather than being confronted by a de facto public sector monopoly construction agency.

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