

PA-ABF-120  
12A 66150

**INTEREST RATE POLICY  
IN THE SHELTER AND URBAN SECTORS**

Draft Position Paper  
Office of Housing and Urban Programs

March 1990  
Revised April 1990

**George E. Peterson  
The Urban Institute**

**AID IQC#PDC-1078-I-00-9067-00  
Project #: 940-1005.95  
D.O. #1  
UI Project #6022**

**NOTE: This paper is a *draft* position paper, prepared to serve as a basis of discussion within the Office of Housing and Urban Programs and with other offices of USAID.**

**The conclusions and recommendations are those of the author alone. They do not represent the views of The Urban Institute, its Board of Trustees, the Office of Housing and Urban Programs, or the United States Agency for International Development.**

**Following review and discussion of this draft paper, the Office of Housing and Urban Programs will decide whether to prepare a statement regarding interest rate policy in the shelter and urban sectors, and what form this statement should take.**

## TABLE OF CONTENTS

	Page
Introduction	1
Part I: USAID Interest-Rate Policy and Its Application to the Shelter and Urban Sector	2
The Benefits of Market Interest Rates	2
The Role of Positive Real Interest Rates	5
Part II. Summary of Interest-Rate and Credit Policies in Selected Countries where PRE/H Operates	8
Part III. PRE/H Policy toward the Shelter and Urban Sector	13
Part IV. Special Issues in the Shelter and Urban Sector	16
Contract Savings Plans	16
Affordability of Home Mortgages	17
Infrastructure Lending	18
Footnotes	19

## **INTRODUCTION**

In all countries, the shelter and urban sectors are important users of credit. International comparisons show that between 20 and 30 percent of a nation's reproducible capital consists of housing,<sup>1</sup> and another large portion consists of urban infrastructure. Moreover, housing and infrastructure are both expensive and long-lived capital assets, which place special demands on long-term financing mechanisms to pay for them.

Housing also is critical to the savings side of credit markets. Various surveys in developing countries have found that the desire to buy or build a home is the principal motivation for household savings.<sup>2</sup> In all developing countries, the household sector is a net saver,<sup>3</sup> whose surplus savings are used to help finance business and government investment, and to support economic growth. A better functioning system for gathering household savings and translating it into housing investment holds promise of increasing the national savings rate.

For these reasons, interest-rate policies are crucial to the shelter and urban sectors. This paper summarizes the interest-rate policies that the Office of Housing and Urban Programs (PRE/H) pursues in its programs.

## **PART I: USAID INTEREST-RATE POLICY AND ITS APPLICATION TO THE SHELTER AND URBAN SECTOR**

PRE/H's objective is to apply AID policy with respect to interest rates to the special conditions of the shelter and urban sector.

AID's general policy is to encourage developing countries to use market mechanisms to generate savings and allocate capital. Therefore,

- a. AID resources should carry interest rates that reflect the local market rate of interest.
- b. In countries where administrative mechanisms for allocating capital are still in effect, AID should support "a planned effort to encourage governments to move progressively toward market terms" of lending.
- c. "At a minimum, the interest rate to ultimate private borrowers should be significantly positive in real terms, i.e., when adjusted for inflation." Positive real interest rates are viewed as a minimal approximation to the market rate of interest, and as necessary to protect lending institutions against decapitalization.<sup>4</sup>

### **THE BENEFITS OF MARKET INTEREST RATES**

In a free capital market, the interest rate is a market-clearing rate that equates voluntary aggregate savings with aggregate investment, and which allocates investment across sectors so that the expected (risk-adjusted) return on all investments equals or exceeds the interest rate.

The principal benefits of capital markets cleared by market-determined interest rates are:

- a. On the demand side, investment funds get allocated to their highest productivity uses. Where lending rates are held by government policy below the market-clearing rate, there will be excess demand for borrowing. Capital then has to be allocated by administrative mechanisms. In principle, administrative allocations of capital could also be steered to the highest-return investment opportunities. However, in practice, the loss of market discipline leads to lower rates of return--i.e. a lower productivity of investment. Borrowers face incentives to invest in any projects whose expected rate of return exceeds the below-market interest rate.
- b. On the supply side of the capital market, the market-clearing interest rate induces the appropriate amount of saving, given households' and firms' saving preference and the investment opportunities in the economy. The effect of higher real interest rates on savings has been the subject of hundreds of empirical studies, both in the United States and in

developing countries.<sup>5</sup> Higher interest rates have a positive "price" effect on savings, but a negative "income" effect. That is, savers are rewarded by earning a higher return on savings, but also are able to reach income goals more easily, making it unnecessary for them to save in the same quantity to attain a given income level. The findings of empirical studies regarding the elasticity of savings with respect to the real interest rate are mixed, ranging from a modestly negative net savings effect to a strongly positive one. The majority of studies report a weak positive linkage between real interest rates and aggregate savings. In developing countries, one part of the savings response is the reduction of flight capital (or return of such capital to the country). Higher real interest rates have been shown to have a modest impact on flight capital; the effect is greater, once other capital and financial reforms have been undertaken, thereby reducing the risks of currency devaluation and removing barriers on external capital investment.

There is much more decisive evidence that higher real interest rates increase the share of savings held as financial assets.<sup>6</sup> That is, given higher real interest rates, households and firms are more likely to hold savings in the form of financial deposits, debt instruments, and equity shares, rather than land, jewelry, or other tangibles. This, in turn, leads to greater intermediation in financial markets--a larger role for banks, insurance companies and other institutions that collect savings from ultimate savers and lend funds to ultimate investors. Several recent studies have shown that the average productivity of investment in developing economies is positively related to the depth of the financial sector.<sup>7</sup> In other words, specialized intermediary institutions are able to allocate capital to higher-yielding investment opportunities than do households or governments investing directly on their own.

c. The net effect of these factors is that moving from below-market interest rates to market interest rates throughout the economy should boost economic growth by:

--Increasing aggregate savings and investment--a relatively weak effect.

--Increasing the productivity of capital investment--a strong effect.

## **Important Qualifications to the Argument for Using Market Interest Rates**

a. The argument for market rates of interest is really an argument for free functioning of the capital market. Attaching "market rates" of interest to administratively allocated capital flows has far less evident benefits. For example, if the capital funds to which a parastatal or housing finance authority has access are determined by Government administrative decision, the interest rate attached to these funds will affect only the profit or loss position of the organization, not the size or productivity of its capital investment. If the borrower must cover its own costs, or go out of business, charging the market rate of interest remains good discipline, since over the long run institutions investing inefficiently will be weeded out by bankruptcy. However, if the borrower is able to draw upon government subsidy to cover financial losses, charging the market rate of interest merely converts the form of subsidy from an interest-rate subsidy to a direct budget transfer.

In this case, the true policy priority is moving toward market mechanisms of capital allocation, not increasing the "price" charged for non-market allocations.

b. In the typical developing country, many sectors of the economy have access to capital at below-market rates. There will then be overinvestment in the subsidized sectors and underinvestment in the market sectors of the economy. The first-best policy is to raise interest rates in the subsidized sectors to the market rate. However, if sectoral capital flows are responsive to sectoral demand for capital, the second-best policy often will be to equalize interest rates in the "market" and "non-market" sectors, even if equalization takes place at less than the full market rate of interest. Any inter-sectoral capital flows resulting from the policy will tend to substitute higher-yielding investments in the "market" sectors for lower-yielding investments elsewhere.

In practical terms, the prudent policy generally will be to move interest rates toward equality between sectors, by raising rates in the sectors with the largest subsidies. This can be part of a long-term plan for adoption of market rates throughout the economy.

c. Too rapid a liberalization of capital markets can be economically disruptive, especially when other pricing and institutional inefficiencies remain in the economy. Drastic financial liberalization in both Turkey and the Philippines in the early 1980s precipitated financial crises. The pent-up demand for capital drove real interest rates to higher than 20 percent. This, in turn, escalated the debt servicing costs of the highly leveraged business sector, triggering a wave of bankruptcies. Financial institutions, which in the suddenly liberalized competitive environment had bid up deposit rates based on lending opportunities at 20 percent real interest rates, faced massive losses and bankruptcy when investment demand collapsed. These experiences argue for a gradual, planned liberalization of financial markets.

Where factor prices or final goods prices are distorted by regulatory rigidities or protectionist policy, financial liberalization by itself can sometimes *exacerbate* the misallocation of investment resources. For example, Chile's overvalued exchange rate in the

early 1980s greatly favored the nontradeables sector, leading to excessive investment in real estate.<sup>8</sup> Financial reform made it easier for resources to flow into this artificially profitable sector. A similar situation prevailed in Malaysia in the late 1970s and early 1980s. Financial liberalization increased the supply of capital available for mortgage financing. But extreme rigidities in the land development and permitting process caused most of the increased demand for housing to be captured by higher land and housing prices, rather than increased production.<sup>9</sup>

## **THE ROLE OF POSITIVE REAL INTEREST RATES**

In countries with a history of artificially low interest rates, AID policy is to require that loans to end-users at least carry positive real interest rates, or be part of a plan for raising interest rates to this level according to a specific timetable. The establishment of positive real interest rates is regarded as a crucial step toward adoption of market rates, and one that lessens the danger of decapitalization of lending institutions. Moreover, it is recognized that in economies which raise and allocate very small shares of domestic capital through the marketplace, the very concept of a "market" rate of interest is ambiguous. The "market" rate of interest in this case is merely the rate that clears the residual demand for capital, after non-market allocations have been made, with the residual supply, after that supply has been generated and tapped through administrative (non-market) means. The residual demand/supply balance is itself a product of the non-market mechanisms that dominate the financial sector, and thus the residual "market" rate of interest also is greatly influenced by administrative, nonmarket factors (as is also true, for example, of the "market" price of the residual amount of unregulated foreign exchange in an economy dominated by exchange controls.) In these circumstances, the long-run inflation rate may be a more reliable floor index of what the long-run market interest rate "ought" to be than the actual rate of interest in the small unmanaged segment of the economy.

Nonetheless, there are some important qualifications to the relevance of positive real interest rates that need to be kept in mind.

(i) **Positive real interest rates as proxies for market rates of interest.** In economies with broadly stable rates of inflation, and without monetary shocks, real interest rates tend to move within a relatively narrow band. In the United States, for example, real interest rates for most of the last 40 years have varied between zero and 4 percent--although there were periods in the mid-1970s and early 1980s when the market rate of interest fell below current rates of inflation. Under these stable conditions, a moderately positive real interest rate is a good proxy for the market rate. However, in developing countries, the range and fluctuation of real interest rates are much larger. This is true, first, because long-run interest rates reflect future expected inflation, which may be much different from current or recent inflation; and second, because monetary policy often changes far more drastically, tightening or relaxing the supply of loanable funds, which in turn impacts interest rates.

In the short and intermediate term, and especially at the short and intermediate end of the loan spectrum, market interest rates are determined largely by government monetary policy. Nominal interest rates therefore can rise at the same time inflation rates fall, or vice versa. For example, in May of 1989 the Nigerian government ordered all state-owned enterprises to close their accounts with commercial and merchant banks and transfer their accounts to the Central Bank. The move was taken to curb liquidity in the banking system. It produced both a steep decline in inflation and a steep increase in the market interest rate, drastically increasing real interest rates.

The weak record of domestic savings in many developing countries, coupled with government efforts to sustain the value of the national currency through a policy of high interest rates, also means that in many LDCs the market rate of interest involves a much higher real interest rate than is commonly found in developed countries. Real interest rates in Jamaica in the latter 1980s were maintained at around 12 percent in an attempt to curb inflation and protect the value of the Jamaican dollar. In an economy where Treasury bills yield 21 percent, loans made at 8-10 percent, the approximate rate of inflation, involve large subsidies and introduce significant market distortions, despite the fact that they meet the "real, positive" standard for lending. In other countries operating under restrictive monetary policy, real interest rates have remained at 20 percent or higher for several years.

In sum, the inflation rate in developing countries is a much less reliable proxy for market rate of interest than it has been in the United States.

**(ii) Decapitalization.** Lending institutions can decapitalize themselves swiftly if lending rates fall far behind the cost of funds, as can happen during bouts of inflation. Housing finance institutions in Argentina, Brazil, and Bolivia, for example, were decimated by fixed-rate loans made in the face of accelerating inflation. Once again, however, the imposition of positive real interest rates is only the roughest proxy for safeguarding against decapitalization.

--Financial decapitalization depends upon the spread between institutions' cost of capital and their lending rates. Often, housing finance institutions are given access to long-term below-market sources of capital which can be matched against long-term lending. In this case, a positive spread can be maintained even with lending at negative real rates.

--In a market sense, a lending institution will "decapitalize" itself whenever it lends at below-market rates, regardless of whether it charges a positive real interest rate. That is, the capital value of a loan made at below-market interest rates will always be less than the amount of money loaned. (The present value of the loan repayment stream is less than the value of the cash disbursed.) The extent of decapitalization depends on the degree of interest-rate subsidy relative to the market rate of interest, and has no relation to whether the loan is made at positive real interest rates or not.

--In many of the subsectors where PRE/H is involved, a much stronger influence on institutional decapitalization is the collection rate on loan servicing. Where delinquency rates

run in excess of 50 percent, it is of secondary importance what nominal interest rates are charged. The true cost of capital is the interest rate implied by the actual repayment stream, net of defaults. The policy priority should be to address the source of the greatest de facto subsidy, which often is arrearages.

**(iii) Measuring Inflation.** The inflation rate that is relevant for determination of long-run interest rates, such as that on mortgages, is future or "expected" inflation. In a market economy, the varying expectations of market participants regarding future inflation are reflected in the market rate of interest. Outside a market context, the selection of an inflation index to subtract from nominal interest rates in calculating the "real" interest rate can lead to endless disputes. For example, in consideration of a Housing Guaranty project for Ecuador, economists from different sections of AID expressed greatly different views as to what should be considered as "trend" inflation: price changes over the past 12 months, price changes over more recent periods annualized, estimates based on current government policy positions, etc. These lead to quite different interpretations of the same conditions: with a nominal interest rate of 32 percent, present interest rates in the country could be judged to be either very negative when measured against the previous 12-month inflation rate (90 percent) or strongly positive when measured against annualized inflation over the previous four months (20 percent). There almost always also will be disagreements over which price index ought to be used for measuring the inflation component of nominal interest rates.

Establishment of positive real interest rates in a particular sector, like shelter, can be a useful check point for measuring progress toward integrating sectoral lending into a market framework. It is not, however, an adequate substitute for an analysis of financial market conditions or an analysis of how credit policies within the sector can best support financial liberalization.

It needs to be emphasized, too, that the relevant interest-rate policy is that governing *all* sectoral lending. Little is accomplished by having AID or PRE/H projects alone comply with market terms of lending, unless there is a realistic plan for generalizing this experience to the rest of the shelter and urban sector.

## **PART II: SUMMARY OF INTEREST-RATE AND CREDIT POLICIES IN SELECTED COUNTRIES WHERE PRE/H OPERATES**

In recent years, most of the countries where PRE/H operates have moved, with the Office's support, toward higher real interest rates for shelter lending and greater integration of shelter sector finance into overall financial markets.

Table 1 summarizes the interest rate and credit structures in eight selected countries. In all of these countries, the interest rates charged by private lenders for home mortgages are now significantly positive. The interest rates charged by public sector lenders usually are lower, and show a wide scatter of positive and negative real interest rates. Public programs also vary widely in their degree of targeting, sometimes accounting for the bulk of shelter lending and in other cases limited to narrow groups of low-income households.

PRE/H policy is to increase the role of private sector institutions in shelter finance and the financing of urban infrastructure investments. As Table 1 demonstrates, in the great majority of developing countries this institutional shift will involve a shift toward more strongly positive real interest rates.

A common feature found in many developing countries is a form of contract saving for home acquisition. Under these plans--which may be voluntary or compulsory--a household agrees to save a designated amount monthly for a certain number of years, to serve as a down payment on a house purchase, then automatically becomes eligible for a mortgage loan. Such plans can be operated in several different ways, but typically they involve both a below-market return on savings and a below-market mortgage interest rate. These plans are discussed in greater detail in Part IV.

Table 1

Credit Conditions in Shelter Sector and Rest of Economy  
Selected Countries (as of Fall 1989)

Country	Extent of Government vs. Market Allocation of Capital	Selected Lending Rates	Inflation Rate	Positive Real Interest Rate Policy
INDIA	<p>About 70% of investments by financial institutions are directed by Government at prescribed interest rates, with varying degrees of subsidy. Housing is one of favored sectors.</p>	<p>Tax exempt bonds (infrastructure): 9% (7 yrs.)</p> <p>Bonds issued by Housing Development Finance Corp. (HDFC): 12.5% (10 yrs.)</p> <p>Term Loans for Housing: 12.5-13.5% (10-15 yrs.)</p> <p>Priority sector commercial lending: 14% (5 yrs.)</p> <p>Non-priority sector commercial lending: 16% (5 yrs.)</p>	8.8% (average for 5 years ending 1989)	<p>Commercial banks, the largest financial institutions, charge positive real rates on all loans; pay positive real rates to depositors for all except the shortest-term deposits.</p> <p>HDFC charges positive real interest rate on all mortgages; pays positive real rates to all depositors, except those participating in contract savings plan.</p>
PHILIPPINES	<p>Credit allocation largely market determined. Government ceilings on loan rates for different sectors and different term structures were eliminated in 1981. Government borrowing via Treasury Bills has large influence on interest rate structure, as do other open market operations.</p> <p>Government offers direct credit to favored sectors, like housing and agriculture.</p>	<p>Commercial: 60 days: 19.8% 1-2 yrs: 25.1% over 2 yrs: 24.1%</p> <p>Consumer loans: 16-28%</p> <p>Housing: Govt.: 6-16%, depending on loan size Private: annually variable rates, now 20-28%</p> <p>Agriculture: small farmers through Land Bank of the Philippines: 12-14%</p>	13.4% latest annual rate	<p>Essentially all commercial loans are at positive real interest rates. Time deposits offer real positive yields; passbook savings accounts have negative real rates.</p> <p>Government credit rates do not adjust quickly to changes in inflation and are now negative, due to acceleration of inflation, but have been positive in much of the recent past.</p>

<b>KENYA</b>	<p>Interest rates for regulated institutions are established by Central Bank, which sets maximum rates by institutional category. Where competition exists, rates are sometimes below ceiling levels.</p> <p>Under agreement with the World Bank and IMF, the Central Bank establishes monthly quotas on volume of new lending by credit institution.</p> <p>Government policy is designed to protect relative attractiveness of government borrowing.</p>	<p>Treasury bills: 15%</p> <p>Commercial bank loans: 15% (3 yrs.)</p> <p>Agriculture Finance Corp: Land Purchase: 12% Seasonal Crop Loans: 15%</p> <p>Housing: Building Society Loans: 16.5% Consumer Loans: 18-20%</p>	8.6% average last five years	<p>Policy is to maintain positive real rates for both savers and borrowers.</p> <p>All commercial bank loans and all time deposits carry positive real rates. Passbook saving has had positive real rates in 4 of last 5 years.</p> <p>Building Society loans are strongly positive; average real rate for past 5 years: 7.5%</p>
<b>ZIMBABWE</b>	<p>Zimbabwe has a highly regulated capital structure that is now being liberalized.</p> <p>Govt. policy is to maintain attractiveness of central govt. borrowing instruments and to sop up excess demand.</p> <p>There is a <u>floor</u> on interest rates for commercial lending, but no ceiling. There is a <u>ceiling</u> on mortgage rates for building society loans.</p> <p>In Oct. 1989 the govt. announced steps toward greater reliance on market based lending, including more frequent variation in the base lending rate in response to market conditions.</p>	<p>Treasury bills: 8.5%</p> <p>Govt. 25-yr. bonds: 13%</p> <p>Commercial bank loans: (3 yrs.) 13%</p> <p>Agricultural Finance Corp.: 12%</p> <p>Building Societies: under Z12,000: 12.5% over Z12,000: 13.25% commercial property: 14.75%</p> <p>Consumer loans: new equipment: 20%</p>	9.6% (average last 3 years)	<p>All commercial bank loans carry positive real interest rates.</p> <p>All Building Society loans carry positive real interest rates. Average real rate for low-income property: 2.9%; higher for other classes.</p> <p>Interest rate on time deposits and Post Office savings accounts has been strongly positive in real terms.</p>
<b>TUNISIA</b>	<p>Since 1986, the Government of Tunisia has been engaged in a Structural Adjustment Plan (SAP) whose objective is a progressive liberalization of the economy. Liberalization of financial markets constitutes one of the key elements of this SAP; these markets had been very tightly controlled.</p>	<p>Priority sectors: Agriculture: 6-7.5% Exports: 6-8% Small enterprises: 7% Energy saving: 7%</p> <p>Housing: General: 10.5% Contract savings plan: 8.25% (savings under plan: 6.75%)</p>	8.5% most recent annualized rate	<p>Ceiling on "spread" results in lack of risk differentiation in interest rates. Result has been to squeeze out lending to higher-risk, smaller borrowers, since risk cannot be compensated by higher rates.</p>

In January 1987, the Central Bank abolished practice of fixing interest rates by sector and institution. Interest rates are now market determined within flexible caps, except for activities designated as "priority sectors" (agriculture, exports, small enterprises, energy savings, and some low-income housing).

Interest rates for lending in priority sectors are in process of being raised to the Central Bank re-discount rate.

There is a government-imposed 3% ceiling on the "spread" between money market rates and lending rates. This policy is being re-examined.

Low-income: 5%

All other:

Money market rate +3%

In Jan. 1990 = 11.3%

#### HONDURAS

Central Bank establishes rate ceilings for different types of loans.

Except at upper end of income scale, shelter sector finance is not well integrated into rest of financial structure, as bulk of financing comes from public employee pension funds, external loans, and other sources that do not go through market intermediation.

General commercial lending: 17%

Housing, savings and loans: 14%

Pension fund plans are a form of compulsory contract savings, with lower, below-market savings and mortgage rates.

Agriculture: 10-12%

Infrastructure: 5-16%, externally financed through international credits, with different terms.

Average last five years: 6%

Current rate has accelerated, though official CPI is compressed by price controls. Most recent official estimate: 5-6% unofficial: 14-18%

There is a large spread between lending rates and deposit rates, as banking system is an oligopoly without much deposit competition.

New government is in process of liberalizing financial system to some degree.

#### COSTA RICA

In recent years, government policy has eliminated most credit subsidies, restricted money supply as part of campaign to combat inflation, and allowed market determination of interest rates and most credit allocation.

General commercial: 28%

Housing:

Private: 22.5% adjustable rates; some govt. subsidy programs for low-income

Infrastructure: 18-22%

Term deposits: 11-20%

17% most recent rate

Almost all interest rates are now strongly positive in real terms

**JAMAICA**

Jamaica has followed a restrictive monetary policy in recent years. Policy has been designed in part to preserve attractiveness of government debt instruments. Credit allocations generally are market determined, through IMF agreement in fall 1989 sets limits on lending by institution.

**Commercial: 28-32%**

**Treasury bills: 23-27%, depending on period**

**Housing:**

**Building Society: 19% mortgages**

**National Housing Trust:  
6-8-10% by income class**

**11% average last five years  
Most recent: 16%**

**All private sector lending rates are strongly positive in real terms. NHT interest rates are fixed, and the real rate becomes strongly negative during upturns in inflation, as is currently true.**

### **PART III: PRE/H POLICY TOWARD THE SHELTER AND URBAN SECTOR**

PRE/H policy is designed to help implement the basic objective stated in AID's position paper on interest rates and capital markets: to support "a planned effort to encourage governments to move progressively toward market terms of lending." Like other sectors of the economy, the shelter and urban sector possesses some unique characteristics which shape the way this general policy can be implemented.

PRE/H endorses eight principles to guide the involvement of regional housing and urban development offices in sectoral financing.

**(i) A steady movement of mortgage lending rates toward market rates of interest.** Although exceptions may be warranted for highly targeted subsidy programs (see Part IV), the general direction of mortgage interest rates should be toward market rates, while shelter finance institutions should be integrated more thoroughly with the rest of the domestic financial structure. Even deliberately subsidized lending programs should move from deep subsidies for a few borrowers to shallow subsidies for a larger number. As demonstrated in Table 1, substantial progress toward market terms of lending already has been registered in many LDCs. Where deep subsidies for mortgage lending still exist, it is PRE/H policy to encourage their elimination, and to make its program support contingent upon a specific, realistic plan, whose success can be monitored, for moving in this direction. At the same time, PRE/H recognizes that, as is true of all currently developed countries, government subsidization of housing for very narrowly targeted groups of beneficiaries may sometimes be appropriate. The issue of subsidy strategies is discussed at greater length in Part IV.

**(ii) Fitting sectoral programs into a national strategy for equalizing the cost of capital across sectors by raising interest rates in the sectors where they are now lowest.** An example of such a policy is the position taken by AID in negotiations with the Government of Honduras. Under it, all Central Bank rediscount lines of credit to different sectors would be unified at 12 percent. This proposal would replace a system in which there have been more than 40 different sets of credit terms for specialized lending purposes, most of them at rates far below 12 percent. By raising the cost of capital to intermediate financial institutions and equalizing the cost of capital across sectors, the allocation of capital will be greatly improved, regardless of whether the inflation rate is around 5-6 percent, as the government maintains, or more than 15 percent, as suggested by AID/H studies.

PRE/H supports equal rediscount rates between the housing and urban sector and other sectors of the economy, except for highly targeted types of shelter programs that have been made the explicit beneficiaries of subsidization.

**(iii) Ensuring that higher interest rates are passed on to savers, and used to help mobilize domestic financial resources, especially from the informal sector.** One purpose

of a higher interest rate structure is to generate greater financial savings in the economy. PRE/H programs should ensure that the adjustment toward market interest rates is not restricted to lending institutions, but that higher interest rates are made available to savers, as well. Otherwise, credit reform will swell the margins of financial institutions. Increased interest rates for savers can best be guaranteed by supporting competition among financial institutions, and by dismantling government-imposed interest rate limitations. PRE/H's role is especially important in tapping financial savings in the informal sector, since studies show that the primary motive for saving among these households is for house acquisition and improvement.<sup>10</sup> This means working vigorously to increase the savings and lending rate in credit unions, housing cooperatives, and other sectoral institutions drawing upon informal savings.

**(iv) Interest-rate differentiation according to credit risk.** One of the most important market failures in the shelter and urban sector is the failure to differentiate the cost of capital by credit risk. Often, this is the result of lack of information about repayment and collection experience. PRE/H programs should encourage the standardized measurement and reporting of default experience among sectoral institutions, and encourage the use of credit terms that reflect this experience. One valuable device is to calculate the de facto interest rate that applies to different programs, taking into account the actual payment record. For example, RHUDO/CAR is now carrying out studies that define the de facto interest rate being charged on all National Housing Trust, Ministry of Construction/Housing, and Caribbean Housing Finance Corporation credit programs, taking into account both the nominal interest rate structure on different programs and actual default experience. When similar studies were conducted for housing finance programs in Argentina, it was found that only roughly half of the credit subsidy was delivered by below-market nominal interest rates. The rest was delivered in the form of non-collection of amounts due.<sup>11</sup>

**(v) The introduction of variable rate lending to the domestic financial sector.** For long-term lending, the only satisfactory protection against uncertain and highly fluctuating inflation rates is an adjustable rate of interest. Adjustable-rate mortgages are an instrument with which there has been considerable international experience, and which are appropriate for introduction into most domestic financial markets.

Unfortunately, although variable rate mortgages protect the lending institution against decapitalization, they transfer much of the risk to individual borrowers. The possibility that future interest rates will rise, at a time when household incomes fall, because of structural adjustment policies, places the borrowing household at considerable financial risk. In Turkey, this problem was addressed by devising an adjustable-rate mortgage scheme, where interest rates are indexed to wage levels, rather than to consumer prices. Given the "normal" movement of prices and wages, this plan actually involves higher real interest rates than mortgages whose interest rates are tied to price indexes. At the same time, they offer protection to the borrower against the consequences of drastic real wage losses resulting from government fiscal and monetary policy.<sup>12</sup> This issue is discussed further in Section IV.

**(vi) Greater Use of Equity Finance.** Disputes over the "right" way to calculate the real interest rate can be avoided by encouraging equity finance. This is especially appropriate for urban projects involving the private sector. For example, co-investment by the private sector in the development projects of the Kingston (Jamaica) Restoration Company was hampered by disputes over what the interest rate should be on private-sector lending. The dispute was overcome by devising an equity instrument that exposed private sector investors to full project risk, while making their return vary directly with project profitability. The greater use of equity capital is desirable, too, because most credit programs contain disguised subsidies in the form of guarantees which make it difficult to calculate the true market-rate equivalent of the interest rate. In general, excessive use is made of credit in developing country finance, because of investors' unwillingness to assume project risk and because of the subsidized terms on which credit is available.

**(vii) Role of Positive Real Interest Rates in Cost Recovery for Infrastructure Investment.** The real interest rate question often is raised in the context of setting tariffs for infrastructure services. Positive real interest rates are necessary, it is argued, in order to set service charges which fully reflect the cost of capital required to produce them. There are very few countries in the world, however, that recover from users the full cost of infrastructure provision for streets, sewer services, or (often) potable water provision. Part of these costs typically are treated as a municipal investment, paid by local taxes. PRE/H programs should demonstrate that cost recovery from user or beneficiary charges is sufficient to cover all operations and maintenance costs, plus make a contribution to recovering the costs of capital. Moreover, programs should seek to spread cost recovery principles throughout the sector, not restrict them to AID-financed projects. Otherwise, AID will find itself confronting the paradox that exists in Honduras: AID-financed water distribution projects for low-income households incorporate full recovery of capital costs at up to 18 percent interest rates; exactly similar water distribution projects financed from municipal sources involve cost recovery at 0 percent interest; while water extensions in affluent areas are made at no capital cost whatsoever to the user.

The adoption of partial cost-recovery from individual users throughout the municipal infrastructure sector, with the remainder of project costs recovered through local taxes, is a much greater contribution to market allocation of capital than is imposition of full cost recovery on individual participants in AID-financed projects only.

**(viii) Contribution of sectoral programs to financial deepening through greater use of financial intermediaries.** One goal of a shelter and urban sector finance strategy should be to integrate sectoral financing more fully into the domestic private sector financial system. This requires a lessening of dependence on noncompetitive, earmarked sources of public funding, and greater use of private financial intermediaries which are free to allocate capital across sectors. As background for a sectoral finance strategy, RHUDOs should prepare analyses of (1) the sources of funds used to finance both shelter and urban infrastructure investment, (2) the path of intermediation used to channel savings to sectoral investment, and (3) the interest rate structure used at each stage of deposit gathering and lending.

## **PART IV: SPECIAL ISSUES IN THE SHELTER AND URBAN SECTOR**

This section addresses three special issues that arise frequently in consideration of interest-rate policies in the shelter and urban sectors.

### **CONTRACT SAVINGS PLANS**

As demonstrated in Table 1, a common feature of shelter finance strategies is a contract savings plan. Participants make regular savings deposits in agreed-to amounts for a designated period of time, usually receiving below-market interest rates on their deposits, then become eligible for a mortgage loan, also at below-market rates.

Many variants on this structure can be found. Some are purely voluntary. The Building Societies in Jamaica, for example, operate a plan whereby depositors make monthly deposits for seven years. They are credited with 3 percent interest on their savings. At the end of the period the customer is guaranteed a mortgage loan at a rate of 5 percent, the other mortgage terms being standard. (By contrast, the market mortgage rate is now 19 percent.) The Housing Development Finance Corporation of India also operates a voluntary plan, but both the savings rate and mortgage rate are closer to market rates. Most Latin American countries have obligatory versions of contract savings, either for special groups, like the members of a public employee pension fund, or for all workers covered by the social security system. In the latter case, payroll charges or "taxes" are withheld from the worker's regular earnings, and deposited in a special account to which (below-market) interest earnings are credited. After a designated period of time, the worker becomes eligible for a below-market mortgage loan. In the nationwide systems, however, eligibility for mortgage loans usually far exceeds financing availability, so that the below-market mortgages have to be allocated on other grounds, such as through a lottery system or by a priority point system.

Contract savings plans have been shown in several countries to increase participants' rate of savings and to increase even more strongly the share of household savings held in the form of financial assets.<sup>13</sup> They thus can be a constructive part of a national strategy to increase the savings rate and increase intermediation in the financial sector. Such plans can be especially useful in tapping the savings of informal sector households who otherwise would be unlikely to place their savings in formal-sector financial institutions. Contract savings plans, especially of the compulsory kind, however, can easily be abused. Faced with a guaranteed source of inexpensive or "free" funding, the institutions managing these plans can operate like inefficient monopolists, shielded from market competition. In Jamaica, the spread between the National Housing Trust's cost of funds and its average lending rate has risen to almost 9 percentage points--a margin that goes largely to finance an inefficient bureaucracy and a low rate of collections of mortgage payments due. In Honduras, the public employee pension plans have assumed virtually the entire range of housing finance and construction activities. They collect pension contributions, use the (below-market) money to build their own housing

developments, then provide members with below-market mortgage loans, available exclusively to purchase housing in the developments they have built. Each step of this process is shielded from market competition, and conducted inefficiently.

PRE/H policy is to support contract savings plans where they operate at near market rates of interest and are open to market competition. The Office works with local institutions to remove the monopolistic restrictions that tie the low-cost payroll savings to mortgages available only for specific housing developments, especially those built by public sector or parastatal agencies.

## **AFFORDABILITY OF HOME MORTGAGES**

Mortgages at market rates of interest are not affordable by a large portion of the population in most developing countries. This reality has led to the pressure to subsidize lending rates.

The most important long-run solution to the problem of housing affordability is to increase household incomes. PRE/H supports efforts by national governments and AID missions to increase economic growth and seeks to design urban and shelter programs that directly further growth objectives.

However, policies within the shelter sector can contribute significantly to shelter affordability. PRE/H policy gives priority to lowering the real costs of housing units, both by reducing component costs and by reducing the size of the housing bundle to bring it within the realistic capacity to pay of poor families.

Office guidelines regarding affordability may be summarized as follows:

(1) The absolute poor in every country lack the resources to purchase even the minimum standard of shelter that is produced. The housing needs of this group are best served by revamping public restrictions to make it easier for households to find land and progressively build minimal housing over time on their own. The requirements of this part of the population also can be met in part by an expansion of the supply of low-priced rental housing, induced by dismantling restrictions on the private rental market. Public subsidies are most efficiently delivered by having the public at large absorb part of the costs of basic infrastructure supply, rather than by mortgage subsidies to encourage house purchases.

(2) All housing for below-median income families can benefit from efforts to lower the regulatory costs of housing construction. The minimum lot sizes, minimum house size requirements, and minimum infrastructure standards imposed by formal-sector regulatory bodies all typically exceed the capacity to pay of the lower half of the income distribution. Regulatory reforms usually can lower the effective cost of housing, resulting in real efficiency gains.

(3) For some lower income households homeownership is a realistic goal if there is moderate subsidization. PRE/H policy supports the replacement of across-the-board mortgage subsidies with highly targeted programs. These should concentrate on households within designated income groupings for whom homeownership is feasible, and in mortgage amounts that finance appropriate levels of housing investment. Even in these cases, deep subsidies are inappropriate. As a general goal, PRE/H supports shallow subsidies that can reach a broad coverage within the targeted population. The preferred instrument for such subsidy is transparent, up-front grants, whose costs and targeting characteristics can easily be identified.

(4) In highly inflationary economies, homeownership is unaffordable to many households because of the rigidities of traditional mortgage lending. Fixed-rate mortgage loans under these conditions demand extraordinarily high real payments from borrowers in the initial years of a loan. Under these circumstances, mortgage loans with annually increasing payments or other types of indexing can bring mortgages within the affordability limits of many households, without jeopardizing the market basis of lending. Where inflation rates are highly variable, adjustable rate mortgages can help overcome lenders' reluctance to make long-term loans and thus assist affordability.

## **INFRASTRUCTURE LENDING**

No developed country in the world finances basic urban infrastructure at full market rates of interest. In the United States, state and local government bonds issued for capital investment benefit from tax exemption, which lowers the effective cost of capital by some 25 percent. In most European countries, the banking system is required to set aside funds for lending to municipal governments for capital investments at below-market rates of interest. In addition, all national governments provide direct grants to local governments to further reduce local investment costs for essential public facilities.

PRE/H policy recognizes this reality. It is an unrealistic and undesirable goal to eliminate all subsidies for local infrastructure investment. PRE/H policy is to make the subsidy system for infrastructure spending more transparent, more predictable, and consistent with decentralization objectives that confer more authority over local investment choices to local governments.

## FOOTNOTES

1. Goldsmith, Raymond William. 1985. *Comparative National Balance Sheets: A Study of Twenty Countries, 1688-1978*. Chicago: University of Chicago Press.
2. Chretien, M. 1986. *Contractual Savings Schemes for Housing: International Comparisons and Applications to Developing Countries*. Washington, D.C.: The World Bank, Report No. UDD-92.
3. *World Development Report 1989*. Washington, D.C.: The World Bank, Table 2.2.
4. See A.I.D. Policy Papers, *Financial Markets Development*, August 1988; *Private Enterprise Development*, March 1985; *Domestic Water and Sanitation*, May 1982; *Urban Development Policy*, October 1984.
5. For developing countries see:
  - Balassa, Bela. 1988. "The Effects of Interest Rates on Savings in Developing Countries." The World Bank. Paper prepared for *World Development Report 1989*.
  - Fischer, Stanley. 1987. "Economic Growth and Economic Policy," in Vittorio Corbo, Morris Goldstein, and Mohsin S. Khan, eds. *Growth-Oriented Adjustment Programs*. Washington, D.C.: International Monetary Fund.
  - Haque, Nadeem. 1988. "Fiscal Policy and Private Saving Behavior in Developing Economies." *IMF Staff Papers* 35 2:315-335.
  - Rossi, Nicola. 1988. "Government Spending: The Real Interest Rate and the Behavior of Liquidity Constrained Consumers in Developing Countries." *IMF Staff Papers* 35, 1:104-40.
6. Struyk, Raymond J. and Mark Friedman. 1989. *The Impact of a Housing-Linked Contract Savings Scheme on Households' Holdings of Financial Assets in India*. Washington, D.C.: The Urban Institute. February.
  - Fry, Maxwell J. 1988. *Money, Interest, and Banking in Economic Development*. Baltimore, Md.: Johns Hopkins University Press.
7. *World Development Report 1989. op. cit.* Chapter 3.
  - Gelb, Alan. 1988. "Financial Policies, Efficiency, and Growth: An Analysis of Cross-Section Relationships. The World Bank. Background Paper Prepared for *World Development Report 1989*.
  - Jung, Woo S. "Financial Development and Economic Growth: International Evidence." *Economic Development and Cultural Change*. 34 2:333-46.
  - McKinnon, Ronald I. 1988. "Financial Liberalization in Retrospect: Interest Rate Policies in LDCS." In G. Ranis and J. R. Schultz, eds. *The State of Development Economics*. New York: Basil Blackwell.
8. *World Development Report 1989. op. cit.* Chapter 9.

9. Mayo, Stephen and James Stein. 1987. "Housing Demand in Developing Countries." World Bank Staff Working Paper. June.
10. Chretien. *op. cit.*
11. Buckley, Robert M. 1987. "The Measurement, Control and Targeting of Housing Finance Subsidies: The Case of Argentina." World Bank Staff Working Paper. August.
12. Buckley, Robert M., Barbara Lipman, and Martha Nicholson. 1989. *Mortgage Design under Inflation*. Washington, D.C.: The Urban Institute. Report Prepared for USAID, Office of Housing and Urban Programs.
13. Struyk and Friedman. *op. cit.*  
Vogel, Robert C., and P. Burkett. 1986. *Mobilizing Small-Scale Savings: Approaches, Costs, Benefits*. Washington, D.C.: The World Bank, Industry and Finance Series. Vol. 15.