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ALTERNATIVES TO CONVENTIONAL
MORTGAGE FINANCE SYSTEMS

by

Elaine B. Weis, Senior Associate
and
Richard T. Pratt, Chairman

Richard T. Pratt Associates, Inc.
Salt Lake City, Utah, U.S.A.

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TABLE OF CONTENTS

Introduction	1
Down Payment Requirements	1
Adequacy of Collateral.	3
Land Tenure	5
Granting of Freehold Estates in Government Land	5
Granting of Leasehold Estates in Government Lands	10
Private Lands	10
Communal Lands	14
Summary of Tenure Issues	14
Housing Affordability	15
Alternative Mortgage Payment Plans	18
Graduated Payment Mortgage.	19
The Pledged Savings Account Mortgage	25
The Variable Rate Mortgage	26
The Renegotiable Rate Mortgage	35
The Shared Appreciation Mortgage	37
Flexible Loan Plans	38
Conclusions	45
Appendix	A1

EXHIBITS

1. Limitations of Conventional Financing Systems	2
2. The Impact of Appreciation in Housing Prices on the Risk Exposure of Mortgage Lenders	4
3. Financing Land Purchase	9
4. Tax Exempt Land Purchase	11
5. Joint Venture with Private Landowner	13
6. Affordability of Housing	16
7. Affordability of Housing	17
8. Relationship Between Level Payments and Graduated Payments with a Constant Annual Dollar Increase at Interest Rates	20
9. Payment Pattern for a Graduated Payment Mortgage with a Constant Annual Increase for Ten Years Followed by Level Payments for Ten Years	21
10. Relationship Between Level Payments and Graduated Payments with a Constant Annual Growth Rate of 2.5% at Interest Rates of 8%, 10%, 12%, 15%	22
11. Payment Pattern for a Graduated Payment Mortgage with a Constant Annual Growth Rate of 2.5% for Ten Years Followed by Level Payments for Ten Years	23
12. Graduated Payment and Level Payment Related to Income Available	24
13. Pledged Savings Account	27
14. Pledged Savings Account	28
15. Pledged Savings Account	29
16. Pledged Savings Account	30
17. Variable Rate/Variable Payment Mortgage	32
18. Variable Rate/Variable Maturity Mortgage	34
19. Loan Analysis for Renegotiable Rollover Mortgage	36

EXHIBITS (cont.)

20.	Monthly Payment Required to Amortize a Loan of \$700 Over Five Years	40
21.	Hypothetical Income Patterns for a Family Earning \$840 Per Annum	41
22.	Skip Payment Loan	42
23.	Summary of Alternative Payment Plans	43

ALTERNATIVES TO CONVENTIONAL MORTGAGE FINANCE SYSTEMS

Introduction

The housing finance programs which have been instituted in developing countries usually employ conventional mortgage financing techniques. Typically, these programs offer level payment mortgages with high down payments and below market interest rates. The limitations of conventional housing finance systems are summarized in Exhibit 1. In essence, these limitations are the result of dealing with a disorganized system by conventional means. Low and even middle income households frequently do not meet the criteria established for lending. These criteria are based on those employed in more developed economies and may not be appropriate in a less developed country. In order to devise housing finance programs that will reach a broader spectrum of the population, alternatives to the traditional mortgage finance systems should be considered.

Down Payment Requirements

In a number of countries it appears that unrealistically high down payments are required. Down payments of 40 percent, 50 percent or 60 percent of the value of the housing unit frequently are paid. In many cases, the loans being given to private sector borrowers relative to the value of the dwelling are so low as to reduce the usefulness of mortgage credit. In addition the required down payments are beyond the financial capacity of a large portion of the households requiring housing. Loan to value ratios are inordinately low because of regulations which do not appear to be supported by delinquency and foreclosure experience and because of the low interest rates generally charged on mortgage loans.

It is likely that in many countries low loan to value ratios are employed to ration credit. As an alternative means to achieve the same end, mortgage lenders could relate interest rates to loan to value ratios. For example, a 60 percent loan might bear an interest rate of 10 percent, a 70 percent loan 12 percent and an 80 percent loan 14 percent.

The reduction of down payments to more reasonable levels would make housing affordable to a larger segment of the population. The lowering of down payment requirements without greater risk exposure to the mortgage lender could be accomplished through government guarantees or insurance of mortgage loans or through requiring a co-guarantor on any loan in excess of, for example 80 percent, of the value of the property purchased. A program of this type could reduce or eliminate the risk to the mortgage lending institutions. Under a government loan guarantee or insurance program a fee should be charged for the guarantee or insurance sufficient to cover administrative costs and expected losses under the program.

EXHIBIT 1

**LIMITATIONS OF CONVENTIONAL
FINANCING SYSTEMS**

HIGH ELIGIBILITY REQUIREMENTS	CONSTRAINTS ON HOUSEHOLD ACCESSIBILITY
<p>A. HIGH DOWN PAYMENT (LOW LOAN-TO-VALUE RATIO)</p> <p>B. COLLATERAL REQUIRED TO BE IN THE FORM OF MARKETABLE ASSETS</p> <p>C. REQUIREMENT OF EVIDENCE OF ESTABLISHED TENURE, USUALLY FEE TITLE</p> <p>D. AN ADEQUATE INCOME AT A SPECIFIED LEVEL</p> <p>E. REGULAR EMPLOYMENT AND INCOME FOR A REQUIRED TIME</p>	<p>A. INSUFFICIENT CASH SAVINGS. SAVINGS HELD IN THE FORM OF TANGIBLE ASSETS</p> <p>B. ASSETS USUALLY NOT IN THE FORM ACCEPTABLE TO CONVENTIONAL LENDERS SUCH AS CATTLE, JEWELRY, AND LAND</p> <p>C. TENURE IS NOT ESTABLISHED, USUALLY SQUATTER'S RIGHTS, TRIBAL SYSTEM</p> <p>D. AVERAGE HOUSEHOLD INCOMES BELOW THE SPECIFIED LEVEL</p> <p>E. ERRATIC OR SEASONAL EMPLOYMENT PATTERN, INCOME PATTERN AND SELF EMPLOYMENT</p>

The risks of making higher loan to value ratio loans would be reduced by the operation of the market itself. Where housing costs are escalating at a rapid rate, the increase in housing prices reduces the risk exposure of the lender. Exhibit 2 graphically represents the impact of appreciation in house prices on a lender's risk exposure. In the example, a housing unit costs \$1,000 today and a 20 percent down payment is required while housing prices are increasing at a rate of 10 percent per year. As the exhibit shows, the loan to value ratio declines rapidly. After only two years, the outstanding balance on a 20-year 80 percent mortgage at an interest rate of 10 percent is only about 64 percent of the market value.

An alternative to cash down payments which could be considered is the value of the borrower's labor. For example, in the Building Together Project in Bangkok, Thailand it was found that many families eligible for the project could not meet the minimum down payment of ฿13,000 on the ฿65,000 homes in the project. The Government Housing Bank adopted a shadow price for the people's labor of ฿6 per hour. Since each family committed 1500 hours of labor, the total value of the labor counted toward the down payment was ฿9000. Thus the families were required to pay only ฿4000 in cash, which surveys had indicated was within their ability to pay. If a family had more savings accumulated, they could reduce the amount of financing required. The ฿9000 credit would reduce monthly payments under the terms of financing for the project (12% interest over 15 years) by ฿108 per month, or 3.5% of the average household income of ฿3,100.

Adequacy of Collateral

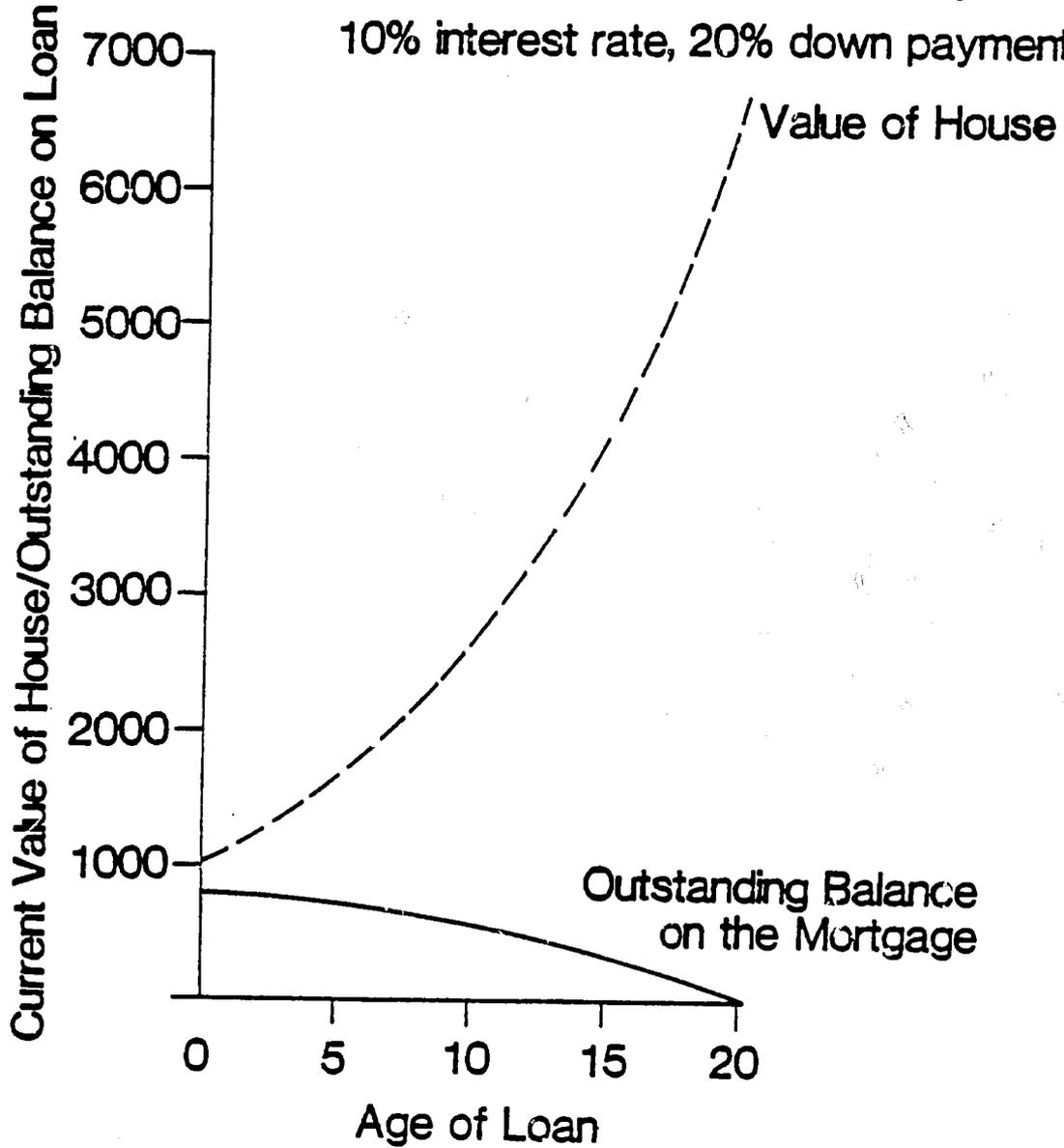
When the security pledged against a loan is considered inadequate, the lender will frequently demand additional collateral or a co-guarantor. Traditionally this collateral must be money or financial investments such as a contract savings account. Many low income families do not hold such assets. In many developing countries, wealth is maintained in nonmonetary form. Cattle, jewelry, building materials, automobiles, and equipment may constitute the majority of a poor family's assets. A system could be devised in which these tangible assets could be accepted as security for the mortgage loan. The borrower would assign the goods to the lender until a set amount of payments had been made. At this time the lender would release his claim on the goods.

The incentive to pay the mortgage promptly may be intensified if the family's means of livelihood, such as a taxi or equipment used in home industry, were at risk. Assets such as jewelry, which have cultural and social as well as monetary value, when pledged as security for a mortgage loan could also offer a substantial incentive to pay. The acceptance of alternative forms of collateral could help to lower the barriers to access to mortgage credit for many low income households.

EXHIBIT 2

The Impact of Appreciation in Housing Prices
on the Risk Exposure of Mortgage Lenders

Rate of Appreciation – 10%, per year
Mortgage Loan – 20 year maturity,
10% interest rate, 20% down payment



Land Tenure

A major impediment to the efficient and widespread provision of mortgage credit in developing countries is the existing system of land tenure. The issue of land tenure is particularly relevant to housing finance because a mortgage, by definition, is a claim against real property. Therefore, the prospective borrower must possess some legal rights to real property if he is to avail himself of mortgage credit. Most conventional housing finance programs require that the borrower have a freehold interest in the property to be pledged as security for a mortgage loan and be able to provide the necessary documentation to establish that interest. Freehold ownership is regarded as providing the greatest security of tenure. However, a leasehold estate, or ground lease, if it is for a sufficiently long term, let us say 30, 40 or 50 years, may be considered equally secure, especially if the leasehold is inheritable and the lease includes an option to buy provision.

Securing a legal and secure claim to the land for the benefit of low income households, by whatever legal means, is one of the most important functions of government housing authorities. The tenure issue is especially critical to the upgrading of squatter settlements and the development of new low income housing projects. Security of tenure is one of the most intensely perceived needs of settlers. A desire common to households everywhere is to build a home on a piece of land they can call their own. In addition, security of tenure is a very important stimulus to a household's investment of time, money and effort in constructing permanent dwellings on the land they occupy. It is understandable that households occupying land from which they could be evicted with little notice are less than fully motivated to invest their limited resources in building or improving their houses.

It is commonly agreed that the key to releasing the instinct to build is the security of tenure to land. The controversy arises over what form that tenure should take, what financial requirements should be imposed, and what restrictions, if any should be placed on the land conveyed to settlers. If housing finance systems are to function effectively in reaching lower income households, who are the least likely to have secure tenure in land, housing finance agencies must be flexible and innovative in structuring mortgage instruments which are consistent not only with the requirements of the mortgage lender and the low income household's ability to pay, but with the prevalent system of land tenure operating in the country.

Granting of Freehold Estates in Government Lands

In some countries, such as Hong Kong, a large proportion of the land is owned by the government. In other countries, such as the Republic of Korea and Japan, government land banks have been created with land held in reserve for future needs. In still other countries where the majority of urban land is in private hands, the government can acquire land for public use only by expropriation. In those cases

where the government already owns the land it has been argued that the financial value of the land is of little relevance. Since the government did not pay for the land, it can be given away, sold or leased at minimal costs to low income settlers. However, in terms of the net fiscal position of the housing authorities, the revenue lost by not selling or leasing the sites should be considered the equivalent of costs incurred in those cases where the authorities have had to purchase land for housing project.

The granting of freehold ownership of government land to low income households presents several problems. In the case of squatter settlements, the granting of legal title to the land is to acquiesce to an illegal action and, in fact, reward people for the illegal seizure of land. Such a move by the government could actually result in an acceleration of the growth of squatter settlements.

The issue of land tenure is very complex in many developing countries. In many countries the system for land registration or recording's primitive at best. For example, in Indonesia it is almost impossible to ascertain the boundaries of a tract of land and the rights of the various owners, creditors, tenants, heirs and other claimants. Even if a system of land registration is established, the problem may not be resolved. It would be a lengthy and costly undertaking to register the claims of all land in areas where customary or Muslim law have provided the framework for land distribution for centuries. The passage of laws requiring the registration of land titles will not necessarily alter the behavior of families accustomed to traditional land laws. A possible solution would be the use of a form of title insurance in which conflicting claims would be adjudicated, title vested in the most likely owners and insurance provided against other claimants. Such a system has been used in Singapore.

Another problem is that freehold ownership, unless it is specifically restricted by the deed, imparts the right of alienation. A family in a squatter settlement could reap an immediate cash windfall by selling its plot of land or apartment and renting it back or moving on to another squatter settlement. Even if the deed states that the grantee cannot sell the land for a specified length of time, enforcement of this condition would be difficult. In some Korean and Hong Kong housing projects it is recognized that this type of technically illegal activity is common.

How can this problem be avoided? One possibility is to defer the issuance of title until the grantee builds a dwelling on the lot. However, this alternative may only defer the sale. Another alternative is to establish concurrent ownership with the local housing authority. Both of these alternatives would require enforcement to be effective. The cost of enforcement and the likelihood that such restrictions cannot be enforced effectively cast

doubt on the efficacy of any legal restraints to prevent the sale of this land.

Another possibility would be to grant title to the entire tract to an owner's association, cooperative or some other organized community entity with each member owning an undivided interest in the entire tract proportional to the value of his individual parcel. This solution has been employed in the Building Together Project in Bangkok, Thailand. This "condominium" type of structure would require a high degree of cohesiveness and community organization within the settlement. It has been suggested that in those countries where the communal form of ownership is an integral part of the culture, that communal ownership would be readily accepted by residents. Legislation protecting the rights of residents could reinforce customary practices.

Perhaps the most critical problem of granting title is financial. Urban land in most developing countries is extremely costly. The typical low income household could not afford to purchase the land, much less build a home on it. For example, let us assume that a family earning \$60 per month is offered a lot valued at \$1000. The family can pay \$100 as a cash down payment. If we assume that the family could afford to pay \$12 per month, or 20 percent of its monthly income, as a mortgage payment and that the interest rate is 10 percent, it would take almost 10 years for the family to pay for the lot alone.

At the other end of the spectrum, the government could give the land to the family. This course of action is commonly employed in many developing countries. The long run implications of the wholesale giveaway of government lands can be serious. The first consideration is the financial implication for the housing authority. If the opportunity cost of giving away public lands is disregarded, a significant source of funds for future land acquisition and development would be lost. The relevant issue is not whether or not the government had to pay for the land, but the value of the land on the marketplace today.

Another potentially negative aspect of a free land program is that the settlers have less of a commitment to invest in the property. The temptation to sell the land off and make an immediate high profit would indeed be great, and perhaps irresistible.

The best course of action seems to lie between the two extremes. One alternative would be to value the land at less than the current market value. Since land values may be artificially inflated due to speculation, valuation at below market price may be a valid alternative. The price which is set for the land should be adequate to cover administrative costs and also contribute to the cost of providing services.

A method of valuation which could be used is to establish a fair market rent for the land and discount it at a cost of capital pegged to the rate the government pays for its funds. If \$1000 lot used in the earlier example could be leased for \$75 per year if land were readily available and the land market functioned efficiently. If the fair return on land is 10 percent, the value today would be \$750. The difference of \$250 between the "fair" value and the current market price is due to disequilibrium between supply and demand, speculation and market imperfections. Financing of the purchase of a lot at its fair market value could be accomplished by using what is called a lot or site loan. The lot loan could be in the form of a mortgage, where the household is granted title and the lender has a lien on that title, or an installment contract, in which the lender, in this case the housing authority, retains title to the land until either the full contract is paid off or the lot loan is converted to a permanent mortgage when the family builds its home. A lot loan is usually a balloon payment loan. The loan is amortized as if it were to be paid off over a long period of time, say 25 or 30 years, but payment in full is required at the end of a short period, say 3 to 5 years.

Exhibit 3 presents an example of a lot financing scheme. The "fair market value" of the lot is \$750, and the family can make a \$75 (10 percent) down payment, the principal of the loan is \$675. If the loan were amortized over three years at 10 percent, the monthly payment would be \$21.78, or over 36 percent of the family's monthly income. However, if a balloon payment lot loan were used, with the \$675 amortized over 25 years the payment would be only \$6.13 per month. At the end of three years, the family will still have an outstanding principal balance of \$653.54. If the family is not prepared to build at this time, the loan could be renegotiated at the current rates, terms, and conditions for similar loans. However, it is suggested that the amortization period for the renegotiated loan be reduced by the time elapsed from the first lot loan. In this example, three years have elapsed so that the term on a renegotiated loan would be 22 years, not 25.

If at this time they are prepared to build a permanent dwelling on the lot they would take out a mortgage loan for the remaining balance on the land plus the cost of construction, and the family's equity in the land could be used as the down payment on the mortgage. Let's say that at the end of three years the value of the land has increased by 20 percent to \$900. Therefore, the family has \$246.46 in equity in the land. If the mortgage lending institutions require a 20 percent down payment, the equity in the land would support a loan of \$1232 with no additional cash required. At the time the mortgage loan is taken down, the lender would have a claim against both the land and the improvements.

EXHIBIT 3

FINANCING LAND PURCHASE

I. VALUATION AT FAIR MARKET VALUE

Current Market Price	\$1,000
Fair Market Rent	\$75/year
Fair Return on Land	10%
Capitalized Value of Land	\$750

II. FINANCING WITH A LOT LOAN AND A PERMANENT LOAN
AT THE END OF THREE YEARS

Value	\$750
Down Payment	\$75
Amortization Period	25 years
Interest Rate	10%
Balloon Payment Due	3 years
Monthly Payment	\$6.13

Outstanding Balance on Lot Loan at the End
of Three Years: \$653.54

Appreciation in Lot Price	20%
Current Market Value of Lot	\$900
Equity in Lot	\$246.46

III. LOAN WHICH COULD BE SUPPORTED WITH:

No Additional Down Payment	\$1,232
\$100 Additional Down Payment	\$1,732
\$200 Additional Down Payment	\$2,232

Granting of Leasehold Estates in Government Lands

An alternative to freehold ownership which could be seriously considered is the ground lease. In urban areas where land costs are prohibitively high, the ground lease may be the most reasonable alternative for providing security of tenure to low income residents and at the same time reducing the opportunity cost to the housing authority.

A ground lease is a long term lease on land which can have an option to purchase incorporated into its provisions. The ground lease has a number of attractive features. First, it greatly reduces the cash requirement "up front" while giving the lessee possession of the land and security of tenure. This is one reason why ground leases are popular among commercial developers in the United States. Second, the ground lease provides the lessor, in this case, the housing authority, with cash flow to finance other investments. Third, the ground lease gives the housing authority more control over the use of the land than outright freehold conveyance.

If a ground lessee wishes to take out a loan to finance the construction or improvement of his house, the mortgage instrument would not differ significantly from that used for a mortgage on a freehold estate. The mortgagee must require that the leasehold be in force and not be subject to any prior lien or encumbrance which could cause the leasehold interest to be terminated and that the remaining term of the lease not be less than the term of the mortgage. In the United States, lenders generally require that the lease have a remaining term of at least five years more than the term of the mortgage.

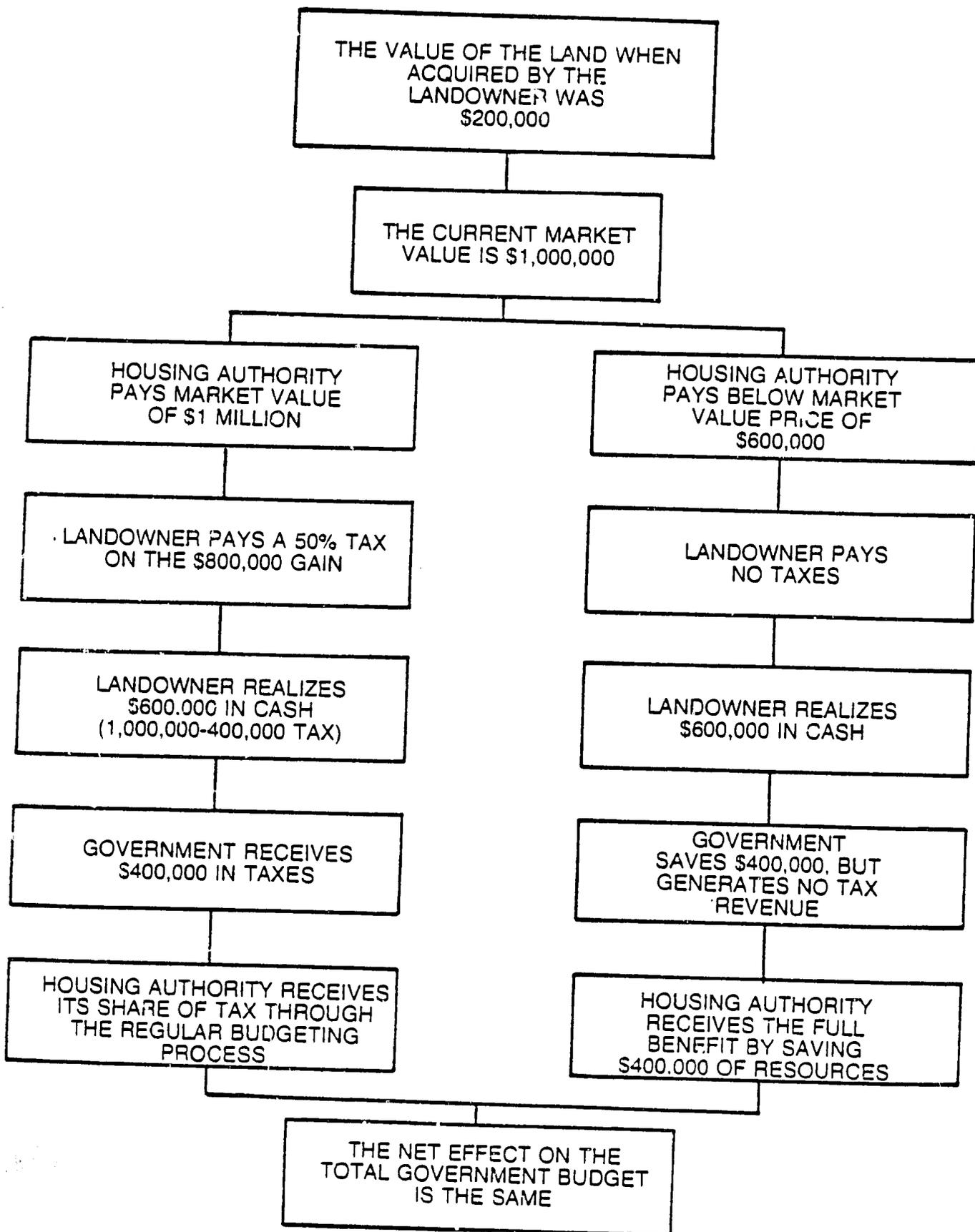
Private Lands

In countries where most of the land for low income housing development is in private hands, the government must balance the interests of the low income households who will receive the land against the interests of the landowners. The acquisition of private land by the government or housing authority may be difficult unless they have the right to expropriate the land--the right of eminent domain. Even in those countries where the government has the right of eminent domain, it must compensate the landowner for the value of his property. In many instances, the high cost of urban land virtually precludes land acquisition on a large scale. The full costs cannot be passed on to the low income recipients and, if they are not, the government will rapidly exhaust the funds available for land assembly.

Alternatives to cash payment to the landowner should be considered. In many countries there is a stiff tax on the "speculative" increase in land values when property is sold. Instead of purchasing the land at a negotiated price, the housing authority could compensate the landowner at a price well below market value, but not tax any increment over the original cost of the land. Such a

EXHIBIT 4

TAX EXEMPT LAND PURCHASE



scheme could be attractive to landowners, particularly those who had inherited their property. The example shown in Exhibit 4 will illustrate this situation. The landowner acquired a tract of land for the equivalent of \$200,000. The market price of the land today is the equivalent of \$1,000,000. If a 50 percent tax is imposed on the gain of \$800,000 in land value, the landowner would net only \$600,000. If the housing authority purchased the land and paid the landowner a tax exempt \$600,000, the landowner would be as well off as if he had sold the land for \$1 million and the housing authority would have reduced its costs by 40 percent. The net cost to the government as a whole would not be reduced by this approach since the lost taxes would equal the reduction in price. However, unless the tax revenue were specifically allocated to the housing authority, not all of the tax revenues would be realized for housing. The policy at issue in this case is whether tax revenues generated by a land speculation tax should go to the general budget or be channeled into housing. In other words, should housing subsidize other sectors of the economy.

The government could also exchange property with the private landowner. This alternative would not involve any outlay of cash at the time the land is acquired, but may merely defer expenditure to the time when the land traded to the current landowner is required for development. At this time land prices may have increased to such an extent that any benefit gained from the land exchange could be offset by the incremental expenditure required.

In the case of raw land, the government could "joint venture" a project with the landowner. The landowner would contribute the land and the government would install the infrastructure. Well serviced land can command a much higher price than raw land. When the installation of the infrastructure has been completed, the landowner could be allocated a parcel of the improved land proportional to the value of the raw land contributed plus a fair return on his investment. Thus, the landowner would possess a smaller, but much more marketable, parcel of land and the government would not have tied up needed cash in land acquisition. Exhibit 5 presents an example of a joint venture scheme.

Programs should also be evaluated which encourage the landowner to put the land to residential use rather than holding it off the market or permitting illegal squatter settlements on it. Once again, the government could employ a "carrot and the stick" approach. Developing the land or upgrading existing squatter settlements should be financially attractive to the landowner and/or he should be faced with the implied threat of losing his property or paying a high "non-use" tax if he does not comply.

EXHIBIT 5

JOINT VENTURE WITH
PRIVATE LANDOWNER

Landowner owns 20 hectares of raw (unserviced) land with a current market value of \$1 million.

Landowner contributes land to the project. Conveys title to land to housing authority and executes contract to receive improved lots.

Housing Authority improves and subdivides land into 3,000 lots with a market value of \$2,750 per lot.

Housing Authority allocates 400 lots to landowner which recovers his capital investment of \$1,000,000 plus a 10% return (\$1,100,000)

Financial Impact on Housing Authority: \$1 million in land cost saved "up front"; \$1.1 million foregone when land is improved. However, if the lots allocated to the landowner were to be sold to low income families at below market prices, lost funds from conveyance to landowner are reduced.

A ground lease scheme might be appropriate in cases where a landowner leases or grants rights to his land instead of selling it outright. A landowner could be offered a plan whereby if he leases parcels of land to existing or potential tenants and subordinates that lease to any mortgage for construction or upgrading taken out by the ground lessees, the government will provide services to the land, which will be paid at least in part by the lessees. Ground lease payments could be deferred for several years until the lessees have been able to at least begin construction of their homes. In squatter upgrading areas, ground lease payments could be deferred until the upgrading process is well under way. The government could establish a formula for rents which would provide the landowner with a fair income stream. Because the landowner's interest is "at risk" it may be possible to utilize him as a servicer of the mortgages to the families living on the land. The landowner could be compensated for his services as the collection agent. The primary appeal to the landowner would be that upon the expiration of the lease, the improved land would revert to the landowner to be sold at the then prevailing market prices. The prospects of substantial appreciation in the value of his land as it is developed at no cost to himself might prove appealing to the landowner.

Communal Lands

Communal lands present a different set of problems for mortgage lenders. Since the individual borrower does not own a specific parcel of land, the mortgage lender does not have the land for security on the loan. In western countries, successful forms of communal ownership are the condominium and cooperative. However, lenders require compliance with a fairly extensive set of rules and regulations before they will grant such loans.* Because the value of the security pledged by an individual borrower is dependent on the overall design, maintenance and management of the project, mortgage lenders must be assured that the project is organized in a fashion that would insure the preservation and enhancement of property values. Condominium mortgages are viable instruments if all of the safeguards are imposed and the community organization carries out its obligations. In developing countries, it may be difficult to organize groups effectively unless they already have an existing bond.

Summary of Tenure Issues

In summary, security of tenure is essential to successful low income housing projects and the financing of these projects. This security can be provided in many forms. The optimal form is that which is consistent with the social and cultural patterns of the country, is most affordable to the recipient households, provides the housing authority, the government or the private landowner with a reasonable return and offers the mortgage lender adequate security for the loan. Housing finance agencies should not insist on freehold ownership when it is beyond the means of low income households without deep government subsidy or is difficult to obtain because of legal

* See Appendix for an example of government agency underwriting criteria used in the United States.

barriers. Housing policy should include a rational system of providing land tenure to low income households through the passage of legislation and the establishment of lending practices which protect the rights of tenants and landowners alike.

Housing Affordability

A major constraint on the operation of an efficient housing finance system is the relationship between the cost of the housing available and the financial capacity of households. If a national housing finance system is to function effectively, serving social goals and being responsive to public needs, it must provide loans in some relationship to the financial capacity of the country's citizens.

For example, assume that the average income for urban households in a country is estimated at \$1500. Exhibit 6 shows the value of housing units that can be afforded on a relatively unsubsidized basis. For down payments of 10 percent to 40 percent of the purchase price and loan terms of 15, 20, 25 years. This affordability analysis is based on several further assumptions: (1) an interest rate of 12 percent per annum; (2) monthly payments, (3) 25 percent of a household's annual income is allocated to housing payments; and (4) an annual household income of \$1500.

The exhibit shows that the maximum selling price the average household could afford under the foregoing assumptions ranges from \$2893 for a 10 percent down payment and 15 year term to \$4945 for a 40 percent down payment and 25 year term. The table also indicates that housing affordability is more a function of the amount of the down payment than the term of the loan.

A more rational approach to looking at housing affordability may be based on absolute levels of down payment rather than percent of selling price. Exhibit 7 provides the same information as the previous table, but provides for down payments of \$500, \$1000, and \$1500. It should be remembered that \$1500 represents a savings accumulation of approximately one year's income. The exhibit shows that affordable housing units range from \$3104 for a 15 year term and a \$500 down payment, to \$4467 for a 25 year term and a down payment of \$1500.

The exhibit also provides an additional piece of information. This is the relationship of the selling price of the home to the annual earnings of the employed worker. It is a generally accepted rule of thumb that the value of a home should not be more than 2.5 to 3 times the purchaser's annual income. As the table indicates, under the assumptions given, the selling price to annual income multiple ranges from 2.1 to 3.0.

EXHIBIT 6

AFFORDABILITY OF HOUSING

THE MAXIMUM PRICE AFFORDABLE BY THE
AVERAGE URBAN HOUSEHOLD
BASED ON DOWN PAYMENT

Assumptions:

- *Interest rate of 12%
- *Monthly payments
- *25% of annual income for mortgage payment
- *1980 average urban household income of \$1500 per year

Term to Maturity	Percent Down Payment			
	10%	20%	30%	40%
15	2893	3255	3720	4340
20	3153	3548	4054	4730
25	3297	3709	4239	4945

EXHIBIT 7

AFFORDABILITY OF HOUSING

THE MAXIMUM PRICE AFFORDABLE BY THE
AVERAGE URBAN HOUSEHOLD
BASED ON AMOUNT OF DOWN PAYMENT

Assumptions:

- *Interest rate is 12%
- *Monthly payments
- *25% of annual income for mortgage payments
- *1980 average urban household income of \$1500 per year

Term to Maturity	DOWN PAYMENT		
	\$500	\$1000	\$1500
15	\$3104 (2.1)	\$3604 (2.4)	\$4103 (2.7)
20	\$3338 (2.2)	\$3838 (2.6)	\$4338 (2.9)
25	\$3467 (2.3)	\$3967 (2.6)	\$4467 (3.0)

Note: The numbers in parenthesis () indicate the multiple of housing price to annual income. For example, with \$500 down payment and a term of 20 years, the selling price is 2.2 times the average annual income of \$1500.

This type of affordability analysis has major implications for housing finance. First, it indicates that if national policy is to be effective in providing housing solutions, the housing units which are to be constructed must fall within a realistic affordability range. Under the foregoing analysis, private housing finance systems can be expected to provide housing finance for units costing from 2.5 to 3.5 times annual household income. In some countries present housing policy is to produce housing units in the public housing sector with a cost beyond the means of even middle income families.

Alternative Mortgage Payment Plans

Providing alternatives to traditional mortgage lending instruments in the areas of down payments, collateralization, land tenure, and planning for affordable housing will help to remove a number of the impediments to the operation of an efficient mortgage system. However, the primary constraint on the widespread use of mortgage credit is the inability of a large proportion of the population to meet required mortgage payments. The fixed interest, level payment method of amortization frequently results in loan repayment patterns beyond the capacity of all but the middle and upper income segments of the population. Mortgage payment plans can be structured so that payments begin at a low level and increase over time. Plans can also be devised which fit a family's income pattern. Such plans would require more administration than the traditional level payment loan. Borrowers would have to be educated about the payment pattern and would have to understand that payments will change over time at regular intervals. Employees of the lending agencies would also have to understand the various types of loans and be able to use tables and calculators to determine the payments and balances outstanding. Loan administration costs may increase if alternative mortgage instruments are used.

The financial impact of alternative payment plans should also be considered. Graduated payment plans assume that a borrower's income will increase over time at a rate high enough to reduce the impact of high mortgage payments on a household's budget. Marginally employed low income borrowers may not realize such increases. In these cases, the graduated payment plan may not be the best system. The financial impact on the lending agency is another factor. Graduated payment plans reduce the cash flow and the cost recovery to the lending agency in the early years of the loan.

Alternative mortgage instruments are just what that term implies -- alternatives. They can be used in combination with traditional loan payment plans. The objective of alternative payment systems is to allow more low income households to qualify for a loan. It is the decision of the policy makers whether the costs of such programs are justified by the benefits of reaching more low income families through formal credit systems.

Graduated Payment Mortgage

One possible alternative is the use of a graduated payment mortgage. This mortgage incorporates an increasing level of payments over time. Payment increases can be based on a constant monetary increment or a constant rate of growth. The graduated payment mortgage is appropriate because of real income growth and the inflation existing in most economies. For example, if price increases in construction are estimated at 15 percent per year, and the general inflation is at least 15 percent per year, a graduated payment mortgage with effective payment growth rates ranging from approximately 2.5 percent per year to 5.0 percent per year would be conservative.

Let us examine the use of a graduated payment mortgage on a property which sells for \$2500. The mortgage requires a 10 percent down payment, \$2,250 will be financed over 20 years of monthly payments. Interest rates of 8 percent, 10 percent, 12 percent, and 15 percent are considered. Two types of payment graduation plans are analyzed. The first is a constant dollar annual increase for ten years and then a level payment for the remaining ten years. The second is a constant annual percent increase of 2.5 percent per year for the first ten years followed by level payments for the final ten years. The results of this analysis are presented in Exhibits 8 through 11. These exhibits demonstrate that not only does the graduated payment mortgage reduce the payments required in the early years of a loan, but it permits the lender to charge more rational interest rates without eliminating lower income households.

Exhibit 12 relates the level payment and graduated payments at a 12 percent interest to monthly household income levels, assuming that the family initially earns \$90 per month (\$1080/year) and can afford to spend 25 percent of its monthly income on mortgage payments. It is also assumed that annual family income increases at a rate of 5 percent per year.

As shown in Exhibit 12, a family income growth rate of 5 percent per year will cause the burden of the housing payment to fall rapidly. With an income growth of 5 percent the ratio of monthly payment to monthly income falls from 24.4 percent when the loan is originated to 21.1 percent in the fifth year and 18.4 percent in year ten. By the twentieth year the monthly mortgage payment consumes only 11.6 percent of gross monthly income. The required rate of increase in household income appears reasonable in the context of the current economies of many developing countries.

When the concept of the graduated payment mortgage is introduced into a project, families become eligible for loans who could not have qualified under a level payment plan. In addition, the lender can charge higher and somewhat more realistic interest rates. The use of the graduated payment mortgage at interest rates more consistent with world financial markets than those charged by many mortgage lenders

EXHIBIT 8

Relationship Between Level Payments and Graduated Payments with a Constant Annual Dollar Increase at Interest Rates of 8% 10%, 12%, and 15%

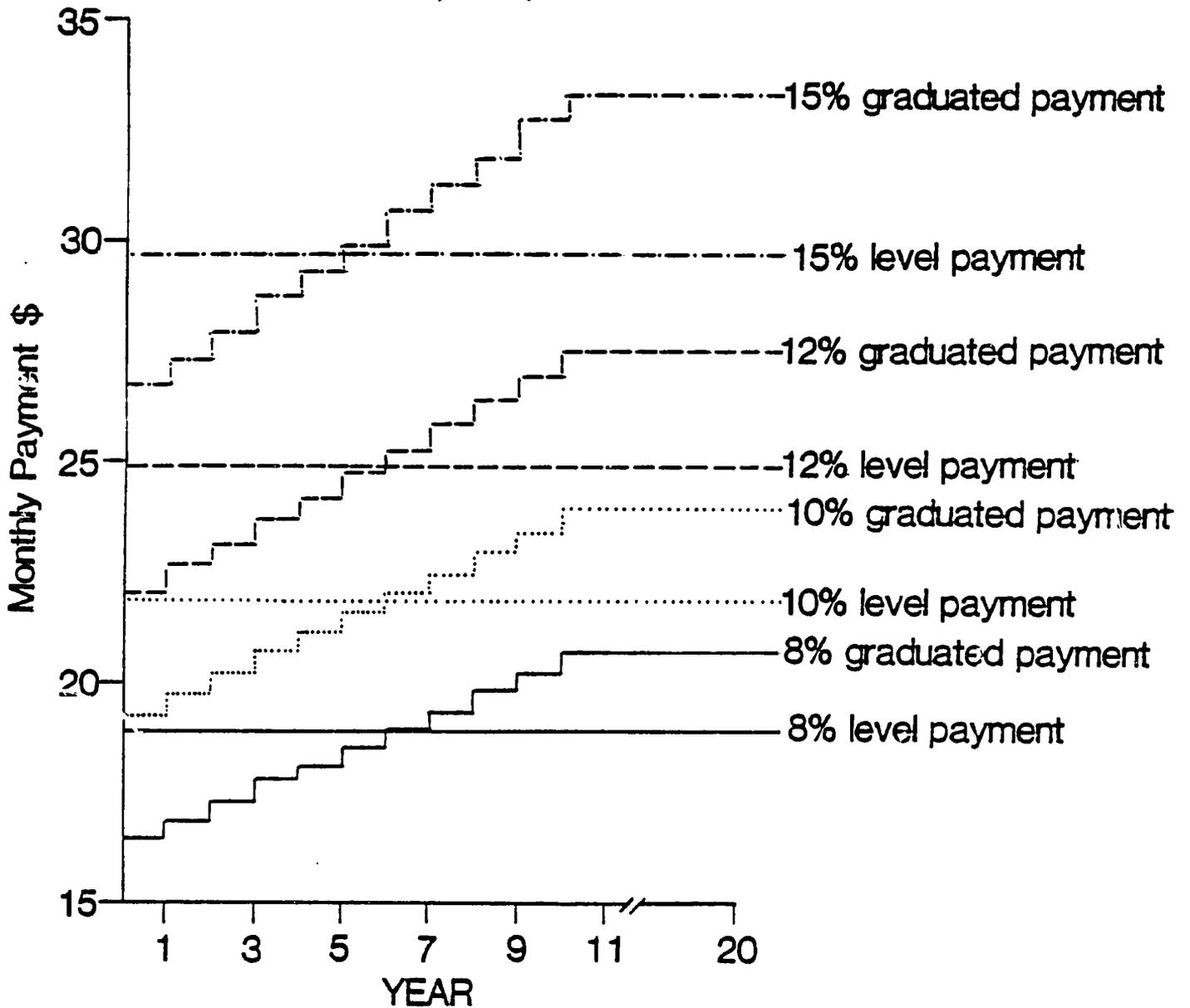


EXHIBIT 9

PAYMENT PATTERN FOR A
GRADUATED PAYMENT MORTGAGE
WITH A CONSTANT ANNUAL INCREASE
FOR TEN YEARS FOLLOWED BY
LEVEL PAYMENTS FOR TEN YEARS

Principal = \$2,250
Term = 20 years
Payments = Monthly

Year	Graduated Payment Required at Interest Rates of:			
	8%	10%	12%	15%
1	\$16.45	\$19.13	\$22.00	\$26.61
2	16.86	19.61	22.55	27.27
3	17.27	20.09	23.10	27.94
4	17.68	20.57	23.65	28.60
5	18.10	21.05	24.20	29.27
6	18.51	21.52	24.75	29.93
7	18.92	22.00	25.30	30.60
8	19.33	22.48	25.85	31.26
9	19.74	22.96	26.40	31.93
10	20.15	23.44	26.95	32.59
11-20	20.56	23.92	27.50	33.26
Increase in Monthly Payment Years 1-10	\$.41	\$.48	\$.55	\$.66
Increase in Annual Debt Service Years 1-10	\$ 4.92	\$ 5.76	\$ 6.60	\$ 7.92
Level Payment Required	\$18.82	\$21.71	\$24.77	\$29.63

EXHIBIT 10

Relationship Between Level Payments and
Graduated Payments with a
Constant Annual Growth Rate of 2.5%
at Interest Rates of 8%, 10%, 12%, 15%

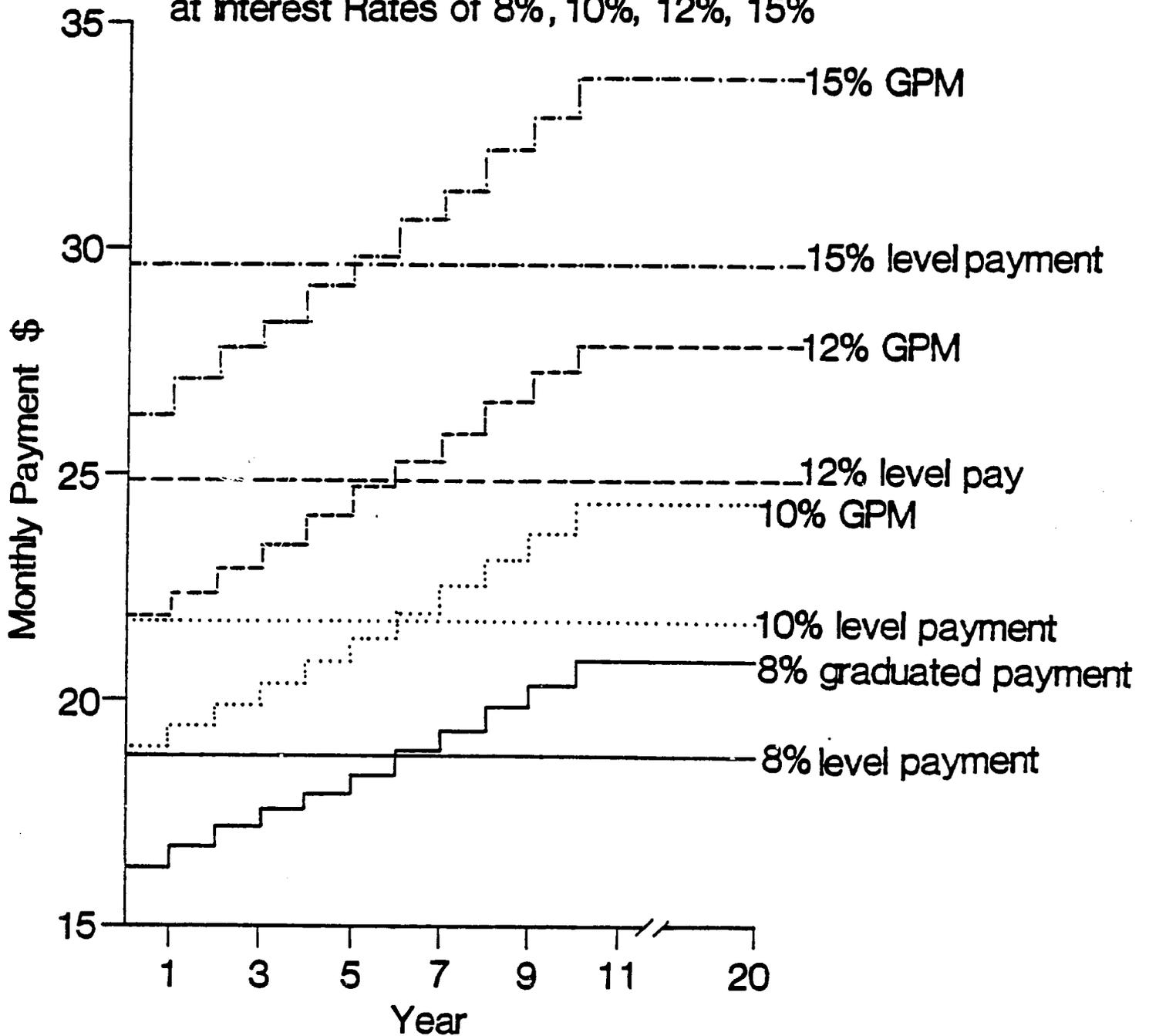


EXHIBIT 11

PAYMENT PATTERN FOR A
 GRADUATED PAYMENT MORTGAGE
 WITH A CONSTANT ANNUAL GROWTH RATE OF 2.5%
 FOR TEN YEARS FOLLOWED BY LEVEL PAYMENTS
 FOR TEN YEARS

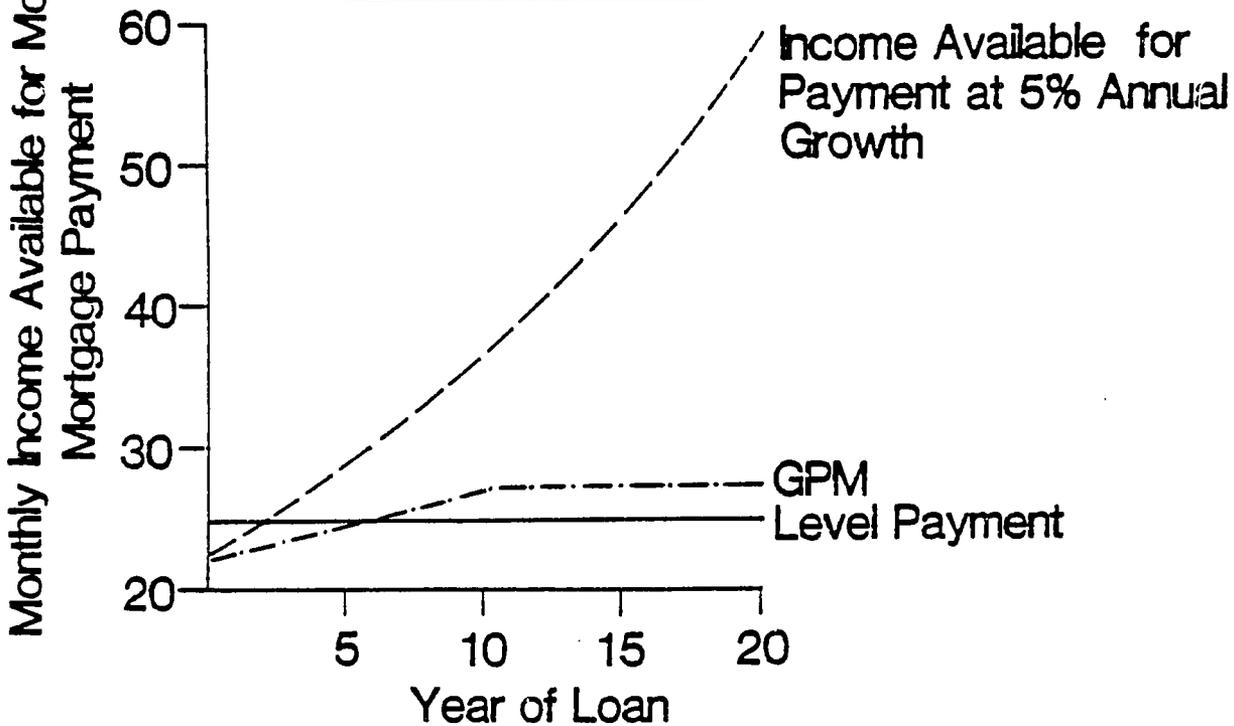
Principal = \$2,250
 Term = 20 years
 Payments = Monthly

Year	Graduated Payment Required at Interest Rates of:			
	8%	10%	12%	15%
1	\$16.26	\$18.93	\$21.79	26.38
2	16.66	19.40	22.33	27.04
3	17.08	19.89	22.89	27.72
4	17.51	20.38	23.46	28.41
5	17.95	20.89	24.05	29.12
6	18.39	21.41	24.65	29.85
7	18.85	21.95	25.27	30.59
8	19.33	22.50	25.90	31.36
9	19.81	23.06	26.54	32.14
10	20.30	23.64	27.21	32.95
11-20	20.81	24.23	27.89	33.77
Level Payment Required	\$18.82	\$21.71	\$24.77	\$29.63

EXHIBIT 12

Graduated Payment and Level Payment
Related to Income Available

Principal = \$2,250	Initial Monthly Income = \$90
Term = 20 Years	Percent of Monthly Income Available for Mortgage Payment = 25%
Interest Rate = 12%	



Year	1	2	3	4	5	10	20
Graduated Payment Required	\$22.00	22.55	23.10	23.65	24.20	26.95	27.50
Level Payment Required	24.77	24.77	24.77	24.77	24.77	24.77	24.77
Income Available 25% of Monthly Income, 5% Annual Growth Rate	22.50	23.63	24.81	26.04	28.72	36.65	59.70

increases the volume of mortgage credit available, provides credit to more lower income families, and reduces the interest rate subsidy element.

Under a graduated payment mortgage loan to value ratios may be high compared to traditional loan to value ratios used by mortgage lending institutions in developing countries. Nevertheless, the loans appear to be adequately secured given the rate of housing price increases occurring in most urban areas. Assuming property values increase only 3.5 percent per year, a loan which begins at a 90 percent loan to value ratio will never have a loan to value ratio higher than 90 percent. Lenders can be protected from default loss in the early years of a mortgage by the use of mortgage insurance, additional collateral or a pledged savings account.

The Pledged Savings Account Mortgage

The pledged savings account mortgage is designed to reduce the risk of making high loan to value ratio loans and at the same time lower the monthly payments required. The pledged account mortgage is a graduated payment mortgage in which funds are drawn from the pledged savings account to make up the difference between the graduated payment and the level payment. The pledged savings account mortgage can be integrated into the contract or savings for housing schemes employed in many countries.

Exhibits 13 to 16 present the results of an analysis of the use of a pledged account for a mortgage on a \$2500 property. The property is to be financed with a 20 percent (\$500) down payment which will be drawn from the pledged savings account and 20 years of monthly payments. The difference between the graduated payment and the level payment required to amortize the loan over the 20 year term is withdrawn from the accumulated savings of the borrower. The analysis has assumed that the borrower has deposited funds with the savings institution and receives a 6 percent annual interest rate on a savings deposit compounded quarterly. Only a portion of the 20 percent down payment of \$500 which has been accumulated in the savings account is cash to equity, in other words, a traditional cash down payment. The balance is maintained in the savings account to be drawn down to reduce the monthly payments to the borrower. As the exhibits show, the use of the pledged savings account raises the loan to value ratio above 80 percent. In the case where the contract rate on the mortgage is 8 percent the loan amount is \$2,198.67 or 87.95 percent of the property value. In the case where the contract interest rate is 15 percent, the loan amount is \$2,331.68 or 93.27 percent of the value of the property.

The amount of savings which must be pledged against the loan after the deduction of the cash down payment to equity ranges from a low of \$198.67 for the 8 percent mortgage to a high of \$331.68 for the 15 percent loan. The total cash which the borrower must accumulate remains level at \$500. Therefore the borrower, by accumulating \$500,

is able to make a higher loan to value ratio loan than they would be able to if they used the \$500 for a cash down payment. At the same time they are able to reduce the amount of the monthly payment required. As the exhibits show, the monthly payments in the first year are reduced by 20 percent thus extending credit to a larger proportion of low income households.

In the analysis presented, the graduation plan used is the constant dollar annual growth. A constant annual percent growth can also be employed. In many cases the constant monetary increase is more easily understood and accepted by the borrower than the constant percent increase.

The lending institution benefits from the use of the pledged savings account mortgage in several ways. The risk to the lender of extending a high loan to value ratio loan is decreased by the pledged savings account. The lending institution also is able to maintain savings balances which it might not otherwise have been able to attract through savings plans not tied to housing. The lender also is able to increase its lending volume by making a loan which it would not have granted under a level payment loan plan. Another advantage to the lender is that the pledged account can be employed to make up delinquent payments. In the examples given, a lender has almost 11 months of payments accumulated in the savings account at the origination of the loan. The lender may also find the pledged account plan attractive because the effective yield on the loan is higher than the contract rate. In the examples given, the effective yields are 23 to 51 basis points (1 Basis Point = .01 percent) above the stated contract rate.

The pledged savings account facilitates the achievement of several objectives of housing finance agencies. It increases mobilization of savings, thereby expanding the volume of funds available for mortgage lending. It permits high loan to value ratio loans to be made to borrowers while reducing the payments required, therefore increasing the number of low income families who can qualify for a loan. Since the pledged savings account also provides the lending institution with more attractive yields, the lender may be able to charge lower contract rates.

The Variable Rate Mortgage

The variable rate mortgage provides another alternative to the fixed rate, fixed term mortgage. It is appropriate in countries experiencing interest rate fluctuations which make fixed rate loans costly to the lending institution, but which are not severe enough to require indexing. Using the variable rate mortgage, the interest rate which the home buyer pays varies according to some automatic index or is changed by administrative determination. Examples of rates which might be used are the cost of funds to the mortgage lending institution, the cost of government debt, or the interest rate on new mortgages of a comparable quality and term. Frequently, limitations

EXHIBIT 13

PLEDGED SAVINGS ACCOUNT

Loan Information:

Property Value	\$2500	Down to Equity	\$301.33
Loan Amount	\$2198.67	Down to Savings	\$198.67
Loan Rate	8%	Total Down	\$500.00
Loan Term	20 years	Graduation Method	Constant Dollar

Payment Information:

Amount Financed	\$2,000.00
Total Interest	\$2,215.06
Total P & I	\$4,413.73
Total Savings Withdrawals	\$ 242.76
Total Net Payment	\$4,170.97

YR	--MONTHLY PAYMENTS --			-- YEAR-END BALANCES --			
	P & I	SAV W/D	NET PMT	LOAN BAL	SAV BAL	NET BAL	LTV
1	18.39	3.68	14.71	2152.19	165.49	1986.70	0.795
2	18.39	3.31	15.08	2101.87	134.82	1967.05	0.787
3	18.39	2.94	15.45	2047.36	106.80	1940.56	0.776
4	18.39	2.57	15.82	1988.33	81.60	1906.73	0.763
5	18.39	2.21	16.18	1924.40	59.38	1865.01	0.746
6	18.39	1.84	16.55	1855.16	40.34	1814.82	0.726
7	18.39	1.47	16.92	1780.18	24.67	1755.50	0.702
8	18.39	1.10	17.29	1698.97	12.58	1686.39	0.675
9	18.39	0.74	17.65	1611.02	4.28	1606.75	0.643
10	18.39	0.37	18.02	1515.78	0.00	1515.78	0.606
11- 20	18.29	0.00	18.29	1300.91- 0.00	0.00	1300.91- 0.00	0.520- 0.000

EXHIBIT 14

PLEGGED SAVINGS ACCOUNT

Loan Information:

Property Value	\$2500.00	Down to Equity	\$267.24
Loan Amount	\$2232.76	Down to Savings	\$232.76
Loan Rate	10%	Total Down	\$500.00
Loan Term	20 years	Graduation Method	Constant Dollar

Payment Information:

Amount Financed	\$2,000.00
Total Interest	\$2,938.42
Total P & I	\$5,171.19
Total Saving Withdrawals	\$ 284.42
Total Net Payment	\$4,886.77

--MONTHLY PAYMENTS--

-- YEAR-END BALANCES --

YR	P & I	SAV W/D	NET PMT	LOAN BAL	SAV BAL	NET BAL	LTV
1	21.55	4.31	17.24	2195.82	193.89	2001.92	0.801
2	21.55	3.88	17.67	2155.00	157.56	1997.44	0.799
3	21.55	3.45	18.10	2109.91	120.52	1990.39	0.794
4	21.55	3.02	18.53	2060.38	83.56	1976.82	0.786
5	21.55	2.59	18.96	2005.08	47.57	1957.51	0.774
6	21.55	2.15	19.39	1944.29	11.27	1897.02	0.759
7	21.55	1.72	19.82	1877.13	0.00	1877.13	0.739
8	21.55	1.29	20.25	1802.95	0.00	1802.95	0.715
9	21.55	0.86	20.68	1721.00	0.00	1721.00	0.686
10	21.55	0.43	21.12	1630.46	0.00	1630.46	0.652
11-20	21.55	0.00	21.55	1530.44	0.00	1530.44	0.612

b. FAA Sec. 620(g). To compensate owners for expropriated nationalized property?

c. FAA Sec. 660. To provide training or advice or provide any financial support for police prisons, or other law enforcement forces except for narcotics programs?

EXHIBIT 15

PLEDGED SAVINGS ACCOUNT

Loan Information:

Property Value	\$2500.00	Down to Equity	\$229.99
Loan Amount	\$2270.01	Down to Savings	\$270.01
Loan Rate	12%	Total Down	\$500.00
Loan Term	20 years	Graduation Method	Constant Dollar

Payment Information:

Amount Financed	\$2000.00
Total Interest	\$3728.74
Total P & I	\$5998.75
Total Saving Withdrawals	\$ 329.93
Total Net Payment	\$5668.82

--MONTHLY PAYMENTS--

-- YEAR-END BALANCES --

YR	P & I	SAV W/D	NET PMT	LOAN BAL	SAV BAL	NET BAL	LTV
1	24.99	5.00	20.00	2240.91	224.92	2015.99	0.806
2	24.99	4.50	20.50	2208.12	183.23	2024.88	0.810
3	24.99	4.00	21.00	2171.16	145.15	2026.01	0.810
4	24.99	3.50	21.50	2129.53	110.90	2018.63	0.807
5	24.99	3.00	22.00	2082.61	80.71	2001.90	0.801
6	24.99	2.50	22.50	2029.74	54.83	1974.91	0.790
7	24.99	2.00	23.00	1970.16	33.53	1936.63	0.775
8	24.99	1.50	23.50	1903.03	17.09	1885.94	0.754
9	24.99	1.00	23.99	1827.39	5.81	1821.58	0.729
10	24.99	0.50	24.49	1742.15	0.00	1742.15	0.697
11- 20	24.99	0.00	24.99-	1646.10- 0.00	0.00	1646.10- 0.00	0.658- 0.000

EXHIBIT 16

PLEGGED SAVINGS ACCOUNT

Loan Information:

Property Value	\$2500.00	Down to Equity	\$168.32
Loan Amount	\$2331.68	Down to Savings	\$331.68
Loan Rate	15%	Total Down	\$500.00
Loan Term	20 years	Graduation Method	Constant Dollar

Payment Information:

Amount Financed	\$2000.00
Total Interest	\$5037.11
Total P & I	\$7368.79
Total Saving Withdrawals	\$ 405.28
Total Net Payment	\$6963.50

--MONTHLY PAYMENTS--

-- YEAR-END BALANCES --

YR	P & I	SAV W/D	NET PMT	LOAN BAL	SAV BAL	NET BAL	LTV
1	30.70	6.14	24.56	2311.65	276.29	2035.36	0.814
2	30.70	5.53	25.18	2288.40	225.08	2063.32	0.825
3	30.70	4.91	25.79	2261.42	178.30	2083.12	0.833
4	30.70	4.30	26.40	2230.10	136.22	2093.87	0.838
5	30.70	3.68	27.02	2193.74	99.14	2094.60	0.838
6	30.70	3.07	27.63	2151.54	67.35	2084.19	0.834
7	30.70	2.46	28.25	2102.55	41.19	2061.36	0.825
8	30.70	1.84	28.86	2045.69	21.00	2024.70	0.810
9	30.70	1.23	29.48	1979.69	7.14	1972.56	0.789
10	30.70	0.61	30.09	1903.08	0.00	1903.08	0.761
11- 20	30.70	0.00	30.70	1814.15- 0.00	0.00	1814.15- 0.00	0.726- 0.000

are placed on the extent to which the interest rate may be adjusted upward over the life of the mortgage and the amount of the adjustment which may occur in any single adjustment period. The variable rate mortgage does not necessarily increase the financial capacity of the home buyer in affording the mortgage finance except as it may induce mortgage lenders to make loans under economic conditions which would prohibit them from making long-term fixed rate loans.

The variable rate mortgage may be of either of two types; the variable interest rate may be implemented through changing the monthly or annual payment required or through leaving the monthly or annual payment constant while changing the maturity of the mortgage. Exhibit 17 provides an example of the variable payment type of mortgage. The exhibit shows a variable rate mortgage in the amount of 1,000 with a term of 20 years, monthly payments, and an interest rate 1 percent higher than the index rate. In developing countries, the index rate may be a central bank rate or an administratively determined rate. The exhibit shows the first ten years of the life of the loan. It also shows the index rate per year, the mortgage rate per year, the monthly payment, and the loan balance at the end of each year. The column entitled "Monthly Payment" indicates that with the variation in interest rates, the payment ranges from a low of 9.65 per month to a high of 13.04 when interest rates have reached the level of 16 percent. The year end balance has decreased from 1000 at the beginning of the period to 778.50 at the end. The rate of amortization is a variable depending upon the level of interest rates and when they occur in the life of the loan.

The variable rate/variable payment mortgage has several advantages in the mobilization of housing finance funds. These include:

1. It allows lenders to make long-term loans even when future interest rate and inflation conditions appear somewhat unstable.
2. The variable rate/variable payment loan maintains a high level of cash flow to the mortgage lending institution allowing them to pay competitive interest rates for funds and raise funds for new lending activity.
3. The variable rate/variable payment mortgage provides some hedge against inflation. When inflation tends to be high, interest rates increase. At the same time, the monetary value of workers compensation also increases, thus the real repayment of debt is maintained within the approximate affordability constraints of the home purchaser.

EXHIBIT 17

VARIABLE RATE/VARIABLE PAYMENT
MORTGAGE

Amount of Loan 1,000
 Term 20 years
 Interest Rate 1% over Index

Monthly Payments

Year	Index Rate	Mortgage Rate	Monthly Payment	Year End Balance
1	9.0%	10.0%	9.65	983.45
2	10.0%	11.0%	10.30	967.21
3	11.0%	12.0%	10.95	951.03
4	10.5%	11.5%	10.63	931.80
5	10.0%	11.0%	10.33	909.18
6	11.0%	12.0%	10.91	886.10
7	12.0%	13.0%	11.48	862.17
8	13.0%	14.0%	12.03	836.96
9	13.0%	14.0%	12.03	807.98
10	15.0%	16.0%	13.04	778.65

The disadvantage of the variable rate/variable payment loan is that the purchaser cannot forecast the level of cash flow required to service his mortgage; those on long-term fixed incomes may find the maintenance of their mortgage difficult. The second disadvantage is that the variable rate/variable payment mortgage requires greater accounting apparatus than do simpler types of mortgages. This mortgage may be less understandable, both by lenders and buyers, than a simpler approach. Finally, the variable rate mortgage cannot easily adjust to massive changes in interest rates or runaway inflation.

An alternative form of the variable rate mortgage can be employed where the monthly or yearly payment for the mortgage remains constant, but the number of payments required is adjusted to account for interest rate fluctuations. When interest rates rise, the number of payments is increased; when interest rates are full, the maturity of the loan is shortened. Exhibit 18 provides an example of the first four years of the variable rate mortgage with a constant monthly payment of 9.65. In this example, the amount of the loan is 1,000 and the original term 20 years. If at the end of the first year interest rates have risen to 10 percent for the index rate and 11 percent for the mortgage rate, the maturity of the loan must be extended to 24.85 years. The remaining balance of the loan at the end of the second year is 975.43. At the beginning of the third year, mortgage interest rates have risen to 11.5 percent. The maturity of the loan jumps to 30.25 years and the amortization occurring during the third year is extremely small. The balance of the loan drops from 975.43 to 971.61. At the beginning of the fourth year the mortgage rate has risen to 12 percent. At an interest rate of 12 percent the interest alone on the unamortized balance is 9.72 whereas the monthly payment is only 9.65. Therefore, there is no maturity which will allow the payment to pay off the loan and the variable rate/variable maturity mortgage breaks down.

The advantages of the variable rate/variable maturity mortgage are that (1) it maintains the accounting income of the financial institution and in an accounting sense allows the payment of competitive interest rates, and (2) the cash required from the borrower remains constant over the life of the loan, increasing affordability and allowing for cash planning. The disadvantages of the variable rate/variable maturity loan are substantial. First, the loan does not provide increased cash flow to the lending institution during periods of increasing interest rates. Therefore, cash is unavailable for the payment of higher interest rates for savings or borrowed funds. Second, the mortgage is very limited in its flexibility. Interest rates may only increase modestly before the variable maturity becomes infinite and the adjustment ceases to operate. The variable rate/variable maturity loan also shares the disadvantage of the variable rate/variable payment loan in that the accounting and bookkeeping are more difficult and the loan may be somewhat confusing to both lenders and borrowers.

EXHIBIT 18

VARIABLE RATE/VARIABLE MATURITY
MORTGAGE

Amount of Loan \$1,000
 Monthly Payment 9.65
 Interest Rate 1% over Index
 Original Term 20 Years

Year	Index Rate	Mortgage Rate	Remaining Years	Year End Balance
1	9.0%	10.0%	19.00	983.45
2	10.0%	11.0%	24.85	975.43
3	10.5%	11.5%	30.25	971.61
4	11.0%	12.0%	Interest Exceeds Payment	

The Renegotiable Rate Mortgage

The renegotiable rate mortgage can be regarded as a version of the variable interest rate mortgage. Like the variable rate mortgage, the renegotiable rate mortgage allows for the adjustment of mortgage terms as economic variables change. It enjoys the advantage of requiring fewer adjustments than the variable rate loan. However, in periods of rapid economic change, this may also be its major disadvantage. The renegotiable rate mortgage is based on a long-term amortization, with a fixed interest rate for a shorter period. For example, the mortgage amortization may be based on a period of 20 years, however, the loan interest rate will be renegotiated every five years. At the five year anniversary period, the loan is examined and the interest rate is changed to coincide with current economic conditions. Normally at this time, the borrower has the opportunity to prepay the mortgage without penalty of any type, or he may accept the new interest rate and continue the mortgage in force.

The method and amount of interest rate adjustments should be clearly understood by the lending institution and by the borrowers when the loan is originated. Because interest rates are renegotiated at predetermined intervals the accounting and bookkeeping requirements for the lending institution are less than those of the typical variable rate loan.

An example of the renegotiable rate mortgage is provided in Exhibit 19. The mortgage is in the amount of 1,000, has monthly payments, a term of 20 years, a rollover period of 5 years and an interest rate at the time of origination of 10 percent. The interest rate is adjusted to 11 percent for the period from the sixth through the tenth years. The 11 percent interest rate applies to the beginning balance of 898.02 which was outstanding at the end of the five year period. The loan for the sixth to the tenth year will be based on an interest rate of 11 percent and an amortization schedule of 15 years resulting in a monthly payment of 10.21. The interest rate is again adjusted at the end of the tenth year and at the end of the fifteenth year. The loan is designed to fully amortize over the original term.

The advantages of the renegotiable loan are that it allows the lending institution to keep its loans relatively current with interest rates and other economic developments allowing it to pay a competitive rate for funds and maintain the flow of mortgage credit. The disadvantages of this loan are that it does not provide as quick an adjustment to changing economic conditions as the variable interest rate loan and it is somewhat more difficult to understand and maintain than the fixed rate fixed term loan.

EXHIBIT 19

LOAN ANALYSIS FOR
RENEGOTIABLE ROLLOVER MORTGAGE

BEG MONTH	END MONTH	INT RATE	MONTHLY PAYMENT	REMAINING BALANCE
1	60	0.100%	9.65	898.02
61	120	0.110%	10.21	740.97
121	180	0.120%	10.63	477.91
181	240	0.130%	10.87	0.00
The Rate of Return on the Loan is		10.6415%		

The Shared Appreciation Mortgage

One of the newest innovations in home financing is the shared appreciation mortgage (SAM). It allows the home buyer to obtain a below market mortgage rate in return for a share in the appreciated value of the home purchased. The future share of the equity could be purchased by an institutional investor such as an insurance company, pension fund or social security fund, or by the government itself. The equity investor pays the mortgage lender the difference between the monthly payments at the market interest rate and the payments at the below market rate charged on the loan. The larger the share of the future home value sold, the lower the interest rate that can be charged on the loan. Like the renegotiable rate mortgage, there is a predetermined date at which the home owner must pay the equity investor his share of the equity in the home. The home owner raises the funds by selling or refinancing the home.

An example will help to illustrate how a shared appreciation mortgage works. A family with monthly income of \$100 (\$1200 per annum) could afford payments of \$25, assuming a maximum ratio of mortgage payment to gross income of 25%. If the current mortgage interest rate is 12% on a 20 year mortgage, the family's income could support a loan of \$2270. The family has \$700 for a down payment. Homes available in a housing project are selling for \$3500. The family is unable to raise the additional down payment required to qualify for a mortgage to purchase a home. Property values in this housing project are expected to increase at a 10% annual rate over the next five years. Therefore, the value of the home at the end of 5 years is expected to be \$5637.

The Housing Authority is willing to pay the difference between the \$25 per month the family can afford the \$30.83 payment required to amortize an 80% (\$2800) loan on the house in return for a 25% share of the \$2137 increase in property value at the end of 5 years. The \$5.83 investment required per month for 60 months will return \$534.25 at the end of 60 months. The yield on the annuity would be 16.24%.

At the end of the fifth year the family would either sell the home to pay the housing authority the \$534.25 or refinance. Assume that the home is refinanced at a 12% interest rate for the remaining term to maturity of 15 years. The amount to be refinanced would be the outstanding balance on the loan of \$2568.81 plus the \$534.25 owed to the housing authority for a total of \$3103.06. The monthly payment would be \$37.24. If the family's income had increased over the five year period at a rate of 9% per year, the new payment would be less than 25% of their monthly income. If the family has accumulated savings over the five years these savings deposits could be applied towards the required payment to the Housing Authority.

The SAM is based on the assumption that property values will increase in the future. In most urban areas property values increase at a rate at least equal to the rate of inflation in a country. The equity investor in a shared appreciation mortgage is speculating on future inflation and assumes the risk that the projected increase in value will not be realized. The shared appreciation mortgage is complex and would require a substantial amount of research and planning before it could be implemented. However it opens a new possibility for the solution of the housing affordability problem.

Flexible Loan Plans

The discussion to this point has concentrated on relatively large long term mortgages. In many cases, the uncertainty of a family's income makes the assumption of large long term debt too risky an undertaking. For many low income families a small loan with a three to five year maturity is more appropriate to their debt bearing capacity. Such loans would be applicable in sites and services, core housing, and upgrading projects where construction is extended over a long period and is done in stages.

The level payment, graduated payment and variable rate mortgages can be applied to short term as well as long term loans. However, they have one drawback in common. All three types of mortgages are based on the regular monthly (quarterly, semiannual or annual) payment of a set amount. The difficulty with utilizing such instruments for low income families is that in many cases employment is not regular. Income streams from seasonal or intermittant employment do not come in level flows. Therefore, when it is assumed that a family can afford to pay 20 percent to 30 percent of its average monthly income on housing, the payments thus derived may be more than the gross earnings of a family in those months when incomes are low and inadequate during those months when incomes are high. As a result, families may fall behind in their payments during the low income months, causing increased administrative and collection costs.

The regular payment plan is not sacrosanct. It is utilized by lenders around the world because payments can be easily computed, bookkeeping and administrative costs are reduced and institutions can predict their cash flows with some degree of accuracy and, as a result, can plan expenditures and investments. The certainty of a fixed payment also permits the borrower to plan his budget. In the case of the family with seasonal or intermittant income, it would be desired that in those months in which their income is high, they would put away the payments required during the months that family incomes will be low. However, in the case of low income families, other needs are so pressing that even the most well intentioned of borrowers may fail to make adequate provision.

Commercial banks in highly developed countries have recently introduced the concept of the customized loan geared to the income pattern of the borrower. The borrower establishes the payment schedule which best fits his income pattern when he applies for the loan. He can alter this schedule as his situation changes. The only constraint is that the loan be fully paid off upon maturity. The customized loan has been popular among workers whose income is seasonal, such as teachers, construction workers, and people receiving their income from agriculture, tourism and other seasonal industries.

The customized loan is most applicable for short to intermediate term lending. Therefore, it could be utilized for construction, building materials, or home improvement loans. The primary difficulty with any non-conventional loan has been the difficulty of determining payments. Loan amortization tables do not provide for a great deal of flexibility and innovation. But in 1980 this problem is not as great as it has been in the past. For a nominal amount, a lending institution could purchase a programmable calculator or small computer which could prepare an entire customized payment schedule in a matter of minutes. Several examples will illustrate the potential of a customized loan plan. In each case we will assume that the annual income of the borrower is \$840 and is constant for the life of the loan. The amount borrowed is \$700 and the term of the loan is five years. The loan is evaluated at interest rates of 10 percent, 12 percent, 15 percent and 18 percent.

The annual income of the applicant of \$840 results in an average monthly income of \$70. As shown in Exhibit 20 an average income at this level would qualify the family for either a level payment or a graduated payment loan under the rule of thumb of 25 percent of monthly income at even the highest interest rate of 18 percent.

There appears to be no problem with the family's ability to meet the financial obligations imposed by this loan. However, if the family's income pattern within a year is seasonal or intermittent, there may be some difficulty in meeting fixed monthly obligations.

Two family income patterns are shown in Exhibit 21. In the first case the family's income is seasonal. In the second case the family's income is intermittent. Most of the family income in the second hypothetical case is received from a family member working abroad. Unless the family is able to accumulate funds during the high income months, it will be unable to meet its obligations during the low income months. As a result the family may be chronically delinquent on its payments.

By using a customized loan payment plan, the loan can be structured so that the payments would be manageable. A skip-payment plan would permit the family to make payments in the months in which they had high income and skip payments in the months in which they had low income. The skip payment plan would be appropriate for the family which has seasonal income or receives regular payments from abroad.

EXHIBIT 20

MONTHLY PAYMENT
REQUIRED TO AMORTIZE A LOAN
OF \$700 OVER FIVE YEARS

A. Level Payment

Interest Rate	Payment	% of Average Monthly Income
10%	\$14.87	21.2%
12%	\$15.57	22.2%
15%	\$16.65	23.8%
18%	\$17.78	25.4%

B. Graduated Payment with 5% Annual Payment Growth Rate

P A Y M E N T

Int. Rate	Year 1		Year 2		Year 3		Year 4		Year 5	
	\$	% of Income								
10%	13.59	19.4	14.27	20.4	14.95	21.4	15.76	22.5	16.58	23.7
12%	14.25	20.4	14.96	21.4	15.68	22.4	16.53	23.6	17.39	24.8
15%	15.29	21.8	16.05	22.9	16.86	24.1	17.70	25.3	18.58	26.5
18%	16.36	23.4	17.18	24.5	18.04	25.8	18.94	27.1	19.89	28.4

EXHIBIT 21

HYPOTHETICAL INCOME PATTERNS
FOR A FAMILY EARNING \$840 PER ANNUM

I N C O M E P A T T E R N

Month	CASE 1: Seasonal	CASE 2: Level with Periodic Remittances from Family Member Working Abroad
January	40	130
February	40	30
March	40	30
April	40	140
May	40	30
June	100	120
July	100	30
August	100	100
September	100	30
October	100	140
November	100	30
December	40	30
Total Annual Income	840	840

EXHIBIT 22

SKIP PAYMENT LOAN

Principal = \$700
 Origination Date 5/01/80
 First Payment Due 6/15/80

I. SEASONAL INCOME - Family makes payments only in the six months when income is \$100.

	<u>INTEREST RATE</u>			
	<u>10%</u>	<u>12%</u>	<u>15%</u>	<u>18%</u>
Number of Payments	30	30	30	30
Number of Payments per year	6	6	6	6
Amount of Each Payment	\$ 29.07	\$ 30.28	\$ 32.14	\$ 34.03
Annual Debt Service	\$174.42	\$181.68	\$192.84	\$204.18
Total Annual Debt Service (as a percent of total annual income)	20.8%	21.6%	23.0%	24.3%
Total Payments	\$872.10	\$908.40	\$964.20	\$1,020.90
Total Interest	\$172.10	\$208.40	\$264.20	\$ 320.90
Maturity Date	11/15/84	11/15/84	11/15/84	11/15/84

II. LEVEL INCOME WITH PERIODIC REMITTANCES - Family member working abroad Family makes payments only in the months when remittances are received.

	<u>INTEREST RATE</u>			
	<u>10%</u>	<u>12%</u>	<u>15%</u>	<u>18%</u>
Number of Payments	25	25	25	25
Number of Payments per year	5	5	5	5
Amount of Each Payment	\$ 35.53	\$ 37.15	\$ 39.65	\$ 42.23
Annual Debt Service	177.65	185.75	198.25	211.15
Total Annual Debt Service (a percent of total annual income)	21.1%	22.1%	23.6%	25.1%
Total Payments	\$888.25	\$928.15	\$991.25	\$1,055.75
Total Interest	\$188.25	\$228.15	\$291.25	\$355.75
Maturity Date	4/15/85	4/15/85	4/15/85	4/15/85

EXHIBIT 23

SUMMARY OF ALTERNATIVE PAYMENT PLANS

A. 10 PERCENT INTEREST RATE

	Level Payment	Graduated Payment	SKIP PAYMENT	
			Seasonal	Remittance
Number of Payments	60	60	30	25
Annual Debt Service	\$178.44	\$163.08 to \$198.96	\$174.42	\$177.65
Annual Debt Service (as a percent of annual income)	21.2%	19.4% to 23.7%	20.8%	21.1%
Total Payments	\$892.20	\$901.80	\$872.10	\$888.25
Total Interest	\$192.20	\$201.80	\$172.10	\$188.25
Maturity Date	5/85	5/85	11/84	4/85

B. 12 PERCENT INTEREST RATE

	Level Payment	Graduated Payment	SKIP PAYMENT	
			Seasonal	Remittance
Number of Payments	60	60	30	25
Annual Debt Service	\$186.84	\$171.00 to \$208.68	\$181.68	\$185.75
Annual Debt Service (as a percent of annual income)	22.2%	20.4% to 24.8%	21.6%	22.1%
Total Payments	\$934.20	\$945.72	\$908.42	\$928.15
Total Interest	\$234.20	\$245.72	\$208.40	\$228.15
Maturity Date	5/85	5/85	11/84	4/85

EXHIBIT 23
SUMMARY OF ALTERNATIVE PAYMENT PLANS
(CONT'D)

C. 15 PERCENT INTEREST RATE

	Level Payment	Graduated Payment	SKIP PAYMENT	
			Seasonal	Remittance
Number of Payments	60	60	30	25
Annual Debt Service	\$199.80	\$183.48 to \$222.96	\$192.84	\$198.25
Annual Debt Service (as a percent of annual income)	23.8%	21.8% to 26.5%	23.0%	23.6%
Total Payments	\$999.00	\$1,013.73	\$964.20	\$991.25
Total Interest	\$299.00	\$313.73*	\$264.20	\$291.25
Maturity Date	5/85	5/85	11/84	4/85

D. 18 PERCENT INTEREST RATE

	Level Payment	Graduated Payment	SKIP PAYMENT	
			Seasonal	Remittance
Number of Payments	60	60	30	25
Annual Debt Service	\$213.36	\$196.32 to \$238.68	\$204.18	\$211.15
Annual Debt Service (as a percent of annual income)	25.4%	23.4% to 28.4%	24.3%	25.1%
Total Payments	\$1,066.80	\$1,085.11	\$1,020.90	\$1,055.75
Total Interest	\$366.80	\$385.11*	\$320.90	\$355.75
<u>Maturity Date</u>	5/85	5/85	11/84	4/85

* Includes negative amortization.

The pattern of payment is established when the borrower applies for the loan. Therefore, the borrower and the lending institution know exactly when the cash flows will occur. The skip payment loan is illustrated in Exhibit 22. The financial requirements for level payment, graduated payment and skip payment plans are summarized in Exhibit 23. As the exhibit demonstrates, the financial burden on the family is least under the skip payment plan at all interest rates.

The lesson to be learned from this brief discussion is that housing finance institutions do not have to be limited to traditional financing instruments, terms, and payment plans. The use of customized loan payment systems for families whose income patterns are not suitable for level payments within a year will permit a larger number of families to qualify for financing without increasing risk to the lender. In fact, the tailored loan plan may actually decrease delinquencies and collection costs.

Conclusions

The use of alternative mortgage instruments having maturities, amortization schedules or interest rate adjustments which are different from those presently in use will not increase the basic stock of capital available for investment in housing. However, to the extent that present housing finance mechanisms may provide barriers to those desiring to participate, these barriers can be lowered in order to make housing and housing finance available to wider spectrum of the population and increase the economic activity associated with development and building. In analyzing alternative mortgage instruments which may be available, those charged with developing financing mechanisms should carefully evaluate these as to their applicability in the actual circumstances of their country. These instruments should be evaluated based on at least the following considerations:

(1) Is the nature of the mortgage instrument consistent with the economic conditions of the country? For example, long-term fixed-rate instruments without adjustment clauses make sense in only the most stable economies.

(2) Are the cash flow characteristics of the mortgage instruments designed to support the cash flow of the financial institutions and allow them to pay competitive and necessary rates for obtaining funds?

(3) Do the terms offered the home purchaser allow him the maximum possible participation in the housing finance area given the limitations of his real income?

(4) Do the financial instruments allow for the cultural and lifestyle patterns which exist in the area? If seasonal income exists, does the payment mechanism take this into account? If financial institutions are poorly developed are mechanisms available for dealing with borrowers and collecting payments?

(5) Are the financing instruments designed to recover the real cost of funds?

(6) Are the financing instruments to be used within the administrative and technological capability of those who will be charged with their use? Mortgage lending processes developed in western countries are based on high technology should not be unthinkingly applied to less sophisticated financial systems requiring manual processing.

Thoughtful consideration of the alternative approaches to household financing can increase housing availability to the populace, increase the size and strength of financial institutions, and spur economic growth and development.

APPENDIX

INDIVIDUAL CONDOMINIUM/
PLANNED UNIT DEVELOPMENT (PUD) PROPERTIES
HOME MORTGAGE UNDERWRITING GUIDELINES

The Federal Home Loan
Mortgage Corporation
Washington, D.C., U.S.A.

II. INDIVIDUAL CONDOMINIUM/ PUD UNIT PROPERTIES

An individual condominium or PUD property possesses some of the characteristics of a single family property within a subdivision, but also contains many unique characteristics which affect the marketability and value of the unit, as well as the lifestyle of the owners. These unique characteristics include ownership of a unit, plus an interest in common elements or property, condominium or PUD documents defining and possibly restricting the use of the unit or common elements, mandatory homeowners association membership, management of the project and the annual operating budget. As a result, the individual condominium or PUD demands a different and more complex analysis by lenders, attorneys, appraisers and underwriters. The purpose of the following guidelines is to set out in broad terms the considerations which FHLMC feels should be given in the course of the loan analysis.

The underwriter should be familiar with the following definitions and concepts explained under (A) Definitions, (B) Legal Documents, (C) Mandatory Homeowners Associations, (D) Appraisal.

A. Definitions

Condominium—A condominium is a form of real property, recognized by federal laws, but actually made possible by condominium laws in each of the 50 states, Guam, Puerto Rico, and the Virgin Islands. Since these laws, which set forth the legal criteria of the documents establishing the condominium, vary from state to state, the documents may also vary. FHLMC defines a condominium unit as "a one family dwelling which (a) is a part of real property, which has been subjected to a recorded Declaration of Condominium Ownership (or a Master Deed or a similar instrument) pursuant to the Condominium (or Horizontal Property or Unit ownership) Act of the jurisdiction in which the property is located; and (b) the ownership of which includes the ownership in fee (or in an acceptable leasehold estate) of a specified residential unit, together with an undivided pro rata interest in appurtenant real estate, and any improvements thereon (common elements)". A condominium unit may be part of a high-rise building, attached row houses, or even a single-family detached residence, but in every case, the unit owner holds title subject to the limitations and restrictions of local law and the provisions of the declaration and bylaws of the condominium association in which membership is mandatory.

Planned Unit Development—FHLMC defines a Planned Unit Development (PUD) as, "a parcel of land which contains common property owned and maintained by a homeowners association, corporation or trust, for the benefit and use of individual units within that parcel of land, and such association, corporation or trust, requires automatic non-severable membership of each individual unit owner, with mandatory assessments. The common property and improvements thereon are such that they enhance the enjoyment of the premises and value of the property securing the PUD unit mortgage. (Zoning is not the basis of classification as a PUD by FHLMC)". Units within a PUD, as defined, are classified into two categories by FHLMC: (a) "A PUD unit is a 1-4 family dwelling, located in a Planned Unit Development," and (b) "a DeMinimis PUD unit is a 1-4 family dwelling, located in a Planned Unit Development, in which the common property is relatively insignificant in terms of its influence upon the enjoyment of the premises, or has little or no effect upon the value of the property securing the PUD unit mortgage." Although the FHLMC definition is focused on the homeowners association and not based on the zoning classification, this does not mean that the underwriter is not concerned about the zoning classification. It is possible that PUD zoning is obtained subject to the developer meeting certain conditions, such as donating school or park sites, dedicating streets, maintaining certain density, or completing the entire project within a specified period of time. If these conditions are not complied with, lenders may find that they have loans upon non-conforming PUD units in a 20 acre tract in the center of a 400 acre industrial site.

Common Elements—The property remaining after subtracting the individual units described in the Declaration of Ownership. In a condominium these common elements or areas are owned by all of the unit owners in common, and typically in a PUD by an association, corporation or trust for the benefit of the unit owners. The common elements of a condominium generally include land, parking facilities, recreational facilities, apartments for use by custodians or managers, commercial area, walls, halls, lobbies, stairs, elevators, and if central, the mechanical and electrical systems. Terraces and balconies are generally included with exclusive or restricted use in the common elements, but may be owned in fee by the individual unit owner. The common elements or property of a PUD include the land and improvements thereon, which are owned by the homeowners association, corporation or trust. Condomin-

ium state law may require that a certain formula be used for determining the percentage of ownership of the common elements, but if it does not, one of the following methods, or a combination thereof, is generally established by the documents for computing the ownership percentage: (1) original value method—ratio of the original value of all units to the original value of the unit; (2) size—ratio of the total living area of all units to the living area of the unit; (3) unit—ratio of the total number of units to the number 1.

Although the matter is covered by both the condominium and PUD warranties required by FHLMC, it is emphasized that all common elements, whether they include open green areas, recreation facilities or the land, must be owned by the association free and clear of any encumbrances. The underlying documents must not permit the mortgaging or leasing of common areas without the approval of a substantial majority of the individual unit owners or first mortgagees.

Declaration of Ownership (also known as Declaration, Master Deed, Public Deed, or CC&R's Conditions, Covenants and Restrictions)—The legal document establishing the condominium regime. The Declaration will generally include the legal description of the property, description of the individual units, description of the common elements, schedule of percentage of unit ownership in the common elements, provision to create an owners association and the bylaws of the association, and miscellaneous provisions setting forth the unit owners' rights to sell, mortgage, rent, insure, remodel, decorate, or dissolve. The underwriter must be aware that in most jurisdictions the Condominium Act sets out certain basic guidelines for the Declaration and association bylaws, and provides for inclusion in these documents varying protections for both mortgagee and mortgagor. In most areas there is no similar control for the establishment of PUD associations; thus the PUD documents (articles of incorporation or the association/trust instrument, or the bylaws and regulations of the Planned Unit Development) are limited only by the creative imagination of the developer and legal counsel. Lenders must, therefore, be fully cognizant of all the provisions of PUD and association documents to insure that such provisions are, in fact, workable and equitable to all concerned. It cannot be assumed that all declarations and bylaws were drafted competently and adequately to insure a viable project. Equity can be an important underwriting consideration as the risk of a project's failure increases substantially if either

the developer or the unit owner is treated unfairly or believes himself to be treated unfairly.

Annual Operating Budget—Estimate of annual charges for administrative expenses, operating expenses, repairs and maintenance, fixed expenses, and replacement reserves, to maintain the project, including replacement of those common elements that must be replaced on a periodic basis, in a manner adequate to protect its marketability. The underwriter must be alert for unrealistic budgets.

B. Legal Documents

The ownership of an individual condominium/PUD unit is subject to the rights, benefits and restrictions contained in the condominium or PUD documents and state law and regulations. Since such rights, benefits and restrictions affect the use of the property, and thus its marketability and value, the lender, appraiser and underwriter must be familiar with the provisions contained in or conditions established by the documents and created by law and regulations.

The FHLMC Sellers' Guide/Conventional Mortgages contains a series of warranties which Sellers must make with respect to condominium and PUD loans sold to the Corporation. A Seller can make the warranty, or request a specific waiver of a warranty, only after the recorded documents setting up the PUD association or condominium regime have been examined by a competent attorney. The intent of the warranties is to insure that equitable protection is provided to both buyer and lender. The underwriter must be familiar with these warranties as FHLMC needs assurance that nothing in the underlying documents abrogates or interferes with its normal legal rights as a mortgagee, and is equally concerned that every unit owner has a full, proportionate voice in the activities of the association and is not bound to unknown or arbitrary obligations assessed without a majority consensus of the unit owners.

Experience has pointed out the potential perils of certain provisions contained in the documents, such as long term or excessively costly recreation leases, "sweetheart" management contracts, misrepresentation of amenities or completion date, or method of changing or amending the bylaws. To insure that the project is a viable project, FHLMC requires that 70% of the properties be sold before it will purchase a loan. As FHLMC does not buy loans secured by vacation or recreational properties, it requires that 80% of the units in the regime or project be occupied by unit owners as their primary year-round residences. The condominium and PUD warranties

required by FHLMC are set forth in the FHLMC Sellers' Guide/Conventional Mortgages. For informational purposes these warranties are summarized below:

Seller warrants that by virtue of (i) the condominium or PUD documents, (ii) a written agreement in favor of all mortgagees of units in the project with the homeowners association of the condominium or the PUD association, corporation or trust; (iii) state law; or (iv) a combination thereof:

1. A first mortgagee, upon request, is entitled to written notification from the homeowners association of any default in the performance by the individual unit mortgagor of any obligation under the condominium or PUD documents which is not cured within sixty (60) days. Seller further warrants that (a) such request has been made by Seller, (b) at the time of delivery of the loan to FHLMC, Seller has received no notice of any such outstanding default, and (c) subsequent to the FHLMC purchase of the loan, Seller, as Servicer, will notify FHLMC of any notice of such default, as prescribed in the Servicers' Guide.

2. Any first mortgagee who obtains title to a unit pursuant to the remedies provided in the mortgage, or foreclosure of the mortgage, or Deed (or assignment) in Lieu of Foreclosure, shall be exempt from any "right of first refusal."

3. Any first mortgagee who obtains title to a unit pursuant to the remedies provided in the mortgage, or foreclosure of the mortgage, shall not be liable for such unit's unpaid dues or charges which accrue prior to the acquisition of title to such unit by the mortgagee.

4. Unless at least seventy-five percent (75%) of the first mortgagees (based upon one vote for each first mortgage owned), or owners (other than the sponsor, developer, or builder) of the individual condominium or PUD units have given their prior written approval, the condominium owners association shall not be entitled to: (a) by act or omission, seek to abandon or terminate the condominium regime; (b) change the pro rata interest or obligations of any individual unit for (i) purpose of levying assessments or charges or allocating distributions of hazard insurance proceeds or condemnation awards, or (ii) determining the pro rata share of ownership of each unit in the common elements; (c) partition or subdivide any condominium unit; (d) by act or omission seek to abandon, partition, subdivide, encumber, sell, or transfer, the common elements. The granting of easements for public utilities or for other public purposes consistent with the

intended use of the common elements by the condominium project shall not be deemed a transfer within the meaning of this clause; or (e) use hazard insurance proceeds for losses to any condominium property (whether to units or to common elements) for other than the repair, replacement, or reconstruction of such improvements, except as provided by statute in case of substantial loss to the units and/or common elements of the condominium project, and in the case of PUD projects, the Planned Unit Development association, corporation or trust shall not be entitled to: (a) by act or omission seek to abandon, partition, subdivide, encumber, sell or transfer real estate or improvements thereon which are owned, directly or indirectly, by such association, corporation or trust for the benefit of the units in the Planned Unit Development ("Planned Unit Development common property"). The granting of easements for public utilities or for other public purposes consistent with the intended use of such property by the Planned Unit Development shall not be deemed a transfer within the meaning of this clause; (b) change the method of determining the obligations, assessments, dues or other charges which may be levied against a Planned Unit Development unit owner; (c) by act or omission change, waive or abandon any scheme of regulations, or enforcement thereof, pertaining to the architectural design or the exterior appearance of units, the exterior maintenance of units, the maintenance of party walls or common fences and driveways, or the upkeep of lawns and plantings in the Planned Unit Development; (d) fail to maintain Fire and Extended Coverage on insurable Planned Unit Development common property on a current replacement cost basis in an amount not less than one hundred percent (100%) of the insurable value (based on current replacement cost); or (e) use hazard insurance proceeds for losses to any Planned Unit Development common property for other than the repair, replacement or reconstruction of such improvements.

5. First mortgagees shall have the right to examine the books and records of the condominium owners association or the condominium project, or of the Planned Unit Development association, corporation, trust, or any entity which owns the common property of the Planned Unit Development.

6. Condominium and/or PUD association dues or charges include an adequate reserve fund for maintenance, repairs and replacement of those common elements or common property that must be replaced on a periodic basis, and such charges shall be pay-

able in regular installments rather than by special assessments.

7. If a condominium loan, all taxes, assessments and charges, which may become liens prior to the first mortgage under local law, shall relate only to the individual condominium units and not to the condominium project as a whole. If a PUD loan, the first mortgagees of units in a Planned Unit Development may, jointly or singly, pay taxes or other charges which are in default and which may or have become a charge against any Planned Unit Development common property, and may pay overdue premiums on hazard insurance policies, or secure new hazard insurance coverage on the lapse of a policy, for such property and first mortgagees making such payments shall be owed immediate reimbursement therefor from the Planned Unit Development association, corporation or trust. Entitlement to such reimbursement is reflected in an agreement in favor of all first mortgagees of units in a Planned Unit Development duly executed by the Planned Unit Development association, corporation or trust, and an original or certified copy of such agreement is possessed by the Seller.

8. No provision of the condominium or PUD documents gives a unit owner, or any other party, priority over any rights of first mortgagees of condominium or PUD units pursuant to their mortgages in the case of a distribution to unit owners of insurance proceeds or condemnation awards for losses to, or a taking of condominium units and/or common elements, or to a taking of PUD common property. Seller further warrants:

9. If a condominium loan, all amenities (such as parking, recreation, and service areas) are a part of the condominium regime and are covered by the mortgage at least to the same extent as are general common elements. All such amenities are fully installed, completed and in operation for use by unit owners. If such amenities are not common or special elements under the condominium regime, but are part of a Planned Unit Development of which the condominium project is a part, such an arrangement is acceptable provided that the warranties applicable to Planned Unit Development units are also satisfied, or waivers obtained. If a PUD loan, all PUD common property which is regarded as part of the value of the unit in a Planned Unit Development for purposes of the appraisal upon which the mortgage loan is predicated (such as parking, recreation, and service areas) are fully installed, completed and in operation for use by Planned Unit Development unit owners. Planned Unit Development unit owners have a right

to enjoyment of the PUD common property and such property is owned in fee or in an acceptable leasehold estate by the Planned Unit Development association, corporation or trust. The PUD common property was conveyed to the Planned Unit Development association, corporation or trust unencumbered, except for any easements granted for public utilities or for other public purposes consistent with the intended use of such property by the Planned Unit Development.

FHLMC reserves the right to reject any condominium or PUD unit mortgage if FHLMC shall determine, in its sole discretion, that the number of units in the condominium regime or in the Planned Unit Development is insufficient to support the common elements or PUD common property and improvements thereon.

10. The condominium regime or PUD has been created and is existing in full compliance with requirements of the jurisdiction in which the condominium or PUD project is located and all other applicable laws.

11. Seventy percent (70%) of the units in the condominium regime or Planned Unit Development have been sold to bona fide purchasers who have closed or who are legally obligated to close. Multiple purchases of units by one individual are to be counted as one sale when counting the number of sales within a condominium regime or Planned Unit Development, to determine if this sales requirement has been met. FHLMC may reduce this seventy percent (70%) sales requirement to fifty-one percent (51%) for those projects where Seller can document to FHLMC's satisfaction adequate reasons for such a waiver. Analysis of this sales requirement must be based upon the number of units that can exist with no further additions and which can support the common elements and amenities promised by the developer, and included in the appraisal, without causing unusually high monthly assessments. In analysis of this requirement in a multi-phase condominium or PUD project, in which sections or phases are established by the condominium or PUD documents, and under a common homeowners association, a section or phase may be combined with other completed, sold and occupied sections or phases.

A developer's construction phasing is not appropriate in determining the sections or phases, unless such phasing is consistent with the documents.

12. In a new or newly converted condominium or Planned Unit Development project, at least eighty percent (80%) of the units sold in the condominium regime or PUD project have been sold to individuals

for use as their primary year-round residence; in an existing condominium or PUD project, at least eighty percent (80%) of the units in the regime or project are occupied by unit owners as their primary year-round residences.

13. If the condominium or PUD is leasehold estate, the condominium unit or PUD unit lease is a lease of the fee, and the provisions of the lease comply with the requirements of the FHLMC Sellers' Guide/Conventional Mortgages applicable to Multi-family Mortgage Leasehold Requirements. In addition, such lease does not contain any provision for an increase (or increases) in the ground rent (lease payment) earlier than ten (10) years after the maturity date of the Note and Mortgage. If any Planned Unit Development common property is on a leasehold estate, the lease of the Planned Unit Development common property is a lease of the fee and the provisions of the lease comply with the FHLMC Multi-family Leasehold requirements.

14. Any agreement for professional management of the condominium regime or the Planned Unit Development project, or any other contract providing for services by the developer, sponsor or builder, must provide for termination on ninety (90) days' written notice and a maximum contract term of three years.

15. Any proposal or plan pursuant to which the condominium regime is subject to additions or expansion (e.g. so-called "phasing" or "add-ons") complies with the following limitations: (a) unit owners shall have a minimum percentage undivided interest in the common elements, and a corresponding maximum interest subject to diminution to no less than such minimum, each such percentage interest to be stated in the Declaration of Condominium (or Master Deed); (b) the conditions whereby any change in such percentage of undivided interest in common elements may take place are fully described in the Declaration or Master Deed, together with a description of the real property which will become subject to the condominium regime, if such alternative percentage interest becomes effective; and (c) no change in the percentage interests in the common elements may be effected pursuant to such "multi-phase" or "add-on" plan more than seven years after the date the Declaration (or Master Deed) becomes effective. The minimum number of units to be built would be the number to adequately support the common elements and facilities, while the maximum number of units to be built would be the number reflecting the capacity of the common elements or facilities.

16. The condominium owners association has agreed to give FHLMC notice (c/o Servicer at Servicer's Address) in writing of any loss to, or taking of, the common elements of the condominium project, if such loss or taking exceeds \$10,000.

NOTE: The Seller/Servicer must comply with all warranties set forth in the Sellers' Guide including those summarized above.

C. Mandatory Homeowners Association

Despite the differences in various condominium and PUD projects, there is a common factor which is of major concern. Every unit owner has a mandatory membership in, thus a financial obligation to, a homeowners association which has certain responsibilities under the provisions of the underlying declarations or bylaws of the condominium or PUD. It is the extent of these responsibilities, and the cost thereof, that requires detailed analysis by lenders, appraisers and attorneys, not just the fact that the project may be a condominium or a PUD. It is quite possible for a single-family, detached dwelling subdivision, which is not classified or zoned as a PUD, to fall within the FHLMC definition because the owners are bound into a master homeowners association with extensive management and maintenance obligations. In the same sense, the term "DeMinimis" when applied to a PUD, essentially refers to the association functions, not to the size of the development or to the amount of the assessment.

The traditional factors in a project feasibility study should not be slighted or ignored. Location, site planning, quality of construction, pricing and marketing are still paramount to the success of any venture. The problem is how these items are affected by the role of the homeowners association. The declarations or articles of incorporation and the bylaws must be drawn to equitably serve the needs of the owners without adverse effect upon property values and marketability. This interrelationship is at the heart of the project analysis.

It is important to be aware that the physical improvements of a project do not necessarily indicate the actual real estate included in a given condominium. It is possible that a single condominium regime is subject to future expansion, or several individual condominium regimes may be bound together by a master association. A condominium regime may also exist within a larger Planned Unit Development, and may be subject to a PUD owners association which assumes some or all of the condominium association functions. There are large projects where the developer has, for quite valid reasons,

established condominium regimes that cover only the living unit structures and the land they stand on, while all green areas, parking and street areas have been deeded to a master PUD association for repair and maintenance. There is nothing inherently wrong in any of these approaches, but the underlying documentation must be very carefully drawn to protect both mortgagee and mortgagor.

D. Appraisal

The relatively rapid rise of condominiums and PUD projects to a position of major importance in many housing markets has presented new problems for the real estate appraiser. The traditional approaches to an estimate of market value are not wholly adequate or necessarily relevant, as the influence of the homeowners association creates entirely new market factors. The fee simple title to a parcel of real estate which formerly bestowed upon the owner an inviolable "bundle of rights" may now distribute those rights among the owner and one or more legal entities in any number of different combinations. The Cost Approach is an exercise in futility in the appraisal of a single condominium unit, and the role of the association requires analysis very akin to that used in the Income Approach of a multi-apartment complex.

In recognition of these new considerations, FHLMC has published its "Individual Condominium/PUD" Appraisal Form (FHLMC 465 8/74) (Exhibit II) as a "first generation" attempt to adequately cover the appraisal process. In cooperation with the appraisal profession and the lending industry, the form was designed to set out those factors peculiar to and critical for the valuation of any project where owners are subject to a mandatory homeowners association. Sellers are required to submit this appraisal form with each condominium or PUD loan. This form has been designed to permit the appraiser to provide adequate information on the neighborhood, project site, project improvements, and subject unit in a manner so as to permit rapid review of the data.

Neighborhood Analysis—As with all other types of properties, location is a fundamental concern relative to the value and long term lending aspect of a condominium or PUD unit. FHLMC does not consider the racial composition of the neighborhood to be a relevant factor, and it must not be considered in the appraisal report or analysis of any section of the appraisal report. In addition, federal laws and regulations, including those of the Federal Home Loan Bank Board, make it unlawful to consider the

racial composition of a neighborhood in making loan decisions.

As a general proposition it is unlikely that in a rural location either condominiums or PUDs would be built or be acceptable for long-term, high-ratio loans. In suburban locations, showing a healthy growth pattern and built-up 25-75%, PUDs and condominiums are normally desirable and usually suitable for long-term, high-ratio loans. In an urban area over 75% built-up, it is most likely that condominium conversions would occur, or property would be assembled for building new high-rise condominiums or PUDs. Provided there is no evidence of property deterioration in the neighborhood, such locations should be acceptable for long-term, high-ratio financing.

Generally, condominium conversions have been best received in those neighborhoods in which new residential construction is limited, and in which the neighborhood presently offers a mix of residential housing of existing single family homes which are appreciating in sales price and rental units which are increasing in rent. It generally is desirable that the conversion units be priced significantly below single-family housing in the area. It is imperative that the rental history of a converted building be studied, as an unsuccessful rental project will not be successful as a condominium project.

The appraisal should show the age and the price range of condominiums and single family properties in the neighborhood. If the property under analysis falls outside the predominant range, it is necessary to determine that its price range and age will not adversely affect its marketability.

The neighborhood rating grid provides ratings for those items considered to be of importance to purchasers when selecting a home. These ratings offer a basis of comparison of subject neighborhood to other similarly priced neighborhoods relative to the amenities of the neighborhood, as well as the compatibility of the type of improvements and general appearance of the properties within the block and within the neighborhood. Any rating below average may indicate an adverse effect on long-term market value in the area, which should be recognized when underwriting loans and setting loan terms.

Summary of Neighborhood Analysis—The underwriter should always relate the loan-to-value and the loan term to the security under consideration in its neighborhood and its sales price. If the appraisal report indicates that the property at its sales price makes sense in the neighborhood and reflects a

sound value, reasonably estimated remaining economic life, improving or stable neighborhood trend, and ratings of average or above for the neighborhood, a high loan-to-value ratio, long-term loan is reasonable, as it may be assumed that amortization will keep up with or exceed depreciation. If property values are fairly stable but some signs of weaknesses are noted, the loan term and/or loan-to-value should be reduced. In other words, when considering maximum loans, look for market strength over a long period of time.

Project Site Analysis—For a condominium or PUD project to qualify for maximum financing, its site must be of a size, shape and topography generally acceptable in the market area and must have competitive public utilities, street improvements, and amenities. The size of the site should be sufficient to enable the completed project density to be equal to or less than that of competitive projects. An article dealing with site density was published in "The U.S. Savings and Loan News," July and August, 1972, authored by John L. Schmidt, A.I.A., and his conclusion was that good land planning suggested the following density schedule for apartments and condominiums:

Townhouses	10 units/acre
4-Plex units	20 units/acre
Garden	
2 story (no covered parking)	14 units/acre
3 story (no covered parking)	20 units/acre
3 story over covered parking	30 units/acre
Midrise—4-10 stories	<u>40 units/acre</u>
Highrise	100 units/acre and up.

Variances significantly over these densities should be carefully considered and commented upon as to long range acceptability. Conversely, the effect of an increase in the proportionate amount of an individual unit owner's share of the operating and maintenance costs should be carefully reviewed if the density of a project varies substantially below these figures.

Frequently, the argument is made that site density exceeding these limits is common and acceptable to the area. It is suggested that if this condition exists and the demand for housing greatly exceeds the present supply, this condition may be temporarily acceptable. However, when supply and demand come into balance, in all likelihood, those projects that have lesser density, better site planning and recreational facilities, will sell at a competitive advantage over the others.

Bad planning usually catches up with a project,

and once bad planning is in place it is generally impossible to cure, resulting in functional obsolescence which cannot be overcome. Loans are long term, and the long-term outlook must be considered. Close-in and downtown properties often support a higher density, as the need for parking may be less because of public transportation and proximity to work centers, and frequently there is a parking structure or underground parking in the apartment building itself.

The appraisal indicates the zoning classification. If the improvements under consideration do not conform to this zoning classification, the underwriter must determine the effect on the marketability and long-term lending, e.g. if not conforming, can the improvements be rebuilt in event of destruction by fire or other causes?

Utilities must be typical, or they are not competitive. If public sewer, water, electricity or gas are expected and not available, this creates an adverse condition which may affect the marketability. Community and/or public well and septic facilities should meet FHA minimum standards, and be generally acceptable by area residents; such facilities should be owned by the unit owners or owners association, and not leased from others.

The on-site improvements should be consistent with those of competitive projects. Properties should front on publicly dedicated and maintained hard-surfaced streets. If fronting on private streets, the installation and construction of such streets should meet the specifications for publicly owned streets, as at a future date the owners may wish to dedicate the streets to the public authorities. The width of the streets and driveways must be sufficient to serve the amount of the traffic generated by the size of the project, provide adequate ingress and egress, and serve emergency vehicles. Adequate charges for maintenance of private streets must be included in the project operating budget and reserve fund.

In a large project it may be difficult for the appraiser to rate the site topography; however, the completed grading can materially affect the appearance of the entire project. The topography may result in steep grades for streets or driveways, or steep slopes in certain areas, causing possible erosion. Conversely, the developer may have handled the topography in such a manner as to provide for gradual winding streets, cul-de-sacs, and view lots. As topography affects the value and marketability, the underwriter should be aware of the topography and drainage and flood conditions in the project. To meet the Federal regulations, the

owner, should be assigned, or else the number of spaces per unit be limited by the Bylaws. Spaces should be provided for guest parking and facilities for loading, unloading and delivery.

The adequacy, condition and stage of completeness of common elements and recreational facilities should be related to competitive units. If incomplete, an adequate escrow must be posted with the Seller/ Servicer to insure completion, and the Annual Operating Budget must be based upon operating and maintenance costs of completed common elements and recreational facilities. If the project is incomplete or being developed in sections or phases, the underwriter should determine that the common elements, including recreational facilities, described in the appraisal report and sales literature, are complete or that an adequate escrow is established. The recreational facilities and cost of operations must bear a reasonable relationship to the number and sales price of individual units. If the recreational facilities have been completed for the entire project, and the total number of sections/phases has not been completed, the underwriter must determine that the completed number of units, plus those under construction, is adequate to meet the operating costs of the recreational facilities. It may be that the remaining sections/phases will never be completed, and so the resulting excessive monthly assessments will not only adversely affect the marketability of the individual units, but also lead to servicing problems on the loan, as the lender may have qualified the borrower on the basis of the operating costs being proportioned among unit owners of all of the planned sections/phases of the project. Are the recreational facilities, common elements, or parking owned by the unit owners or by the owners association, or leased from another party? It makes a great deal of difference in the value of the individual unit; FHLMC will not purchase a loan secured on an individual unit in a project in which these items are leased. This does not apply to projects in which the ground is leased at a fixed rental for a term ending not earlier than ten years after the maturity date of the mortgage, or in which membership in the recreational facilities is optional and not mandatory.

Conversions—If the building is in the process of conversion or recently converted, the appraiser and the lender are faced with another problem. The conversion of existing apartment units to condominium status has accelerated rapidly in some housing markets as the economics of multifamily rental projects have deteriorated in the face of rising operat-

ing costs. Success of these conversions depends upon the age, condition and design of the original units, and upon the skill of the developer in producing a livable condominium unit at a price that is acceptable to the intended market. One advantage many conversions offer is excellent location, but the units must be compatible with the properties in the surrounding neighborhood.

In addition to the general condominium precepts, lenders and appraisers should consider the following questions in considering a condominium conversion:

- a. Are the units suitable for long-term owner occupancy? Tenants on a rental basis may tolerate problems that unit owners will not. Closet and storage space, room size, sound-proofing and parking are some areas which must be considered from an owner's point of view instead of a tenant's.
- b. Have the improvements and mechanical elements been upgraded? In older buildings, a mere cosmetic treatment is not adequate. The plumbing, electrical and heating systems should be modernized and have a reasonable life expectancy of 10 to 15 years. The roof and exterior should also be in good condition. Owners in a moderate priced conversion may not have the resources to pay a special assessment to replace such items as the heating plant.
- c. Is there reasonable probability the conversion will be successful? Before the Declaration is recorded, the developer should have some indication of market acceptance, both from tenants already living in the building and from outside sales. A condominium that ends up half owner-occupied and half on a rental basis has serious problems from a management and association standpoint.
- d. Is the conversion plan logical and workable? In a project with a number of buildings, the developer may convert one building at a time. If so, each building converted must be prepared to stand as an independent regime, either by itself or with the buildings converted earlier. It must contain an adequate number of units, have direct access to public streets, clearly defined parking and open areas that are not used by the remaining apartment buildings.
- e. Is the Budget reasonable and adequate? Usually there is an operating history of the apartment project upon which to base the association Budget. Except for real estate taxes, it should provide a good guideline for a minimum asso-

appraisal must state whether the property is or is not located within a HUD identified special flood hazard area.

The underwriter should note the comments of the appraiser relative to any apparent easements or encroachments, and their effect, or that caused by any adverse conditions, upon market value.

Summary of Project Site Analysis—From this review, the underwriter should be able to visualize the project site, its size, its utilities, its on-site improvements, and its favorable and adverse features. It should be possible to determine if those items having an effect upon the marketability, and thus on the long-term lending value, have been properly considered by the lender in setting the terms of the loan.

Project Improvement Analysis—In the appraisal of an individual condominium/PUD, the appraiser must be familiar with the total project, as a condominium/PUD project can be described as a self-governing community within a neighborhood. Buyers are attracted to a project because of its location, general appearance, unit size and mix, recreational facilities, amenities, and occupants. Outside of retirement and recreation areas, buyers can typically be classified into groups: (1) young married or single adults under 35; (2) mature married or single adults 35 and over; (3) young family under 35 with children; (4) mature married or single adults with children, and (5) retired married or single adults over 65. These groups could be further broken down into smaller segments, such as the "swinger," "luxury family," "empty nester," "growing family," etc., but these five classifications in a feasibility study should be sufficient to provide the developer with adequate information to plan project amenities and building types.

The FHLMC appraisal form provides the underwriter a quick overview of the project improvements, i.e., the type of project, its age, stage of completion and sales status, estimated absorption time for the unsold units, building components, security features, and common elements. Relate these items to the sale price of the individual unit.

Realize the importance of the estimated absorption time for the unsold units, not only in a converted building, but also in a new project. The developer must pay the proportionate share of the Budget for these unsold units, their maintenance and utilities, and the real estate taxes, insurance premium, and mortgage payments. These items represent a considerable sum, and if the market cannot

absorb the unsold units within a reasonable time, the developer may be forced to rent these units. Tenants, with some exceptions, generally do not give the same care to a property as the owners, and thus can cause deterioration in the property which can start a blight on the project. FHLMC will not purchase loans in a project, unless at least 80% of the units sold in the condominium regime or PUD project have been sold to individuals for use as their primary year-round residence.

The project rating grid provides ratings for those items which affect the overall livability and design of the project. It is to be expected that these items would be superior to those of a rental unit, as a tenant is more likely to accept, on a short time basis, poorer design, construction or planning.

One of the most frequent complaints by the unit owners in a condominium or PUD project is the lack of or inadequate soundproofing in the building. In the appraisal form, the appraiser must describe the vertical and horizontal soundproofing and its adequacy.

The items described in the project improvements should be related to the individual budget items when reviewing the Annual Operating Budget. The material used in the exterior walls will affect the charge for painting and maintenance; the adequacy of the insulation will affect the charge for the heating and air conditioning; if the heating and air conditioning are individual units, are utility charges erroneously included in the Budget, or if central units, have the charges been omitted from the Budget? The number of employees necessary for maintenance of the site and the improvements can be related to this description. In order to arrive at any reasonable conclusion as to the accuracy of the Budget, the underwriter must have analyzed the project improvements.

This analysis will also indicate to the underwriter the monthly housing costs to the borrower of items which are not covered by the monthly unit charge of the Budget. Many purchasers of condominium/PUD units are first-time purchasers, and unaware of the rapid increase in utility and fuel costs, or charges for interior maintenance and the costs of operating a project.

The number of parking spaces and their location to the units is also of prime importance. Perhaps in an urban location served by good public transportation, a ratio of one or less parking space to a unit might be acceptable. However, in a suburban location, or in more expensive units, this ratio must increase. Parking, if not owned by the individual unit

ciation assessment, keeping in mind that unit owners may demand a higher degree of service than tenants.

Few unsuccessful rental projects are successful as condominium conversions. If a number of units in a converted building have been sold to tenants, it is a good indication of market acceptance of the project as a condominium or PUD project.

Subject Unit Analysis—This section of the FHLMC Appraisal Report is designed to allow the appraiser to present a word picture of the individual unit, including unit location, size, room list, special equipment and parking. The rating grid and comments section provide adequate space to comment upon favorable or unfavorable features, which affect livability and marketability of the individual unit.

The value of the individual condominium or PUD unit consists of not only the value of the individual unit, but also of the common elements. The overall value is influenced by the individual monthly assessment, the quality of the maintenance of the common elements, the management group and its quality of management and enforcement of rules and regulations, and the condominium documents. No matter how good the physical characteristics of the project, poor management or enforcement of rules and regulations, and harsh or unrealistic restrictions in the condominium documents can adversely affect the marketability of the project. Without being familiar with these items, the appraiser cannot complete his estimate of value, nor can the underwriter complete his analysis.

Summary of Project Improvements and Subject Unit—The review of these sections should indicate to the underwriter the physical characteristics of the project and the individual unit, while the rating grids or comments reflect any detrimental or favorable aspects of the improvements. The underwriter should relate the effect of these items upon the marketability and livability of the property to the amount, ratio and term of the loan under consideration.

Valuation Analysis: Cost Approach—FHLMC does not consider the cost approach to be appropriate in the appraisal of an individual condominium or PUD unit. The value of an individual unit includes not only the cost of the individual unit, but also a proportionate share of the cost of the common elements or recreational facilities of the entire building or project. It is unrealistic to attempt to allocate the proportionate share of the cost of these common elements.

Market Data—In the appraisal of a condominium/PUD unit, the market data comparison approach provides the best and only reliable approach to value. The appraiser should use comparable sales of similar property located in the subject project, or in comparable projects in close proximity to the subject property. If comparable properties are selected within the project in which subject unit is located, generally only a few basic models are offered; hence, except for adjustments due to the time of sale, unit location or fixtures and equipment, the variances will be minor. In a project in which resales are occurring, the sales prices of the resold units are the most reliable indicators of value.

However, in the initial sale of a unit, the sales price may be affected by the marketing technique of the Seller. FHLMC, therefore, requires that in appraising a unit in a new or newly converted project, the appraiser must select at least two comparable sales outside the subject property. In selecting sales outside the subject project, the appraiser should attempt to obtain sales of units having size and prices similar to subject unit, and being located in a project having a like number and mix of units and common elements, including parking and recreational facilities, comparable to subject project. Obviously, a 20 unit project will not have the same recreational or common element facilities as a 200 unit project, and the social and economic characteristics of the buyers also may be different. Not only must the appraiser reflect adjustments for these physical, social and economic differences, but the appraiser must also be familiar with the legal differences, i.e. those contained in the Declaration. These differences, such as who owns the swimming pool or the recreational facilities, can materially affect the valuation.

The appraiser must also be familiar with the Operating Budget, amount and status of the replacement reserves, capital contributions or any other reserve fund, special assessments, and the relationship of monthly assessments to the Operating Budget and competitive projects. In an established condominium or PUD where the homeowners association has been organized and is operating by the owners themselves, there are fewer problems for the appraiser. The market data approach is the basic criterion for the value estimate, and there is an operating history to use as a guide. The appraiser must know, however, how the owners are organized and must be aware of the association responsibilities and the cost of them to each owner. Monthly assessments may vary widely in closely comparable developments, and the Budget items have to be analyzed

to discover the reason for these variances. Whether larger assessments are due to more extensive amenities or services provided by the association, or are merely a result of less effective management, can have a direct bearing on the final appraised value. The appraiser cannot make a competent appraisal, unless these items of the comparable property sales transaction have been related to the subject property, and the underwriter or lender cannot make a proper analysis unless the appraiser has done a competent job.

Income Approach—The typical purchaser of a condominium unit does not buy a condominium/PUD unit as an income producing property. If the appraiser considers this approach applicable, the gross rent multiplier technique should be used. The underwriter should relate the economic market rent to the total monthly housing expenses, as it is unlikely that a typical owner would over a long period of time pay a housing expense in excess of an economic market rent of a similar property.

Summary of Valuation Analysis—Generally, the market value of a property is supported by a reconciliation of the three approaches to value, i.e. cost market data, and income. This reconciliation is not an averaging technique, but a reasoning process. In arriving at the market value of an individual condominium/PUD unit, this reconciliation is simpler as the cost approach is not applicable, and the income approach is unreliable as the market gives it little consideration; therefore, the market comparison approach is the most meaningful market value indicator. This market value of the individual condominium/PUD unit includes the proportionate share of the common elements and recreational facilities, the management of the project, the validity of the budget and its replacement reserves, and the limitations of use, as outlined in the Declaration. The underwriter must relate each of these elements of market value to the amount, term and ratio of the loan.

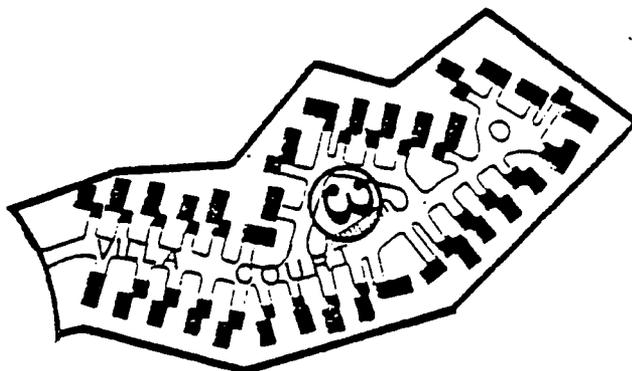
EXAMPLES OF REPRESENTATIVE CONDOMINIUM/PUD PROJECTS

The following examples are shown to illustrate some of the more common forms of condominium regimes and Planned Unit Developments along with their homeowners association functions. These examples are not intended to be all inclusive, but are presented only to give the underwriter an understanding of the basic organization forms in order to intelligently analyze the many variations.

The lender's basic considerations of a project, particularly at the construction stage, are vital for intelligent lending on condominiums and PUDs. These include construction details, location, site planning, amenities and market acceptance, which are subject to the usual, long-standing methods of analysis and feasibility study. In the formative stages, however, the lender is not just concerned with these items and the sale of the individual units, but also at what point in the sales program the homeowners are able to carry the association budget without an excessive increase in the monthly assessment over the figure originally estimated and furnished to prospective purchasers. Given good site planning in an established residential area, a subdivision of detached single family houses may be just as viable and marketable if only 100 units are built and sold instead of the original 500 planned, but this may not be true of a condominium or PUD project, when the common area and amenity package is planned to accommodate and be paid for by 300 individual unit owners. Thus, the lender must make a close examination of the budget for the association in order to determine this break-even point, and realistically evaluate the builder's timetable for sales and construction. Substantial developer support for the association expenses can be expected for some time during the early phases of a project, but obviously the developer cannot guarantee to make up budget deficits indefinitely if units fail to sell and the project comes to a halt far short of the break-even number.

A key factor in the budget analysis is the size and cost of the amenity recreation package. Some 300 unit projects include only modest pools and bathhouses to serve each 50-100 units, in separate phases or groups of units. This approach makes the association viable on a lower number of sales than one that calls for on very large and extensive recreation facility intended to serve the 300 units. Satisfaction of FHLMC's 70% sale requirement will be very different for these two development plans. The examples illustrate FHLMC's approach to the different situations.

EXAMPLE 1—CONDOMINIUM, SINGLE REGIME, SINGLE PHASE



Crestwood Villas

Development Plan—33 buildings containing 132 Quadrominium units, private streets, and a small recreation facility which is located in the center of the project.

Legal—Declaration sets up a single condominium regime, giving each unit owner a pro rata undivided interest of .7575% (1/132) in the common elements, and an equivalent vote in the Crestwood Villas Homeowners Association.

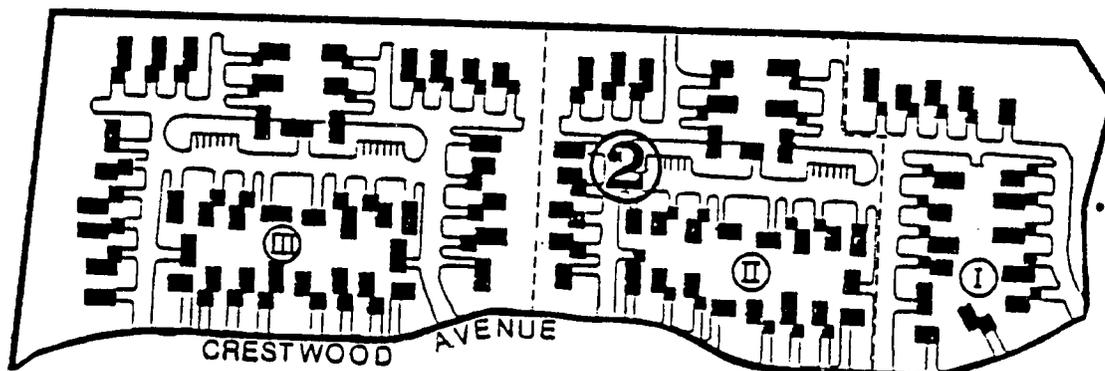
Assessment—Each unit assessment is \$20 per month, the annual association budget is \$31,680. The association maintains all common elements, landscaping, and the swimming pool and bath house, including insurance. Villa Court is part of the common area.

Underwriting—The entire project is considered a single phase, and the Seller must certify to compliance with the FHLMC condominium warranties. All common areas and facilities must be in and operating at time of submission of loans to FHLMC. FHLMC expects 92 units (70%) to be sold when it begins purchasing loans in the project, but may reduce that figure to 67 units (51%) if the rate of sales indicates excellent

market acceptance. The association budget must be adequate for all purposes, including those peculiar to the geographical area (heavy snow removal expense in northern areas, higher exterior maintenance in hot, humid climates, etc.).

NOTE: Example I will apply to any high-rise or large single-building condominium project.

EXAMPLE II—CONDOMINIUM, SINGLE REGIME, MULTIPLE-PHASE (ADD-ON)



Crestwood Condominium

Development Plan—92 condominium townhouses in entire tract. Phase I contains 17 units, Phase II will contain 32 units and Phase III, 43 units. Phase II will be started upon substantial sellout of Phase I, and indication of market acceptance of various models. Phase III to start upon sellout of Phase I and at least 50% of Phase II. Recreation facilities may be either (1) a small pool in each phase, or (2) a larger pool and modest clubhouse to be located on the northwest corner of Phase I, and built as Phase II is completed and Phase III begun.

Legal—Declaration sets up initial regime coincident with Phase I tract, and each unit owner has a pro rata interest of 5.882% (1/17). Declaration also includes Phases II and III as additional property, which may be added to the regime with a resultant reduction in each unit owner's pro rata share to 2.040% (1/49) upon completion of Phase II, and to 1.087% (1/92) after Phase III. All unit owners are members of the Crestwood Townhouse Condominium Association, which has responsibility for Phases I, II and III as they are added to the regime.

Assessment—Each unit assessment is \$35 per month with an ultimate budget of \$38,640. The association maintains all common areas and recreation facilities as they are added to the condominium regime. Crestwood Avenue is a dedicated street, but the other paving is part of the common area. From date of model opening, sellout time for Phase I is estimated to be 4 months, Phase II to be 8 months, and Phase III to be 14 months.

Underwriting—The Seller must comply with the FHLMC condominium warranties. The key to FHLMC's sale requirement in this project will depend upon the final recreation facility arrangement and the adequacy of the association budget.

If a small pool is provided in each phase, Phase I could be considered on its own if (1) there is adequate access to dedicated streets, and the 17 units are sited in such a way as to be a cohesive and easily defined grouping, (2) the tract is in a well established area of compatible development and free of possible land use changes in the event Phases II and III are not built, (3) the estimated budget of \$7,140 is adequate to support the project, and (4) the common areas are in and operating. FHLMC approval of a section this small would probably be predicated upon an almost total sellout of the 17 units as any lesser number could not be self-sustaining without a significant increase in the monthly assessments.

If the developer chooses to provide the single, larger pool facility sometime after commencement of Phase II, the sale requirement will be based on the 49 units in Phases I and II. In addition, the 49 units must support the costs of the common areas and amenities, and if they do not, FHLMC approval will be deferred until sufficient units in Phase III are sold to meet such costs. Again, the common areas should be completed around the units sold and the pool facility in operation.

In the case of very large projects, Sellers should bear in mind that no additions to the project may be made after seven years from the recording date of the original declaration.

EXAMPLE III—CONDOMINIUM, MULTIPLE REGIME

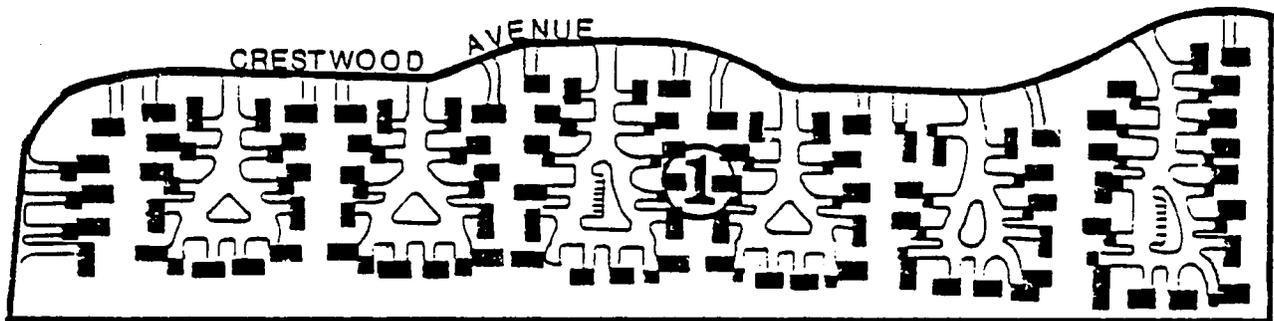
Development Plan and Sketch identical with preceding Example II.

Legal—Each phase is a separate condominium regime with its own association (Crestwood Condominium Association I, Crestwood Condominium Association II, etc.). Unit owners in Phase I will have a 5.882% (1/17) pro rata interest in that regime, Phase II owners a 3.125% (1/32) interest in the Phase II regime, Phase III owners a 2.325% (1/43) interest in the Phase III regime, and these percentages will not change as the project is completed. In addition, all unit owners will be members of a master association, Crestwood Townhouse Owners Association. If a small pool is built in each phase, it will be a part of the individual regime, but a single larger facility will be deeded out as a separate parcel to the master association.

Assessment—Unit assessments are again \$35 per month, but each regime has its own budget. Each regime is responsible for maintenance and hazard insurance on the common element improvements, including any pools. For the sake of economy, however, the master Townhouse Owners Association is responsible for street maintenance and landscaping, and if a large single recreation parcel is built, will own and maintain it. An appropriate portion of each \$35 assessment will go to the master association.

Underwriting—The underwriting considerations in this arrangement are similar to those outlined in Example II. Moreover, all unit owners must be represented in the master association, and the various duties of the several associations be clearly defined. Assessment levels will depend upon the needs of the master association, as well as the individual condominium associations. If the recreation parcel is owned by the master association, it must be free and clear of incumbrances and the association budget must provide for real estate taxes and insurance premiums.

EXAMPLE IV—PUD, DeMINIMIS



Crestwood Estates

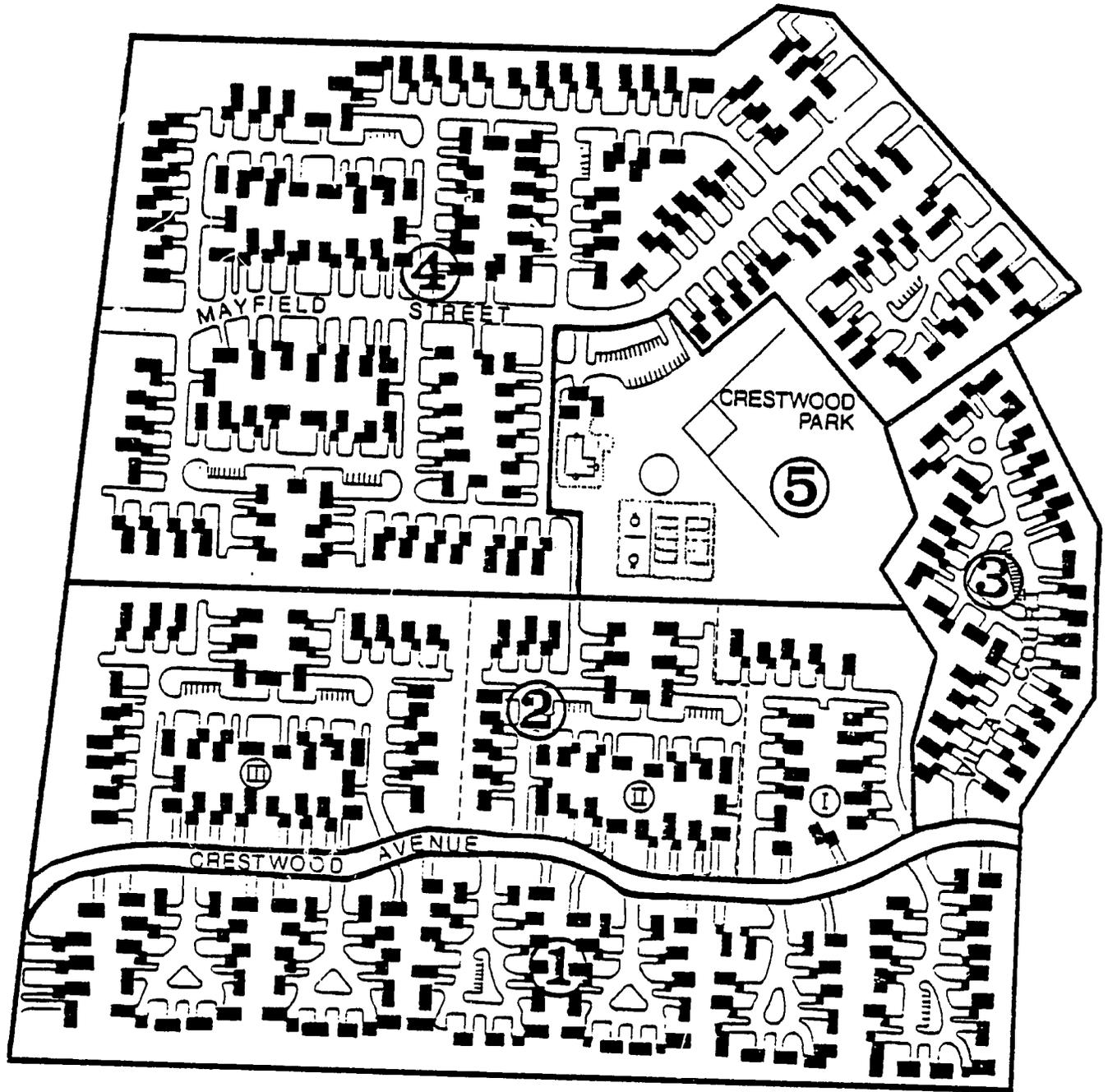
Development Plan—93 single family detached houses and all streets are publicly owned and dedicated.

Legal—Owner receives fee title to the lot which is large enough to conform to standard R-1 zoning. Each owner must belong to the Crestwood Estates Association which holds title to the six small islands in each cluster, and a strip of ground along the south edge of the tract.

Assessment—The monthly assessment is \$5 per month. The association is responsible for mowing the grass in the area owned by the association, and for trash pickup for all units.

Underwriting—The Seller should request classification as a DeMinimis PUD by submitting FHLMC Form 488 and required exhibits to the FHLMC Regional Office. In this example, the request would be approved as the property owned by the homeowners association is minimal and contributes little to the value of the individual PUD unit. All owners must belong to the homeowners association, but its functions are minimal, and if it fails to perform, the mowing and trash pickup can be easily taken over by individual owners. Although a Planned Unit Development, appraisals and underwriting are done as customary single-family houses. The Seller does not have to certify to the FHLMC PUD warranties.

EXAMPLE V—PUD, MULTIPLE PHASE (INCLUDING CONDOMINIUM)



Crestwood Subdivision
(Planned Unit Development)

- | | |
|--|---|
| <ul style="list-style-type: none"> (1) Crestwood Estates (PUD)
93 Single Family Detached Units (2) Crestwood Condominium <ul style="list-style-type: none"> I—17 Townhouses II—32 Townhouses III—13 Townhouses 92 Townhouse Units | <ul style="list-style-type: none"> (3) Crestwood Villas (Condo)
132 Quadrominium Units (4) Crestwood Patio Homes (PUD)
160 Townhouse Units (5) Recreation Area
(Pool, Tennis Courts, Etc.) |
|--|---|

Development Plan—477 total dwelling units in 378 buildings. Models will be built and sales will begin simultaneously in each Section. The central recreation area, costing \$500,000 is to be started and completed in one year after models are open. Crestwood Avenue, installed by the city, is a connector to other traffic arteries. Mayfield Street, installed by the developer, will dead-end at subdivision boundary until extended by the city in about five years. Access to Section 4 will be through Phase II of Section 2 until that time. Crestwood Avenue, Mayfield Street, and all streets in Section 1 are dedicated and publicly maintained. No Section has individual recreation facilities as the recreation area in Section 5 will serve the entire project.

Legal—Each Section will be set up as a PUD or condominium, as indicated by the key. Section 2 condominiums will have three separate regimes with a Section master association, and each of the three regimes will include only the common elements of the structures and the land they cover. Section 3 is a single-phase, single-regime condominium with the regime covering the entire tract. Section 4 has its own PUD association and each unit owner holds title to a 20' x 40' lot. Section 1 is a PUD, and the only common area is the southerly strip of land along the subdivision property line and the small islands in each unit cluster. All owners in the four Sections must belong to the Crestwood Subdivision Master Homeowners Association, which owns all of the recreational area in Section 5, the private streets and land, except that covered by the structures in Section 2, and the land owned by the unit owners in Section 4.

Assessment—

Section	Monthly Amount	Passed on to Master Association	Responsibility of Section Association	Responsibility of Master Association
1	\$10.00	\$ 5.00	Trash pickup for each unit—mowing common areas	Recreational facility maintenance
3	22.50	5.00	Maintenance of all common areas, exterior of units, and streets	Recreational facility maintenance
2	35.00	20.00	Each condo regime has individual homeowners association, with its own budget and responsibility for building structural maintenance, and repairs to exterior and common elements within the structures. Section 2 has a Master Homeowners Association, having no budget, but functions to represent unit owners on the board of the Crestwood Subdivision Master Association	Maintenance of recreational facility, common area, landscaping, and maintenance of streets
4	35.00	35.00	No budget and no specific functions, except to represent unit owners on the board of the Crestwood Subdivision Master Association, and transmit assessment to the Master Association	Maintenance of recreational facility, exterior of the units and common area, landscaping and maintenance of the streets

Underwriting—This is a complex, but not far fetched, example. All of the underwriting considerations outlined in the previous examples are applicable. However, as all Sections are interdependent, there are further considerations, as a marketing failure in any one Section can have severe implications for the other three Sections.

The Seller must certify compliance with the FHLMC PUD warranties for loans delivered in each of the four Sections, and also compliance with the FHLMC condominium warranties for loans delivered in

Sections 2 and 3. Because each Section represents different types of dwelling units and association responsibilities, separate condominium/PUD appraisal reports are required on each, including their respective budget analyses. In addition, a separate budget and project analysis on the subdivision as a whole must also be submitted. Estimates of separate marketing and sales rates are essential to a determination of the success of the project as a whole. As outlined above, no single Section can stand alone.

First, look at the Crestwood Subdivision Master Homeowners Association's pro forma annual budget of \$102,780, which is roughly allocated:

Recreational facility maintenance	\$28,620
Sections 2 and 4 common area and street maintenance, landscaping	45,360
Section 4 units exterior maintenance	28,800

A rock bottom figure of \$15,000 is estimated for the recreational facility costs, including insurance, taxes and upkeep, with incremental increases as the number of users grows. At the projected monthly assessment of \$5 per unit, sale of 250 units is required to support this rock bottom budget of the recreational area. The budget for maintenance of the common areas and streets in Sections 2 and 4 is almost directly proportionate to the number of units built and sold, except for basic management and administration costs. It is estimated that these costs, plus the maintenance of the original streets necessary for the project opening, amount to \$18,000 per year, and that subsequent increases to this estimate will be supported by the number of additional units as sold. Sections 2 and 4 are needed to fund this portion of the Master Association budget, with a monthly assessment of \$15.00. Similarly, if the exterior maintenance of the units in Section 4, which is also proportionate to the total sold, is estimated at \$5,000 per year, the sale of 28 homes in Section 4 is necessarily based upon a monthly assessment of \$15.00 per unit per month. Based upon this analysis of the budget, FHLMC's minimum sales requirement is sales of 250 units in the project, of which at least 28 must be in Section 4, and another 72 in either Sections 2 or 4.

Apart from purely financial aspects, the documents governing this Master Association must be closely examined to make sure all members are fairly represented in the activities of the association in which they participate and for which they pay. Sections 1 and 3 contribute only to the recreation facility, Section 2 looks to the association for common area and street maintenance as well, and for Section 4 the association performs all of these functions, plus exterior maintenance of the units. The annual budget must detail all of these functions carefully, and its approval is dependent upon all of the appropriate users. An organization of this complexity must be expertly established in its origination in order to avoid inequities and future strife among the members.

Even if all of the parameters of the Subdivision Master Association are met, there are still individual considerations within each Section. Except for the recreation area, Section 3 is a self-contained condominium regime and is subject to the underwriting considerations in Example I. If units in all sections of the subdivision are selling well, the sales requirement of Section 3 may be as low as 50 units, dependent upon the site planning and overall layout. Sales requirement in Section 1 is subject only upon the overall sales requirement of the subdivision. Note that if Section 1 is considered a DeMinimis PUD (by virtue of voluntary membership in the recreation facility), it is not subject to warranties or a sales requirement. In the analysis of Section 2, not only the underwriting considerations of Examples II and III are required, but the number of sales is also affected by the number of units necessary to support the budgets of the three separate condominium associations. In addition, as ingress and egress to Section 4 are limited to the streets of Phase II of Section 2, the sales requirement must necessarily reflect this condition. Section 2 plays a key role in the success of the overall subdivision; if it fails, there is a large tract of land in the middle of the project with a questionable future and impaired access to the Section 4 area.

In summary, the minimum sales requirement is not established just by consideration of the master association budget, the individual section budgets, and the documents, but also by the physical characteristics of the individual units and the common areas, layout of the entire subdivision, and the interrelation of the individual sections. Based upon this analysis, and assuming the 70% sales requirement for the subdivision can be reduced to 51%, FHLMC will require sales of 250 units in the subdivision, of which 50 must be in Section 3, and a combination of 100 in Sections 2 and 4, with a minimum of 50 in Section 2.