

A FINANCIAL ANALYSIS OF THE EFFECT OF  
THE HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1987  
ON PRIVATELY OWNED BUT FEDERALLY SUBSIDIZED HOUSING PROJECTS  
OTHERWISE ELIGIBLE FOR MORTGAGE PREPAYMENT

by

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Submitted to the Department of Architecture on July 29, 1988  
in partial fulfillment of the requirements for the Degree of  
Master of Science in Real Estate Development

**ABSTRACT**

Decent housing is not just an aspiration of most Americans, it is a stated national priority, as well. In recent years, however, federal subsidies for housing have decreased while demographic and economic trends have combined to create a shortage of decent, affordable housing in this country.

One component of the federally assisted housing stock consists of private properties receiving subsidies, which reduce rents to a level affordable to low income households. These subsidy programs were structured in such a way that the owners had the option to prepay the mortgages after twenty years and terminate the use restrictions on the properties. As the projects begin to reach the twenty year mark, housing advocates fear a wave of prepayments that would seriously reduce the assisted housing stock. In reaction to this concern, Congress enacted legislation which effectively prevents prepayment for two years while it seeks a more permanent solution.

The study considers this legislation from the perspective of a private owner. It examines the curtailment of property rights and sets forth a framework by which owners can evaluate alternative courses of action and assess the subjective elements of the decisions facing them. An informal survey of project owners and other interested parties revealed that, to date, owners are taking a "wait and see" stance with respect to the issue. Also, none reported using any rigorous analysis in addressing the situation thus far. The study concludes with a set of findings, and some recommendations to the parties involved in this issue.

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## Chapter I: INTRODUCTION

Adequate shelter is one of the central tenets of the "American Dream," and, as a whole, Americans are the best housed people in the world.<sup>1</sup> Nonetheless, many people still have not attained the stated national goal, set forth in the 1949 Housing Act, of "a decent home and a suitable living environment."

### Overview of the Problem

Despite the improvement in the general quality level of the housing stock over the past several decades, millions of households reside in substandard dwellings. Millions more spend an exorbitant percentage of their incomes to put a roof over their heads. Many inner city neighborhoods are unfit for human habitation regardless of the condition or affordability of individual dwellings. Finally, homelessness appears to be a growing problem, and now includes families as well as the more traditional "street people."

These problems are more interrelated and complex than they might appear at first glance. Substandard dwellings, affordability and homelessness are affected by both the size of the housing stock in a given area (supply), and by the effective demand of the households (i.e., their ability to command housing resources in the market, as opposed to their

needs or desires). The problems of homelessness and neighborhood environment also include social dimensions such as substance abuse, crime and mental health considerations. Finally, it is important to note that housing markets (and submarkets) are very localized, and influenced by both the macro and micro-economies.

Given the scope of these problems and the number of people affected by them, it is understandable that there has recently been a renewed interest in housing policy, after eight years of retrenchment during the Reagan administration.<sup>2</sup> One area of investigation, and the point of departure for this study, involves the stock of federally subsidized rental housing for low and moderate income households. More specifically, this paper addresses concerns that this stock may be seriously reduced in size over the next few years.

At present the federal government provides rental assistance, in one form or another, to more than four million households. Many people do not realize, however, that publicly owned housing ("public housing") accounts for only one-third of these units.<sup>3</sup> The majority of cases involve a partnership with the private housing market whereby federal subsidies make privately owned rental units affordable to low and moderate income households. Through a variety of programs with cryptic titles (e.g., Section 8, Section 221 (d)(3) and FaHA 515) the buildings (unit-based approach) and/or the

residents (tenant-based strategy) are subsidized to the extent that low and moderate income households can afford decent dwellings. Since the government actually owns the public housing projects, those units can be considered a "permanent" resource. In contrast, the privately-owned, federally subsidized units are "leased," and this resource must be recognized as "temporary" in nature.

Under most unit-based programs a contractual agreement was reached whereby the private owner/developer was offered a variety of inducements to participate in the program. In return, he had to agree to certain restrictions concerning the use of the premises. Typical inducements included interest subsidies, loan guarantees, and long term (40 years) mortgages. Customary restrictions would include using the property to house eligible low and moderate income persons, and acceptance of a rent schedule that provided for a limited return on equity (generally 6%).

Given the limited cash flow from the properties, favorable tax treatment of these developments was an important factor in encouraging private sector participation. Another key provision that proved necessary to attract entrepreneurs was the option to prepay the remaining mortgage balance after 20 years, thereby freeing the property from use restrictions.<sup>4</sup>

By prepaying, an owner effectly "opts-out" of the program, and thus removes previously subsidized units from the

stock. Now that many of the projects developed under these programs are approaching the twenty year point, housing advocates are fearful that a wave of prepayments will seriously reduce the size of the assisted rental stock.

The removal of units from the programs as a result of mortgage prepayments (with the attendant expiration of use restrictions -- "EUR") may be compounded by the concurrent expiration of certain tenant subsidy programs. Over time, it became evident that even with the unit-based subsidies, rents were often still too high to reach very low income households. For that reason, tenant-based subsidies were extended, as well, whereby the federal government paid the difference between the necessary rent to sustain the project and a set percentage of the households' incomes.<sup>5</sup> These subsidy programs were established for finite periods (often 15 years), and as they begin to expire, the tenants they assist may be displaced and/or the projects they support may be at risk of default. The National Low Income Housing Preservation Commission (the "Commission") has estimated that the combination of prepayment and default could reduce the privately owned stock of federally subsidized dwellings by 80 per cent over the next fifteen years.<sup>6</sup> The Commission's report will be discussed in more detail in the next chapter.

The early unit-based subsidy programs were created in the 1960's, and rose to prominence during President Johnson's

"Great Society." The Kaiser Commission challenged the nation to "solve" the low income housing problem in a decade, and the Housing and Urban Development Act of 1968 sought to do just that, calling for the development of an average of 600,000 federally subsidized housing units per year for 10 years.<sup>7</sup> To achieve that level of production, at a price the country could afford, the Johnson Administration knew that it would be necessary to tap the resources of the private sector. A profit motive would be required, even if it had a 20 year time horizon attached to it.

According to those involved at the time, the emphasis was on the production of housing, not on what might happen twenty years in the future. Morton Schomer, Assistant FHA Commission during that period, recently stated that "although it is easy to say we should have foreseen this problem [prepayments], I can only say that our goal was to involve the private sector and to provide subsidized housing for families in need of assistance."<sup>8</sup> In evaluating the programs he helped devise, Henry Schecter, former HUD official, is even more blunt. "The idea of depending on private enterprise to develop low-income housing turns out to be a fool's paradise in the end . . . it was a mistake."<sup>9</sup> A more optimistic assessment would be to acknowledge the inherent tradeoff that faced the Administration -- for any level of resources that could be committed to housing, more units could be developed

(initially) through the unit-based subsidies than could be built directly through the public housing program.

Now, however, the days of reckoning are arriving, and a great deal of concern (and rhetoric) is being expressed over the "grave national crisis in the supply of low income housing."<sup>10</sup> Current demographic and economic trends have combined to create a situation in which there are more households in need of assistance than when these programs were originally created. Although a greater percentage of households are receiving assistance in one form or another than was the case twenty years ago, the absolute number in need has increased, and fewer than 3 out of 10 eligible households are recipients of these programs.<sup>11</sup>

The question of an appropriate response to this issue of the expiring use restrictions has received a good deal of (belated) attention from the federal government and some of the states which will be most heavily impacted.<sup>12</sup> As noted by the former Administration officials, hindsight has shown the weakness of the existing programs. Such hindsight may prove instructive in designing future programs, but it does little to resolve the current situation with private owners desiring to prepay their mortgages and advocates trying to preserve the stock of affordable housing units.

It appears that the federal government's options are rather limited. When the mortgages were originally signed,

the owners were granted the option to prepay and exit from the programs after twenty years. It seems difficult for the government to defend a retroactive action which now restricts that option, to the detriment of the owners. An additional stumbling block is that of the federal deficit. Even if the government decided that it was appropriate to "buy" its way out of this situation, the budgetary tradeoffs that would be necessary would surely be painful and controversial. The Commission estimates that it would require, on average, more than one billion dollars per year to preserve the existing inventory of "at risk" projects for the next fifteen years.<sup>13</sup>

In a last-minute piece of legislation before the Christmas recess this issue was partially addressed in Title II of the Housing and Community Development Act of 1987 (HCDA '87). Title II is described as an interim response to an "emergency" situation,<sup>14</sup> and it essentially offers additional incentives to owners who are willing to continue under use restrictions for the remainder of their mortgage terms. In addition, it imposes the requirement of approval by the Department of Housing and Urban Development (HUD) before those other owners wishing to prepay may do so. The Secretary of HUD, in turn, may only approve the requests if the owners can demonstrate that such action will not have any negative effect on existing tenants and/or the local supply of affordable housing. These requirements may be impossible to satisfy in many cases.

Sponsors contend that the legislation is necessary to avoid the irreplaceable loss of low income housing, and that it "balances" the interests of owners and tenants. Critics characterize the legislation as a unilateral abrogation of contractual rights and assert that it is illegal.

### Organization of the Study

Although this paper acknowledges the serious shortage of decent, affordable housing for low and moderate income persons, and the legal considerations raised by the HCDA '87, these policy issues are not the primary focus of this study. Instead, this paper looks at the effect of the Housing and Community Development Act of 1987 on privately owned, federally assisted housing developments from the perspective of the private investor. It identifies alternative courses of action available to owners of projects which are nearing the twentieth year of their mortgages. It then develops a framework for assessing the financial implications of the alternatives and compares this strategy with those being employed by some actual project owners in Massachusetts.

Chapter II expands upon the issues raised in this Introduction, and includes an examination of the federally subsidized housing stock; a discussion of the expiring use restrictions and subsidy payments; potential strategies to preserve the housing stock from prepayment and/or default; a

review of the relevant sections of Title II of the HCDA '87; and a look at the current status of the housing stock in question.

This background discussion establishes the foundation for Chapter III, which presents a framework for evaluating various financial options under conditions of uncertainty. Specifically, a number of determinants of value (including the HCDA '87) are discussed, and "decision theory" is employed to develop a structure from which to evaluate the financial alternatives. Finally, a number of owners of actual projects are surveyed to see how they are addressing these issues, and to compare and contrast that approach with the one presented in the chapter.

Chapter IV concludes this study by summarizing the major findings and offering a set of recommendations to the various parties involved in this issue.

## Chapter II: BACKGROUND ON EXPIRING USE CONDITIONS

In April 1987 the U.S. Congress created the National Low Income Housing Preservation Commission to study the issues surrounding the stock of privately owned, but federally subsidized rental housing units. The Commission investigated four specific points:<sup>15</sup>

1. To estimate the magnitude of loss of the subsidized stock as low income housing and the causes of the loss;
2. To examine alternative ways to minimize this loss;
3. To recommend ways to mitigate the negative effects of any losses on low income households; and
4. To analyze the cost of alternative solutions.

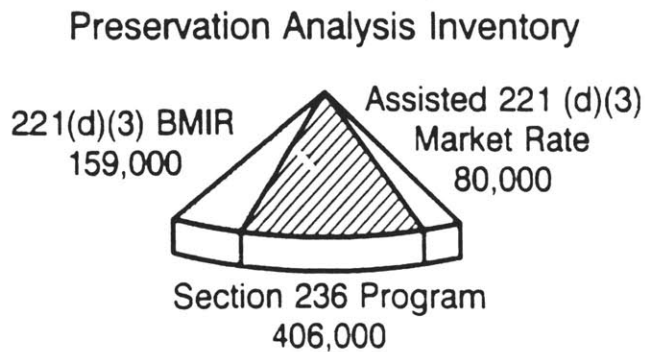
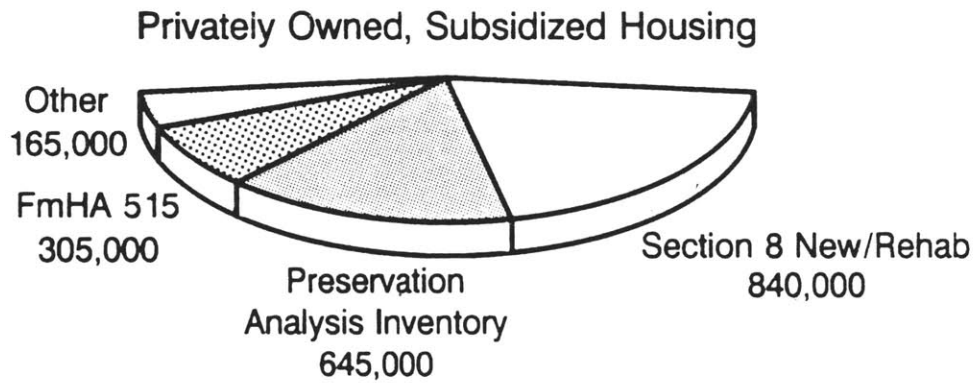
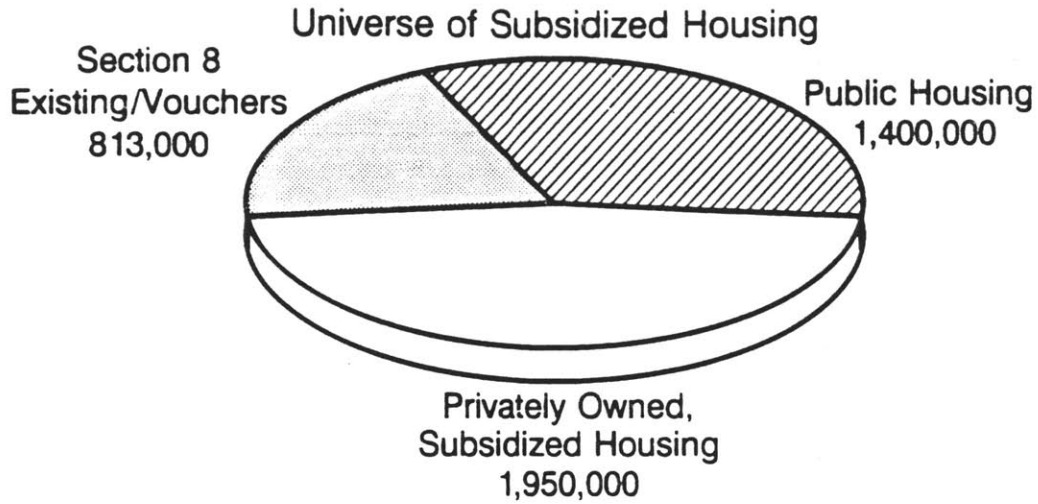
The Commission presented its findings a year later (after the passage of the HCDA '87) in a report entitled Preventing the Disappearance of Low Income Housing. This chapter examines those findings, with particular emphasis on the issue of mortgage prepayment and the subsequent expiration of the use restrictions on the previously subsidized housing stock.

### Federally Assisted Rental Housing Opportunities

Exhibit 1 provides a graphic breakdown illustrating the components of the universe of the federally subsidized housing stock. Of the 4,163,000 subsidized units, only one-third are publicly owned (conventional public housing). Another 20

EXHIBIT 1

Composition of Subsidized Housing



Source: National Low Income Housing Preservation Commission Tabulations. HUD Data.

percent of the subsidized housing opportunities represent cases in which eligible tenant households are provided with direct rent subsidies which enable them to afford market rate housing in the private market. Slightly less than one-half the units are privately owned, but provided with federal subsidies of one form or another which makes the dwellings affordable to low and moderate income households. It can be seen, therefore, that the federal government maintains direct (public housing) or indirect (Section 8 Existing/Vouchers) control over one-half the universe of subsidized housing, as long as it continues to fund those programs.

On the other hand, the government's position with respect to the remaining half of the inventory is that of a partner with the private sector. The long run viability of this partnership depends upon a mutually beneficial relationship between the parties. Given the contractual relationship under which these programs were originally structured, not only must the federal government continue to fund these programs, but the private owners/investors must deem it to be in their best interest to remain involved in these programs rather than to "opt-out" (at certain specified points) and use the properties for some private market use.

Of the privately owned, subsidized housing component, one-third (645,000 units) is comprised of units assisted via the Section 236 and Section 221 (d)(3) programs. They are

referred to in Exhibit 1 as the "Preservation Analysis Inventory" (PAI). These units are the focus of recent debate and legislation, only because of the perceived urgency in dealing with the dwellings supported by these programs. The Section 8 New/Rehab, FmHA 515, and "other" units face the same basic problems, but not as soon as the PAI.<sup>16</sup>

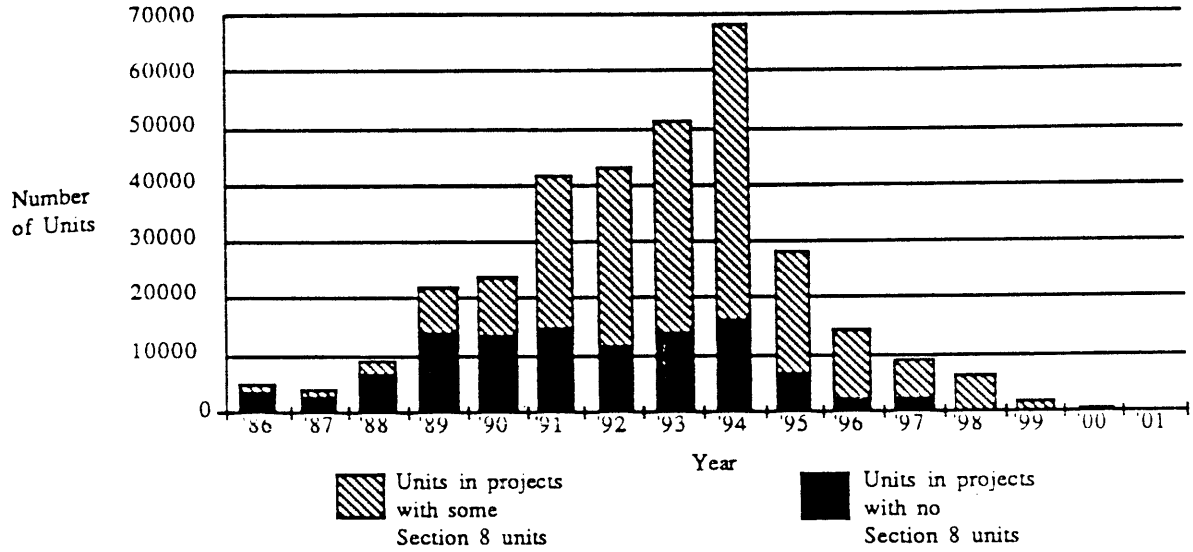
#### The Expiration of Use Restrictions and Subsidy Payments

The Preservation Analysis Inventory is "at risk" because of two separate factors. As mentioned in the first chapter, some of the projects have reached the point where the owners have the option to prepay the mortgage balance and eliminate the use restrictions associated with the respective programs (by the end of 1988, approximately 20,000 units will have passed the twenty year mark). As shown in Exhibit 2, units in many more projects will reach this point in the next few years. In the absence of additional "carrots" and/or "sticks" (base case scenario), the Commission has estimated that 38% of the units in the PAI will be "lost" in this manner over the next fifteen years.

An even greater percentage (43%) is at risk of default, assuming that related federal subsidy programs to, or on behalf of tenants are allowed to expire as currently scheduled. Although these units will not be "lost," they do represent an expensive and time consuming liability for the

EXHIBIT 2

Estimated Number of Units within the PAI Eligible for Prepayment, 1986-2001



Source: James E. Wallace, Abt Associates, Inc., 1987

federal government. When a project owner stops making mortgage payments the lender usually assigns the property to HUD, which makes the payments while it works with the owner to cure the problem. If HUD must foreclose and take over the ownership of the property, the FHA insurance fund must pay off the mortgage balance to the lender. HUD must pay operating expenses during this time, as well as the legal costs associated with the foreclosure process. Historically, HUD has had to resell these properties to new owners at a deep

discount in order to put them on reasonable financial footing. The entire process represents a financial and administrative burden that HUD would just as soon avoid.<sup>17</sup>

The Commission's base case estimate is that by the year 2002, the owners of fewer than one unit in five will avoid default and yet not decide that it is in their best interest to prepay the mortgage and withdraw from the subsidy programs (Exhibit 3). Non-profit entities and certain private owners are restricted from prepaying their mortgages. Of the 122,000 units estimated to remain within the PAI subsidized stock through the mortgage term, more than two-thirds are owned by one of these groups.

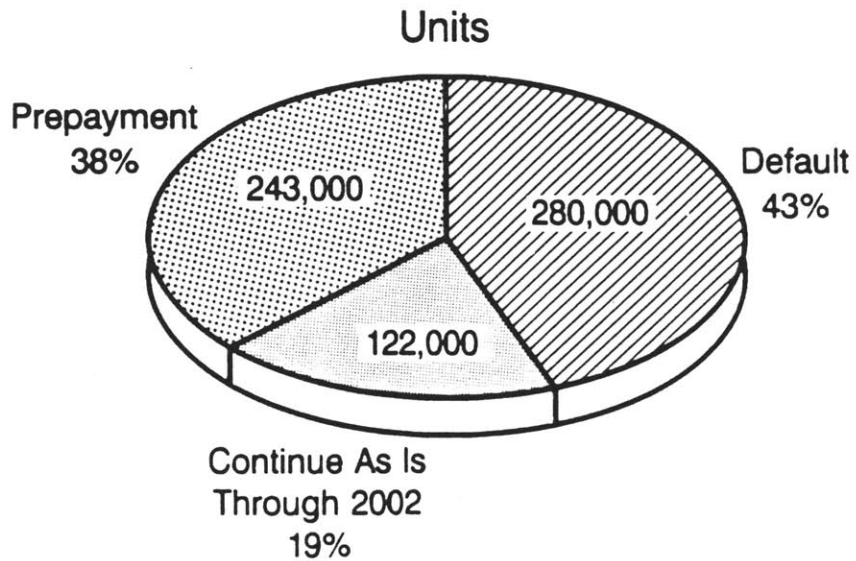
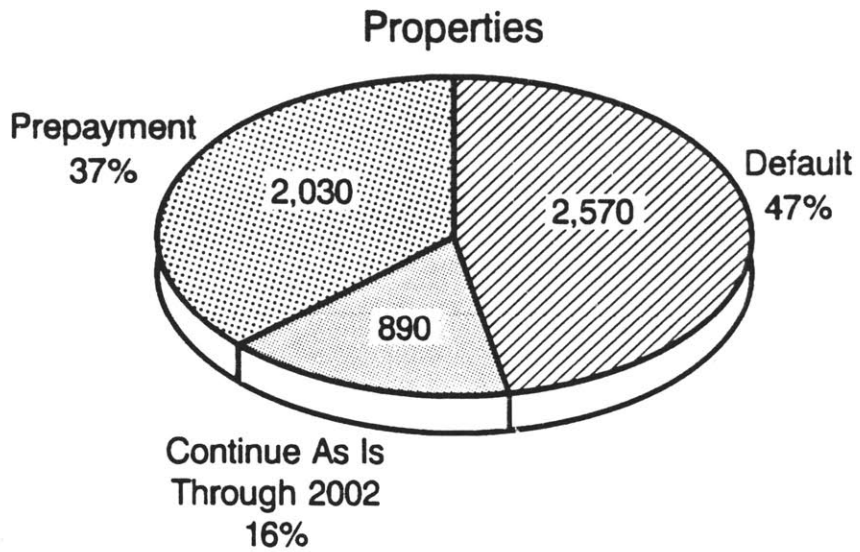
Exhibit 4 illustrates the dynamics of this process. Default and prepayment are chronic problems over the next decade, with prepayment being somewhat more cyclical and concentrated, due to the timing of when the units were originally developed and placed under the use restrictions. The cumulative effect of this process is clearly shown in Exhibit 5.

#### Preservation Strategies

In developing these estimates, the Commission developed a model of the PAI, based on HUD data concerning the physical and financial status of a sample of the projects, and included

EXHIBIT 3

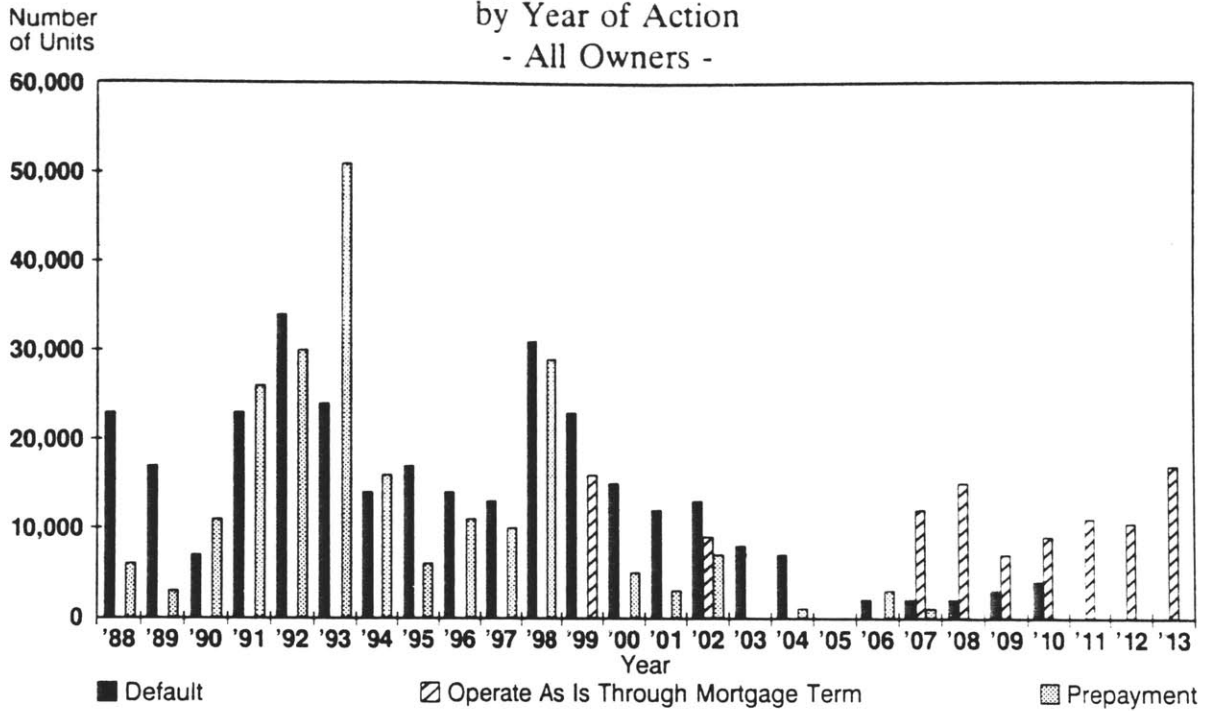
Likely Actions of Owners  
Through 2002



Source: National Law Income Housing Preservation Commission Preservation Analysis Model, Weighted Results for 300 Properties.

**EXHIBIT 4**

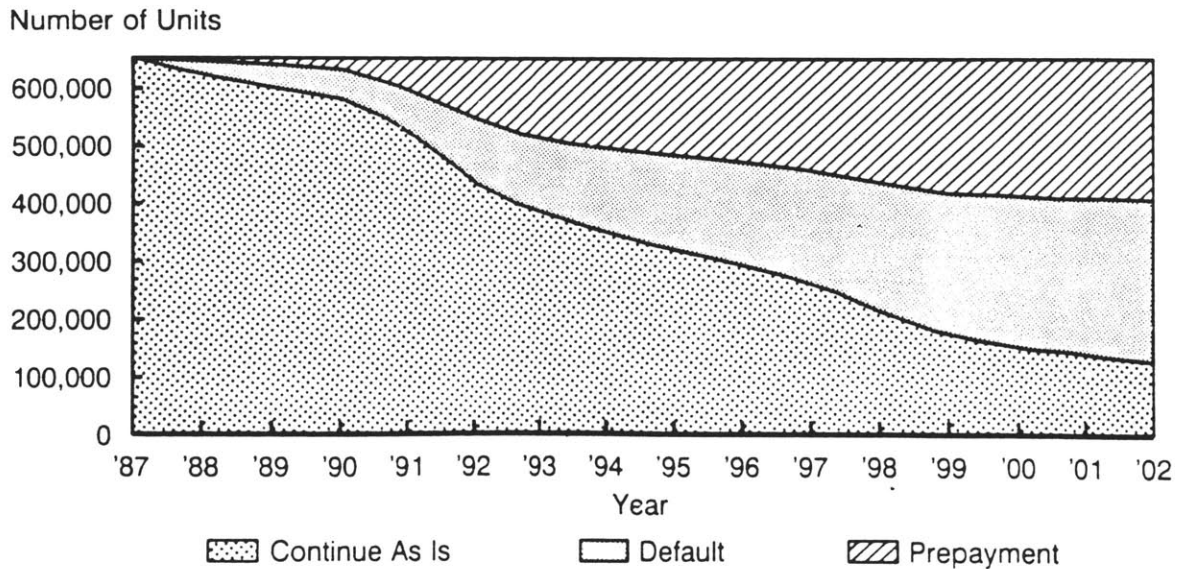
Likely Actions of Owners  
by Year of Action  
- All Owners -



Source: National Low Income Housing Preservation Commission.

**EXHIBIT 5**

Number of Units Affected by Cumulative Prepayments,  
Cumulative Defaults, Balance Continuing As Is



Source: National Low Income Housing Preservation Commission.

local market information from around the country to account for the variation in housing markets. It also factored in the impact of the Tax Reform Act of 1986, which undermined the financial viability of many of these projects, primarily due to the restrictions placed on the deductibility of "passive" losses. The model assumes that the owners are rational economic men and women. Furthermore, in those cases where the projects have been syndicated, the model recognizes that the owners have a fiduciary responsibility to maximize the returns to their investors.

After the base case was run to obtain the estimates presented above, the Commission tested various preservation strategies (e.g., extension of subsidy programs, increased returns to owners and expansion of tax credits) to see how cost effective (on a discounted present value basis) they would be. The results of these strategic scenarios are detailed in the report. They can be summarized as follows:<sup>18</sup>

1. All but the most expensive to save units could be preserved for an additional 15 years in a cost effective manner through a combination of subsidies and programmatic changes that would avoid default and prepayment pressures (the cost of this alternative was compared against the cost of curing the predicted defaults and offering housing vouchers to tenants displaced by prepayment and conversion to market use -- "default/voucher cost").
2. For slightly more than the default/voucher cost, all of the units could be saved.
3. Saving all of the units would still be much less expensive than trying to replicate the stock from scratch.

The Housing and Community Development Act of 1987

Although the findings of the Commission are enlightening, they were not available in time to shape the Housing and Community Development Act of 1987. Congress enacted this stop-gap legislation in an effort to "buy time" while a more permanent solution was devised. The HCDA '87 was included in a last minute flurry of legislative activity, and the fact that it passed (and included Title II "Preservation of Low Income Housing") was a surprise even to some of its strongest supporters in Congress.<sup>19</sup>

The HCDA '87 imposes a variety of interim measures to avoid the "irreplaceable loss of low income housing and irrevocable displacement of current tenants."<sup>20</sup> It mandates that an owner notify the Secretary of HUD and any applicable state or local government housing agency of his intention to prepay the mortgage, and that a "Plan of Action" accompany any such request. The plan must include the following information:<sup>21</sup>

1. A description of any proposed changes in the status or terms of the mortgage or regulatory agreement.
2. A description of any assistance that could be provided by state or local government agencies.
3. A description of any proposed changes in the low income affordability restrictions.
4. A description of any change in ownership that is related to prepayment.
5. An assessment of the effect of the proposed

changes on existing tenants.

6. A statement of the effect of the proposed changes on the supply of housing affordable to lower and very low income families or persons in the community within which the housing is located and in the area that the housing could reasonably be expected to serve.

7. Any other information that the Secretary determines is necessary to achieve the purposes of this title.

An owner has two options under such a plan. He can either leave the use restrictions intact and request certain incentives authorized in the legislation (which have not been adequately funded, to date), or he can request the Secretary of HUD to approve the prepayment of the mortgage (upon specific showing that such action will not adversely affect existing tenants and/or the local supply of affordable housing), thereby eliminating the use restrictions.

The incentives authorized by the HCDA '87 include:<sup>22</sup>

1. An increase in the allowable distribution or other measures to increase the rate of return on investment.
2. Revisions to the method of calculating equity.
3. Increased access to residual receipts accounts or excess replacement reserves.
4. Provision of insurance for a second mortgage under section 241(f) of the National Housing Act.
5. An increase in the rents permitted under an existing contract under section 8 of the United States Housing Act of 1937, or (subject to the availability of amounts provided in appropriation Acts) additional assistance under such section 8 or an extension of any project-based assistance attached to the housing.

6. Financing of capital improvements under section 201 of the Housing and Community Development Amendments of 1978.

7. Other actions, authorized in other provisions of law, to facilitate a transfer or sale of the project to a qualified nonprofit organization, limited equity tenant cooperative, public agency, or other entity acceptable to the Secretary.

8. Other incentives authorized in law.

The Secretary of HUD may approve such a plan upon finding that (1) the package of incentives is necessary, (2) it represents the least costly alternative for the federal government, (3) binding commitments are in place to ensure continued usage as low income housing, (4) proper maintenance will be continued, and (5) existing tenants will be protected from involuntary displacement and certain rent increases.

Conversely, a plan of action may request the termination of the use restrictions. In this case, the Secretary must find that:<sup>23</sup>

1. Implementation of the plan of action will not materially increase economic hardship for current tenants or involuntarily displace current tenants (except for good cause) where comparable and affordable housing is not readily available, and

2. The supply of vacant, comparable housing is sufficient to ensure that such prepayment will not materially affect:

a. The availability of decent, safe, and sanitary housing affordable to lower income and very low income families or persons in the area that the housing could reasonably be expected to serve;

b. The ability of lower income and very low income families or persons to find affordable,

decent, safe, and sanitary housing near employment opportunities; or

c. The housing opportunities of minorities in the community within which the housing is located; or

3. The plan has been approved by the appropriate state agency and any appropriate local government agency for the jurisdiction within which the housing is located as being in accordance with a state strategy approved by the Secretary.

The effect of these provisions is to encourage continuation in the programs, and discourage (in reality prevent) the termination of use restrictions at this time. It would be most difficult to establish that the termination of the restrictions would not have any adverse affect, particularly in a local housing market that would encourage the move to market usage in the first place.

It is important to note the difference between the procedure that has been established under this act, and a typical "impact analysis" such as one modeled after the National Environmental Protection Act (NEPA) which only requires the submission of information. In addition to the analysis required by the HCDA '87, the law stipulates that the Secretary of HUD must approve it, and can only do so if no significant adverse impacts are likely. These requirements appear to expose an owner to substantive legal challenges as well as to procedural ones. All of this is now necessary merely to exercise an agreement that was established twenty years ago.

In an attempt to back itself up in case this unilateral abrogation of contractual rights is invalidated by the courts, an "alternative prepayment moratorium" is established by which "an owner of eligible low income housing located in the geographic area subject to the jurisdiction of such court may not prepay, and a mortgagee may not accept prepayment of, a mortgage on such housing during the 2-year period following the date of such invalidation."<sup>24</sup>

Although owners may consider these actions to be unfair (and may mount a legal challenge),<sup>25</sup> it is possible that they will serve their intended purpose (to buy time) even if they are eventually determined to be illegal. Considering the time and money it would take to challenge the requirements and pursue the appeals, individual owners must assess whether they would be better off trying to work within the system (or just wait for the "interim" Act to be superceded) rather than to fight it. Furthermore, there is an obvious imbalance between the resources the owners could commit to a legal challenge and those the government could bring to bear on a defense.

The first issue that owners raise is whether the federal government has the authority to revise unilaterally contracts to which it is a party. Though conceding that a comparable case does not exist, an attorney for the Congressional Research Service of the Library of Congress concluded that such an action was "arguably legal" based upon a handful of

(more or less) related cases.<sup>26</sup> David A. Smith, senior vice president for a firm that has syndicated many of these projects, notes that ". . . at least in the minds of Congress, a contract is not always binding when the Federal government is one of the parties."<sup>27</sup>

If the courts ultimately uphold the HCDA '87, the question is then settled. Rather than defend its actions "head on," however, the government might try a different defense. It might argue that the HCDA '87 does not represent a fundamental revision of the contracts, but rather the implementation of a mitigation process that has always been implicit within the agreements. Again, judgment in favor of the government would leave the owners with little recourse. Even a finding in favor of the owners might leave the government with an opportunity to tailor new legislation in such a way as to "fit" the decision.

The owners do have one "wildcard" that they could try to play if the HCDA '87 is overturned. Based on the Supreme Court's decision in First English Evangelical Lutheran Church of Glendale v. County of Los Angeles, 55 L.W. 4782 (1987), the owners could seek damages for a "temporary taking" for the time that the Act was in effect. It is uncertain whether the courts would extend the First English decision (a land use regulation case) to this instance, but there are certain parallels that the owners could point to.

These are complex legal issues that await judicial determination. The "bottom up" nature of the legal process ensures that the ultimate resolution will not occur soon. In the meantime, it is clear that the HCDA '87 has put a damper on the value of the projects and on the likelihood of any short term concessions by the owners.

### Status of the Preservation Analysis Inventory

While there is room for differing opinions with respect to the specific actions that have been taken concerning the issue of EUR, several points have been established:

1. Decent, affordable rental units for low and moderate income households are in short supply in most parts of this country. The need is greater now, in absolute terms, than it was twenty years ago when the programs in question were being developed.

2. The privately owned, federally assisted stock of dwellings is a valuable resource, albeit one that has been "leased" rather than purchased by the government. Given the continuing need for more of these units, it would seem that incentives, not punitive measures, are called for in order to preserve the "partnership" that has already been established.

3. There appears to be a limited range of long-term solutions to this problem, given the existing contractual obligations between the parties and the current budget deficit. Equitable solutions to the problem will likely be less difficult to find than will be the funds necessary to implement them.

4. More units are likely to be affected by default than by prepayment of the mortgages. While units in defaulting projects will not be "lost" to the stock of low cost housing (the HCDA '87 mandates that HUD return the units to the inventory) they will be expensive to work-out. Historical data show that HUD loses 60 cents on the dollar when a project it has

insured goes into default.<sup>28</sup> It would seem to be less costly, as well as less disruptive to tenants, if the necessary investments were made to save the projects from default rather than being spent after the fact.

5. One important consideration that has been absent from this debate is the fact that most of the units that are "at risk" of prepayment would still remain within reach of low and moderate income households if those tenants were to receive vouchers or similar rental assistance.<sup>29</sup> Based upon the market data the Commission collected for its model, it estimated that more than 85% of the units would rent at or below the prevailing "fair market rents"<sup>30</sup> established for the Section 8 Existing program (there would be no guarantee, however, that these units would remain affordable over the long run). Although the impact of the potential loss of the remaining 15% of the units would likely be concentrated in the tightest housing markets, this statistic calls into question the true extent of the "emergency," and the necessity of the harsh "interim" measures included in the HCDA '87.

Although the HCDA '87 has put the prepayment issue "on hold," it does not address the underlying problem. Owners are currently assessing their options (including a possible legal challenge of the Act), while housing advocates are pressing their agenda at the state and local levels of government. Both sides are lobbying Congress to shape the legislation that will ultimately supercede the HCDA '87. In the meantime, many of the project owners are content to bide their time while waiting for events to unfold.

#### Financial Structure under Conditions of Uncertainty

Given this overview of the Preservation Analysis Inventory, the remainder of this study considers the financial

structure of these projects from the perspective of the private owner/investor. More specifically it analyzes the way in which uncertainty, caused by the HCDA '87 and other related factors, affects the owners' assessment of project value.

The inherent uncertainty in this situation renders conventional approaches to value (e.g., discounted cash flow analysis) inadequate. Instead, a framework for analyzing the value of projects based on decision theory is presented. A representative "decision tree" is constructed and "expected values" are calculated for the primary operational alternatives. This theoretical construct is then compared and contrasted with current practice through a survey of project owners.

### **Chapter III: A FRAMEWORK FOR ASSESSING PROJECT VALUE**

This chapter considers the effect of the Housing and Community Development Act of 1987 on the financial structure of privately owned, federally subsidized apartment projects. It also takes into account the financial effect of several other factors, as they relate to the HCDA '87.

It was noted in the previous chapter that the restrictions on prepayment established by the Act have limited the range of options immediately available to the owners. To the extent that an owner's "bundle" of property rights has been diminished, it is reasonable to assume that the current value of his project has likewise been diminished. This chapter presents a framework that owners could use to think about this issue and compares it with the actual strategies, if any, they are employing to optimize the financial structure and value of their projects.

The HCDA '87 is not the only factor that affects the financial viability of these projects. Other important governmental actions include the Tax Reform Act of 1986 (TRA '86), the status of tenant subsidy programs, and the imposition of various state and local regulations which restrict the use of the projects independent of the HCDA '87.

An important nongovernmental factor is the effect of market conditions on the value of the properties. Although

these conditions vary greatly between projects, there are some general characteristics affecting these units that bear consideration.

Once these background determinants have been introduced, the chapter then focuses on the use of decision theory as a framework for analyzing the financial status and potential of these projects under the conditions of uncertainty created by the HCDA '87. A "framework" for analysis is deemed to be more appropriate, and useful, than a "model" would be since the circumstances surrounding each project are unique. The following discussion will show that even though the projects are affected by certain common factors, individual differences in location, market conditions, physical condition, tenant mix, state and local regulations, and ownership structure prevent the development of a specific model that could handle such a diverse collection of projects.

#### Tax Reform Act of 1986

The Tax Reform Act of 1986 was intended to simplify this country's tax code, reduce the number of tax brackets, lower the marginal rates, and close various perceived "loopholes." In so doing, it has affected the tax treatment of many fields of investment, including real estate.

Investment in low income housing is no exception, with a number of provisions affecting privately owned, federally

subsidized projects. Lengthened depreciation schedules (without "acceleration" options) reduce the attractiveness of new investments when compared with the previous tax law. Lower marginal tax rates reduce the value of tax losses.<sup>31</sup> The elimination of preferred treatment of capital gains may tend to create a disincentive for the outright sale of the properties, but it has no effect on owners who prepay the mortgage and take the projects to market rate rents. The Act does offer certain tax credits for low income housing, but thus far few owners have taken advantage of them. The regulations governing the credits are viewed as complex, and the value of the credits themselves are limited.<sup>32</sup> Furthermore, the tax credit program is scheduled to expire in 1989.

The most significant "reform" in the 1986 Act with respect to real estate investment concerns the definition and treatment of "passive" income (loss). The Act creates a new category of income, and defines passive income to include "income generated from business and trade activities in which the taxpayer does not materially participate and from rental activities such as real estate."<sup>33</sup> For individuals, partnerships, and trusts, losses from passive activities can be used to offset income from other passive activities, but not other income (e.g., wages and interest).<sup>34</sup> Furthermore, these provisions are retroactive in the sense that existing

investments are subject to the new rules (i.e., no "grandfather" clause). As noted earlier in this study, the value of tax losses (at relatively high marginal tax rates) was an important factor in enticing private sector participation in the various subsidized housing programs. As the passive income provisions of the TRA '86 are phased in, this "value" (and motivating force) is effectively eliminated.

The most obvious effect of the passive income provisions will be to reduce the returns realized by investors in the projects. If there are more profitable investments available for their capital, investors will seek to shift their investments accordingly (or alternatively, take the projects to market rents to increase cash flow/income and use the lower marginal tax rates to their advantage). As noted in the previous chapter, these projects were, to a large extent, tax driven deals. Therefore, the TRA '86 has created a disincentive to remain in the subsidized housing programs, and encourages owners to prepay their mortgages and either sell or rent the units at market rates.

A related, although perhaps less obvious effect of the passive income provisions is to lower the value of the projects themselves (i.e., lower returns are capitalized into a lower value). Some investors may not recognize this initially since the projects have not changed physically, nor has the rent structure/cash flow been altered. The fact that

the "rules of the game" have changed, however, overrides those other factors.<sup>35</sup>

#### Expiring Subsidy Programs

In Chapter II it was noted that the scheduled expiration of certain tenant subsidy programs would seriously affect the fiscal viability of some projects. Even when the effect is not great enough to threaten default, the uncertainty surrounding the subsidy programs and potential for reduced cash flow creates an incentive for owners to prepay their mortgages (if possible) and terminate the use restrictions.

Although it is unlikely that the Congress would let the tenant subsidy programs expire outright, the possibility exists. Given the federal budget deficit outlook for the next few years, a more probable scenario could be that any subsequent program(s) would be less beneficial to the owners than is the current set. In any case, the uncertainty which surrounds this issue ultimately affects a project's financial position in at least two ways. First, it lowers a property's encumbered value. Conversely, it creates an incentive for an owner to try to exit from the program and exploit the project's (higher) unencumbered value.

#### State and Local Regulations

In addition to the requirements contained in the

HCDA '87, the privately owned, federally subsidized projects may also be faced with various state and/or local use restrictions. These regulations can restrict an owner's ability to change the nature of a project (e.g., condominium conversion or anti-displacement laws) or make it a less profitable/more expensive proposition (e.g., rent control or mandatory relocation assistance requirements).

Because these types of restrictions vary between communities and states (and are always subject to change), this study does not attempt to rigorously examine all the possible permutations, but they are an important factor. The more restricted the projects, or the greater the uncertainty regarding their potential to achieve a market rate use, the lower the value of the properties, all other things being equal.

#### Market Factors

One rather surprising finding of the Commission is its estimate that 85% of the units at risk of prepayment would have an unrestricted market rent level at or below the prevailing "fair market rents" (set by HUD for the Section 8 tenant subsidy program) in the communities in which they are located. Housing advocates maintain that the actual percentage would be lower, but acknowledge that the most serious problems would be concentrated in a relatively few of

the "tightest" housing markets.<sup>36</sup> If further investigation supports the Commission's conclusion, then claims about the "emergency" used to justify the HCDA '87 would be undermined.

This assessment of the Commission, nonetheless, is likely to be correct for a number of reasons. First, the projects were designed and constructed to program standards intended to produce apartments with low to moderate rent levels. Although it would be possible to upgrade finishes and add certain amenities in order to attract a different market segment, the constraints imposed by the original designs and quality of construction will place a practical limit as to what can realistically be done. The age of the units is a second limiting factor. None of the units will leave the program before they are at least twenty years old. Even after renovation they will not be "new;" yet none are old enough to be considered "quaint," either.

Location of a project is critical to its market potential. Although there are (widely cited) instances where projects are located in neighborhoods that have gentrified, or formerly rural sites which are now fashionably suburban, these are the exceptions and not the rule.<sup>37</sup> Much more common are projects that were located originally in low to moderate income neighborhoods that have maintained the status quo or even declined in desirability.

The physical condition of the projects is another

limiting factor. Some projects have been reasonably well maintained over the years, while others have not. Regardless of the owners' intentions, HUD purposely designed a "thin" reserve structure in order to keep the general rent levels as low as possible.<sup>38</sup> Thus, funds available for maintenance have been very limited, and virtually all projects have significant rehabilitation needs.

Given the interplay among these market factors, there are probably relatively few instances in which it makes economic sense to substantially renovate a project and aim for the high end of the rental or condominium market.

#### A Framework for Analyzing the Value of the Projects

As the owners of private, federally subsidized apartments contemplate the futures of their projects, they face a choice among three basic alternatives.<sup>39</sup> They may decide to stay in the program, in which case they can seek the incentives offered under the HCDA '87. The downside to this choice is that the owners would still realize relatively limited returns on their investments. Moreover, the uncertainty of what will happen with the tenant subsidy programs over the next few years remains. A second alternative (the "wholesale" option) would be to sell the properties now. This market would be limited to entities willing to keep the projects as low income housing (most likely non-profit organizations), or to entities

willing to accept the uncertainties and risks from which the owners are wanting to escape. In either case such a sale would be on a "distressed property basis," and the current owners would forego most of the upside potential of the projects. A final alternative would be to prepare a plan of action which requests prepayment approval and, if granted, offer the project on the unsubsidized market (the "retail" option). This could take the form of market rate rentals, or sale via condominium conversion. These subsequent decisions would be influenced by factors such as the local regulatory climate, tenant relations, and market conditions.

When considering these alternatives, an owner has a problem obtaining the relevant information needed to make an informed choice. Much of the "data" is highly uncertain, and some of it is completely unknowable. For example, incentives to stay in the program (assuming they are funded) are negotiated on a case-by-case basis, so an owner cannot know in advance what kind of deal will ultimately be struck with HUD. Likewise, the prospects of prepayment approval are highly uncertain, particularly in those locations that offer the best market opportunities.

Once an owner has collected the best information available he still faces the problem of how actually to frame the choice. In the simplest of cases, an owner could make his best estimate of the net cash flow, tax benefits/liabilities,

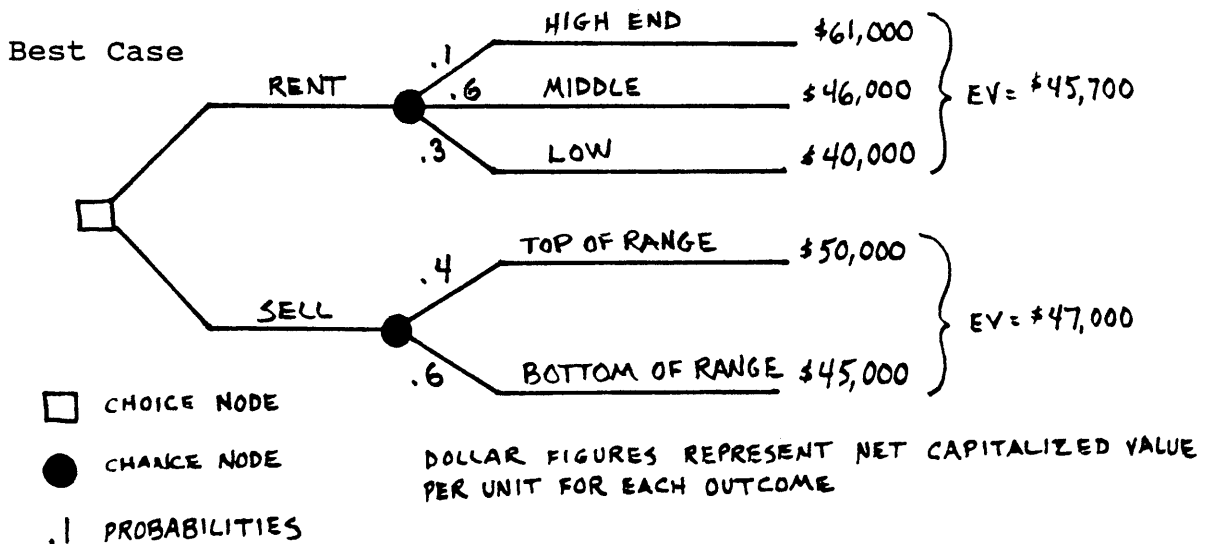
and residual value of the project over the anticipated holding period for each alternative, discount these figures to a present value, and calculate a measure of return for each (e.g., NPV, IRR, ROE, ROI, etc.).

Unfortunately, this case is not so straightforward: the uncertainty surrounding the tenant subsidy programs makes it difficult to predict cash flow figures; the TRA '86 substantially diminished the tax benefits for these projects; and the various regulatory hurdles (e.g., HCDA '87, and state and local restrictions) raise questions concerning the ultimate residual value of the properties. The affected owners are operating in a highly uncertain, ever-changing environment. The question arises of whether there are any alternatives to reliance on "gut feelings" and rules of thumb.

There are certain "decision theories" that can be helpful to a decision maker in such a case. None can eliminate or sidestep the inherent uncertainties of the situation, but they can provide a coherent process which at least identifies one's subjective assessments of the problem. To begin, we will consider three possible scenarios facing an owner, and the implications of each. To analyze these options (and potential variations) it is useful to construct a "decision tree" and to assess the "expected value" of alternative outcomes. A decision tree is a graphic representation of the choice(s) to be made. By including estimates of potential outcomes and the

probabilities of each, it is possible to calculate a weighted average which represents the expected value (EV) of each "branch" of the tree. In reviewing this tree and the examples which follow, one should not become fixated on the specific numbers. The concepts underlying the technique are what is important.

In the best case scenario, we assume the owner receives prompt prepayment approval without having to make concessions. With the termination of the program use restrictions, such an owner can sell the property or hold it for rental in the unsubsidized market (to a particular market segment).



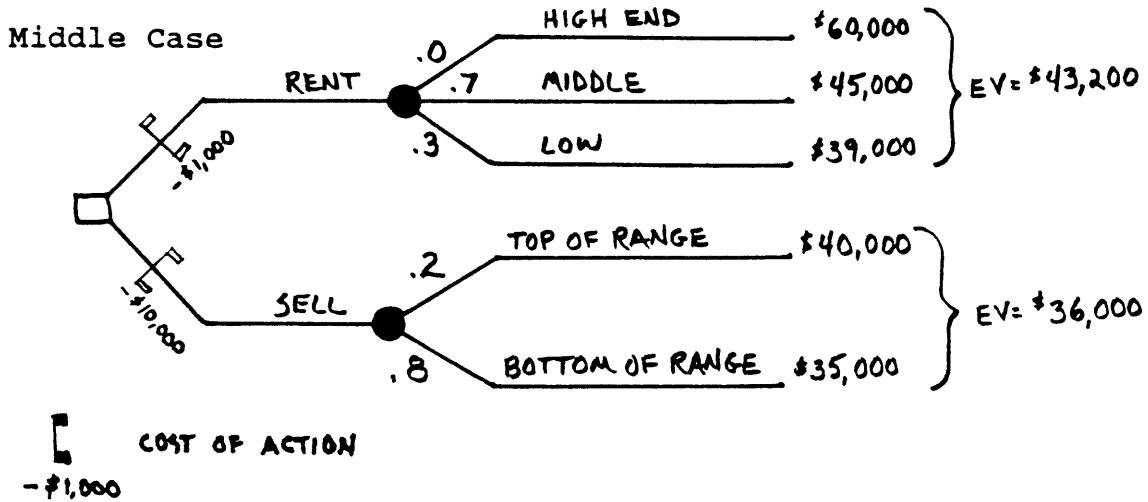
In deciding whether to rent or sell the property, the owner would calculate the EV of each option. In considering the value of the rental option, the owner might want to evaluate a range of rents which would vary depending upon the

market segments he might target. He would estimate the rents (high, middle, low), the renovation costs for each market, factor in the cost of refinancing and other expenses, and then capitalize the net operating income. He would also have to estimate the probabilities of successfully reaching each market segment. In this example, we are assuming that the owner believes there is just a 10% probability of being able to attract high-end renters to this property. There is a strong likelihood (60%) that he can obtain middle market rents, and only a 30% chance that he would have to settle for the low-end market. By calculating the weighted average of these outcomes he obtains an EV of \$45,700 for this option.

A similar approach would be taken for the "sell" option. The owner would estimate the final market value, the cost of rehabilitation/amenities, the outstanding debt and market risk. In this case the owner thinks that the most he could net would be \$50,000 and that such an outcome has a 40% probability. In considering market risk, he anticipates that he can net at least \$45,000 and that this is the more likely outcome (60%). The EV of this "branch" is \$47,000 and would be his preferred outcome.

A middle case scenario might consist of eventual prepayment approval, but with delays and concessions. In this instance, the same basic method would be used to value the "rent" and "sell" options, but the costs of the delay and

concessions would have to be figured in. The following tree presents this scenario.

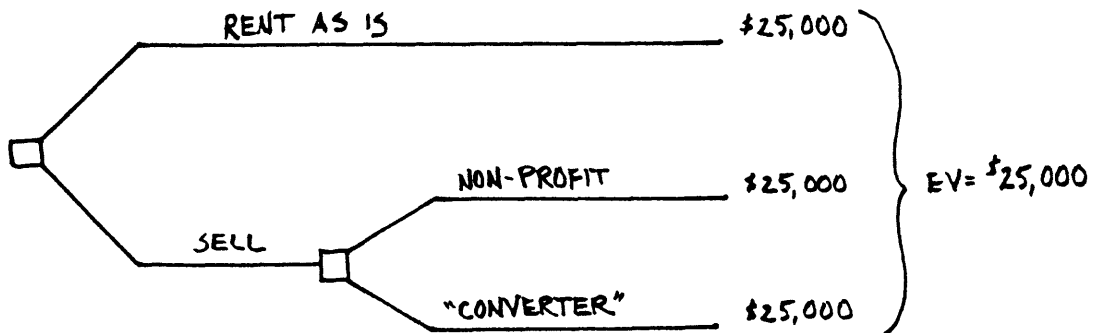


For the purposes of this example, we have assumed that under the rental option the concession is that the potential high-end market alternative is foregone (note that the probability of the middle market outcome is now 70%). Furthermore, the delay in this case reduces the present value of the remaining capitalized values by \$1,000. Under the "sell" option the concessions cost the equivalent of \$10,000 per unit and the delay reduces the probability of reaching the high end of the market range (due to an assumed softening of the market). The EV for the rental option is now \$43,200 and the sell option has an EV of \$36,000. In this scenario the rental option is preferred.

In the worst case situation, prepayment approval by HUD would be denied. In that instance the rental option would

consist of continuing to operate "as is" (we assume that HUD would not offer incentives at that point). There would still be a "sell" option, but the owner believes it would be devalued (to a point of equivalency with the "rent as is" option) as a result of the denial. He feels as though he could sell to either a non-profit entity concerned with maintaining the units as affordable housing, or to a "converter" -- an entity willing to purchase the encumbered property at a deep discount with the outside possibility of eventually being able to prepay the mortgage and terminate the use restrictions.

Worst Case



This brief look at a range of simplified scenarios illustrates several important points. First, it emphasizes the decision maker's (i.e., owner's) need for relevant information, as well as the need to make certain explicit assumptions. Some factors are determinable, some are

probable, and some are completely uncertain. The exercise of creating a decision tree forces the decision maker to identify these items and allows him to treat them consistently across scenarios.

Next, this technique enables an owner to conduct sensitivity analysis on the variables, even though not all of them can be quantified with certainty. As long as the other items are held constant, individual variables can be altered, and the results will be comparable from case to case.

Using the "best case" scenario as an example, assume that the owner is concerned that the condominium market might "go sour" by the time he can rehabilitate and market the units. If the anticipated prices of the two "sell" outcomes fall by \$5,000 should the owner still convert or should he hold the project for rental? By recalculating the EV of the sell option he can see that it has fallen to \$42,000, and now the rental option (\$45,700) would be preferred, assuming the forces that pushed the condo prices down have not affected the rental market.

In similar fashion, assume that he feels his estimates for his "sell option" are still valid, but due to signs of gentrification in the area he believes there is a 40% probability of attracting "high-end" renters to the project, a 50% chance of medium market rents and only a 10% likelihood of a low market outcome. The EV of the rental option rises to

\$51,400, thus surpassing that of the sell option (\$47,000).

Finally, and perhaps most important, from the sensitivity analysis it is possible to determine the "bargaining margin" available in a given situation.<sup>40</sup> Again, it is helpful to use the previous scenarios for an example. The EV of the worst case (denial) was \$25,000 per unit. The EV of the rental option of the middle case (approval, but with delays and concessions) was \$43,200; a per unit difference of \$18,200. If we assume the project consists of 200 units, then the owner would have a range of more than \$3.5 million in which he could negotiate concessions,<sup>41</sup> if necessary, in order to obtain approval to prepay the mortgage and take the property to a market rate. The greater the concession, of course, the less the incentive to sell.

It is worth considering the strategic significance of this type of analysis to housing advocates, as well. For example, HUD could estimate a project's "sell" and "hold" options in the same manner as an owner. While the estimates would not be exactly the same, it is likely that they would be reasonably close. HUD might even be able to make a better prediction of outcome probabilities than an owner if it maintained control over some of the outcomes (e.g., it could give a very accurate "estimate" of the probability of prepayment approval). It could then calculate the EVs and estimate the bargaining range. This would be very valuable

information to have in advance of a negotiating session.<sup>42</sup> As we will discuss below, about the only thing one party cannot "know" about another party is that person's attitude toward the risks in a deal.

The calculation of expected values is but one technique to weigh options. One criticism of the EV technique is that it assumes all people are neutral to risk, and thereby make decisions solely on an economic basis. Before we examine a more realistic (complex) decision tree modeled after an owner's current choices, it is useful to introduce another valuation technique that better handles varying risk appetites and subjective assessments of uncertain situations.

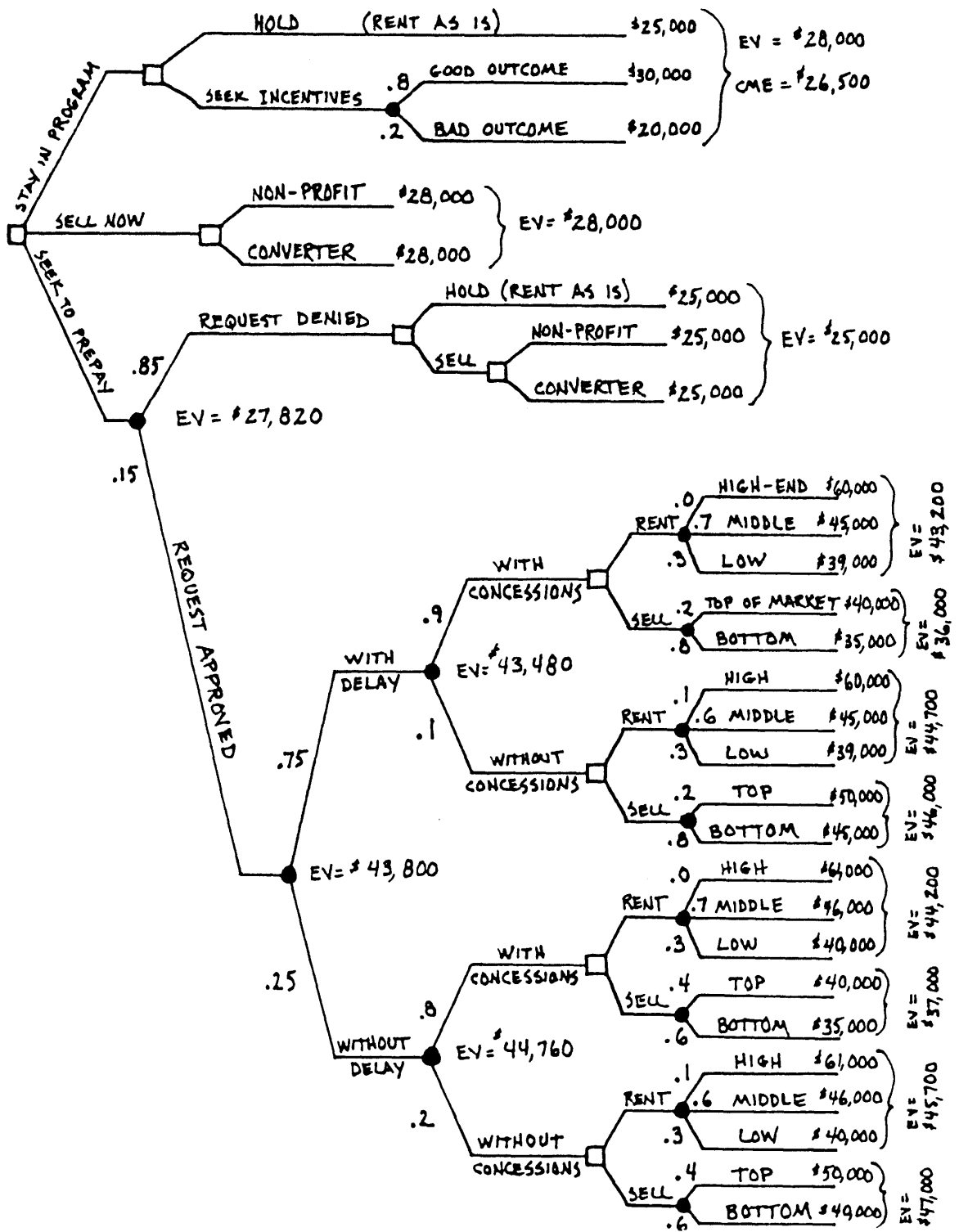
The concept of "certain monetary equivalents" (CME) is a derivative of economic utility theory, which allows decision makers to assess their own subjective feelings with respect to risky situations.<sup>43</sup> CME takes into account the "diminishing marginal utility of money" and the risk aversion that most people experience related to it. By "forcing" a decision maker to establish his "indifference point" regarding an uncertain outcome and a certain monetary equivalent, CME enables a person to value (albeit subjectively) risky situations. The difference between a calculated EV and a person's CME represents the particular risk premium that person expects from a deal. It must be stressed that this methodology does not eliminate subjectivity; instead, it makes

it explicitly personal and internally consistent to a specific decision maker.

As noted earlier in this discussion, people have different attitudes toward, and appetites for risk (which also vary from case-to-case, and over time). It is not possible to predict how a person will respond to risk in a specific situation. A person with a generally optimistic outlook will likely assign different probability values in a decision tree than would someone who was generally a pessimist. This does not mean, however, that the optimist would necessarily be less risk averse than the pessimist when confronted with a choice where the probabilities were established (or agreed upon). These are two different facets of the issue, and they account for much of the subjectivity that is inherent in the decision making process.

With these concepts in mind, we now consider a more realistic decision tree which incorporates the three basic alternatives available to an owner (stay in the program, sell now, or seek approval to prepay the mortgage). The tree also incorporates the three scenarios discussed above (and adds some others), and for the sake of consistency it uses the same hypothetical values set forth earlier. Once again, it is important not to focus solely on the numbers or even the assumptions behind this example. Though they are meant to be reasonable and build on the earlier examples, in an actual

# DECISION TREE



case each decision maker would have his own unique set of variables that could be incorporated into this framework.

Before we begin the analysis of the tree itself, two points should be noted concerning the exercise of creating it. First, just by getting the tree and the estimated numbers associated with it down on paper, the owner has a much better grasp of the decision to be made. It is doubtful that anyone could effectively visualize and compute this structure in his mind. Second, it should be emphasized that this is still a relatively simple tree. Most of the choice and chance nodes are binary. This does not have to be the case. It is entirely conceivable that many of the nodes could have three or more branches, and although it would lengthen the time needed to make the calculations, it would not actually complicate the inherent structure of the process.

We can begin the analysis of the tree by considering the owner's option to stay in the program. We have assumed that if he does nothing, the capitalized value of his property is \$25,000 per unit. If he wants to, he is free to seek incentives under the HCDA '87 and renegotiate his deal with HUD. The owner estimates there is an 80% probability of obtaining incentives that would increase his net unit value to \$30,000. For the sake of argument, let us assume that there is a 20% probability that the negotiations would leave him in a worse position (\$20,000) than he is in currently. If there

are 200 units in the project, the owner is looking at a potential swing in value of \$2,000,000. What should he do?

The expected value of the "incentive" option is \$28,000 per unit -- a significant increase over the "do nothing" option. Remember, however, that the owner believes the "payoff" of the incentive option will be either \$30,000 or \$20,000, not the calculated EV figure. Recognizing that he has a 4 out of 5 chance to gain the valuable incentives, he decides he should favor that course of action (if he ultimately decides to stay in the program), but he subjectively "devalues" the EV to a personal CME of \$26,500.

His next alternative is to sell now, subject to the encumbrances of the HCDA '87. He believes that he could get \$28,000 per unit from either a non-profit entity or a "converter" (he may already have an offer at that price). There is no real risk in this alternative (in his mind), and so the EV of the deal and his CME are both \$28,000. Note that even though both of the first two alternatives have the same EV, the owner prefers the "sell now" case because it is "risk free," and therefore, has the higher CME.

The third option, to seek approval to prepay the mortgage (and obtain any necessary state or local approvals)<sup>44</sup>, is by far the most complex, and represents a continuum of outcomes that encompasses the three scenarios discussed above. Assume that the owner estimates an 85% probability that his request

will be denied (worst case scenario) for the foreseeable future. He could continue to operate his property "as is" and be no worse off than at present. As noted earlier, he believes he could still sell the property at that point, but that the price would only be equal to the rental value. Therefore, he assesses both the EV and the CME of these outcomes to be \$25,000 per unit.

If his request is approved (by all relevant agencies), the owner estimates that this would probably happen only after a significant delay (75% chance). He also believes that there is a 90% chance that he would be required to make concessions in order to obtain the approval (middle case scenario). His sell and rent options are valued as discussed earlier, with his sell option having an EV of \$36,000 and the rental option EV being \$43,200 (preferred). When he calculates the branch representing approval with delay but without concessions (10% probability) his sell option EV is \$46,000 (preferred outcome) and the rental option EV is \$44,700.

Combining the preferred outcomes of the concession/no concession branches of the "approval with delay case," the EV is calculated to be \$43,480.

The owner next considers the possibility of approval without delay (25% probability) and with concessions (80%) or without concessions (20%). In the best case scenario (approval without delay or concessions) the EV of the sell

option is \$47,000 (preferred) and the EV of the rental option is \$45,700. If concessions are required, the EVs drop to \$37,000 for the sell option and \$44,200 for the rental option (preferred). The combined concession/no concession EV for this branch is \$44,760.

Reducing the calculation further, the EV for the approval outcome is \$43,800. When this is combined with the EV of \$25,000 for the denial outcome, the overall EV for seeking prepayment approval is calculated to be \$27,820 per unit.

The owner can now consider the basic alternatives on an equivalent basis. The expected values of the three courses of action are almost identical: \$28,000 to stay in the program; \$28,000 to sell now; and \$27,820 to seek approval to prepay the mortgage. The owner has already decided he prefers the "sell now" alternative to staying in the program because of the risk factor. How does he evaluate selling now versus seeking approval to prepay?

There is no easy or definitive answer. A risk averse individual would likely take the "certain" \$28,000 per unit by selling now, and feel good that the respective EVs "justified" his decision. Someone with a greater risk appetite (whether by temperament or circumstance) might make the opposite decision. Such a person would recognize that this framework is as much an art as it is a science, and begin to explore some of the assumptions in it.

By pursuing prepayment approval, the owner is exposing himself to the high probability that he will "lose" \$3,000 per unit compared with the "sell now" alternative. In a 200 unit project that amounts to \$600,000. On the other hand, the owner might reason that even if his request is denied he is really no worse off than he is at present (\$25,000 per unit). If he can get over the approval "hurdle," the EV of the remaining branch is nearly \$44,000 per unit. This would give him a large bargaining margin should he decide to take a proactive stance with respect to the negotiation process. By offering certain concessions, he might be able to improve the probability of approval and create a "win-win" situation.

It is worth repeating that one must not read too much into this set of particular numbers. The framework and thought process are important, not the hypothetical figures presented in the example. As with the simpler scenarios, sensitivity analysis could be performed on the variables. In fact, with the appropriate software (e.g., Lotus) a decision tree could be computerized, greatly simplifying the manipulation of it.

This framework will not "tell" an owner what to do. It does assist him in conceptualizing the problem, however, and it allows him to address the subjective elements of such a decision. This, in itself, is no small accomplishment.

### Owners' Assessment of Project Value

Now that one method to evaluate alternative courses of action has been presented, we will consider what some owners and other interested parties have actually done, to date, with respect to this issue. This section is based upon interviews with a number of owners and other parties who have an interest in assessing the value of projects in the current uncertain environment. Although this is not a scientific sample, it represents the collective thoughts of a number of people having various viewpoints on the issue. In as much as Massachusetts is one of the states most likely to be affected by the prepayment issue, what happens here could be indicative of what will ultimately occur in other places across the country.

The primary finding of these interviews is that thus far not as much has happened in this area as had been anticipated. This finding was foreshadowed by some early interviews with various interested observers. Phillip Clay raised the question of "What is an equitable settlement?" He did not feel that the eventual outcome would represent either extreme of (1) unrestricted conversion or (2) mandatory retention of use restrictions. He felt the projects would be negotiated on a case-by-case basis, but again questioned at what price the compromises would be struck.<sup>45</sup> James Spencer and Langley Keyes both talked about the tradeoffs that would have to be

negotiated, and like Clay, asked the questions "What to settle for? . . . Who gets what?"<sup>46</sup>

A person who assisted a non-profit agency in the recent purchase of a project from a private owner offered some insights into the negotiations that took place in that instance. The owner's asking price was \$90,000 per unit, which was essentially what the units would have retailed for as condominiums after major renovation. The agency made a counteroffer of \$37,500 per unit which represented the most that could be paid if the project was to remain affordable to the income group represented by the current tenants. The deal was finally made at \$47,500 after the state provided a subsidy of \$10,000 per unit. The spokesman said that the state seems willing to help subsidize such purchases as long as the sales price does not exceed 60% of unrestricted market value. He also noted that "converters" in New York City generally pay between 50%-60% of unrestricted market value for projects. The deep discount is demanded in order to compensate converters for the hassles and risks they assume. In the local case the price seemed to be set by the use of rules of thumb and external factors rather than by any explicit analysis of the project itself. The fact that the agency now wonders if the seller would have settled for less illustrates the need for more explicit analysis.

Although many projects in Massachusetts will be reaching

the twenty year mark in the next few years, only twelve have so far. Of these, seven are held by owners who have indicated that they are willing to remain in the programs if the incentives offered under the terms of the HCDA '87 actually materialize. Three other projects (under one ownership) have been prepaid, though prior to the enactment of the HCDA '87 and thus not directly affected by it. As it turned out, the owner of these three projects has a longstanding interest in affordable housing, and has structured the properties so that they will operate as mixed income developments. The owners of the two remaining projects appear to be biding their time, waiting to see what becomes of the HCDA '87 or its successor legislation.

There are nine additional projects in the state that will reach the twenty year mark prior to the scheduled expiration of the HCDA '87. At least four of these are again owned by parties who have indicated they intend to remain in the subsidized programs. The other four owners (one person owns two of the projects) are taking a wait and see attitude. As was noted earlier, the prepayment option was designed to take effect after twenty years, but the owner is not obligated to act at that time. One owner stated, in confidence, that he expected the replacement legislation to be more favorable, and was not interested in trying to prepay under the terms of the current Act. As he put it, "After twenty years, what's

another few months?"

When questioned about how they thought about these decisions, the owners admitted they were not very analytical. Reasons for this included the fact that the profit in these deals, to this point, had consisted primarily of tax benefits. If they had to wait a bit longer on the residual, they would (grudgingly) do it. One owner of a Boston project noted that the state and local restrictions were at least as "onerous" as the provisions of the HCDA '87, and indicated he would probably remain in the program and seek the incentives authorized in the Act.

Out of this small group, none of the owners contacted used any formal decision theory in considering their options, although two seemed to think that it could be useful to them. It would be interesting to work directly with an owner to "flesh out" a decision tree and then use his experience to manipulate different variables. Given the regulatory climate in Massachusetts, and the Boston area in particular, this could be a useful exercise even if the terms of the HCDA '87 are relaxed.

## Chapter IV: CONCLUSION

A number of factors led to the passage of the Housing and Community Development Act of 1987. After eight years of federal retrenchment (and the prospect of a new Administration), there is a renewed interest in and concern over the serious shortage of decent, affordable housing for low income households in this country. Fearing the loss of a significant component of the assisted housing stock, Congress included Title II of the Act which essentially prevents the prepayment of mortgages and the termination of use restrictions on certain privately owned but federally subsidized housing projects. These interim provisions are meant to be temporary while Congress seeks a permanent solution. In the meantime, owners are deprived of a right they believe was part of the bargain when they produced these housing resources twenty years ago.

This apparent diminution of property rights and the current uncertainty surrounding the entire problem has affected the financial structure and value of the existing housing projects. This study has explored these issues and presented a framework by which owners can evaluate alternative courses of action and make subjective assessments of project value. This framework is in contrast to the more intuitive approach currently being used by many owners.

## Findings

Title II of the Housing and Community Development Act of 1987 was passed in response to concerns that a significant component of the federally assisted housing stock was "at risk of loss." Subsequent research has cast doubt on the extent of the "emergency," and the need for such stringent legislation. The incidence of "loss" through prepayment will likely be much less than originally anticipated, and will be distributed unevenly across the nation. The provisions of the HCDA '87 constitute a rather "blunt instrument" to deal with the problem.

The provisions of the HCDA '87 (and related actions) affect the financial structure of existing projects. The restriction on prepayment rights diminishes the value of existing projects, compounding the effect of the provisions of the TRA '86 and certain state and local regulations. The uncertainty that surrounds this issue and the forthcoming legislation also has a negative effect on project value. In such an environment an owner, as well as housing advocates, are wondering how to assess these effects on project financial structure and value.

Decision theory offers a useful alternative to intuition, rules of thumb and "gut feeling" in these subjective situations. The construction of a decision tree clarifies alternative courses of action, identifies assessments of

probable outcomes, and forces a decision maker to address his personal subjective attitude toward risk in a given situation. This type of framework has not been employed explicitly by those parties who were interviewed, although some expressed interest in the concept.

### Recommendations

Although some housing activists and owners may view the current situation in terms of "us versus them," it will be more productive for all parties to take a long term perspective of the problem and work toward a mutually acceptable solution. The programs in question are partnerships between the federal government and the private sector. Each party has a role(s) to fulfill, and each is dependent upon each other. This fact should not get lost in the rhetoric that surrounds the current impasse. In any case people on both sides of the table need a realistic assessment of alternatives and their financial outcomes.

Under the terms of these programs, private owners have the opportunity and the responsibility to produce and manage an important component of the assisted housing stock. Owners must realize that although these projects are business propositions, they represent more than just a potential profit opportunity. Decent housing is a basic aspiration of most people, and these projects are a component of a scarce housing

resource. Owners should recognize the social dimension of these programs and they should participate in them (now and in the future) with this understanding. After all, the owners (as well as their tenants) are beneficiaries of the public programs and funds. Ideally, part of the owners' "compensation" is the satisfaction of participating in the programs.

On the other hand, owners have a right to expect fair treatment in these programs. To the extent that they perform a fiduciary role, owners have an obligation to preserve their property rights, and should challenge any actions they deem to be unfair. In this regard, they should pursue the test case of the HCDA '87, and lobby actively to present their viewpoints on future legislation at all levels of government.

Finally, owners (and other parties, as noted below) should become more rigorous in their analysis of situations like this. They should explicitly identify the alternative courses of action available to them, and seek to evaluate the subjective, uncertain situations they face. Decision theory can be useful in such instances, and one framework for analysis is presented in this study.

**Government** is the other primary player in this situation, and each level has certain roles it is best suited to fulfill. With respect to the HCDA '87, the federal government is the most prominent public player.

To preserve the partnership that has been established, Congress should fund the incentives authorized in the HCDA '87, so that remaining in these programs becomes a viable alternative. In conjunction with this, the prohibitions against prepayment should be removed from the Act, thereby fulfilling the government's contractual obligations to the owners (adequately funded incentives should keep 75% - 85% of the owners in the program<sup>47</sup>). Failure to do so will only prove to be counterproductive in the long run, as the public/private partnership breaks down due to a lack of trust.

However, Congress should continue its search for fair and innovative solutions to the shortage of affordable housing. As a part of this effort, the government should consider the "life cycle costs" of various forms of assisted housing as opposed to merely looking at a program's impact on next year's budget.<sup>48</sup> It should also avoid "solutions" that repeat past mistakes by merely delaying the "day of reckoning."

Finally, the federal government should realize that although certain housing problems are pervasive across the country, they vary in scope and intensity by region and locality, and that "top down" solutions are unlikely to be either effective or efficient. Its major role should be to facilitate the creation of solutions (primarily through the provision of resources) rather than to try to dictate solutions from Washington, D.C. Furthermore, by removing

itself as an adversary, the federal government will be in a much better position to mediate the inevitable conflicts between lower levels of government and the private sector.

State governments have an important role in identifying the priority problems within their boundaries and establishing the flexibility and authority for local governments to implement specific programs to combat local problems. Although certain problems will be common to most states (e.g., affordability, physical condition of the housing stock, size of the stock, etc.) the priority of each will vary across the country.

The state level of government is in a good position to encourage localities to experiment with innovative approaches to various housing problems. This encouragement should take the form of funding resources as well as enabling legislation. In a similar fashion to the federal government, states should facilitate/mediate rather than dictate. In certain instances, the state may also find it appropriate to work in partnership with local governments to address specific problems.

Although certain housing issues are "national" in scope, they become, in the end, location-specific problems. Therefore, it is appropriate that programs to combat these problems be designed and implemented at the local level of government. This is not to imply that the state and federal governments can withdraw from the effort. As noted above,

they have crucial roles to fulfill with respect to the provision of funds and legislative authority.<sup>49</sup> The actual crafting of specific programs, however, should be done through the local political process, which can bring an appropriate combination of regulatory power and resources to bear on site-specific problems.

This is the point that Tom Demery, Assistant Secretary of Housing (HUD) was making when he testified before Congressional hearings on the HCDA '87. To the extent that the negative effects of the expiring use restrictions will be concentrated in the tightest housing markets, it should be those affected jurisdictions that respond to the problems<sup>50</sup> (with adequate support from the federal government).

### Final Observations

The subject of expiring use restrictions is a timely one, and it has been most interesting to research. However, the fact that it is such a timely issue has had both good and bad implications for this study. On the positive side, there is a great deal of current information available on the topic. Also, many local people are involved in various aspects of it, and they have been very generous with their knowledge and their time. On the negative side, various aspects of the issue are, paradoxically, both "moving targets" and currently "on hold." By this I mean that the issue is still evolving,

and yet actors on both sides are biding their time, hoping to get some feedback before making their next move.

Because of these factors the issue is likely to evolve slowly, and may not be resolved for some time. Even then, the same basic issues will surround similar state and local restraints. For this reason, the general topic seems to warrant further study. Perhaps a future researcher could work directly with a project owner to develop an actual decision tree based upon the framework presented in this report. From my investigations, I am confident that some owners would be receptive to an effort of that sort.

## END NOTES

<sup>1</sup>Report of the U.S. President's Commission on Housing, by William F. McKenna, Chairman (Washington, D.C.: Government Printing Office, 1982), p. 1.

<sup>2</sup>Annual reservation of assisted housing by HUD decreased more than 50% between 1980 and 1988. Furthermore, the mix of unit-based production programs and tenant-based subsidy programs shifted from 70%/30%, respectively, to 3%/97% during the period. See Marshall Kaplan and James Franklin, Federal Housing Agencies and National Housing Policies, Institutional Roles, Relevance and Responsibilities (Cambridge, MA: MIT Center for Real Estate Development, HP #3, 1988), table 9, p. 30.

<sup>3</sup>In this report, "public housing" refers to those subsidized housing projects owned and operated by a governmental agency. Other subsidized housing developments are privately owned.

<sup>4</sup>W. John Moore, "Expiring Subsidies," National Journal, August 2, 1986, pp. 1885, 1888; Susan Dentzer, "A New Squeeze on Housing," Newsweek, August 10, 1987, p. 48; and Morton W. Schomer, "The Prepayment Dilemma: Impending Crisis in Low Income Housing," The Real Estate Finance Journal, Winter 1988, p. 13.

<sup>5</sup>The programs originally stipulated that the tenants pay no more than 25% of their income for rent (and utilities). The current figure is 30%.

<sup>6</sup>National Low Income Housing Preservation Commission, Preventing the Disappearance of Low Income Housing, (Washington, D.C.: Balmar Printing and Graphics, 1988), p. 4.

<sup>7</sup>Report of the President's Committee on Urban Housing, by Edgar F. Kaiser, Chairman (Washington, D.C.: Government Printing Office, 1968), p. 3.

<sup>8</sup>Schomer, "Prepayment Dilemma," p. 13.

<sup>9</sup>Moore, "Expiring Subsidies," p. 1888.

<sup>10</sup>Housing and Community Development Act of 1987, Sec. 202 (a) (4).

<sup>11</sup>William C. Apgar, Jr., The Nation's Housing: A Review of Past Trends and Future Prospects for Housing in America

(Cambridge, MA: MIT Center for Real Estate Development, HP #1, 1988), p. 37.

<sup>12</sup>With respect to units "at risk" of prepayment, Massachusetts ranks third in both absolute number and units per capita.

<sup>13</sup>National Low Income Housing Preservation Commission, Preventing the Disappearance of Low Income Housing, pp. 59, 64. However, as the Report of the National Housing Task Force, by James W. Rouse, Chairman (Washington, D.C.: Government Printing Office, 1988) notes, "To lose large numbers of existing units is to put housing efforts on a treadmill that will exhaust both the nation's pocketbook and its will to provide fit and affordable housing for all." (p. 52); and "The cost of keeping assisted projects in the inventory will be substantial; the cost of failing to do so would be greater." (p. 54).

<sup>14</sup>A sign in the office of the building inspector for Columbus, Indiana reads, "Lack of foresight on your part does not constitute an emergency on our part."

<sup>15</sup>National Low Income Housing Preservation Commission, Preventing the Disappearance of Low Income Housing, p. xi.

<sup>16</sup>By 1995 approximately 350,000 units of Section 8 and FaHA 515 housing will be eligible for prepayment. This number rises to 800,000 by 2002. Ibid., p. 19.

<sup>17</sup>Ibid., pp. 59-60.

<sup>18</sup>Ibid., pp. 53-76.

<sup>19</sup>Interview with James Spencer, Aide to Congressman Joseph P. Kennedy II, Boston, Massachusetts, May 23, 1988.

<sup>20</sup>Housing and Community Development Act of 1987, Sec. 202 (a)(10).

<sup>21</sup>Ibid., Sec. 222 (b)(1)-(7).

<sup>22</sup>Ibid., Sec. 224 (b)(1)-(8). The "menu" of incentives is attractive to owners, but it has not yet been adequately funded. Interview with David A. Smith, Senior Vice President, The Boston Financial Group, Inc., Boston, Massachusetts, July 26, 1988.

<sup>23</sup>Ibid., Sec. 225 (a)(1)-(2)(B).

<sup>24</sup>Ibid., Sec. 221 (b).

<sup>25</sup>Interview with David A. Smith, July 26, 1988.

<sup>26</sup>Warren, Gorham & Lamont's Housing and Development Reporter and The Institute for Professional and Executive Development, Inc., "The Mature Subsidized Project: Business Opportunities and Perils," Washington, D.C., pp. I-7 - I-17.

<sup>27</sup>Ibid., p. II-5.

<sup>28</sup>National Low Income Housing Preservation Commission, Preventing the Disappearance of Low Income Housing, p. 60.

<sup>29</sup>Moore, "Expiring Subsidies," p. 1884. HUD presents a different twist to this issue. In testimony before the House Subcommittee on Housing and Community Development, Assistant Secretary of Housing, Thomas Demery stated (p. 2) that their analysis indicates that only 25% of the owners eligible to prepay will do so.

<sup>30</sup>National Low Income Housing Preservation Commission, Preventing the Disappearance of Low Income Housing, exhibit III-6, p. 102.

<sup>31</sup>The tax losses are further devalued by the passive income regulations created by the TRA '86.

<sup>32</sup>The low-income tax credit has been discussed by numerous parties. For an overview of its current limitations and some suggested improvements see: National Low Income Housing Preservation Commission, Preventing the Disappearance of Low Income Housing, pp. 68-69; Patrick E. Clancy, Tax Incentives and Federal Housing Programs: Proposed Principles for the 1990s (Cambridge, MA: MIT Center for Real Estate Development, HP #11, 1988), pp. 5, 16-18; Report of the National Housing Task Force, pp. 65-67; and "Tax Credit to Spur Low-Income Housing Goes Begging," The Wall Street Journal, July 19, 1988, p. 32.

<sup>33</sup>Patric H. Hendershott, The Tax Reform Act of 1986 and Real Estate (Cambridge, MA: MIT Center for Real Estate Development, HP #10, 1988), p. 8.

<sup>34</sup>Ibid.

<sup>35</sup>This will be an especially bitter pill to swallow for those investors who paid inflated prices for properties based on the expected "tax play."

<sup>36</sup>Interview with James Spencer, May 23, 1988.

<sup>37</sup>Moore, "Expiring Subsidies," p. 1886.

<sup>38</sup>National Low Income Housing Preservation Commission, Preventing the Disappearance of Low Income Housing, p. 22.

<sup>39</sup>A fourth alternative would be to challenge the legality of the provisions of the HCDA '87.

<sup>40</sup>For an overview of this concept see David Dale-Johnson and David Rodriguez, "Bargaining Margin: How Much Can a Developer Yield in Negotiations?" Real Estate Review 14 (Spring 1984): 54-56.

<sup>41</sup>Some implications of the Supreme Court's recent decision in Nollan v. California Coastal Commission concerning negotiated exactions are examined by Michael Wheeler, Resolving Local Regulatory Disputes and Building Consensus for Affordable Housing (Cambridge, MA: MIT Center for Real Estate Development, HP #9, 1988), pp. 15-17.

<sup>42</sup>For an interesting perspective concerning the limitations on this type of negotiation strategy see Max H. Bazerman, "Negotiator Judgment," American Behavioral Scientist 27 (November/December 1983): pp. 211-228.

<sup>43</sup>For a very lucid description of CME (and the source for the following summary) see Edith Stokey and Richard Zeckenhauer, A Primer for Policy Analysis (New York: W. W. Norton & Company), pp. 237-254.

Suppose you were offered the choice of flipping a coin for \$1.00, and flipping a coin for \$1,000. If the coin comes up "heads," you receive that amount; if "tails," you lose. Both events have the same EV, but the two represent very different choices. This is due to the normal risk aversion of most people and to what economists refer to as "the diminishing marginal utility of money."

To expand upon this idea, assume that the example is changed such that the coin flip now pays \$1,000 for a "heads," but only costs \$500 for a "tails." Further assume that you cannot refuse this game (just as an owner of a subsidized project cannot refuse to decide whether to remain in the program -- a "non-decision" is in fact a decision), but that you can sell your place in the game if you are able to find a buyer at a price that you deem acceptable. If, for example, a certain payment of \$200 would leave you totally indifferent to participation in the game, then \$200 is your CME to this particular uncertain situation.

Note that another person's CME for the same game could be

higher (less risk averse) or lower (more risk averse). In fact, a thoroughly risk averse person might have a negative CME for this game (i.e., he would be willing to pay someone to assume the 50% probability of losing \$500).

Whenever the choice to be made is between a "sure thing" and an uncertain event, a person's CME is almost always lower than the EV. The difference between the two represents the risk premium (required by a specific person) for the deal.

Rarely is a situation as simple or balanced as the flip of a coin. Most real world situations have multiple outcomes, some of which are more likely than others. The CME methodology works just as well for these more complicated situations. The complex decision is broken down into a series of smaller choices until a ranking of preferences is established, with the decision maker's assessment of probable outcomes determined, and his CMEs in place.

<sup>44</sup>A more detailed decision tree would model each level of the approval process (e.g., federal, state and local) but in this example they have been aggregated.

<sup>45</sup>Interview with Phillip L. Clay, Associate Professor, MIT Department of Urban Studies and Planning, Cambridge, Massachusetts, May 27, 1988.

<sup>46</sup>Interviews with James Spencer, May 23, 1988; and Langley C. Keyes, Professor, MIT Department of Urban Studies and Planning, Cambridge, Massachusetts, June 6, 1988.

<sup>47</sup>Thomas Demery, "Testimony," March 26, 1987, p. 2; and interview with David A. Smith, July 26, 1988.

<sup>48</sup>For example, it can be argued that public housing is a cost effective alternative to "temporary" subsidy programs due to its permanence. See Michael A Stegman, The Role of Public Housing in a Revitalized National Housing Policy (Cambridge, MA: MIT Center for Real Estate Development, HP #18, 1988), p. 3.

<sup>49</sup>For a discussion of ways in which various parties can pool resources to encourage the development of affordable housing, see Michael Wheeler, A Handbook: Building Consensus for Affordable Housing (Cambridge, MA: MIT Center for Real Estate Development, Working Paper #7, 1987).

<sup>50</sup>Thomas Demery, "Testimony," March 26, 1987, p. 4.

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