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Edited by Gregory K. Ingram and Yu-Hung Hong

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Community Land Trusts and Housing Affordability

Steven C. Bourassa

This chapter explores the potential for the community land trust (CLT) as a mechanism for providing affordable housing, with particular reference to the United States. The CLT model is designed primarily to provide perpetually affordable home ownership to low- and moderate-income households by giving home purchasers only a limited equity interest in their homes. Households own the structure, but not the land. The initial purchase price of a land trust home generally excludes the cost of the land and may also reflect other subsidies. Because homeowners receive only a fraction of the appreciation in the property upon resale, the price remains affordable indefinitely. Despite the conceptual appeal of perpetual affordability, CLTs provide only a small fraction of the affordable housing in the United States today.

The remainder of this introductory section discusses the concept of housing affordability and describes the basic CLT model. The balance of the chapter is divided into five sections. The next section looks at the context and history of CLTs, focusing on affordable housing programs in the United States and on CLTs as a "third-sector" type of housing provision that combines private ownership with long-term affordability. The section goes on to consider the relevance of Henry George's thinking and of public leasehold systems to CLTs, and it concludes with a review of the limited experience with CLTs in the United States.

The third section of the chapter provides a case study of the Burlington Community Land Trust (BCLT), which is one of the most successful CLTs in the United States. The case study helps to ground some theoretical issues in the experience

Gail Beck, Laurie Drew, Emily Higgins, Mary Houghton, and Brenda Torpy of the Burlington Community Land Trust provided helpful information, as did Ken Balizer, formerly of the Sawmill Community Land Trust. I am also grateful for comments provided by John Davis, Roz Greenstein, Yu-Hung Hong, Gregory K. Ingram, Harvey Jacobs, Stephen Sheppard, and Michael Stone.

of a real CLT. Particular attention is given to the resale formula, which maintains affordability by limiting owners' equity interests. Referring to the case study and the theoretical issues, the fourth section of the chapter evaluates the pros and cons of the CLT model. This section includes simulations of the costs to households of several CLT options relative to renting and full equity ownership given various assumptions about interest rates, house price inflation, resale formulas, and so forth. The simulations also show whether affordability is maintained under the various scenarios. This section also considers return on investment as a possible third criterion for evaluation. The chapter concludes with an assessment of the potential of CLTs as affordable housing providers.

As used by housing advocates, *housing affordability* typically refers to the cost of housing relative to household income. Individuals or families who are homeless because they cannot afford to pay rent are considered to have affordability problems, as are households paying more than a specified percentage of income for housing costs. Typically, for a household to be considered to have an affordability problem, household income must be below some limit. In practice, housing analysts in the United States generally rely on U.S. Department of Housing and Urban Development (HUD) criteria to define affordability. A household that is low income—that is, at 80 percent or less of local area median income—and that spends more than 30 percent of gross income on housing costs is considered to have an affordability problem.[1]

Grigsby and Rosenburg (1975), Stone (1993), and others have argued in favor of a more sophisticated definition of affordability that does not rely on a simple ratio of housing costs to income. They point out that households with particularly low incomes cannot afford other necessities even when housing costs are limited to 30 percent or less of gross income. These researchers indicate that housing is affordable only if other necessary goods and services are affordable after subtracting housing costs from income. Despite the logic of this proposal, the 30 percent ratio rule continues to be the prevailing measure of housing affordability.[2]

Glaeser and Gyourko (2003) contend that housing advocates confuse the roles of housing costs and household incomes. They suggest that housing affordability as typically defined is more likely to be an income problem than a housing problem.[3] In other words, housing affordability problems are a result of low incomes

1. Note that the HUD definition of *low income* is much more inclusive than the U.S. Department of Health and Human Services (HHS) definition of *poverty*. The HHS definition, which does not vary geographically within the continental United States (unlike the HUD definition), is roughly comparable to the HUD definition of extremely low income as 30 percent or less of area median income.

2. The 30 percent rule can be applied to low-income homeowners as well as to renters. However, the affordability of home ownership is often measured with respect to the ability of typical households to purchase a typical home given mortgage underwriting criteria (Bourassa 1996).

3. Indeed, Grigsby and Bourassa (2004) point out that the Section 8 Housing Choice Voucher rental subsidy program, which is the main federal subsidy for low-income renters, is an income supplement rather than a housing subsidy. Its purpose is to raise incomes rather than to change housing consumption.

rather than of high housing costs. Glaeser and Gyourko maintain that housing affordability is a housing problem only to the extent that house prices and rents are too high relative to the fundamental cost of producing housing. Excluded from this fundamental cost is what they refer to as the zoning tax that results from regulatory controls on development, such as density restrictions (also see chapter 1 of this volume). Their analysis suggests that this tax is high in some parts of the United States and that efforts to reduce the tax could, in theory, have a greater effect than other tactics employed by housing advocates.

For the most part, this chapter defines *affordability* the way HUD defines it. At the same time, the affordability problem would be mitigated substantially in some places if land use controls were changed to make building more low-cost housing possible. Thus, the housing affordability problem is characterized as a problem of both inadequate income and high housing costs.

Community land trusts maintain the affordability of housing by shielding residential property from market pressures. Land is held in trust by a board consisting in part of residents of the housing that is on trust-owned land and in part of other community representatives who are committed to supporting the public purposes underpinning the trust. The structure of the board helps to insulate the land trust from opportunity costs associated with high or rising land values.

Housing built on trust land may be owned or rented by the occupants. In the case of owner-occupied housing, the initial purchase price is heavily subsidized by excluding at least some of the value of the underlying land and, possibly, by subsidizing the cost of the structure. The capital gains that owners can earn upon resale are strictly limited, thus keeping prices low for subsequent buyers.

In addition to keeping housing affordable in perpetuity, or at least over the long term, the CLT model allows residents to participate in a meaningful way in decision making about their communities. At a minimum, residents have the right to vote for representatives on the CLT board, and they may also participate in building-, project-, or neighborhood-based groups that are subsidiary to the CLT. In part as a consequence of these democratic aspects, CLTs are typically concerned with the welfare and success of residents in ways that are not typical of some other types of affordable housing providers.

Community Land Trusts: Context and History

To fully understand the community land trust model, it must be viewed within the context of the array of housing affordability programs in the United States.[4] It is useful to characterize the CLT model as a third-sector approach to affordability and to note the intellectual roots of the idea in the work of Henry George. Not surprisingly, CLTs share some characteristics with public leasehold systems. Despite the promise of perpetual affordability offered by the model, the experience with CLTs to date is limited.

4. Parts of this section are based on Bourassa (2006).

AFFORDABLE HOUSING PROVISION IN THE UNITED STATES

The primary low-income rental housing assistance program in the United States is the Section 8 or Housing Choice Voucher program. Each year, HUD allocates vouchers to local housing authorities or state housing finance agencies that administer the program. Households that satisfy the program's income and other criteria sign up on a first-come, first-served basis, subject to locally determined preferences and other criteria. A household that succeeds in obtaining a voucher must find a landlord willing to accept the voucher. Tenants pay at least 30 percent of adjusted income on rent.[5] Some vouchers are project-based, meaning that they are assigned to particular rental units, usually in combination with some other type of subsidy.

According to the Millennial Housing Commission (2002), 1.8 million vouchers were authorized under the Section 8 program in 2001. This represented about 50 percent more units than the second and third largest programs that year. In comparison, the federal government provided 1,274,000 public housing units in 2001 and subsidized 1,222,000 units through the Low Income Housing Tax Credit (LIHTC) program. The LIHTC program provides tax credits to investors in low-income housing projects in exchange for keeping the units affordable to households below 50 or 60 percent of area median income.

Several other HUD programs may be used to help finance affordable housing. Section 202 and 811 programs help fund rental housing for the elderly and for persons with disabilities, respectively. Community Development Block Grant (CDBG) and HOME Investment Partnership Act funds may also help to finance affordable rental housing. Several relatively small programs provide funding for housing homeless persons, persons with AIDS, and Native Americans. The U.S. Department of Agriculture helps to finance some affordable rental housing in rural locations through its Section 515 program and provides rental assistance to some tenants.

Unlike other federal programs for low-income persons or households, such as food stamps and Medicaid, housing assistance is not an entitlement. Nelson et al. (2003) report that only 29 percent of extremely low-income and very low-income renter households were receiving housing subsidies in 1999 under a federal, state, or local housing program.[6] Households can have incomes as high as 80 percent of area median income (the low-income threshold) and still qualify for housing assistance. Some local housing authorities have long waiting lists for Section 8 vouchers and public housing.

Often, developers of affordable rental housing must combine subsidies from multiple sources to make their projects feasible. It is not uncommon, for example, for tenants of LIHTC projects to receive Section 8 vouchers (Buron et al. 2000). Rental housing provided by a CLT could conceivably benefit from a combination of LIHTC, CDBG, HOME, and Section 8 funds.

In addition to subsidies for low-income renting households, federal and state governments provide subsidies that benefit low-income homeowners. The pri-

5. For additional details, see Grigsby and Bourassa (2004).

6. Extremely low-income households have incomes below 30 percent of local area median, while very low-income households have incomes between 30 and 50 percent of area median.

mary program is the mortgage insurance provided by the Federal Housing Administration (FHA), which is part of HUD. Although borrowers do not have to have low income or even moderate income, the FHA places upper limits on the amount of mortgage loans. The basic FHA loan program, Section 203(b), provides for a down payment of as low as 3 percent, with closing costs and fees wrapped into the mortgage. Other federal mortgage programs are offered by the Department of Veterans Affairs and the Rural Housing Service. State housing finance agencies typically provide mortgage loans on favorable terms to low- and moderate-income borrowers.

State and local governments may use HOME and CDBG block grant funds to support low-income home ownership programs. In some cases, these funds assist households with rehabilitation or repair of owner-occupied housing. In other cases, funds subsidize down payments for buyers of newly constructed low-cost housing. Down payment subsidies may be in the form of interest-free second mortgages that require repayment when the subsidized house is sold; the funds are then used to assist other low-income buyers. In the case of "soft" second mortgages, no repayment is required as long as the home is not resold for some minimum period of time, such as five years.

Federal income tax expenditures for homeowners make up the largest housing subsidy program in the United States, although the concessions are not targeted at low-income households or even at first-time buyers (Bourassa and Grigsby 2000). The concessions include mortgage interest and local property tax deductions as well as exclusion of most capital gains from taxation.[7] The Joint Committee on Taxation (2005) of the U.S. Congress has estimated that the tax expenditure for the mortgage interest deduction was $72.6 billion in fiscal year 2005, easily dwarfing the amount budgeted for any other housing program. Since low-income households receive a small fraction of the tax concessions for owner-occupied housing, these expenditures cannot be considered part of an affordability program. Moreover, they likely aggravate affordability problems by causing house prices to be higher than they would be otherwise.

In summary, the primary affordable housing programs in the United States are rental housing subsidies funded by the federal government and often administered by state and local governments. Nonprofit housing and community development organizations are important in developing and managing low-income housing in the United States, although for-profit developers and landlords also play significant roles. The provision of affordable housing involves both the public and the private sectors. Typically, the public sector is concerned with long-term affordability, while the private sector is concerned with making profits from property development, management, or leasing. Private nonprofit organizations concerned with maintaining affordability over the long term have been dubbed the third sector.[8]

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7. Although some analysts consider exclusion of net imputed rental income from owner-occupied housing to be a tax expenditure, the federal government does not view it as such because imputed income is not considered to be part of the tax base.

8. Third-sector housing is a form of social ownership of housing, but with private, rather than government, ownership (Stone 2006).

THIRD-SECTOR APPROACHES TO LONG-TERM HOUSING AFFORDABILITY

The community land trust is one of several third-sector tools for providing housing for low- and moderate-income households and maintaining the affordability of that housing for subsequent occupants. Other tools, which are not mutually exclusive, include deed restrictions, limited equity condominiums and cooperatives, mutual housing associations, and nonprofit rental housing (Davis 1994a; Abromowitz 2000). This array of approaches goes beyond the usual private and public housing provision by combining private ownership of land and housing with techniques for maintaining affordability (Davis 1994c, 2000).

To some extent, third-sector approaches operate by extracting property from the market—that is, by "decommodifying" housing, to use Achtenberg and Marcuse's (1986) term. In the case of owner-occupied housing, this is accomplished by limiting the owners' equity interests and restricting the gains that can be earned upon resale. In the context of a standard CLT, homeowners own the buildings they occupy, but not the land, and gains upon resale can be earned only from increases in the value of the buildings and are usually limited to a fraction of the increase in market value. In the case of rental housing, ownership by mutual housing associations or other nonprofit organizations minimizes incentives for individuals to extract profits from increases in property values. Thus, rents reflect historical costs rather than current market conditions and remain affordable to low- or moderate-income tenants over time.

Advocates argue that CLTs are a better means for maintaining affordability than are other third-sector methods, primarily because the governance structure reduces the likelihood that the CLT will revert to market prices. Standard CLT board membership includes one-third occupants or other leaseholders, one-third community representatives who are members of the CLT but not leaseholders, and one-third public representatives who may be government officials or employees of nonprofit organizations involved in setting up the CLT (Institute for Community Economics [ICE] 2002). This governance structure means that only one-third of the board members have financial incentives for dissolving the CLT and selling their properties at market rates. Two-thirds of the members are fully committed to maintaining long-term affordability.

Other third-sector techniques provide less certainty about long-term affordability. Deed restrictions require third-party enforcement, which is likely to be haphazard and become more difficult over time. Limited equity condominiums and cooperatives tend to be controlled entirely by residents, who may choose to eliminate limited equity provisions. In some cases, federal and state programs to fund cooperatives have mandated that affordability be maintained, but only for specified periods of time. For example, New York's Mitchell-Lama Act provided property tax exemptions and reduced-interest loans for cooperative developments and led to the production of about 60,000 units in the 1950s and 1960s (Sazama 2000). Resale values were limited to the original purchase price plus the unit's portion of the paid-off mortgage, but these limitations applied for only 20 years. Similarly, the FHA provided below-market-rate loans for the development of cooperatives during the 1960s and 1970s and required that affordability be maintained, but only for the term of the HUD-subsidized mortgage, usually 40 years.

If market values increase significantly, residents of limited equity condominiums and cooperatives have strong incentives to remove restrictions on resale val-

ues. Because the residents usually have the legal right to change bylaws, there is often little or no effective means of enforcing long-term affordability. Davis (1994a, 87) notes that "Many cooperative housing corporations that were limited equity cooperatives when founded are market-rate cooperatives today."

Like limited equity cooperatives, mutual housing associations and other forms of nonprofit rental housing offer no guarantees of long-term affordability. Such organizations can choose to cash out properties in high-value locations to generate capital. Krinsky and Hovde (1996) note that mutual housing associations can (and sometimes do) operate like CLTs to perpetuate affordability, but that they are more likely to resemble limited equity cooperatives.

Of the various third-sector models, CLTs appear to offer the greatest potential to preserve long-term affordability. However, few CLT units have been developed to date compared to the other approaches. As municipalities become more interested in preserving the value of their investments in low-income home ownership, there is evidence of increasing interest in the CLT model (Davis 2006).

GEORGIST ANTECEDENTS AND ANALOGIES WITH PUBLIC LEASEHOLD SYSTEMS

Geisler (1980) and Soifer (1990) point out the intellectual links between the ideas of the nineteenth-century reformer Henry George and those of advocates of CLTs (see George 1975). George argued that land is not produced by individual human effort, so the investment returns on land should accrue to the community rather than to individual landowners. Krinsky and Hovde note: "The CLT concept is based on the notion that much property value is created not by the individual property owner, but by society at large" (1996, 11). Moreover, "The CLT model proposes that individual owners should not be able to reap private profits from this socially created value and that this 'social equity' should be preserved and controlled by the community, for the benefit of the community as a whole" (12).

George considered public ownership of land as a means of value recapture, but he concluded that a tax on land would be more feasible. He referred to this tax on land as a *single tax* because he believed that it would fully fund the activities of government, and he advocated eliminating other taxes, such as taxes on labor. In practice, the pure form of the single tax has not been implemented anywhere, but some communities have applied Georgist ideas in a limited way. Pittsburgh, for example, has taxed land more heavily than buildings in the belief that taxes on land are less of a disincentive to development than are taxes on buildings (Bourassa 1987). Other communities, in some cases influenced by Georgist ideas, have adopted public ownership of land with leasehold as the main or only form of land tenure. These communities include several small enclaves in the United States as well as Canberra (Australia), Finland, Hong Kong (China), Israel, The Netherlands, Singapore, and Sweden (Bourassa and Hong 2003).

In some cases, the leasehold system is used to control the cost of housing in a manner somewhat analogous to CLTs. In Sweden, land has been provided at below-market rents to encourage the development of affordable housing (Mattsson 2003), and Hong Kong has allocated sites at low or no cost for the development of public housing (Hong 2003). Although the leasehold system is highly unlikely to be used on a large scale in U.S. urban areas, in places where it is the main form

of land tenure, housing affordability can be achieved and maintained in much the same way as through CLTs. One threat is pressure from leaseholders to acquire freehold rights to land (usually at a discount) and from municipalities to free up capital in land. Such pressures have been experienced, for example, in Sweden (Mattsson 2003).

THE EXPERIENCE WITH COMMUNITY LAND TRUSTS IN THE UNITED STATES

U.S. experience with CLTs has been limited. The first CLT was founded in rural Georgia in 1968 to provide agricultural land for use by black farmers.[9] Since then, the focus of CLTs has shifted from agriculture to affordable housing. By the late 1980s, there were about 65 CLTs with 1,000 housing units in the United States (Soifer 1990). By 1995 there were 84 CLTs with 4,000 units (Krinsky and Hovde 1996).The Institute for Community Economics estimates that there were 160 active CLTs with about 6,000 housing units as of mid-2005.[10] The number of CLTs has grown slowly, and the number of units makes a small contribution to the supply of affordable housing in the United States.

Little analysis has been done on the reasons for the limited success of the CLT model.[11] A major problem may be the limitations on wealth accumulation, particularly for minority families, while other programs support access to home ownership with few or no restrictions on owners' equity interests. Lack of commitment to restricted equity forms of ownership, combined with internal conflicts and inadequate funding and staff, may account for the modest success of the CLT model to date.

Krinsky and Hovde (1996) cite the example of the United Hands CLT in the Kensington neighborhood of Philadelphia, a neighborhood that has been subject to considerable disinvestment. The CLT was incorporated in 1988, but was on its last leg by 1994. Racial tensions between Latinos and African Americans were one problem. Community and public representatives on the board lost interest and stopped participating. Some residents stopped paying mortgages, and the CLT used operating funds until the funds ran out in 1994. Staff members were laid off as funds disappeared, and interest in the CLT model dissipated.

In contrast, the Burlington Community Land Trust (BCLT) has successfully provided affordable housing in northwestern Vermont and has had a major impact on Burlington's Old North End neighborhood, which was subject to encroachment by the University of Vermont, a decline in home ownership, and problems associated with absentee landlords. The BCLT had broad support when it was founded

9. Early case studies of this and other CLTs may be found in Swann et al. (1972) and White (1982). The experiences of several CLTs are discussed in White and Matthei (1987), Krinsky and Hovde (1996), and OPAL Community Land Trust (1999).

10. Telephone interview with Ellen Giordano, Director of Research and Program Development for the Institute for Community Economics, 2 June 2005. For a list of CLTs and sponsoring organizations, see http://www.iceclt.org.

11. This paragraph is based on discussion at the Community Land Trust Roundtable, Lincoln Institute of Land Policy, 16 December 2004.

in 1984 (Soifer 1990; Davis 1994b). Despite properties that turned out to be uneconomical to redevelop, the BCLT continues to grow and still receives support from the city.

The Burlington Community Land Trust: A Case Study

The Burlington Community Land Trust is an interesting case study because it demonstrates how a CLT can successfully provide affordable housing. The history of the BCLT reveals some of the circumstances that have helped to foster its success. Detailed review of the resale formulas applied by the BCLT is particularly relevant to the discussion of the cost of limited equity home ownership in the following section of this chapter. The final part of this section briefly discusses the BCLT's increasingly important role as a provider of affordable rental housing.

HISTORY OF THE BURLINGTON COMMUNITY LAND TRUST

The BCLT was established as a nonprofit corporation by the city of Burlington in 1984 (Soifer 1990). Burlington's mayor, Bernie Sanders, was one of a small number of socialist mayors serving around that time.[12] Burlington, the home of the University of Vermont, is known for a leftist political climate; it is not surprising that a model of affordable housing provision involving communal land ownership took root and thrived there. Of course, the CLT model also appeals to more conservative politicians concerned with maximizing the benefit from public subsidies.

The BCLT was based on the community land trust model developed and promulgated by the Institute for Community Economics (Burlington Community Land Trust 2003). Its bylaws provide for a nine-member board made up of three residents (at least one of whom must be a resident of a limited equity cooperative), three general members (who are not residents but are required to be supportive of the land trust model), and three public representatives (such as members of local charitable organizations or local public officials). The bylaws prohibit the sale of any land unless approved by two-thirds of the board, 75 percent of members, and 100 percent of directly affected leaseholders. This provision is not subject to amendment.

The ground lease agreement provides for perpetually renewable 20-year leases (Burlington Community Land Trust n.d.).[13] Dwellings must be used as principal residences and occupied by lessees for at least six months each year. Lessees pay all taxes and utilities and own all improvements, and they may receive credits on resale for approved capital improvements. As is the case for CLTs in general, lessees do not pay any ground rent, although they do pay a monthly ground lease fee of $25. The BCLT has the option to purchase the improvements when the lessee plans to sell. The initial sale and the resale must be to households whose incomes

12. Another was Gus Newport, mayor of Berkeley, California, from 1979 to 1986, who is now executive director of the Institute for Community Economics, the main institutional proponent of the land trust model.

13. The 20-year limit on lease terms is due to Vermont law. In other jurisdictions, 99-year leases are more common.

do not exceed 95 percent of the metropolitan area median (or less, depending on restrictions imposed by the source of subsidies).

The Burlington municipal government provided $200,000 in start-up funds. The land trust subsequently received CDBG and HOME funds allocated through the municipal government, low-interest loans from various sources, and donations. As the BCLT added to its portfolio of properties, it increased its ability to borrow to support additional projects. Additional funding comes from the Vermont Housing and Conservation Board (VHCB), which was created by the state legislature in 1987 to support affordable housing, historic preservation, and land conservation efforts throughout the state.[14] The VHCB specifies that affordable housing projects must provide for perpetual affordability.[15] This means that support for affordable home ownership is provided through a system of community land trusts, including the BCLT, that serve different parts of Vermont. In effect, the Vermont government adopted the community land trust as the mechanism for subsidizing home ownership. Although BCLT's bylaws do not specify a particular service area, the target area defined in its strategic plan includes the three northwestern Vermont counties of Chittenden (of which Burlington is the county seat), Grand Isle, and Franklin (Burlington Community Land Trust 2003, 2004).

The BCLT purchased its first home in 1984. By 1989 BCLT owned 82 dwellings, of which 59 were renter-occupied and the remainder owner-occupied. As of early 2006, its inventory consisted of 755 housing units, including 375 rental dwellings and 380 shared appreciation or limited equity single-family homes and condominiums.[16] Of the rental dwellings, 49 are single-room occupancy. The inventory of rental dwellings will increase by about 1,200 after a planned merger with the Lake Champlain Housing Development Corporation (LCHDC).

A majority of the rental dwellings are rehabilitated units involving low-income-housing tax credits (and, in some cases, historic-preservation tax credits). The rents of a majority of tenants are subsidized by the Section 8 voucher program, and most tenants are below 50 percent of area median income (very low income according to the HUD criteria). A minority of rental dwellings are part of cooperative arrangements that help to keep management costs down by directly involving tenants in administration and maintenance.

Limited equity ownership homes receive initial subsidies of up to $40,000 each from the VHCB or other sources. Recent BCLT home buyers have incomes that average about 64 percent of the area median, but the income range is wide. Buyers must complete an educational program offered through BCLT's Home-Ownership Center and supported by the NeighborWorks system of the national Neighborhood Reinvestment Corporation. In addition to providing training in financial literacy and the home-buying process, the educational program focuses on the shared equity arrangement. As a result of prepurchase training and post-purchase intervention, BCLT has experienced few foreclosures. According to BCLT

14. See http://www.vhcb.org/ and Libby and Bradley (2000).

15. The current Republican governor is apparently attempting to dismantle the perpetual affordability requirement, but the legislature is still predominantly Democratic and supports the provision.

16. Interview with BCLT staff, 31 March 2006.

staff, education has been more useful than down payments in preventing delinquencies and foreclosures.[17]

As of early 2006, more than 200 of the 380 limited equity homes were condominiums, and the balance were single-family homes. In the case of condominiums, the homeowner owns the apartment, and the condominium association owns the land and public parts of the buildings; affordability is maintained via restrictive covenant. This departure from the usual community land trust model is necessary to conform to the particular ownership structure of condominiums. There is one exception to this arrangement: when BCLT developed the property and owns the land, the land trust has a ground lease with the condominium association and affordability covenants on the apartments.

Single-family homes are generally not developed by BCLT, but are instead chosen by potential buyers, so they may be located anywhere in the three counties served by the trust. The household deeds the land to BCLT and accepts resale restrictions in return for the VHCB subsidy. The evidence suggests that many BCLT homeowners used limited equity home ownership as a stepping-stone to market-rate housing (Davis and Demetrowitz 2003). While this was not anticipated by BCLT's founders, it has been useful in convincing skeptical lawmakers concerned with wealth creation.

Looking at the 97 resales that occurred through the end of 2002, Davis and Demetrowitz (2003) show how well the affordability of home ownership has been maintained. On average, affordability improved between the initial sale and the resale. At initial purchase, the average housing unit was affordable to a household at 60 percent of area median income (AMI); by the time of resale, such a unit was affordable to households at about 52 percent of area median income. Initial purchasers' household incomes averaged 69.4 percent of AMI, while purchasers of resold homes had incomes averaging 67.8 percent of AMI.

THE RESALE FORMULA FOR LIMITED EQUITY HOME OWNERSHIP

The resale formula has been changed in favor of lessees. It was initially limited to 10 percent of the increase in value of the improvements (adjusted for any subsidies) and then was changed to 25 percent. Consistent with the basic land trust model, the homeowner purchased an interest in the improvements, but not the land, and so was restricted to receiving a return on the improvements only. Subsequently, however, the formula was changed to give a lessee 25 percent of the increase in the unsubsidized portion of total property value.

Giving lessees a share of the increase in value of only the improvements (as in the early formulas) ignores the fact that most of the upside potential of urban housing prices is in the value of the land, not the value of the structure.[18] Land values rise because of urban population and income growth and other factors, but the values of structures are tied to replacement costs, that is, to the cost of construction. Furthermore, construction costs must be adjusted by depreciation, meaning that structure values increase at

17. Interview with Brenda Torpy, 31 March 2006.

18. Another problem is the difficulty of getting accurate appraisals of the separate values of land and improvements. Also, because the subsidy may not cover the full value of the land, lessees may in effect own part of the land.

slower rates than construction costs. For example, between 1995 and 2000, residential frame construction costs increased by about 2.2 percent per year in the Burlington area (Boeckh 1995, 2000). Using 1.5 percent per year as an estimate of the depreciation rate for houses yields an annual increase of 0.7 percent in value.[19] The overall annual rate of increase in housing prices averaged about 3.8 percent in the Burlington metropolitan area during the same period.[20] Since land contributes only a fraction of total property value, this overall rate of increase implies a much higher rate of growth in land values. The BCLT's early land trust resale formulas thus limited households' returns in two ways. First, the return was based on the increase in the value of the structure, which is likely to appreciate at a much lower rate than the property as a whole. Second, the return was based on only a fraction of that increase in value.

The current resale formula is as follows (Burlington Community Land Trust n.d.):

- The original appraised value of the property plus any value added by approved capital improvements is subtracted from the appraised value at the time of resale to equal the appreciation (or depreciation) in the value of the property.
- The percentage of the total purchase price paid by the lessee is calculated as the net purchase price (the original purchase price less any BCLT grant to the lessee) divided by the original purchase price.
- The lessee's fraction of the appreciation is 25 percent of the percentage of the total price paid by the lessee, unless the property depreciated, in which case the lessee is responsible for 100 percent of the depreciation.
- The lessor's option price (the resale price) is the net purchase price plus the lessee's share of appreciation (or minus the depreciation), plus any capital improvement credit.

For example, if the original appraised value was $100,000 and the property appreciated at 3.8 percent per year for five years, the appraised value at time of resale would be $120,500, and appreciation would be $20,500. If the initial house price was subsidized with a $40,000 VHCB grant, the net purchase price would have been $60,000, or 60 percent of the total market value of the property. On resale five years later, the seller would be entitled to 25 percent of 60 percent of the appreciation, or $3,075, plus the original net purchase price of $60,000. Most of the refund of the initial purchase price would be needed to pay off the mortgage, assuming that the purchase was financed largely with a mortgage.[21]

The BCLT formula appears to provide some return to sellers while maintaining (or even improving) affordability for subsequent buyers. Davis and Demetrowitz

19. Researchers have come up with a range of estimates of depreciation rates for houses in the United States (see, for example, Leigh 1980); 1.5 percent is at about the middle of the range. However, newer buildings may depreciate at slower rates than older ones (Appraisal Institute 1996).

20. This is the average of the annual appreciation rates reported by the Office of Federal Housing Enterprise Oversight for the first quarter of 1996 through the first quarter of 2000; see http://www.ofheo.gov.

21. This example assumes no capital improvement credit.

(2003) report that, on average, homeowners sold after 5.33 years and received nearly $2,700 in appreciation. Total appreciation averaged $12,000. There was evidently a wide range of appreciation rates, given that 30 of the 97 homes did not experience any increase in appraised value.

THE BURLINGTON COMMUNITY LAND TRUST AS A RENTAL HOUSING PROVIDER

The CLT model is essentially a tool for helping low-income (and some moderate-income) households to achieve limited equity home ownership and perhaps use it as a stepping-stone to full equity home ownership. As a rental housing landlord, the BCLT is not much different from any nonprofit provider of affordable housing. As Soifer puts it, the BCLT's main contribution to low-income renters is "providing them with a somewhat more beneficent landlord" (1990, 249). Tenants benefit from greater security of tenure and, as members of the trust with representation on the trust's board, have a say in decision making.

The BCLT has as many rental homes as ownership homes, and it will have even more rental homes after the merger with the LCHDC. The BCLT has been particularly active in the North End of Burlington, where it purchased numerous rental properties to protect them from gentrification. The initial idea was to convert them to small limited equity cooperatives; however, that became less attractive to tenants after their rental tenure became more secure. Some small cooperatives that the BCLT created in the area were converted back to rental housing at the request of occupants.

Evaluation of the Community Land Trust Model as a Means for Providing Affordable Housing

For the CLT model to be an effective means for providing affordable housing, it should be less costly than similar rental housing. This section compares several variations of CLT limited equity ownership with renting and then reviews the advantages and disadvantages of the CLT model.

COMPARATIVE ANALYSIS OF HOUSING COSTS AND AFFORDABILITY

The costs to a household of investing in a land trust home versus full equity ownership or renting can be compared by calculating the user costs of these alternatives. User costs for capital assets take into account the costs of financing, costs such as property taxes and maintenance, and benefits from capital gains. These costs can be converted into present values, summed over the holding period for the asset, and then compared to costs for other assets or to the cost of renting.

This section compares several variations of CLT ownership with full equity ownership and renting. The focus is on the most common type of CLT resale formula, which involves shared equity.[22] If the user cost of CLT ownership is less than

22. Nearly 50 percent of CLTs responding to a survey administered in 2006 by the Lincoln Institute of Land Policy indicated that they employed an appraisal-based (shared equity) resale formula. The next most common type was an indexed formula, accounting for just over 20 percent of the respondents. Other resale formulas are discussed in ICE (2002).

the cost of renting, CLT ownership is financially preferable from the viewpoint of prospective buyers. User costs for full equity ownership are provided solely for comparison purposes; full equity ownership is unlikely to be a viable option for a household considering purchase of a CLT home. The comparisons use different interest rate scenarios and a range of assumptions about capital gains. This section also shows how household incomes need to grow to maintain the affordability of different tenure alternatives under various interest rate and capital gains scenarios.

The cost of renting is fairly straightforward:

$$(1) \qquad RPV = \sum_{t=0}^{n-1} \left(R_t / (1 + i_d)^t \right),$$

where RPV is the present value of the stream of rents, R_t, evaluated over the tenancy period n and assuming a discount rate of i_d. Two alternatives are considered with respect to growth in rents. The first assumes a fixed gross rent multiplier, i_c, such that $R_t = V_t i_c$, where V_t is the value of the property at time t. The second alternative assumes the same relationship at the beginning of the holding period, but no increase in rents during the holding period.

The user cost of full equity owner-occupied housing is

$$(2) \qquad OPV = \sum_{t=0}^{n-1} \left(O_t / (1 + i_d)^t \right) + \left((s_n V_n - (V_n - V_0)) / (1 + i_d)^n \right),$$

where OPV is the present value of ownership costs over the holding period n, assuming a discount rate of i_d, s_n is the sales commission rate that the seller pays at the end of the holding period (at $t = n$), and $(V_n - V_0)$ refers to the capital gains earned at the end of the holding period, where $V_n = V_0 (1 + g)^n$ and g is the annual rate of inflation in housing prices.

The periodic ownership costs, O_t, are defined as follows:

$$(3) \qquad O_t = V_t \left((1 - v_t)(1 - r) i_e + v_t (1 - r) i_f + (1 - r) p \right) + S_t (h + m),$$

where V_t is the value of the property (structure and land) at time t; v_t is the loan to value ratio at time t; r is the homeowner's marginal income tax rate; i_e is the interest rate that could be earned on alternative investments of the equity invested in the house; i_f is the mortgage interest rate; p is the property tax rate; S_t is the value of the structure at time t; h is the hazards insurance rate; and m is the maintenance rate. Note that $(1 - v_t)(1 - r) i_e$ is the opportunity cost of the equity invested in the house, while $v_t (1 - r) i_f$ is the cost of debt. Consistent with the U.S. federal tax code, mortgage interest and property tax payments are deductible from income, and capital gains are (generally) exempt from taxation.[23] Depreciation does not

23. Homeowner income tax deductions are valuable only to the extent that the value of all itemized deductions exceeds the value of the standard deduction. Although most low-income households take the standard deduction, households with sufficient income to purchase CLT homes are likely to be able to benefit from the mortgage interest and property tax deductions. All else equal, single persons are most likely to qualify to receive the full benefit of the deductions because their standard deduction ($5,000 in 2005) is lower than that for married couples ($10,000) or heads of household ($7,300).

enter directly into the equation, because it is assumed that g is net of depreciation. Although the variables r, i_e, p, h, m, and especially g may vary over the holding period, they are treated as fixed during the holding period to simplify the subsequent analysis. The mortgage interest rate, i_f, is also assumed to be fixed.

Property values are assumed to inflate each year at the capital gains rate: $V_t = V_{t-1}(1 + g)$. Structure values inflate at the growth rate in replacement costs net of depreciation: $S_t = S_{t-1}(1 + c - \delta)$, where c is the rate of growth in construction costs and δ is the depreciation rate. Again, to simplify the subsequent analysis, c and δ are assumed to be fixed during the holding period.

User costs are calculated for two basic CLT models, one in which the homeowner is entitled to a share in the appreciation of land and improvements combined (as in Burlington), and the second in which the homeowner is entitled to a share in the appreciation of the structure only (as illustrated in ICE 2002). In the first case, the user cost is defined as

$$OPV^* = \begin{cases} \sum_{t=0}^{n-1}\left(O_t^*/(1+i_d)^t\right) - \left(\lambda\,(V_n^* - V_0^*)/(1+i_d)^n\right), \text{ if } (V_n^* \geq V_0^*) \\ \sum_{t=0}^{n-1}\left(O_t^*/(1+i_d)^t\right) + \left((V_0^* - V_n^*)/(1+i_d)^n\right), \text{ if } (V_n^* < V_0^*) \end{cases}, \tag{4}$$

where the * superscript designates subsidized values and λ is the proportion of the capital gains received by the seller of the home. The sales commission term drops out because the CLT acts as the broker and the commission is waived. Equation 4 allows for the possibility of a decline in the value of the property, in which case the seller is responsible for 100 percent of the drop in value. When $\lambda = 1$, this is equivalent to a standard shared equity arrangement in which the homeowner receives all of the capital gains on the part of the property's value that he or she finances. The periodic ownership costs are defined as

$$O_t^* = V_t^*\left((1 - v_t)(1 - r)i_e + v_t(1 - r)i_f\right) + V_t(1 - r)p + S_t(h + m) + L, \tag{5}$$

where L is the annualized ground lease fee, the other terms are as defined above, and V_t^* is assumed to be less than V_t. Note that the homeowner is responsible for all property taxes, insurance premiums, and maintenance costs.

In the second CLT example, the user cost is defined as

$$OPV^\circ = \begin{cases} \sum_{t=0}^{n-1}\left(O_t^\circ/(1+i_e)^t\right) - \left(\lambda\,(S_n^\circ - S_0^\circ)/(1+i_e)^n\right), \text{ if } S_n^\circ \geq S_0^\circ \\ \sum_{t=0}^{n-1}\left(O_t^\circ/(1+i_e)^t\right) + \left((S_0^\circ - S_n^\circ)/(1+i_e)^n\right), \text{ if } S_n^\circ < S_0^\circ \end{cases}, \tag{6}$$

where the $^\circ$ superscript refers to subsidized values and $S_n^\circ = S_0^\circ(1 + c - \delta)^n$, with c and δ defined as above. Note that equation 6 allows for the possibility of a decline in the value of the structure (when $\delta > c$), in which case the seller is responsible for 100 percent of the drop in value. The periodic ownership costs are defined as

$$(7) \qquad O_t^{\circ} = S_t^{\circ}\left((1-\upsilon_t)(1-r)i_e + \upsilon_t(1-r)i_f\right) + V_t(1-r)p + S_t(h+m) + L,$$

where S_t°, the subsidized price paid by the home buyer, is assumed to be less than or equal to the value of the structure, S_t. All other terms are as defined previously.

To simplify the analysis, the units of time, t, are years, meaning that all of the rates in the user cost equations are annual. User costs are calculated for two different interest rate scenarios: a low-rate environment with $i_e = 0.05$ and $i_f = 0.06$, and a high-rate environment with $i_e = 0.10$ and $i_f = 0.12$. Five capital gains rate scenarios are considered, with g ranging from -0.04 to 0.12 in increments of 0.04. Three construction cost growth rates are considered, with c set equal to 0.01, 0.05, or 0.09. Because low-income households have a relatively high marginal propensity to consume, the discount rate, i_d, is set at the relatively high value of 0.10.

Assumed values for other variables in the calculations are as follows: n = 5 years; V_0 = \$100,000 (which is assumed to include closing costs); S_0 = \$80,000; V_0^* = \$60,000; S_0° = \$60,000; $i_c = 0.07$; $r = 0.25$; $p = 0.01$; $s_n = 0.06$ (except for the CLT examples, in which case the land trust is the broker and the commission is waived); υ_0 assumes a 3 percent down payment and so is equal to 0.97 in each case; $h = 0.004$; $m = 0.002$; $\delta = 0.015$; and L = \$300 (\$25 per month).[24] For the first CLT model, in which the homeowner receives a share of the appreciation in the subsidized value of the land and structure (V_t^*), $\lambda = 0.25$ (as in Burlington) or $\lambda = 1$ (as in a more typical shared equity arrangement). For the second CLT model, in which the homeowner receives a share of the appreciation in the subsidized value of the structure (S_t°) only, $\lambda = 0.25$. The calculations assume amortization consistent with a 30-year fixed rate mortgage and are simplified by assuming annual, rather than monthly, payments.

Table 13.1 shows the present values of renting versus various forms of owning for the five-year holding period. Two sets of rental costs are shown, one assuming annual rent increases in proportion to the value of the dwelling, and the other assuming constant rent over the holding period. In the low-interest-rate scenario depicted in the top panel of the table, the mortgage interest rate is assumed to be 6 percent, while the opportunity cost of equity is assumed to be 5 percent. Negative values indicate scenarios in which the benefits from capital gains exceed the value of the other components of the user cost. This occurs only with low interest rates and when house values are inflating at about 12 percent or more per year

24. These assumptions are the author's best estimates of reasonable values. The values for V_0^* and S_0° assume a \$40,000 grant to subsidize the initial purchase price, consistent with that provided by the VHCB. The holding period of 5 years is close to the average of 5.33 years reported by Davis and Demetrowitz (2003) in their study of the BCLT. Although gross rent multipliers vary across properties and over time, $i_c = 0.07$ seems to be about average; for example, Ling and Archer (2005, 432) report that these multipliers tend to range between 0.04 and 0.08. The marginal tax rate of 0.25 may seem high, given that many individuals or couples in the relevant income ranges are subject to a lower federal marginal rate, but state income taxes, where they exist, also affect the cost of owner-occupied housing and increase the marginal rates. The 3 percent down payment reflects FHA underwriting requirements. The values for p, h, and m are based on data from the American Housing Survey (U.S. Census Bureau, 2004, table 3-13). The assumption about depreciation is discussed in footnote 19.

Table 13.1
Present Values of User Costs of Tenure Alternatives ($n = 5$)

Low-Interest-Rate Scenario ($i_e = 0.05$, $i_f = 0.06$)

c	Tenure Form	λ	g				
			–0.04	0.00	0.04	0.08	0.12
	Rental (growth = g)		$27,154	$29,189	$31,384	$33,750	$36,296
	Rental (growth = 0)		29,189	29,189	29,189	29,189	29,189
0.01	Full equity ownership		36,902	27,433	16,200	2,973	–12,493
	CLT model 1	0.25	23,526	17,520	16,443	15,104	13,466
		1.00	23,526	17,520	10,390	1,990	–7,835
	CLT model 2	0.25	18,140	18,358	18,593	18,846	19,119
0.05	Full equity ownership		37,051	27,583	16,349	3,122	–12,344
	CLT model 1	0.25	23,676	17,669	16,592	15,253	13,615
		1.00	23,676	17,669	10,539	2,139	–7,686
	CLT model 2	0.25	16,318	16,536	16,771	17,024	17,297
0.09	Full equity ownership		37,211	27,743	16,509	3,282	–12,183
	CLT model 1	0.25	23,836	17,830	16,753	15,413	13,775
		1.00	23,836	17,830	10,699	2,300	–7,525
	CLT model 2	0.25	14,923	15,140	15,376	15,629	15,902

High-Interest-Rate Scenario ($i_e = 0.10$, $i_f = 0.12$)

c	Tenure Form	λ	g				
			–0.04	0.00	0.04	0.08	0.12
	Rental (growth = g)		27,154	29,189	31,384	33,750	36,296
	Rental (growth = 0)		29,189	29,189	29,189	29,189	29,189
0.01	Full equity ownership		54,505	46,127	36,069	24,109	10,007
	CLT model 1	0.25	34,088	28,736	28,365	27,786	26,966
		1.00	34,088	28,736	22,311	14,672	5,665
	CLT model 2	0.25	29,271	29,489	29,724	29,978	30,251
0.05	Full equity ownership		54,654	46,276	36,218	24,258	10,157
	CLT model 1	0.25	34,237	28,885	28,514	27,935	27,115
		1.00	34,237	28,885	22,460	14,821	5,814
	CLT model 2	0.25	28,148	28,366	28,601	28,855	29,128
0.09	Full equity ownership		54,815	46,436	36,379	24,419	10,317
	CLT model 1	0.25	34,398	29,046	28,674	28,095	27,276
		1.00	34,398	29,046	22,621	14,982	5,975
	CLT model 2	0.25	27,506	27,724	27,960	28,213	28,486

Note: Negative present values indicate that the returns from capital gains exceed the other components of the user cost.

under full equity ownership or the version of CLT model 1 with $\lambda = 1$ (in which the investor receives 100 percent of the appreciation in the subsidized value of the property). In the high-interest-rate scenario shown in the bottom panel, where the mortgage interest rate is assumed to be 12 percent and the opportunity cost of equity is assumed to be 10 percent, the CLT options are in most cases inferior to

renting when $g = -0.04$. In addition, full equity ownership is inferior to renting when $g \leq 0.04$.

Tables 13.2 and 13.3 give the savings for the various ownership options relative to the two rental scenarios. Positive entries (in boldface) indicate scenarios in which owning is less expensive than renting. Table 13.2 compares the cost of owning with the cost of renting when rents increase at the same rate as housing prices. The top panel of the table shows that, with the exception of full equity ownership when $g = -0.04$, all of the ownership options are less costly than renting. Moreover, with low inflation in housing prices ($g \leq 0.00$), each of the three CLT options is superior to full equity ownership. With high inflation in housing prices ($g \geq 0.12$), full equity ownership provides the greatest savings relative to renting, although CLT model 1 with $\lambda = 1$ is not far behind. The bottom panel shows that, with high interest rates, full equity ownership is not preferable to renting unless $g \geq 0.08$. In almost all cases, the CLT options are preferable to renting when $g \geq 0.00$.

Table 13.3 compares costs when rents do not increase over the five-year holding period. The top panel shows that the ownership options are preferable to renting in a low-interest-rate environment, with the exception of full equity ownership when housing prices are deflating. With low inflation in housing prices, the CLT options are all preferable to full equity ownership and, with high inflation, the relationship reverses. The bottom panel shows that, with high interest rates (and no growth in rents), ownership is superior to renting for full equity ownership with $g \geq 0.08$, CLT model 1 with $g \geq 0.00$, and CLT model 2, except when construction costs inflate at a low rate.[25]

Tables 13.4 through 13.7 analyze affordability under the various scenarios. The rent or mortgage payments and the minimum income required to rent or purchase a house with a market value of $100,000 are shown in table 13.4. The $60,000 price for the CLT houses reflects the effect of the $40,000 initial subsidy. The amounts assume that the rent is initially set at 7 percent of house value and that rents or mortgage payments (including property taxes and insurance) are no more than 30 percent of income. The mortgage payments assume a 30-year fixed rate loan at one or the other of the interest rates indicated.

Table 13.5 shows housing prices five years later given various assumptions about inflation in house prices (g) and structure values (c) during the intervening five years and assumptions about how capital gains are shared with homeowners (λ). The prices of rental, full equity ownership, and CLT model 1 houses are a function of g but not c, while the prices of CLT model 2 houses are a function of c but not g. With high rates of inflation in housing prices and structure values ($g = 0.12$ and $c = 0.09$), the price difference between a full equity ownership house and a CLT model 2 house increases from 67 percent ($100,000 versus $60,000) at the beginning of the holding period to 165 percent ($176,234 versus $66,534) at the end of the period. The change is much less dramatic when housing price inflation is lower, and the percentage difference decreases when inflation rates are negative.

25. The conclusions drawn from tables 13.2 and 13.3 also apply in most circumstances if the holding period is increased to 10 years. The exception is when interest rates are high and rental growth is zero, in which case few of the ownership options are superior to renting.

Table 13.2
Present Values of Savings Relative to Renting ($n = 5$, rental growth = g)

Low-Interest-Rate Scenario ($i_e = 0.05$, $i_f = 0.06$)

c	Tenure Form	λ	g				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
0.01	Full equity ownership		–$9,747	**$1,756**	**$15,185**	**$30,778**	**$48,789**
	CLT model 1	0.25	**3,628**	**11,669**	**14,941**	**18,647**	**22,830**
		1.00	**3,628**	**11,669**	**20,995**	**31,760**	**44,131**
	CLT model 2	0.25	**9,015**	**10,831**	**12,792**	**14,904**	**17,177**
0.05	Full equity ownership		–9,896	**1,606**	**15,036**	**30,629**	**48,640**
	CLT model 1	0.25	**3,479**	**11,520**	**14,792**	**18,497**	**22,681**
		1.00	**3,479**	**11,520**	**20,846**	**31,611**	**43,982**
	CLT model 2	0.25	**10,837**	**12,653**	**14,614**	**16,726**	**18,999**
0.09	Full equity ownership		–10,057	**1,446**	**14,875**	**30,468**	**48,479**
	CLT model 1	0.25	**3,318**	**11,359**	**14,632**	**18,337**	**22,521**
		1.00	**3,318**	**11,359**	**20,685**	**31,450**	**43,822**
	CLT model 2	0.25	**12,232**	**14,049**	**16,009**	**18,121**	**20,394**

High-Interest-Rate Scenario ($i_e = 0.10$, $i_f = 0.12$)

c	Tenure Form	λ	g				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
0.01	Full equity ownership		–27,350	–16,938	–4,684	**9,641**	**26,289**
	CLT model 1	0.25	–6,934	**453**	**3,020**	**5,965**	**9,330**
		1.00	–6,934	**453**	**9,073**	**19,078**	**30,631**
	CLT model 2	0.25	–2,117	–300	**1,660**	**3,772**	**6,046**
0.05	Full equity ownership		–27,499	–17,087	–4,833	**9,492**	**26,140**
	CLT model 1	0.25	–7,083	**304**	**2,871**	**5,816**	**9,181**
		1.00	–7,083	**304**	**8,924**	**18,929**	**30,482**
	CLT model 2	0.25	–994	**823**	**2,783**	**4,895**	**7,169**
0.09	Full equity ownership		–27,660	–17,247	–4,994	**9,331**	**25,979**
	CLT model 1	0.25	–7,244	**143**	**2,710**	**5,655**	**9,020**
		1.00	–7,244	**143**	**8,764**	**18,768**	**30,321**
	CLT model 2	0.25	–352	**1,465**	**3,425**	**5,537**	**7,810**

Note: Positive values (shown in boldface) indicate that the tenure form is less costly than renting.

Table 13.6 shows the minimum incomes required to rent or purchase a home at the end of the holding period. These depend on inflation in housing prices or structure prices over the preceding five years, the proportion of capital gains shared with sellers of CLT units, and the current interest rate. As for the initial purchasers of homes five years earlier, interest rates have a significant effect on the minimum income required.

The minimum *annual* rates of growth in income required to maintain affordability are listed in table 13.7. Nationally, between 1989 and 1999, median household and family incomes increased by 3.4 and 3.6 percent annually, respectively,

Table 13.3
Present Values of Savings Relative to Renting (n = 5, rental growth = 0)

Low-Interest-Rate Scenario (i_e = 0.05, i_f = 0.06)

c	Tenure Form	λ	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
0.01	Full equity ownership		–$7,713	**$1,756**	**$12,990**	**$26,217**	**$41,682**
	CLT model 1	0.25	**5,663**	**11,669**	**12,746**	**14,085**	**15,723**
		1.00	**5,663**	**11,669**	**18,800**	**27,199**	**37,024**
	CLT model 2	0.25	**11,049**	**10,831**	**10,596**	**10,343**	**10,070**
0.05	Full equity ownership		–7,862	**1,606**	**12,840**	**26,067**	**41,533**
	CLT model 1	0.25	**5,513**	**11,520**	**12,597**	**13,936**	**15,574**
		1.00	**5,513**	**11,520**	**18,650**	**27,050**	**36,875**
	CLT model 2	0.25	**12,871**	**12,653**	**12,418**	**12,165**	**11,892**
0.09	Full equity ownership		–8,022	**1,446**	**12,680**	**25,907**	**41,372**
	CLT model 1	0.25	**5,353**	**11,359**	**12,436**	**13,776**	**15,414**
		1.00	**5,353**	**11,359**	**18,490**	**26,889**	**36,715**
	CLT model 2	0.25	**14,267**	**14,049**	**13,813**	**13,560**	**13,287**

High-Interest-Rate Scenario (i_e = 0.10, i_f = 0.12)

c	Tenure Form	λ	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
0.01	Full equity ownership		–25,316	–16,938	–6,880	**5,080**	**19,182**
	CLT model 1	0.25	–4,899	**453**	**824**	**1,403**	**2,223**
		1.00	–4,899	**453**	**6,878**	**14,517**	**23,524**
	CLT model 2	0.25	–82	–300	–535	–789	–1,061
0.05	Full equity ownership		–25,465	–17,087	–7,029	**4,931**	**19,033**
	CLT model 1	0.25	–5,048	**304**	**675**	**1,254**	**2,074**
		1.00	–5,048	**304**	**6,729**	**14,368**	**23,375**
	CLT model 2	0.25	**1,041**	**823**	**588**	**334**	**62**
0.09	Full equity ownership		–25,626	–17,247	–7,190	**4,770**	**18,872**
	CLT model 1	0.25	–5,209	**143**	**515**	**1,094**	**1,913**
		1.00	–5,209	**143**	**6,568**	**14,207**	**23,214**
	CLT model 2	0.25	**1,683**	**1,465**	**1,230**	**976**	**703**

Note: Positive values (shown in boldface) indicate that the tenure form is less costly than renting.

according to the decennial census. For comparison purposes, values less than 3.5 percent are indicated in boldface in table 13.7 on the assumption that affordability can be maintained or improved if required income growth is less than 3.5 percent per year.[26] Looking first at the top two panels, where interest rates do not change between the beginning and end of the holding period, renting, full

26. Values less than 2 percent are also set off with italics; assuming a lower rate of income growth for the income group likely to purchase CLT homes may be more realistic.

Table 13.4
Housing Prices and Affordability at Beginning of Year 1

Tenure Form	House Price	Rent or Mortgage Payment		Minimum Income	
		$i_f = 0.06$	$i_f = 0.12$	$i_f = 0.06$	$i_f = 0.12$
Rental	100,000	$7,000	$7,000	$23,333	$23,333
Full equity ownership	100,000	7,947	12,942	26,490	43,140
CLT models 1 and 2	60,000	5,128	8,125	17,094	27,084

Note: Table gives annual rent and mortgage payments. Mortgage payment includes principal, interest, property taxes, and insurance (PITI). Minimum income assumes that rent or mortgage payment does not exceed 30% of income.

equity ownership, and CLT model 1 with $\lambda = 1$ remain affordable only if housing price inflation is low. CLT model 1 with $\lambda = 0.25$ remains affordable only if $g \leq 0.08$. In contrast, CLT model 2 (with $\lambda = 0.25$) remains affordable under all but one of the inflation scenarios. The third panel of table 13.7 depicts a situation in which interest rates are low at the beginning of the initial holding period, but high at the end of the period. In this case, only renting remains affordable, and only if housing price inflation is low. The opposite situation is depicted in the fourth panel of table 13.7, where interest rates are high at the beginning of the initial holding period and low at the end. In this case, all ownership options remain affordable, but renting remains affordable only if housing price inflation is low.

Tables 13.8 and 13.9 combine the information in tables 13.2, 13.3, and 13.7 to identify circumstances in which the three CLT options satisfy objectives of both being a good investment (having a lower cost than renting the same house) and maintaining affordability (requiring income growth of less than 3.5 percent per year). Table 13.8 assumes that rents grow at the same rate as housing prices, while table 13.9 assumes that rents are constant during the initial holding period. The tables underscore the degree to which the advantages of CLT home ownership depend on interest rates, housing price inflation, and the resale formula. As indicated

Table 13.5
Housing Prices at Beginning of Year 6

Tenure Form	λ	c	g				
			–0.04	0.00	0.04	0.08	0.12
Rental			$81,537	$100,000	$121,665	$146,933	$176,234
Full equity ownership			81,537	100,000	121,665	146,933	176,234
CLT model 1	0.25		57,231	60,000	63,250	67,040	71,435
	1.00		48,922	60,000	72,999	88,160	105,741
CLT model 2	0.25	0.01	59,629	59,629	59,629	59,629	59,629
		0.05	62,815	62,815	62,815	62,815	62,815
		0.09	66,534	66,534	66,534	66,534	66,534

Note: Table shows housing prices given the housing price inflation rate (g), rate of growth in structure values (c), and proportion of appreciation in the subsidized value of CLT homes shared with the former owner (λ) for the previous five years.

Table 13.6
Affordability (minimum income required) at Beginning of Year 6

Low-Interest-Rate Scenario (i_f = 0.06)

Tenure Form	λ	*c*	*g*				
			–0.04	0.00	0.04	0.08	0.12
Rental			$19,025	$23,333	$28,389	$34,284	$41,121
Full equity ownership			21,599	26,490	32,229	38,922	46,684
CLT model 1	0.25		15,889	17,094	18,507	20,156	22,067
	1.00		13,938	17,094	20,797	25,117	30,125
CLT model 2	0.25	0.01	16,453	17,007	17,657	18,415	19,294
		0.05	17,201	17,755	18,405	19,163	20,042
		0.09	18,075	18,629	19,279	20,037	20,916

High-Interest-Rate Scenario (i_f = 0.12)

Tenure Form	λ	*c*	*g*				
			–0.04	0.00	0.04	0.08	0.12
Rental			$19,025	$23,333	$28,389	$34,284	$41,121
Full equity ownership			35,175	43,140	52,486	63,386	76,027
CLT model 1	0.25		25,418	27,084	29,038	31,318	33,961
	1.00		22,083	27,084	32,952	39,795	47,731
CLT model 2	0.25	0.01	26,381	26,935	27,585	28,343	29,222
		0.05	27,660	28,214	28,864	29,622	30,501
		0.09	29,153	29,707	30,357	31,115	31,994

Note: Table shows minimum incomes required to rent or purchase houses given the housing price inflation rate (*g*), rate of growth in structure values (*c*), and proportion of appreciation in the subsidized value of CLT homes shared with former owner (λ) for the previous five years, as well as the current mortgage interest rate (i_f). Minimum incomes for rental purposes assume that rent is 7% of current housing value and that rent is no more than 30% of income. Minimum incomes for full equity or CLT ownership assume that payments for PITI do not exceed 30% of income.

by table 13.7, none of the CLT models maintains affordability if interest rates are low at the beginning of the holding period but high at the end. Otherwise, as shown in table 13.8, CLT model 1 with $\lambda = 0.25$ generally satisfies the criteria except in some circumstances when inflation rates are very low or very high. With constant low interest rates, CLT model 1 with $\lambda = 1$ does not satisfy the criteria if $g \geq 0.04$. With constant high interest rates, that model satisfies the criteria only if housing prices are relatively flat. With high interest rates at the beginning and low interest rates at the end of the holding period, it satisfies the criteria only if $g \geq 0.00$. CLT model 2 satisfies the evaluation criteria in most circumstances, except when interest rates are high at the beginning of the holding period and inflation rates are low.

The results in table 13.9 are similar to those in table 13.8, although in some circumstances renting becomes preferable to owning and vice versa. Again, the CLT models are never preferable to renting when interest rates are low at the beginning of the holding period and high at the end. Otherwise, with constant rents, CLT model 2 with $c = 0.01$ is no longer preferable to renting under any inflation scenario when there are constant high interest rates (the second panel of the table)

or high interest rates at the beginning and low interest rates at the end of the holding period (the fourth panel).

This analysis leads to the general conclusion that CLT model 2 is a good option in most circumstances, as is CLT model 1 with $\lambda = 0.25$. The standard shared equity arrangement (CLT model 1 with $\lambda = 1$) is generally not satisfactory because it does not consistently maintain affordability. Given a choice between CLT model 2 and CLT model 1 with $\lambda = 0.25$, the latter is preferred because it provides a better return to buyers of CLT homes. Note that this is also the option that BCLT eventually settled on after rejecting versions of CLT model 2.

These conclusions must be modified, however, if the assumptions made to calculate user costs are not correct. For example, higher property tax rates or maintenance rates could easily eat up the savings afforded by CLT home ownership, particularly in a high-interest-rate environment. Looking at the bottom panels of tables 13.2 and 13.3, it would not take much in terms of higher property taxes or maintenance costs to eliminate the benefits of CLT ownership when housing price inflation is low. This concern applies especially to CLT model 2, which tends to provide a small advantage relative to renting. Older houses are especially likely to have higher maintenance costs than implied by the rate assumed here. Older houses may also have relatively high insurance rates because replacement costs exceed market value. Moreover, some households may not benefit from itemized deductions for mortgage interest and property tax payments, which could significantly increase the cost of home ownership. Generally, these considerations provide further support for choosing CLT model 1 (with $\lambda = 0.25$) over model 2.

It may be desirable to add a third criterion for evaluation, namely that CLTs should maintain or enhance the values of their investments. More specifically, this criterion would require CLTs to achieve a minimum internal rate of return (IRR) on investment that is designed to maintain the value of the subsidies in real terms. In response to this proposal, it may be argued that in some circumstances CLTs can maintain affordability even when the real value of their subsidies is declining. However, the counterargument is that CLTs should be good stewards of their resources by avoiding bad investments. By so doing, they would also be helping potential CLT homeowners to avoid the same bad investments. Table 13.10 shows calculations of rates of return for the different CLT options given different inflation scenarios. For example, if the required IRR was 4 percent, none of the CLT options would satisfy the criterion if housing price inflation was zero or less. These unsatisfactory outcomes are highlighted in boldface in the bottom panel of the table. If tables 13.8 and 13.9 are modified to incorporate this additional criterion, all of the entries for $g = -0.04$ or $g = 0.00$ would be negative.

ADVANTAGES AND DISADVANTAGES OF THE LAND TRUST MODEL

The experience of the BCLT shows that a community land trust can provide access to limited equity home ownership for households that might otherwise not be able to buy a home. Although limitations on resale prices mean that sellers may receive small returns relative to full equity ownership, most sellers are able to use limited equity ownership as a stepping-stone to full equity ownership. What is not clear is whether many of these households would have achieved home ownership in any case.

Nevertheless, the CLT model offers a supportive environment for new homeowners, and it appears to help some households to become more financially independent. The home ownership education program required of BCLT buyers is apparently successful in helping households to avoid problems; according to BCLT staff members, there have been a minimal number of foreclosures. This is an important achievement when low-income homeowners are experiencing high rates of delinquency and foreclosure in some parts of the United States. Also, the fact that homeowners can play active roles in making important decisions about the operation of the trust means that they have more involvement in and control over their circumstances than would normally be the case.

Table 13.7
Minimum Annual Growth in Income Required to Maintain Affordability (%)

Low Interest Rates at Beginning and End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	0.00	0.04	0.08	0.12
Rental			***–4.0***	***0.0***	4.0	8.0	12.0
Full equity ownership			***–4.0***	***0.0***	4.0	8.0	12.0
CLT model 1	0.25		***–1.5***	***0.0***	***1.6***	**3.4**	5.2
	1.00		***–4.0***	***0.0***	4.0	8.0	12.0
CLT model 2	0.25	0.01	***–0.8***	***–0.1***	***0.6***	***1.5***	**2.5**
		0.05	***0.1***	***0.8***	***1.5***	**2.3**	**3.2**
		0.09	***1.1***	***1.7***	**2.4**	**3.2**	4.1

High Interest Rates at Beginning and End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	0.00	0.04	0.08	0.12
Rental			***–4.0***	***0.0***	4.0	8.0	12.0
Full equity ownership			***–4.0***	***0.0***	4.0	8.0	12.0
CLT model 1	0.25		***–1.3***	***0.0***	***1.4***	**2.9**	4.6
	1.00		***–4.0***	***0.0***	4.0	8.0	12.0
CLT model 2	0.25	0.01	***–0.5***	***–0.1***	***0.4***	***0.9***	***1.5***
		0.05	***0.4***	***0.8***	***1.3***	***1.8***	**2.4**
		0.09	***1.5***	***1.9***	**2.3**	**2.8**	**3.4**

Low Interest Rates at Beginning and High Interest Rates at End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	0.00	0.04	0.08	0.12
Rental			***–4.0***	***0.0***	4.0	8.0	12.0
Full equity ownership			5.8	10.2	14.7	19.1	23.5
CLT model 1	0.25		8.3	9.6	11.2	12.9	14.7
	1.00		5.3	9.6	14.0	18.4	22.8
CLT model 2	0.25	0.01	9.1	9.5	10.0	10.6	11.3
		0.05	10.1	10.5	11.0	11.6	12.3
		0.09	11.3	11.7	12.2	12.7	13.4

Table 13.7
(*continued*)

High Interest Rates at Beginning and Low Interest Rates at End of Holding Period							
Tenure Form	λ	***c***	***g***				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
Rental			***–4.0***	***0.0***	4.0	8.0	12.0
Full equity ownership			***–12.9***	***–9.3***	***–5.7***	***–2.0***	1.6
CLT model 1	0.25		***–10.1***	***–8.8***	***–7.3***	***–5.7***	***–4.0***
	1.00		***–12.4***	***–8.8***	***–5.1***	***–1.5***	2.2
CLT model 2	0.25	0.01	***–9.5***	***–8.9***	***–8.2***	***–7.4***	***–6.6***
		0.05	***–8.7***	***–8.1***	***–7.4***	***–6.7***	***–5.8***
		0.09	***–7.8***	***–7.2***	***–6.6***	***–5.8***	***–5.0***

Note: Table shows growth in income required to maintain affordability given the housing price inflation rate (*g*), rate of growth in structure values (*c*), and proportion of appreciation in the subsidized value of CLT homes shared with the former owner (λ) for the previous five years, as well as the current and previous interest rates. Values less than or equal to 3.5 are in boldface, and values less than or equal to 2.0 are also italicized. These percentages are calculated from the incomes shown in tables 13.5 and 13.6.

Renters benefit from greater security of tenure than is typically available in the private rental market. They are protected from eviction due to upgrading, condominium conversions, and other effects of gentrification or rising property markets. Like owners, renters are active in decision making, and they may also be involved in management of their buildings. At least some of these benefits may be offered by other nonprofit or governmental providers of affordable rental housing, so advantages of the land trust model for tenants may be smaller than advantages for owners.

The success of BCLT is in good part a result of a supportive political environment at the time the land trust was founded and subsequently. This support comes from both the local government, which continues to subsidize the trust's operating budget, and the state government, which requires low-income home ownership programs to provide for perpetual affordability. This is not to say that the land trust model could not be applied successfully in a different political context, but it is clearly not a coincidence that one of the most successful trusts in the United States is located in Burlington, Vermont.

The land trust model emphasizes the preservation of the public's investment in housing rather than the maximization of the wealth of low-income (or moderate-income) home buyers. This range of policy options is reflected in an ongoing debate about affordable home ownership policy. On one hand, some local officials in the United States wish to preserve the value of subsidies for home buyers to help additional low-income households in the future. This is the primary motivation behind the creation of the Lexington Community Land Trust in Kentucky (Bourassa 2006). On the other hand, some officials want to integrate low-income households into the economic mainstream as quickly as possible by not requiring repayment of subsidies.

Variations in the ways that down payment subsidies are structured in local home ownership programs reflect these different philosophies. Stegman and Luger

Table 13.8
Evaluation of Community Land Trust Options (assumes rental growth = *g*)

Low Interest Rates at Beginning and End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		***Yes***	***Yes***	***Yes***	**Yes**	No
	1.00		***Yes***	***Yes***	No	No	No
CLT model 2	0.25	0.01	***Yes***	***Yes***	***Yes***	***Yes***	**Yes**
		0.05	***Yes***	***Yes***	***Yes***	**Yes**	**Yes**
		0.09	***Yes***	***Yes***	**Yes**	**Yes**	No

High Interest Rates at Beginning and End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		No	***Yes***	***Yes***	**Yes**	No
	1.00		No	***Yes***	No	No	No
CLT model 2	0.25	0.01	No	No	***Yes***	***Yes***	***Yes***
		0.05	No	***Yes***	***Yes***	***Yes***	***Yes***
		0.09	No	***Yes***	**Yes**	**Yes**	**Yes**

Low Interest Rates at Beginning and High Interest Rates at End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		No	No	No	No	No
	1.00		No	No	No	No	No
CLT model 2	0.25	0.01	No	No	No	No	No
		0.05	No	No	No	No	No
		0.09	No	No	No	No	No

High Interest Rates at Beginning and Low Interest Rates at End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		No	***Yes***	***Yes***	***Yes***	***Yes***
	1.00		No	***Yes***	***Yes***	***Yes***	**Yes**
CLT model 2	0.25	0.01	No	No	***Yes***	***Yes***	***Yes***
		0.05	No	***Yes***	***Yes***	***Yes***	***Yes***
		0.09	No	***Yes***	***Yes***	***Yes***	***Yes***

Note: "Yes" entries (highlighted in boldface) indicate that the cost to the initial buyer is lower than renting and that affordability is maintained over a five-year holding period. If the "Yes" entry is italicized, the minimum annual growth in income required is 2% or less; otherwise it is between 2% and 3.5%. "No" indicates that at least one evaluation criterion is not met. The evaluations are based on the data given in tables 13.2 and 13.7.

Table 13.9
Evaluation of Community Land Trust Options (assumes rental growth = 0)

Low Interest Rates at Beginning and End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		***Yes***	***Yes***	***Yes***	**Yes**	No
	1.00		***Yes***	***Yes***	No	No	No
CLT model 2	0.25	0.01	***Yes***	***Yes***	***Yes***	***Yes***	**Yes**
		0.05	***Yes***	***Yes***	***Yes***	**Yes**	**Yes**
		0.09	***Yes***	***Yes***	**Yes**	**Yes**	No

High Interest Rates at Beginning and End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		No	***Yes***	***Yes***	**Yes**	No
	1.00		No	***Yes***	No	No	No
CLT model 2	0.25	0.01	No	No	No	No	No
		0.05	***Yes***	***Yes***	***Yes***	***Yes***	**Yes**
		0.09	***Yes***	***Yes***	**Yes**	**Yes**	**Yes**

Low Interest Rates at Beginning and High Interest Rates at End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		No	No	No	No	No
	1.00		No	No	No	No	No
CLT model 2	0.25	0.01	No	No	No	No	No
		0.05	No	No	No	No	No
		0.09	No	No	No	No	No

High Interest Rates at Beginning and Low Interest Rates at End of Holding Period

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		No	***Yes***	***Yes***	***Yes***	***Yes***
	1.00		No	***Yes***	***Yes***	***Yes***	**Yes**
CLT model 2	0.25	0.01	No	No	No	No	No
		0.05	***Yes***	***Yes***	***Yes***	***Yes***	***Yes***
		0.09	***Yes***	***Yes***	***Yes***	***Yes***	***Yes***

Note: "Yes" entries (highlighted in boldface) indicate that the cost to the initial buyer is lower than renting and that affordability is maintained over a five-year holding period. If the "Yes" entry is italicized, the minimum annual growth in income required is 2% or less; otherwise it is between 2% and 3.5%. "No" indicates that at least one evaluation criterion is not met. The evaluations are based on the data given in tables 13.3 and 13.7.

Table 13.10
Return to Community Land Trust's Investment ($n = 5$)

Value of Subsidy at Beginning of Year 6

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		$24,307	$40,000	$58,415	$79,893	$104,799
	1.00		32,615	40,000	48,666	58,773	70,494
CLT model 2	0.25	0.01	21,909	40,371	62,037	87,304	116,605
		0.05	18,722	37,185	58,850	84,118	113,419
		0.09	15,003	33,466	55,131	80,399	109,700

Nominal Change in Value of Subsidy from Beginning of Year 1 to Beginning of Year 6

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		–15,693	0	18,415	39,893	64,799
	1.00		–7,385	0	8,666	18,773	30,494
CLT model 2	0.25	0.01	–18,091	371	22,037	47,304	76,605
		0.05	–21,278	–2,815	18,850	44,118	73,419
		0.09	–24,997	–6,534	15,131	40,399	69,700

Total Nominal Return to CLT Over 5 Years (%)

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		–39.2	0.0	46.0	99.7	162.0
	1.00		–18.5	0.0	21.7	46.9	76.2
CLT model 2	0.25	0.01	–45.2	0.9	55.1	118.3	191.5
		0.05	–53.2	–7.0	47.1	110.3	183.5
		0.09	–62.5	–16.3	37.8	101.0	174.3

Annual Nominal Return to CLT (%)

Tenure Form	λ	*c*	*g*				
			–0.04	**0.00**	**0.04**	**0.08**	**0.12**
CLT model 1	0.25		**–9.5**	**0.0**	7.9	14.8	21.2
	1.00		**–4.0**	**0.0**	4.0	8.0	12.0
CLT model 2	0.25	0.01	**–11.3**	**0.2**	9.2	16.9	23.9
		0.05	**–14.1**	**–1.4**	8.0	16.0	23.2
		0.09	**–17.8**	**–3.5**	6.6	15.0	22.4

Note: Value of subsidy is the difference between the market value of the property and the subsidized price to the buyer. Rates of return less than 4% are highlighted in boldface in the bottom panel.

(1993, 419) discuss an example of this debate as it played out in Chapel Hill, North Carolina, noting that some local council members "opposed resale restrictions on philosophical grounds." In the face of opposition to resale restrictions, low-income home ownership subsidies are often in the form of soft second mortgages, which do

not require repayment. The philosophy underlying this approach also serves as the basis of individual development accounts (IDAs), which match low-income households' savings account deposits and can be used for purchase of a house, establishment of a small business, or higher education (Sherraden 1991). These matching funds need not be repaid if used for approved purposes.

Another housing policy debate concerns the role of home ownership in providing shelter for low-income households. Shlay (2006) summarizes the issues, grouping them into three categories: (1) home ownership as an asset-building strategy; (2) social and behavioral benefits of home ownership; and (3) children's welfare. Relying on Retsinas and Belsky (2002), she observes that evidence on whether home ownership is a good strategy for increasing the wealth of low-income households is inconclusive. She also argues that the social and behavioral benefits and improvements in children's welfare that have been attributed to home ownership may have more to do with the types of households that are able to become homeowners and with the residential stability associated with home ownership than with an intrinsic aspect of that form of tenure. Moreover, she notes that housing tenure in the United States is correlated with many other housing characteristics, such as location or neighborhood attributes. Shlay's analysis suggests that many of the alleged advantages of home ownership could be achieved in the rental sector if, for example, there were better support for low-income renters, including more security of tenure and, consequently, greater stability.[27]

The uncertainty about whether home ownership is a good investment for low-income households exists because the answer to the question depends on the particular circumstances and alternatives available at a given place and time. Indeed, in some cases, as shown earlier, the cost of investing in a land trust home may be greater than the cost of renting the same home, particularly in a declining market with high interest rates. In one CLT model, sellers are allowed to earn something like 25 percent of the appreciation and must absorb 100 percent of any depreciation in the value of the structure.[28] The exclusion of all of land value and much of any increase in building value from the resale price calculation keeps the cost low for subsequent buyers. Compared to the method used by BCLT, which gives sellers a share of the appreciation in both land and improvements, this approach provides a much smaller return to sellers. In comparison to the example discussed in the section on BCLT's resale formula, assume that the original appraised value of the improvements was $80,000, the improvements increased in value at a rate of 0.7 percent per year for five years, and no part of the improvements was subsidized. In that case, the appreciation would have been $2,839, and the seller would have been entitled to only 25 percent, or $710 (rather than the $3,075 that would be earned using BCLT's formula).

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27. Shlay also recommends better home ownership opportunities for low-income households and more support for alternative forms of tenure, such as limited equity cooperatives and land trusts.

28. The Sawmill Community Land Trust ground lease specifies that lessees will receive 25 percent of the appreciation in the value of the structure for the first 15 years and then one-percentage-point increases per year to a maximum of 30 percent after 20 years; they are liable for 100 percent of any depreciation in the structure's value (Sawmill Community Land Trust 1999).

Model bylaws for CLTs include a statement that the resale "formula shall allow the seller to receive a price based on the value that the seller has actually invested" (ICE 2002, 40). Relating the seller's share of the appreciation to the seller's investment requires a clear definition of the seller's investment. The usual approach to shared appreciation is more generous than the CLT formula and gives the seller a percentage of the total appreciation (for land and buildings) that corresponds to the percentage of the original purchase price not financed by subsidies (the percentage financed by the homeowner's down payment and first mortgage). In the BCLT example discussed previously, the seller's share would have been 60 percent rather than 15 percent (25 percent of 60 percent). This would have raised the lessor's option price (the resale price) and the return to the seller by $9,225 (assuming 3.8 percent annual growth in the value of the property over a five-year period).

The other side of this issue is the goal of preserving affordability for the next buyer. Affordability is affected by housing values, incomes, and interest rates at the time of resale. As shown in the previous section, the standard shared equity approach (CLT model 1 with $\lambda = 1$) is less likely to maintain affordability than are methods that provide smaller returns to sellers. In the case of the BCLT, where appreciation is based on both land and improvements, the 25 percent limitation has resulted in an increase in affordability over time.[29] If a resale formula that shared equity only in improvements had been applied to all resales in Burlington, affordability would have increased at an even greater rate.

As noted, part of the problem with a resale formula based on the value of structures is that it does not reflect the fact that most of the upside potential in real estate markets is in land values, not building values. The current BCLT resale formula appears to reflect an understanding of this, but marketing materials for the Sawmill Community Land Trust (SCLT), for example, illustrate lack of clarity about differences in the growth rates for land and building values (SCLT 2004). The materials state correctly that property values in Albuquerque have been growing about 6 percent annually in recent years. But this percentage is used inappropriately to illustrate hypothetical increases in building values, which were almost certainly much less than 6 percent. Residential frame construction costs went up by only 1.6 percent in Albuquerque between 1995 and 2000, implying virtually no increase in building values after adjusting for depreciation (Boeckh 1995, 2000).

Community land trusts focus mainly on the housing costs part of the housing affordability ratio rather than on the household income part. If the problem is really inadequate income on the part of a significant subset of the population, CLTs seem unlikely to have a major effect on affordability in the absence of substantial income subsidies. Income supplements to assist low-income households with housing costs are not an entitlement in the United States and are generally not available to low-income homeowners. With respect to rental housing, simply extracting land from the market may not reduce rental costs to levels affordable to low-income households. As in the case of Burlington, other forms of subsidy may be necessary to make such units affordable.

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29. It is not clear, however, how many of the resales considered by Davis and Demetrowitz (2003) were subject to the current resale formula.

To the extent that the housing affordability problem results from housing costs that exceed fundamental production costs, CLTs will protect land in highly regulated communities from increases in what Glaeser and Gyourko (2003) refer to as the zoning tax. But this applies only to land under control of the CLT and has no effect on the rest of the land in communities subject to excessive regulation of density or other aspects of land use affecting the cost of housing. As noted earlier, it may be more effective to deal with the regulatory problem directly if that is politically feasible.

The Potential for Community Land Trusts as Affordable Housing Providers

Community land trusts have the advantage of conserving public and other subsidies for low-income home ownership, which is a wise strategy given that relatively few households can benefit from the subsidies. It hardly makes sense to provide huge cash subsidies to a very small number of lucky households when a larger number could be assisted if the subsidies were recycled every time a property was resold. But it is questionable why any subsidies should be provided for home ownership when there is such a great unmet need for assistance for low-income renters.

Moreover, CLT homes will be a good investment for low-income households only under certain conditions. The seller's share of the return can be small or even negative. Under the best circumstances and with a relatively generous resale formula by CLT standards, one-third of BCLT households earned no appreciation on resale of their homes. Depending on interest rates, housing price inflation, resale formulas, and other factors, many households that might purchase CLT homes would be better off with affordable and secure rental housing. In this regard, it is interesting that the BCLT has as many rental units as ownership units and will soon have many more rental units.

With respect to affordable rental housing, CLTs have some advantages over other nonprofit housing providers. The CLT model provides particularly good protection against displacement due to redevelopment, gentrification, condominium conversion, and large rent increases. CLTs allow tenants to be more actively engaged in decision making by serving on the board of directors, voting for candidates for the board, and voting on other decisions that require approval of the membership. Tenants may be more likely to be involved in maintenance and management of the properties they occupy, although this kind of involvement can occur with other types of affordable housing providers. Finally, just as for home ownership, CLTs offer a way to permanently subsidize rental housing affordable to low-income households.

Interest in the CLT model may expand as municipalities become more concerned about conserving their investments in affordable housing (Davis 2000), particularly affordable home ownership, and as knowledge of the CLT model becomes more widely dispersed. To the extent that CLTs are providing affordable home ownership, they need to be particularly careful to provide a product that is financially superior to renting. Of the shared equity resale formulas, one that provides lessees with a share in the appreciation of both land and improvements is more likely to satisfy this criterion. It may be, however, that the future of CLTs is in affordable rental housing, an area arguably with a much greater need.

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