# RESIDENTIAL LEASEHOLD ESTATES

## Abstract
## Land Leasing And Housing Affordability

The purpose of this study is to explore the potential of long term land leases as a means of improving housing affordability in Canada. In particular, the report examines various land lease alternatives, including varying lease terms, options to purchase, alternative subsidy and recovery plans and different "improvement ownership" options, and analyzes their potential contributions towards lowering housing costs. Concerns relating to the marketability (assignment or sub-leasing) of land leasehold interests are addressed. Issues relating to the ability to raise debt funds secured by leasehold interests are examined and options to improve the quality of collateral provided by leasehold interests are explored.

The use of residential land leasing in other jurisdictions is reviewed to evaluate successes and failures. On balance, land leasing, especially public lands, is not found to be a common practice. Even in those countries where leasing is common, the trend is towards selling the "fee simple" interests or allowing occupying tenants to purchase the underlying fee simple. In most cases where there is a large supply of public leasehold interests, the rents tend to be below market rents, either initially or allowed to fall below market during the lease term. Even in cases where rent reviews are included in the lease term, the practice seems to be to upgrade to less than market levels at the time of rent reviews.

The report concludes that land leases, of reasonable durations, have the potential to reduce occupancy costs, at least for those households who fall just below the "affordability" line. In these cases the reduction in current occupancy costs may provide the opportunity to accumulate the capital necessary for a down payment on fee simple ownership. However it is unlikely that a land leasing program could, by itself, provide sufficient assistance for those households who fall significantly below the accepted affordability level. Moreover, these leasehold interests will be difficult to market without some measures to improve their worth as collateral for mortgages.

# Residential Leasehold Estates

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# EXECUTIVE SUMMARY

The overall purpose of this report is to develop a model of residential land leasing which will ensure that housing on leased land is more affordable than the same housing of freehold (or fee simple) land. To this end this report provides a general overview of the differences between fee simple and leasehold tenure, including a review of the advantages and disadvantages of residential land leasing; a brief description of the affordability issue; a review of jurisdictions, both outside and within Canada, using residential land leasing; an analysis of the lease-versus-purchase decision process, from the point of view of the lessee, and identification of the critical variables in the decision; an analysis of any income tax factors which are likely to bias investors in respect of leasehold interests; and a model leasehold system for government owned land that will improve housing affordability and which will make clear the degree to which subsidization is involved.

Two caveats should be noted. First it is emphasized at the outset that the purpose of this report is limited to identifying where the residential leasehold option could be used to improve affordability. The report is not intended to explore a full menu of affordability options. The effectiveness of alternatives such as income supplements, direct rental supplements, cost write-downs, etc. are beyond the scope of this report. Second this report assumes that other options to reduce housing costs have been fully explored (e.g. lot size, house size, quality requirements, development impediments etc.). What remains is to analyze, at the margin, the means by which changing the land tenure from fee simple to leasehold could further improve the affordability of housing and where, if it is deemed desirable, a subsidy could be most effectively added to the leasehold option.

This report implicitly assumes that the landlord providing the residential leaseholds (the federal government) is not in the position to influence market prices: the landlord is a "bit player" in the market for real estate and has no plans to promote residential leasehold interests to a place of prominence in the market. Therefore the private market reactions to leasehold estates is neither likely to be modified in a significant way nor are relative prices of leasehold and fee simple interests likely to change. Moreover, as the title denotes, this report is limited to leasing of lands for residential purposes. The income tax implications normally associated with the lease-buy decision for non-residential properties can be ignored for the most part.

Without any pretence to legal rigor, a lease is defined as "a conveyance of property for a definite period or at will. It is an interest in real property created through a contract whereby the landlord (or lessor) relinquishes some rights to immediate possession of the property to the tenant (or lessee) while retaining a reversionary right. The most common arrangement is for the fee simple holder to grant a lease to a head-tenant. Contract terms aside, the head-tenant may, in turn, sub-lease (for a term less than that remaining on the head lease) or assign (which is basically a sub-lease but for the full remaining term) to a sub-tenant (and this chain may continue). In all cases that which is created or granted must always be less (or equal) in duration to the interest held by the grantor (landlord, head-tenant or sub-tenant). It follows that all leasehold interests are derived, directly or indirectly, by way of a lease, sub-lease or assignment out of the fee simple interest in the property.

The holder of the fee simple can grant a lease of any duration, subject only to any prevailing laws. It follows that any holder of a leasehold interest may (unless prevented by covenants in the lease contract) grant an equal or lesser interest out of the leasehold interest. This process of sub-leasing or assigning of the leasehold interest may be repeated may times over.

An enormous variety of interests, differing in duration, character, and importance, fall within the general description of leaseholds. At one extreme is a tenant holding a term of 999 years - a fee owner in all respects save for the liability to pay rent and to respect other lease covenants: at the other a weekly or monthly tenant renting a house or apartment for his own occupation. The term "leasehold system" is simply an omnibus expression covering the whole spectrum of leases used to make property available for development and occupation, from the initial grant of a long lease of an unimproved site to the ultimate tenant or tenants in actual occupation of building erected on the site.

Within a leasehold system it is convenient to distinguish between **occupation leases** and **ground or building leases**. The main distinction between occupation leases and ground leases is that, "ground leases" are granted in return for an undertaking by the head-tenant to either erect improvements (either in the form of a building or subdivision services) or to undertake other improvements on the site according to the specifications set by the fee simple holder (landlord). At the end of the lease term the ownership of the total improved parcel reverts to the landlord, unless there are contractual provisions to the contrary.

The advantages and disadvantages of the leasehold option can be characterized as being in two classes: those which apply to the leasing of significant holdings in one or more locations, and those which relate to the leasing of a single property or a series of single properties in different locations. The first class of advantages and disadvantages refer to the use of a "leasehold system" while the second refer to site and situation specific advantages and disadvantages. In the former situation, the advantages claimed for use of the leasehold system lie into three areas:

1. Unification of the separate development functions of land ownership (planning, and subdivision and building). This represents an additional set of land use controls.
2. Maintaining good property management after development has occurred.
3. Redevelopment efficiencies.

In the case of leasing individual parcels of real estate, the most obvious advantage is that the purchaser (tenant) can separate the consumption of real property from the investment decision by electing not to buy the reversionary interest. This reduces the cost to acquire real property. A second advantage claimed for leasing are the potential income tax advantages. However in the case of residential real estate the income tax implications are not a source of great concern. It is also claimed that leasing, not just land but any asset, offers the advantage of **"off-balance sheet" financing**. That is, the lease obligations do not appear as an obligation within the financial statements, but rather as a footnote. This was once an important consideration but is of limited value today for two reasons: modern accounting principles are promoting more complete disclosure; and auditors are becoming much more concerned that all major financial obligations be noted, and prominently so. In fact the move is towards current value accounting which is to include the value of all material obligations. Major rating services are mindful of such "off-balance sheet" obligations and take these into consideration. All in all this is not likely a matter of significance and would not be perceived today as a major advantage. In fact it is the abuses of the past that have made our current financial community so aware of these "non-liability" liabilities.

One other advantage often claimed for leasing is the fact that the land lease rate is lower than the interest rate on mortgages (reflecting the extra protection value of the reversionary interest affords to the landlord). This argument rests on the notion that the yield required in the market is a composite of two parts: a "dividend" and a "capital gain" component. The argument is advanced that a mortgage lender sets the interest rate to reflect the fact there is no capital gain on the mortgage (if held to maturity), the return is all in the dividend or interest. In contrast the landlord sets the property yield expectations with the knowledge there is an expected capital gain (assuming property values increase).

What are the principal disadvantages of the lease option in specific cases (as opposed to a major leasehold system)? The most obvious one is that most Canadians are not familiar with the option, and those that are do not seem to favour it. Moreover the lending institutions in Canada appear to discriminate against leasehold interests, both in terms of the loan-to-value ratios offered and in the interest rates. This lender discrimination appears to increase as the lease term shortens. This lender discrimination does not appear to be limited to Canada. The combination of lender discrimination and market resistance makes the leasehold interest a less marketable asset than the fee simple. This point was noted in the cases of the District of North Vancouver and the City of Vancouver and was one of the major factors prompting the District of North Vancouver to discontinue their land leasing program and permit tenants to buy up their fee simple interests.

Other major disadvantages relate to the lease as it approaches either the end of the term or the point of rent review. Whether through ignorance, neglect or differences in future outlooks, tenants appear to feel "cheated' when they must give up their "home" to a landlord, even though the lease contract so provided many years earlier. Similarly rental increases, especially if they occur infrequently and represent significant increases, evoke a sense of "unfairness". If the tenants are a small minority, they likely have little choice but to accept. But as was illustrated in England, a major block of tenants (who are also voters) can influence government to take action against private contracts and rewrite the contracts in the interest of equity, as seen after the fact.

There are some other minor, and temporary, disadvantages of the residential leasehold option in that many of the provincial statutes have not been updated to fully acknowledge the role of residential leases in modern society. The fact that some provinces do not allow condominiums to be built on leased land is an inconvenience which should be addressed. Even in B.C. the land used for condominiums must be leased from the "crown" or "government agency" and the "condominium owner" has the right to be paid for the building value at the end of the lease term. Just why the leases must be from the public sector and not the private sector is subject to some debate but it presumably reflects a belief the public landlord will be more honourable and fair.

On balance the single most significant advantage of the leasehold option is that it permits a separation, in part or in total, between the consumption of housing services and the investment decision. In the fee simple option, the household simultaneously decides upon their consumption and investment strategy, except as so far a mortgage financing can alter these. The ground lease option provides the household with a means of deciding upon housing consumption, independent of the investment decision: they can live in their dream home (on leased land or leased in total) while investing their money elsewhere. To the extent this improves the efficiency of the market, society gains.

Residential ground leases are common in many parts of the world and have been in one form or another since earliest times. For example, the central government owns all or part of the land for urban development in Israel, the Sudan, Kenya, Uganda, Hong Kong and Singapore, and in the national capitals of New Delhi, India and Canberra, Australia. These governments have adopted various forms of administration and management including government agencies, empowering municipalities to act or granting leases of large areas to private organizations. Local or municipal leasehold systems are in place in some cities in the Netherlands, Sweden, Norway, West Germany, and England. Private leasehold estates are traditional in Britain (although this is changing), Ireland and Hawaii. Generally such leasehold rights are considered to be proprietary rights and are treated as real property rights.

There are several instances in Canada where federal and provincial government-owned land has been leased to provide housing assistance for low and moderate income households. However, use of leaseholds is not widespread in Canada apart from those associated with government-controlled park and recreational lands (e.g. Banff, Alberta) and with Indian Reserve lands (which are extensive). Specific provincial leasing programs operated in Ontario and B.C. (but now ended) will be discussed below since there is at least some available information.

Residential leasehold remains a relatively uncommon practice for local government in Canada. A survey undertaken by Wolfe (1984) to ascertain the extent to which land leasing has been used by the 75 largest Canadian municipalities indicated that an extremely small number had any experience with residential leasehold programs beyond those associated with non-profit housing projects. Of 75 municipalities surveyed by Wolfe, 47 responded. Of the 47 respondents, only 16 indicated that they had leased land for residential purposes. Of the 13 respondents who provided details, only 4 (Hull, Quebec; Fredericton, New Brunswick; District of North Vancouver and Vancouver, B.C.) had undertaken more than occasional nominal value leases for non-profit housing. The remaining 9 municipalities appear to have experience limited to unique situations or non-profit co-operatives.

As the focus of this report is to analyze the possible contributions of residential land leasing to the affordability issue, it is necessary to first determine what gains are possible. A simple property valuation model is first developed which isolates the value of a leasehold interest, the value of the fee simple during the term, and the reversionary interest in the fee simple. It is noted that as long as the tenant pays full market rents for a property, the market value of the leasehold interest is approximately zero. In these cases (which implicitly assume the landlord erects the building), the maximum "savings" in cost due to the use of the leasehold interest is equal to the present value of the reversionary fee simple interest. In a relatively efficient market, this savings is exactly offset by a reduction in the value of the asset (the benefits) received.

The amount of the potential cost saving is dependent upon the length of the lease term, the growth rate in market (and contract) rents and prices, and the market discount rate. Since the required market discount rate (r%) is logically greater than the expected growth rate (g%), the longer the lease term (L), the lower the percentage cost savings since the percent savings in cost is a direct function of the ratio $(1+g)^L/(1+r)^L$. At any reasonable range of discount rates and growth rates, the percentage saved in the acquisition cost of a leasehold interest relative to a fee simple becomes very small (less than 5% once the lease term exceeds 60 years).

In the case where the tenant erects the building, but pays market rent for the land, the percent saved using leasehold relative to freehold value is somewhat reduced since the savings only relate to the reversionary interest of the <u>land</u>. In these cases, where the tenant erects the building, the "saving" in cost, relative to the fee simple option, depends upon the lease term (L), market discount rate for this type of leasehold (r%), the expected growth rate in property value (g%), <u>and</u> the ratio of site to property value (S/P). The higher the site as a percent of total property value, the greater the potential saving (but always less than if the landlord erects the building), all else equal. At the same time, the tenant who erects the building creates a valuable asset (leasehold interest) since the tenant can sub-let or assign the lease, with the building in place. The value of the leasehold interest will equal the present value of future rents on the <u>building component only</u>, plus any claim against the landlord for building value at the end of the lease.

It should be noted that when the head-tenant uses the leased property as a principal residence, there are no income tax considerations that differ from those of a fee simple owner. Moreover, since the landlord is assumed to be the Crown (or near Crown agency), there are no income tax consequences for the landlord.

However, if the head-tenant is a "middle-man" adding the building to leased land, then assigning or sub-leasing, either prepaid or periodic rents, then some income tax considerations come into effect.

Assuming the sub-tenants treat the property as a principal residence, they have no income tax considerations. It is only the head-tenant who becomes a landlord.

If the head-tenant is primarily in the business of real estate (leasing, development, etc.) then the site rent can be deducted, along with full capital cost allowance and interest on borrowed funds, in calculating taxable income. For such a taxpayer the taxable income may be negative but there are no differences in tax status as between leasing and buying. The only difference in taxable income arises because in the fee simple case, interest on funds borrowed to buy the land is deductible whereas in the land lease can, site rent and interest on borrowed funds are deductible.

If the head-tenant is not principally involved in real estate development and leasing, then some income tax differences will arise as between fee simple and land leases. For such a taxpayer the capital cost allowance cannot be used to generate a negative taxable income. In the case of a fee simple purchase, interest on borrowed funds and capital cost allowance may be claimed as expenses against income while in the leasehold option, interest, capital cost allowance and rent may be claimed. It is more likely that full capital cost allowance could not be claimed in the lease option (since interest on a normal mortgage plus full capital cost allowance presently are likely to exceed the net operating income from the property), making this relatively less attractive to such a taxpayer.

It appears, however, that in the residential sector of the market, income tax considerations are not likely to seriously affect the decision to lease or buy the site. If the income tax affects of leasing were important to investors who are "in the business of real estate", they likely already have the corporate vehicles to create their own leasing arrangements.

Given the potential "cost savings" from using the land lease option are dependent upon the market discount rate, growth rate in property values (neither of which can be controlled by the landlord or tenant) and the length of the lease, are the savings sufficient to help address the affordability issue? The answer is yes --at the margin. But in the absence of a subsidy, tenants electing the leasehold option are not likely to be able to accumulate funds at a sufficient rate, unless their particular household income increases significantly, to shift from leasehold to fee simple ownership. A major complaint with the Ontario HOME program was that the tenants were receiving large windfall gains as they exercised their option to purchase, after five years, at subsidized prices (set 5+years earlier). Yet without this subsidy, it is likely that many tenants could not have afforded to buy fee simple.

If, the goal of the leasehold program is to provide temporary help through leaseholds, with the intent of having the tenants eventually become fee simple owners, then some degree of subsidy will be required. As in the case of the Ontario Home program, the tenants who most need assistance are not likely to have sufficiently large increases in household income to permit them to consume the leased property and simultaneously accumulate capital at a rate equal to the typical escalation in house prices. Therefore to promote home ownership, in the traditional sense of fee simple, it will be necessary to restrict (subsidize) the rate of escalation in the price for exercising the option to purchase. In such circumstances it is desirable to restrict the subsidy to those most deserving.

If, on the other hand, the overall goal of the program is to provide affordable housing without regard for the tenants ability to eventually acquire a fee simple position, the lease option has potential to generate a meaningful cost saving. In these circumstance, the shorter the lease term, the greater the savings, all else equal. However, shorter lease terms are less attractive to lenders, so some assistance in financing shorter term (say up to 40-50 years) leases will be required (a loan guarantee).

If it is the intention of the government to provide a subsidy but recover this on any resale (sub-letting or assignment) of the leasehold interest, then two general points should be noted. First, any recovery, either in full or in part, will make it more difficult (but not necessarily impossible) for the owner (tenant) to move into a fee simple interest. Even in the early stages of a prepaid leasehold the increase in market value is not likely to keep pace exactly with that of a fee simple. The owner (tenant) slips slightly behind each year but can presumably save funds elsewhere to make up some of the difference. Any subsidy repayment simply makes it more difficult to switch to fee simple and will discourage mobility (at the margin) since the owner (tenant) needs to stay to maintain the subsidy. Second, any future recovery of the subsidy will be controversial and the larger the concentration of owner (tenants), the more political will be the decision to recoup. Therefore it is important that the fact there will be a future recovery, and the method of determination of the amount, be clearly set out and acknowledged. Clarity and simplicity are key ingredients in any subsidy recovery plan and, fortunately, several clear options for recovery exist.

The possibility of recapturing (taxing) "unearned increments" in land (or property) value is noted but the recommendation is that this not be included as part of the leasehold arrangement. The problems of enforcing such recapture schemes are numerous and the evidence elsewhere suggests it will not be made to work, either because of valuation problems, political pressures, or a combination of both. A preferred method to be used, in appropriate circumstances, is to prevent the unearned increment from happening, and this can be accomplished by providing the landlord with an option to purchase the leasehold interest (when the existing tenant elects to "sell"). Providing such an option is established at the time the lease is negotiated, the tenant will be able to have this reflected in bid prices for the prepaid land lease using estimates which are also part of the calculation of the prepaid leas payment.

Compliance with provincial and local policies such as the Ontario 25% affordable policy will not likely create any unusual problems for the land leasing program providing tenants are required to obtain approval prior to improving the site and providing the landlord has an option to purchase the leasehold interest, at pre-determined prices, when the tenant decides to move. This will ensure the tenant does not benefit from unearned increments arising because of voluntary compliance with provincial and local policies.

## RÉSUMÉ POUR LA DIRECTION

L'auteur de ce rapport a pour but global d'élaborer un modèle de location foncière résidentielle qui fera en sorte que les logements construits sur des terrains loués seront plus abordables que les mêmes logements érigés sur des terrains en propriété absolue. À cette fin, il présente dans ce rapport un aperçu général des différences entre la propriété absolue et la location foncière, comprenant un examen des avantages et des inconvénients de la location foncière résidentielle; une brève description de la question de l'abordabilité; un examen de l'utilisation de la location foncière résidentielle dans divers territoires à l'extérieur et à l'intérieur du Canada; une analyse du processus menant à la décision de louer plutôt que d'acheter, du point de vue du locataire, et la détermination des variables critiques intervenant dans la décision; une analyse des facteurs liés à l'impôt sur le revenu, le cas échéant, qui sont susceptibles d'influencer les investisseurs en ce qui a trait aux intérêts locatifs; et un modèle de location de terrains de propriété publique qui améliorera l'abordabilité du logement et permettra d'établir clairement la mesure dans laquelle des subventions seront nécessaires.

Deux mises en garde s'imposent. Premièrement, on souligne dès le départ que le seul but de ce rapport est de déterminer dans quelles circonstances on pourrait recourir à l'option de location foncière résidentielle pour améliorer l'abordabilité. L'auteur ne vise pas à étudier à fond tout un ensemble de choix possibles en matière d'abordabilité. L'examen de l'efficacité de solutions de rechange comme les suppléments de revenu, les

suppléments de loyer directs, la réduction des frais, etc. dépasse les limites de ce rapport. Deuxièmement, on suppose dans ce rapport que les autres façons possibles de réduire les frais de logement ont été étudiées de façon approfondie (p. ex., les dimensions du terrain, la taille de la maison, les exigences en matière de qualité, les obstacles à l'aménagement, etc.). Ce qui reste à analyser, ce sont les façons dont on pourrait améliorer l'abordabilité du logement en passant de la propriété absolue à la location foncière, ainsi que les circonstances dans lesquelles une subvention, si elle est jugée souhaitable, pourrait être ajoutée le plus efficacement possible à l'option de location foncière.

Dans ce rapport, on suppose implicitement que le propriétaire-bailleur offrant la location foncière résidentielle (le gouvernement fédéral) n'est pas en mesure d'influer sur les prix du marché, c'est-à-dire qu'il est un joueur sans importance sur le marché immobilier et qu'il n'a pas l'intention de promouvoir les intérêts locatifs de façon à leur assurer une place importante sur le marché. Par conséquent, il est improbable que les réactions à la location foncière sur le marché privé changent de façon importante ou qu'on constate un changement des prix relatifs des terrains en propriété absolue et des intérêts locatifs. En outre, comme l'indique le titre, ce rapport porte uniquement sur la location foncière à des fins résidentielles. Il n'est pas nécessaire de tenir compte de la plupart des conséquences pour l'impôt sur le revenu qu'on associe normalement à la décision de louer ou d'acheter des propriétés non résidentielles.

Sans prétention de rigueur juridique, un bail est défini comme «un acte de transfert de biens pour une période définie ou à volonté». Il s'agit d'un intérêt dans un bien-fonds créé par un contrat en vertu duquel le propriétaire (ou bailleur) cède certains droits de possession immédiate du bien-fonds au locataire (ou preneur à bail) tout en conservant un droit de retour. Selon les dispositions les plus courantes, le propriétaire accorde un bail à un locataire principal. À moins que les dispositions du contrat ne l'interdisent, le locataire principal peut à son tour sous-louer le bien-fonds, pour une durée plus courte que la durée restante du bail principal, ou le céder (ce qui correspond essentiellement à une sous-location mais pour le reste de la durée prévue dans le bail principal) à un sous-locataire, et ainsi de suite. Dans tous les cas, l'intérêt créé ou le droit accordé doit être d'une durée inférieure (ou égale) à l'intérêt détenu par la personne qui le crée ou le cède (propriétaire, locataire principal ou sous-locataire). Ainsi, tous les intérêts locatifs tirent leur origine directement ou indirectement (au moyen d'un bail, d'un contrat de sous-location ou d'une cession) des intérêts absolus dans la propriété.

Le propriétaire absolu peut accorder un bail de n'importe quelle durée, sous réserve seulement de toute loi en vigueur. Il s'ensuit que toute personne ayant des intérêts locatifs peut (à moins que ne l'interdisent des engagements dans le contrat de location) concéder un intérêt locatif égal ou moindre. Ce processus de sous-location ou de cession de l'intérêt locatif peut se répéter de nombreuses fois.

Un vaste éventail d'intérêts dont la durée, le caractère et l'importance diffèrent entrent dans la description générale de la location. À un extrême, on trouve le locataire ayant un bail d'une durée de 999 ans, qui est un propriétaire à tous les égards sauf en ce qui a trait à l'obligation de payer un loyer et de respecter d'autres engagements en vertu du bail. À l'autre extrême, on trouve le locataire qui loue à la semaine ou au mois une maison ou un appartement qu'il occupe. L'expression «mode de location» n'est qu'une expression générale englobant tout l'éventail des baux utilisés pour rendre des terrains disponibles pour l'aménagement et l'occupation, allant de l'octroi initial d'un bail à long terme d'un terrain non aménagé à la concession d'un bail au(x) locataire(s) ultime(s) qui occupe(nt) réellement l'immeuble construit sur l'emplacement.

À l'intérieur du mode de location, il est commode de distinguer entre les **baux à occupation** et les **baux à construction**. La principale distinction entre ces deux types de baux est la suivante : les «baux à construction» sont accordés en échange de l'engagement du locataire principal à apporter des améliorations locatives au terrain (soit sous forme d'un immeuble ou de services de lotissement) ou à entreprendre d'autres améliorations sur l'emplacement en conformité avec les spécifications établies par le propriétaire absolu (bailleur). À l'expiration du bail, la propriété de la totalité de la parcelle améliorée fait retour au propriétaire, à moins qu'il n'existe des dispositions contractuelles contraires.

On peut classer les avantages et les inconvénients de la location dans deux catégories : ceux qui s'appliquent à la location d'avoirs fonciers considérables à un ou plusieurs endroits, et ceux qui ont trait à la location d'une seule propriété ou d'une série de propriétés individuelles à différents endroits. Les avantages et inconvénients de la première catégorie sont rattachés à l'utilisation du mode de location, alors que ceux de la deuxième catégorie sont rattachés de façon particulière à l'emplacement et à la situation. Dans le premier cas, les avantages que présenterait l'utilisation d'un mode de location peuvent se classer dans trois catégories :

1. Unification des fonctions d'aménagement distinctes de la propriété foncière (planification, lotissement et construction). Cela représente un ensemble supplémentaire de mécanismes de contrôle de l'occupation des sols.
2. Maintien d'une bonne gestion immobilière après l'aménagement.
3. Efficience au moment du réaménagement.

Dans le cas de la location de parcelles individuelles, l'avantage le plus évident tient au fait que l'acheteur (le locataire) peut séparer la consommation du bien immobilier de la décision d'investir en choisissant de ne pas acheter le droit de retour. Cela réduit le coût de l'acquisition de biens immobiliers. Deuxièmement, on prétend que la location peut procurer des avantages éventuels au niveau de l'impôt sur le revenu. Toutefois, dans le cas des propriétés immobilières résidentielles, les conséquences pour l'impôt sur le revenu ne sont pas une source de préoccupation importante. On prétend aussi que la location de tout élément d'actif, et non pas seulement de terrains, présente l'avantage d'un **financement «sans effet sur le bilan»**. En d'autres termes, les obligations découlant du bail n'apparaissent pas comme une obligation dans les états financiers, mais seulement dans les notes explicatives. Il s'agissait autrefois d'un facteur important qui n'a qu'une valeur limitée aujourd'hui pour deux raisons : premièrement, les principes comptables modernes favorisent la divulgation plus complète, et deuxièmement, les vérificateurs tiennent de plus en plus à ce que toutes les obligations financières importantes soient indiquées de façon bien évidente. En fait, on favorise de plus en plus la comptabilité à la valeur actuelle qui prévoit l'inclusion de la valeur de toutes les obligations d'importance. Les grands services d'informations financières sont attentifs à ces obligations «sans effet sur le bilan» et en tiennent compte. Tout compte fait, il ne s'agit probablement pas d'une question importante et on ne la considérerait pas aujourd'hui comme un avantage significatif. En fait, ce sont les abus du passé qui ont rendu notre collectivité financière actuelle aussi consciente de ces obligations qui n'étaient pas considérées comme telles.

Un autre avantage qu'on prête souvent à la location est le fait que le taux de location foncière est inférieur au taux d'intérêt hypothécaire (reflétant la protection supplémentaire que le droit de retour offre au propriétaire). Cet argument se fonde sur la notion que le rendement requis sur le marché est composé de deux éléments : un «dividende» et une composante de «gain en capital». On prétend qu'un prêteur hypothécaire fixe le taux d'intérêt d'une façon qui reflète le fait qu'il n'y a pas de gain en capital sur le prêt hypothécaire (s'il est détenu jusqu'à échéance), tout le rendement prenant la forme du dividende ou de l'intérêt. Par contre, le propriétaire fixe ses attentes concernant le rendement de la propriété en sachant qu'il obtiendra probablement un gain en capital (en supposant que les valeurs des propriétés augmentent).

Quels sont les principaux inconvénients de l'option de location dans des cas précis (par opposition à un important régime de location)? Le plus évident, c'est que la plupart des Canadiens ne connaissent pas l'option et que ceux qui la connaissent ne semblent pas la favoriser. En outre, les établissements de prêt au Canada semblent établir une discrimination contre les intérêts locatifs, tant au niveau des rapports prêt-valeur offerts qu'au niveau des taux d'intérêt. Cette discrimination de la part du prêteur semble s'accroître plus la durée du bail est courte. Il semble que cette discrimination ne se retrouve pas uniquement au Canada. La combinaison de cette discrimination des prêteurs et de la résistance sur le marché fait de l'intérêt locatif un élément d'actif moins facile à commercialiser que la propriété absolue. On a relevé ce point dans les cas du district de North Vancouver et de la ville de Vancouver; en fait, il a été un des principaux facteurs qui ont poussé le district de North Vancouver à mettre un terme à son programme de location foncière et à permettre aux locataires d'acheter le terrain.

D'autres graves inconvénients sont rattachés au moment où le bail arrive à échéance ou au moment où les loyers doivent faire l'objet d'une révision. Que ce soit par ignorance, négligence ou en raison d'un changement d'attitude avec le temps, il semble que les locataires ont l'impression d'avoir été «trompés» lorsqu'ils doivent abandonner leur «chez-soi» à un propriétaire, même s'il en était prévu ainsi dans le contrat de location signé bien des années auparavant. De même, les augmentations de loyer, notamment si elles ne se produisent pas souvent ou si elles sont considérables, suscitent un sentiment d'injustice. Si les locataires sont peu nombreux, il est probable qu'ils n'auront d'autre choix que d'accepter les changements. Mais comme on l'a vu en Angleterre, un groupe important de locataires (qui sont aussi des électeurs) peut inciter le gouvernement à statuer contre les contrats privés et à faire récrire les contrats **dans l'intérêt de la justice**, vue après coup.

D'autres inconvénients mineurs et temporaires de l'option de location foncière résidentielle sont dus au fait que de nombreuses lois provinciales n'ont pas été mises à jour de façon à tenir compte du rôle des baux dans notre société moderne. Le fait que certaines provinces ne permettent pas la construction de logements en copropriété sur des terrains loués est un inconvénient qu'il faut éliminer. Même en Colombie-Britannique, les terrains utilisés pour les logements en copropriété doivent être loués de la «Couronne» ou d'un «organisme gouvernemental» et le «propriétaire des logements en copropriété» a le droit d'exiger un paiement égal à la valeur de l'immeuble au moment de l'expiration du bail. La raison précise pour laquelle c'est le secteur public et non pas le secteur privé qui doit accorder les baux soulève certains débats, mais cela refléterait le sentiment que le propriétaire public sera plus honorable et équitable.

Tout compte fait, le plus important avantage de l'option de location, c'est qu'elle permet de séparer, en totalité ou en partie, la consommation de services de logement de la décision d'investir. Selon l'option de propriété absolue, le ménage décide simultanément de sa stratégie en matière de consommation et d'investissement, sauf dans la mesure où le financement hypothécaire peut modifier cette stratégie. Le bail à construction offre au ménage les moyens de décider de sa consommation de logement, indépendamment de la décision d'investir : ils peuvent vivre dans la maison de leurs rêves (louée ainsi que le terrain, ou située sur un terrain loué) tout en investissant leur argent ailleurs. Dans la mesure où cela améliore l'efficience du marché, la société en sort gagnante.

Les baux à construction résidentiels sont courants dans bien des parties du monde et l'ont été sous une forme ou une autre depuis les temps les plus reculés. Par exemple, le gouvernement central possède la totalité ou une partie des terrains réservés à l'aménagement urbain en Israël, au Soudan, au Kenya, en Ouganda, à Hong Kong et à Singapour ainsi que dans les capitales nationales de New Delhi, en Inde et de Canberra, en Australie. Ces gouvernements ont adopté diverses formes d'administration et de gestion, y compris les organismes gouvernementaux, le transfert des pouvoirs en la matière aux municipalités ou la concession de baux couvrant de grandes zones à des organismes privés. On retrouve des modes de location locaux ou municipaux dans certaines villes des Pays-Bas, de la Suède, de la Norvège, de l'Allemagne de l'Ouest et de l'Angleterre. La location foncière privée est de tradition en Grande-Bretagne (bien que cela soit en train de changer), en

Irlande et à Hawaï. Généralement, les droits que confère la location foncière sont considérés comme des droits de propriété et sont traités comme des droits de propriété réels.

On relève au Canada plusieurs cas où des terrains appartenant aux gouvernements fédéral et provinciaux ont été loués afin d'assurer une aide au logement aux ménages à revenus faible et modéré. Toutefois, la location foncière n'est pas répandue au Canada, sauf dans le cas de terrains sous contrôle gouvernemental réservés aux parcs et aux loisirs (p. ex., Banff, en Alberta) et des terrains des réserves indiennes (qui représentent de vastes étendues). Des programmes de location provinciaux particuliers qui étaient appliqués en Ontario et en Colombie-Britannique (mais qui sont maintenant arrivés à terme) seront examinés ci-dessous étant donné que nous disposons d'un peu d'information à leur sujet.

La location foncière résidentielle demeure une pratique relativement rare pour le gouvernement local au Canada. Un sondage mené par Wolfe (1984) pour déterminer la mesure dans laquelle la location foncière avait été utilisée par les 75 municipalités canadiennes les plus grandes a révélé qu'un très petit nombre d'entre elles avaient une expérience quelconque des programmes de location foncière résidentielle autres que ceux qui sont liés aux ensembles de logements sans but lucratif. Parmi les 75 municipalités avec lesquelles Wolfe a communiqué, 47 ont répondu. Parmi les 47 répondants, 16 seulement ont indiqué qu'ils avaient loué des terrains à des fins résidentielles. Parmi les 13 répondants qui ont donné des détails, 4 seulement (Hull, au Québec; Frederiction, au Nouveau-Brunswick; le district de North Vancouver et Vancouver, en Colombie-Britannique) avaient accordé des baux autres que les occasionnels baux d'une valeur symbolique pour le logement sans but lucratif. Les 9 municipalités restantes semblent avoir une expérience qui se limite à des situations uniques ou aux coopératives sans but lucratif.

Comme ce rapport vise à analyser les contributions possibles de la location foncière résidentielle au règlement de la question d'abordabilité, il faut d'abord déterminer quels gains sont possibles. On commence par élaborer un modèle simple d'évaluation qui permet d'isoler la valeur de l'intérêt locatif, la valeur de la propriété absolue pendant la durée du bail et le droit de retour dans la propriété absolue. On remarque qu'à condition que le locataire paye les loyers complets du marché, la valeur marchande de l'intérêt locatif est à peu près nulle. Dans ces cas (où l'on suppose implicitement que le propriétaire érige l'immeuble), «l'économie» de coût maximale attribuable à l'utilisation de l'intérêt locatif est égale à la valeur actuelle du droit de retour se rattachant à la propriété absolue. Sur un marché relativement efficient, cette économie est complètement annulée par une réduction de la valeur du bien (les avantages) reçu.

Le montant de l'économie de coût éventuelle dépend de la durée du bail, du taux de croissance des loyers et prix du marché (et du contrat) et du taux d'escompte hors banque. Puisque le taux d'escompte hors banque (r%) requis est logiquement supérieur au taux de croissance prévu (g%), plus la durée du bail (L) est longue, plus l'économie de coût en pourcentage est faible puisque cette économie est directement en fonction du rapport $(1+g)^L/(1+r)^L$. Dans toute fourchette raisonnable de taux d'escompte et de taux de croissance, le pourcentage d'économie du coût d'acquisition d'un intérêt locatif par rapport à un intérêt absolu qui est réalisé devient très petit (moins de 5 % lorsque la durée du bail dépasse 60 ans).

Lorsque le locataire construit l'immeuble mais paye le loyer du marché pour le terrain, le pourcentage économisé, en utilisant la valeur de la location foncière par rapport à la valeur de la propriété absolue, est quelque peu réduit puisque les économies se rattachent uniquement au droit de retour du <u>terrain</u>. Dans ces cas, l'«économie» de coût, par rapport à l'option de propriété absolue, dépend de la durée du bail (L), du taux d'escompte hors banque pour ce type de location (r%), du taux de croissance prévu de la valeur de la propriété (g%) <u>et</u> du rapport entre la valeur de l'emplacement et la valeur de la propriété (S/P). Plus la valeur de l'emplacement est élevée en pourcentage de la valeur totale de la propriété, plus les économies éventuelles sont élevées (mais toujours inférieures à celles qui seraient possibles si le propriétaire construit l'immeuble), toutes choses étant égales par ailleurs. En outre, le locataire qui construit l'immeuble crée un élément d'actif précieux (un intérêt locatif) puisqu'il peut sous-louer ou céder le bail une fois l'immeuble construit. La valeur de l'intérêt locatif correspondra à la valeur actuelle des loyers futurs de la <u>composante immeuble seulement</u>, plus toute somme correspondant à la valeur de l'immeuble réclamée du propriétaire-bailleur à la fin du bail.

Il convient de noter que lorsque le locataire principal utilise la propriété louée comme résidence principale, les considérations en matière d'impôt sur le revenu sont les mêmes que celles dont un propriétaire absolu devrait tenir compte. En outre, comme on suppose que le propriétaire est la Couronne (ou son représentant), il n'y a pas de conséquences pour le propriétaire au niveau de l'impôt sur le revenu.

Toutefois, si le locataire principal est un intermédiaire qui ajoute l'immeuble au terrain loué puis cède ou sous-loue la propriété pour en tirer des loyers payés d'avance ou périodiques, alors certaines considérations en matière d'impôt sur le revenu entrent en jeu. En supposant que les sous-locataires traitent la propriété comme une résidence principale, ils n'ont aucune préoccupation au niveau de l'impôt sur le revenu. Seul le locataire principal en aura, étant donné qu'il devient un bailleur.

Si le locataire principal fait surtout des affaires dans l'immobilier (location, aménagement, etc.), alors il peut déduire, dans le calcul du revenu imposable, le loyer de l'emplacement ainsi que la totalité de la déduction pour amortissement et des intérêts débiteurs. Pour ce contribuable, il se peut que le revenu imposable soit négatif, mais le fait de louer plutôt que d'acheter n'entraîne pas de différence de statut fiscal. La seule différence du revenu imposable découle du fait que dans le cas de la propriété absolue, les intérêts sur les fonds empruntés pour acheter le terrain sont déductibles alors que dans le cas de la location foncière, le loyer de l'emplacement <u>et</u> les intérêts débiteurs sont déductibles.

Si le locataire principal ne s'occupe pas principalement de mise en valeur et de location de biens immobiliers, alors il y aura certaines différences au niveau de l'impôt sur le revenu. Ce contribuable ne peut utiliser la déduction pour amortissement afin de produire un revenu imposable négatif. Dans le cas de la propriété absolue, les intérêts débiteurs et la déduction pour amortissement peuvent être déclarés comme des dépenses déductibles du revenu, alors que dans le cas de la location, l'intérêt, la déduction pour amortissement et le loyer peuvent être retranchés du revenu. Il est plus probable que le contribuable ne pourrait déduire la totalité de la déduction pour amortissement dans une situation de location (puisque l'intérêt sur un emprunt hypothécaire normal plus la déduction pour amortissement totale sont actuellement susceptibles de dépasser le revenu d'exploitation net de la propriété), ce qui rend la location relativement moins intéressante pour ce genre de contribuable.

Toutefois, il semble que dans le secteur résidentiel du marché, les considérations liées à l'impôt sur le revenu ne sont pas susceptibles d'influer sérieusement sur la décision de louer ou d'acheter l'emplacement. Si les effets de la location sur l'impôt sur le revenu étaient importants pour les investisseurs faisant des affaires dans l'immobilier, il est probable qu'ils auraient déjà les structures d'entreprise nécessaires pour créer leurs propres modalités de location.

Étant donné que les «économies de coûts» éventuelles de l'utilisation de l'option de location foncière dépendent du taux d'escompte hors banque, du taux de croissance des valeurs des propriétés (dont ni l'un ni l'autre ne peut être réglementé par le bailleur ou le locataire) et de la durée du bail, les économies sont-elles suffisantes pour aider à atténuer le problème d'abordabilité? Oui, à la limite. Mais en l'absence d'une subvention, les locataires qui choisissent la location ne sont pas susceptibles d'être en mesure d'accumuler les fonds à un rythme suffisant, à moins que leur revenu du ménage augmente considérablement, pour passer de la location à la propriété absolue. Une des principales plaintes à l'égard du programme HOME de l'Ontario portait sur le fait que les locataires bénéficiaient d'aubaines importantes lorsqu'ils exerçaient leur droit d'acheter leur propriété, après 5 ans, à des prix subventionnés (fixés au moins 5 ans plus tôt). Pourtant, sans cette subvention, il est probable que de nombreux locataires n'auraient pas eu les moyens de devenir propriétaires absolus.

Si le but du programme de location est d'offrir une aide temporaire, au moyen de la location, dans le but de permettre aux locataires de devenir tôt ou tard des propriétaires absolus, alors une subvention quelconque sera nécessaire. Comme dans le cas du programme Home de l'Ontario, il est improbable que les locataires qui ont le plus besoin d'aide aient des augmentations suffisamment importantes du revenu de leur ménage pour leur permettre de consommer la propriété louée et d'accumuler simultanément des fonds à un taux égal à l'accroissement typique des prix des maisons. Par conséquent, pour favoriser l'accession à la propriété absolue traditionnelle, il faudra restreindre (subventionner) le taux d'augmentation du prix pour rendre l'achat possible. Dans de telles circonstances, il est souhaitable de limiter la subvention aux personnes qui la méritent le plus.

Par ailleurs, si le but global du programme est d'offrir un logement abordable sans égard à la capacité des locataires de devenir tôt ou tard propriétaires absolus, l'option de location offre la possibilité d'engendrer des économies de coûts considérables. Dans ces circonstances, plus la durée du bail est courte, plus les économies sont importantes, toutes choses étant égales par ailleurs. Toutefois, les baux d'une durée plus courte intéressent moins les prêteurs, de sorte qu'une forme quelconque d'aide au financement des baux à plus court terme (mettons de 40 à 50 ans) serait nécessaire (une garantie de prêt).

Si le gouvernement a l'intention d'offrir une subvention mais de la recouvrer au moment de la revente (sous-location ou cession) de l'intérêt locatif, alors il convient de soulever deux points généraux. Premièrement, tout recouvrement partiel ou total rendra plus difficile (mais non pas forcément impossible) l'accession du propriétaire (locataire) à la propriété absolue. Même pendant les premières étapes d'une location payée d'avance, il est improbable que la valeur marchande augmentera exactement au même rythme que celle d'une propriété absolue. Le propriétaire (locataire) prend un peu de retard chaque année, mais peut vraisemblablement économiser des fonds ailleurs pour compenser une partie de la différence. Tout remboursement de la subvention a simplement pour effet de rendre plus difficile le passage à la propriété absolue et découragera la mobilité (à la limite) puisque le propriétaire (locataire) doit demeurer pour continuer à bénéficier de la subvention. Deuxièmement, tout recouvrement futur de la subvention sera controversé, et plus la concentration de propriétaires (locataires) sera grande, plus la décision de recouvrer les fonds deviendra politique. Par conséquent, il est important que le fait que la somme sera recouvrée dans l'avenir, ainsi que la méthode de détermination du montant, soient établis et reconnus clairement. La clarté et la simplicité sont les ingrédients clés de tout projet de recouvrement de subvention, et heureusement, il existe plusieurs options claires en matière de recouvrement.

L'auteur mentionne la possibilité de recouvrer (taxer) les «augmentations non gagnées» de la valeur du terrain (ou de la propriété), mais il recommande de ne pas inclure cette option parmi les modalités de location. Les problèmes que pose l'application de ces mesures de recouvrement sont nombreux et l'expérience d'autres pays donne à croire qu'on ne les mettra pas en oeuvre, soit en raison de problèmes d'évaluation, de pressions politiques ou d'une combinaison de ces deux facteurs. Une méthode préférable, dans les circonstances appropriées, serait d'empêcher l'augmentation non gagnée de la valeur, ce qu'on peut faire en donnant au bailleur l'option d'acheter l'intérêt locatif (lorsque le locataire existant choisit de le «vendre»). À condition que cette option soit établie au moment de la négociation du bail, le locataire pourra exiger qu'elle se reflète dans les prix des soumissions pour le bail foncier payé d'avance en utilisant des estimations qui font aussi partie du calcul du paiement fait d'avance.

Le respect des politiques provinciales et locales, comme celle de l'Ontario visant la production d'une proportion de 25 % de logements abordables, ne créera probablement pas de problèmes exceptionnels pour le programme de location foncière, à condition qu'on exige que les locataires obtiennent l'approbation avant d'améliorer l'emplacement et que le bailleur dispose d'une option d'achat de l'intérêt locatif, à des prix prédéterminés, lorsque le locataire décide de déménager. De cette façon, le locataire ne bénéficiera pas d'augmentations non gagnées découlant du respect volontaire des politiques provinciales et locales.

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# 1. INTRODUCTION

The overall purpose of this report is to develop models of residential land leasing which will ensure that housing on leased land is more affordable than the same housing of freehold (or fee simple) land. To this end this report provides:

1. A general overview of the differences between fee simple and leasehold tenure, including a review of the advantages and disadvantages of residential land leasing.

2. A brief description of the affordability issue.

3. A review of jurisdictions, both outside and within Canada, using residential land leasing and an analysis of the circumstances where it is widely used.

4. An analysis of the lease-versus-purchase decision process, from the point of view of the lessee, and identification of the critical variables in the decision.

5. An analysis of income tax factors which are likely to bias investors in respect of leasehold interests.

6. A proposed leasehold system for surplus government land that will improve housing affordability and which will make clear the degree to which subsidization is necessary.

Some caveats should be noted early in the report. First it should be emphasized at the outset that the purpose of this report is limited to identifying where the residential leasehold option could be used to improve affordability. The report is not intended to explore a full menu of affordability options. The effectiveness of alternatives such as income supplements, direct rental supplements, cost write-downs, etc. are beyond the scope of this report.

Second this report begins with the assumption that other options to reduce housing costs have been fully explored (e.g. lot size, house size, quality requirements, development impediments etc.). What remains is to analyze, at the margin, the means by which simply changing the tenure from fee simple to leasehold could further improve the affordability of housing and where, if it is deemed desirable, a subsidy could be most effectively added to the leasehold option.

It is also helpful to note that this report implicitly assumes that the landlord providing the residential leasehold interests (the federal government) is not in the position to influence market prices: the landlord is a "bit player" in the market for real estate and has no plans to promote residential leasehold interests to a place of prominence in the market. Therefore the private market reactions to leasehold estates is neither likely to be modified in a significant way nor are relative prices of leasehold and fee simple interests likely to change. Finally, as the title denotes, this report is limited to leasing of lands for residential purposes. The income tax implications normally associated with the lease-buy decision for non-residential properties can be ignored, for the most part.

This report will begin with an overview of the alternative tenure choices available in the market. It is important to recognize early that the leasehold option is but one in a spectrum of alternatives available. Section 3 presents an overview of the leasehold option. This is followed by a brief analysis of the affordability issue as it relates to the leasehold options. Section 5 provides an analysis of the degree to which leaseholds tenure has been used elsewhere, and under what circumstances. Section 6 presents an analysis of the various ground leasehold options available and how these can be packaged to address the affordability problems. Section 7 outlines some alternatives for consideration in a model leasehold option and this is followed by a brief conclusion.

## 2. A MENU OF INTERESTS IN REAL PROPERTY

It should be noted at the outset that some of our traditional views of the tenure options available in the housing market need to be re-examined. It is common to use owner(-occupier) to denote a **fee simple** (or freehold) interest in real property and tenant (-occupier) to denote a **leasehold** interest in real property and treat these two alternatives as dichotomous. In fact the menu is much more diversified and the boundaries much less obvious and rigid. The tenure menu begins, as is standard, by relating to fee simple as the "highest" level of private ownership that is possible. In this context this "highest level" of private ownership implies the maximum degree of private control.[1] However even with fee simple ownership, the private owner is subject to the powers of taxation, expropriation and land use controls, as well as any private constraints placed on the title (such as restrictive covenants).

One step removed, and a creature of statue, **condominiums** offer a slightly different form of ownership interest.[2] Owners of condominiums are subject to some extra statutory constraints (the condominium by-laws) and must acquire their condominium always in combination with some common property and these two cannot be separated. In most cases condominiums represent fee simple ownership, subject to the by-laws and combined with the common property, but basically fee simple.[3] However in some provinces these condominiums may actually be on leased land and not

[1] In a strict legal sense, in terms of absolute control, the only owner of land in Canada is the Crown (federal and provincial). The Crown grants certain bundles of rights in land to private citizens (and this bundle has changed over time). The fee simple interest is the highest level of private control granted: "fee" implying it can be inherited and "simple" meaning there are no qualifications on who can inherit it.

[2] The majority of jurisdictions in North America use the term "condominium" but an alternative name is "strata title". Since condominiums are products of statute, each jurisdiction may have some minor differences. In general terms condominiums refer to "a combination of title in fee simple in respect of a described part of a building or designated air space, or, even, bare land, coupled with an interest as a tenant in common in respect of the remaining ("common") areas..." [Pavlich, p.1] Since Pavlich published his book, several provinces have amended their statutes to permit condominiums in leasehold lands.

[3] The condominium legislation effectively permits subdivision along a two or three dimensional plan while providing for some communal controls.

represent a fee simple interest.[4] With this minor exception we find that condominium "owners" consider themselves to be fee simple owners. Nevertheless the private rights acquired by the purchaser of a condominium unit are reduced from that of a fee simple owner and the nature of the reductions vary considerably. For example, a minimum reduction would be the requirement to purchase the least possible common area and adhere to the minimum by-laws provided by the Act. At the other end of the condominium spectrum an owner can be denied the right to rent his own unit, to have children or pets, or to decorate the exterior. Clearly even "fee simple condominium" ownership implies some potential decrease in private rights (for the common good).

An alternative form of "ownership" is the residential "co-operatives" which are frequently confused with condominium ownership. The confusion arises because the terms of design and organizational structures are often similar. However they differ significantly in terms of the legal interests created. The purchaser of a condominium acquires a fee simple or leasehold interest (an interest in real property) whereas the purchaser in the co-operative becomes a shareholder in the co-operative and acquires a right to occupy, as a tenant, one of its units. Just as a condominium project will have by-laws to control the conduct of the owners, so too will a co-operative corporation have a memorandum of association setting out rules dealing with the transfer and forfeiture of shares and how the co-operative is to be operated.

There is one other estate in land, albeit less significant in terms of use, which should be noted. A **life estate** is one which lasts for a lifetime only and at the end of the lifetime the property either reverts to the owner of the fee simple or passes to a person designated by the owner as the "remainderman". Life estates can last for the lifetime of the person who acquires the interest (the life tenant) or for the lifetime of any other person (estate pur autre vie).

At the other extreme of the tenure spectrum one finds tenant occupants who rent under a short term (month to month) lease. This market constitutes approximately 35% of all households in Canada. However somewhere between the fee simple and condominium owners and the month to month

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[4] Alberta, Manitoba, New Brunswick, Yukon, Prince Edward Island and British Columbia permit some use of leased land for condominium development. See Anger and Honsberger [1985, p. 3905]. For a more comprehensive review see Bucknall et al [1975], and Bucknall [1976].

tenancy one finds an array of leasehold interests that share many of the characteristics of "ownership" in that the tenant prepays all or a portion of the rents and has a valuable and marketable asset. This includes the long term prepaid residential leases (the "99 year ownership"), the variety of ground leases on which one finds condominiums, month-to-month rental units and the prepaid (or partial prepaid) land leases. Depending upon the circumstances these tenants may actually enjoy benefits which are closer to fee simple than to the more traditional month to month tenancies. Hence rather than a simple "either - or" choice between fee and lease, the analysis is better considered as one of degree.

The purpose of this Report is not to re-examine all of these tenure options, but rather to direct attention to the more limited subject of **residential land leases** (or building leases) and, in particular, how these can help address the affordability issues.[5] During the late 1960's and 1970's interest in the use of leasehold interests was quite strong in Canada. This was the period of rapid increases in housing demand as the baby boom sought housing of all types. The possible use of residential leases, as part of government policy towards housing, as a source of finance, and as a form of land-use control was widely discussed. This interest appears to have lessened following the market decline of 1981 as housing became less of a central issue to governments of all levels. [Wolfe, 1984]. However, the limited experiments with residential leasehold estates has provided some insights into the opportunities and problems associated with these forms of tenure.

[5] The terms "land lease", "building lease", and "ground lease" are frequently used interchangeably. They all refer to the leasing of land and generally require the tenant to make improvements to the property. See following section 3.

# 3. NATURE AND CHARACTERISTICS OF THE RESIDENTIAL LEASE OPTION

## 3.1 Leasehold Defined

Some preliminary observations about the leasehold system as a whole will be helpful to subsequent discussions in this report. It is not necessary to offer any pretence of legal rigour since the focus of this report is on the economics, not the legal attributes of residential land leasing.

A **lease** may be defined in its simplest terms as a conveyance of property for a definite period or at will. It is a right in real property granted through a contract, either written or verbal, whereby one party (the landlord or lessor) relinquishes some rights to immediate possession of the property to the other party (tenant or lessee) while retaining ultimate ownership through a reversionary right [Gifis,1975]. More specifically, it is a contract which grants exclusive rights to the possession of an interest in real property for a fixed or determinable term.[6] The most common arrangement is for the fee simple holder to grant a lease. For clarity this will be referred to as the "head lease". Contract terms aside, the head-tenant may, in turn, sub-lease (for a term less than that remaining on the head lease) or assign (which is basically a sub-lease but for the full remaining term) to a sub-tenant (and this chain may continue). In all cases that which is created or granted must always be less (or equal) in duration to the interest held by the grantor (landlord, head-tenant or sub-tenant). It follows that all leasehold interests are derived, directly or indirectly, by way of a lease, sub-lease or assignment out of the fee simple interest in the property.

In the initial instance the holder of the fee simple can grant a lease of any duration, subject only to any prevailing laws. It follows that any holder of a leasehold interest may (unless prevented by covenants in his own lease contract) grant an equal or lesser interest out of his own leasehold interest. For example the fee simple owner might grant a lease to a tenant (the "head-tenant") for a term, 75 years, retaining the reversionary interest in the freehold (the right to recover the fee

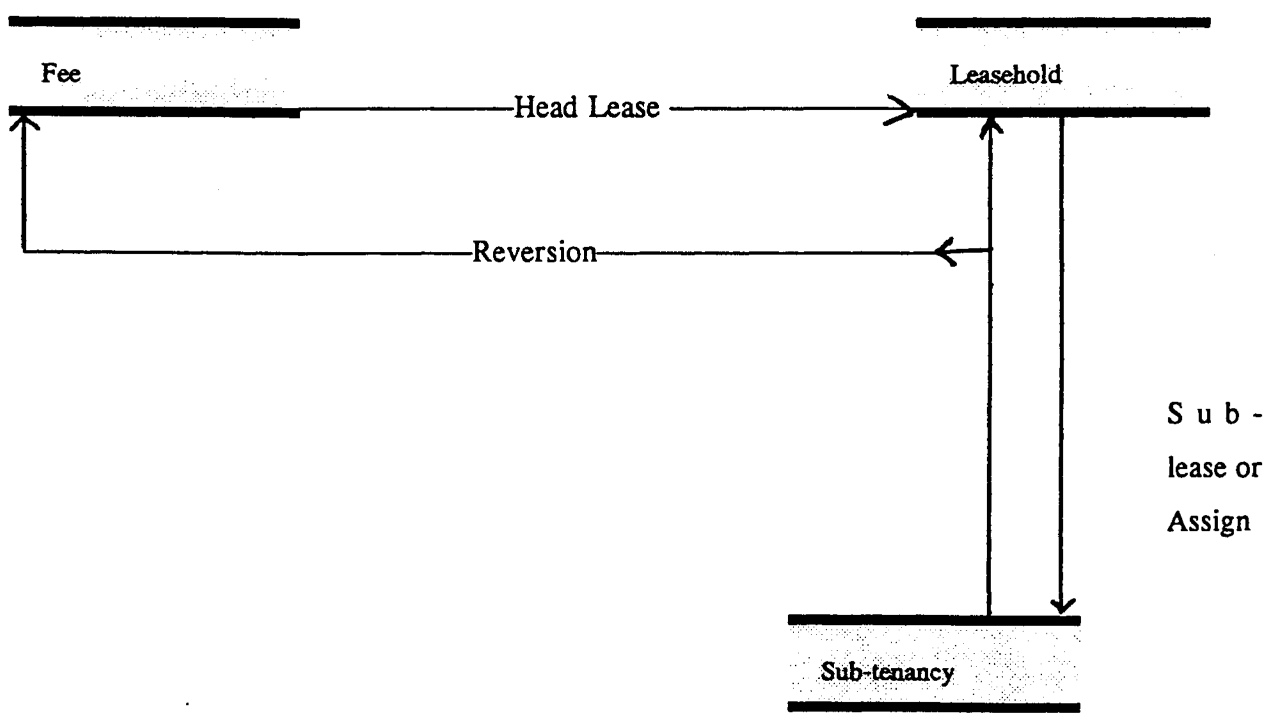
[6] It is necessary to differentiate between a "licence" and a "lease". A licence is a type of contract which confers no estate in land. It simply gives the licensee a right or privilege to enter and use the licensor's land in a certain manner or for a specific purpose. In contrast a lease creates and conveys an estate in land which runs with the land and becomes binding on subsequent purchasers.

simple interest at the end of the lease). The head-tenant in turn grants a sub-lease to a sub-tenant for, say 30 years (or any period which ends before the head lease term expires). This will leave the head-tenant a 45 year reversionary leasehold interest, the residual balance of the initial 75 year term. This process of sub-leasing or assigning of the leasehold interest may be repeated may times over.

In all cases the capacity to grant a lease (or sub-lease) flows from the ownership of the superior interest out of which it is created. Since the holders of a fee simple interests have the power to dispose of their holdings by outright sale, they clearly have the power to dispose of any lesser interest (always subject to prevailing laws). Similarly if superior tenants have the power to sub-lease or assign their leasehold interest, clearly they have the power to create any lesser interest (unless expressly excluded from doing so by the terms of the superior lease).

Figure 3.1

Fee to Lease to Sub-Lease



Since leasehold interests (including sub-tenancies) are created by contract, the rights and obligations of both parties to the contract (landlord and tenant or superior-tenant and sub-tenant) should be clearly established in the lease document. However in the absence of such contractual agreement, one is forced to rely upon the prevailing laws, both statute and common law. Archer [1971] sets out a minimum list of items that should be addressed in the lease contracts (particularly as they apply to land leases for residential purposes).

The list provided by Archer includes:

1. A **land use** or purpose clause.
2. A **building development** clause.
3. The **lease period or term**, including renewal rights.
4. The **end-of-lease arrangements**.
5. The **rent clause** specifying the amount of rent, and all **rent review provisions** (if any apply).
6. The **repair and maintenance** clauses.
7. The **re-entry or forfeiture** provisions. [Archer, page 73]

Most of the generic clauses are fairly straight forward but a word or two is in order. The **land use clause** generally relates to the type of structure to be built and the type of occupation. This is, however, at all times subject to local land use controls: the lease clause may not conflict with the local land controls but it may be more restrictive (such as restrictive covenants on the type of building). The **building clause** relates to the amount and quality of building to be constructed and the timing of such development: it is at this stage that the landlord attempts to ensure the building will be of sufficient quality to remain valuable through to the term end.

The **lease term** simply sets out the length of the lease, including all conditions for renewal and extensions. If the extensions are qualified, or the tenant has options to quit, these should be set out in the lease contract. This is a time for forward planning since the landlord would want the lease term to end at an appropriate expected time for renovation or redevelopment: in fact these end of term timing problems are a source of considerable difficulty. The end of lease clauses relate to any required valuation of the property, either the site or the buildings, and their ultimate ownership. In the absence of any contractual arrangements, the land, including the building, reverts to the landlord.

However it is not uncommon for the contract to provide that the building shall belong to the tenant and provide for the landlord to compensate for its return (which may necessitate a valuation provision). Alternatively the contract could provide for an option to purchase granted, to the tenant, in which case the determination of the purchase price should be set out.

The **rental clause** will have at least three parts: (i) the dollar rent or formula for determining the dollar rent; (ii) provisions for the payment of rent; and (iii) provisions for changing the rent during the term of the lease. The rent, or formula for determining rent, is a matter of negotiation. In general the rent will bear some close relationship to that charged on alternative properties available under similar lease conditions. The provision for the payment of rent may take several forms: fully prepaid, partially prepaid, or periodic (annually in most non-residential cases and monthly for most residential). If the rent is fully or partially prepaid, then some formula for finding the amount of the prepayment should be set out in the lease document.

The **repairs and maintenance clause** may take many forms but these can be characterized by the degree to which the tenant becomes directly responsible for the payment of the expenses and the extent to which the tenant bears responsibility for future increases in these expenses. At one extreme the landlord may bear responsibility for all expenses and this would be defined as a **gross lease** (one in which the rent paid is all inclusive). In this case the landlord not only pays the expenses but also assumes the risk for future increases (or benefits from future decreases). This type of rent expense provision is most common in short term occupation lease where the landlord can re-adjust the rent regularly to compensate for changes in the expenses. At the other extreme, the lease contract can provide for a **fully net** or **triple net** lease whereby the landlord receives a rent, net of all expenses, and the tenant pays all expenses, either directly or through the landlord, and bears the responsibility for all future changes in these expenses. Such a clause is most common in long term leases, particularly building leases, where the tenant has erected the structure and other improvements.

Between these two extremes are a myriad of options in which some, but not all, expenses are paid by the landlord (**partially net lease**), or where provision is made for the landlord to pay some (the **base expenses**) with the tenant responsibility for all future changes through some form of **escalation clause**. The important points are twofold: who pays and who bears the risk for future increases.

The **re-entry clause or forfeiture clause** sets out the circumstances under which the landlord can terminate the lease and recover the property (other than the end of the lease term). In general, and particularly in the residential market, landlords will find the courts are extremely reluctant to terminate except in the most extreme circumstances. In practise, providing the lease contract does not prevent sub-leasing or assignments, termination is not likely to be an issue: if the leasehold interest still has value the tenant will sub-let rather than have the lease terminated. If the leasehold has no value the tenant will simply surrender. Moreover the courts will generally require that permission to sub-let or assign not be **unreasonably withheld.**

Minimally, and without contractual requirement, a landlord covenants to give "quiet enjoyment" to the tenant; that is, to commit or permit no act that will disturb the tenant's enjoyment of his tenancy. In practice, the "quiet enjoyment" covenant is more often than not given in a qualified form which restricts a landlord's liability to the acts of himself or of agents acting on their behalf. The landlord may also agree to undertake other obligations such as to repair, meet particular capital or operating outgoings, maintain adjoining areas etc. The tenant's (lessee's) remedy for non-performance of covenants by the landlord (lessor) is to claim damages or seek specific performance. The tenant cannot (under Canadian or English law) withhold payment of rent for example, although in some countries whose legal codes are founded on Roman law he may.

At minimum the tenant covenants to pay the stipulated rent and to use the property in a "tenant-like" manner. Additionally the lease usually includes provisions relating to such things as repairs, insurance, alterations, improvements, use of property, assignment and sub-letting. The landlord's remedies for non-performance of covenants by the lessee invariably include a provision for re-entry and forfeiture of the lease, although in practice a landlord's powers of forfeiture are often restricted by the prevailing laws relating to landlord and tenant (and these laws are moving towards granting greater protection for tenants, particularly residential tenants). The asymmetry (in most countries) between remedies available to landlord and tenant for non-performance of lease covenants is seen by some as a significant shortcoming of the leasehold system.

Legally a lease is a contract between the parties to it and it establishes in favour of the tenant an estate or interest in the property rented. This **estate or interest in land** is junior to that of the landlord as owner of the fee simple interest and holder of the reversionary interest. This means that the obligations created by a lease contract are enforceable on the grounds of **privity of contract** as between the parties to the contract and on the grounds of **privity of estate** as between all subsequent interests created from the head lease or from the reversionary 'interest held by the landlord'. The significance of this distinction is apparent in any discussion of remedies for breach of covenant where a succession of leasehold interests is involved. The landlord and head-tenant are bound by privity of contract to perform the covenants in the lease and their liabilities continue even though the head-tenant may have passed on (by sub-lease or assignment) his leasehold interest to another.

Sub-tenants, either by sub-lease or assignment, have no privity of contract with the landlord but are bound to perform the covenants contained or implied in the lease by reason of privity of estate. (This does not however preclude subsequent sub-tenants from arranging their own sub-letting contracts which would then be binding on the parties to the contract.) Moreover it would not be uncommon for a sub-tenant to be asked to become a signature to the original head lease. But subsequent sub-tenants, although bound by privity of contract or estate to their immediate superior tenant, are not bound in the same way to any other superior tenant or to the landlord. If any sub-tenant fails to observe the covenants in a head lease, only his immediate superior interest (prior sub-tenant or head-tenant) can sue him (on the covenants in the sub-lease): the original landlord has no remedy against the sub-tenants directly; he can only sue the head-tenant for breach of covenants in the head lease and by way of proceedings for forfeiture of the head lease recover possession. This arrangement can obviously be altered by contract between the landlord and any subsequent sub-tenants and often is so altered.

This kind of situation, in which a number of intermediate interests may exist between a holder of a fee simple and the tenants actually in occupation of premises (a common situation where the original head lease was for a long term and tenants were granted the right to sub-lease or assign), can create enforcement problems. As Pennance [1974] noted, the deterioration often observed in urban leasehold property towards the end of a long term has been attributed to this cause:

> In such a case the freeholder has no contractual relationship with the occupiers, and in any case they may well be without the means to effect necessary repairs even if their tenancies impose any obligation

> in this respect. The intervening lessees - there may ... be head lessee, under-lessee and sub-underlessee - are concerned only with the collection of their respective rents and even if the freeholder is minded to sue on the covenants in the head lease it may well be difficult ... to trace the person, if any, on whom that liability has devolved. Proceedings for recovery of possession in such circumstances are cumbersome and costly and, if successful, may penalize occupying tenants for the defaults of intermediate landlords. The freeholder may therefore content himself with the collection of his ground rent and the ultimate prospect of possession of the premises at the end of the term in whatever condition they may be in.
>
> As a rule ... the longer the chain of leases the weaker [is] the effective control of the superior landlords. When leasehold interests are assigned, it is usual for the superior landlord to require that the assignee enters into a direct relationship with himself. In the case of sub-tenancies, however, control must rely on the reproduction of obligations through each lease or agreement in the chain, but the policies and intentions of the head lessor may be distorted long before the effects are felt by the occupying tenant ... Intermediate lessees [may have] little regard either for the long term objectives of the freeholders ... or the concerns of the tenants in occupation ... Within the leasehold system, the existence of intermediate interests represents one of the chief hindrances to effective estate management. [Pennance, page 11].

As noted earlier, an enormous variety of interests, differing in duration, character, and importance, fall within the general description of leaseholds. At one extreme there might be a tenant holding on a term of 999 years -a fee owner in all respects save for the liability to pay rent and to respect other lease covenants: at the other a weekly or monthly tenant renting a house or apartment for his own occupation. The term "leasehold system" is simply an omnibus expression covering the whole spectrum of leases used to make land available for development and occupation, from the initial grant of a long lease of an unimproved site to the ultimate tenant or tenants in actual occupation of building erected on the site. Within this leasehold system it is convenient to distinguish between **occupation leases** and **ground or building leases.**

## 3.2 Occupation Leases

**Occupation leases** describe situations where the tenant is in occupation of a developed property. The rent reserved in the lease relates to the developed property in question, having due regard to any tenant's covenants relating to use, repair, maintenance and other outgoing, alterations and improvements, assignments and sub-lettings. The lease term varies according to prevailing demand and supply considerations and in respect of particular parcels of real estate so that it is difficult to generalize. Generally however, terms are relatively short - typically month -to - month or yearly for residential and rarely longer than 35 years for non-residential.[7]

## 3.3 Ground Lease

In contrast to the occupation lease, **ground (or building) leases** typically are for a relatively long term. 99 years is regarded as a typical term: indeed, the expression "99-year lease" has been used synonymously with "ground lease". However, the 99 year term appears to have no particular merit and the determination of the lease term tends to vary over time.

The main distinction between occupation leases and ground leases is that, "ground leases" are granted in return for an undertaking by the head-tenant to erect improvements (either in the form of a building or subdivision services) on the site according to the specifications set by the fee simple holder (landlord). At the end of the lease term the ownership of the total improved parcel reverts to the landlord, unless there are contractual provisions to the contrary.

The expressions "ground rent", "land rent", and "site rent" are used interchangeably to describe the rent payable under a ground lease and to distinguish it from the rent paid for an occupation lease. (Similarly, the expressions "building lease", "ground lease", "land lease" are often used interchangeably although it should be recognized that it is possible to create ground or site leases in respect of real estate that are not building leases [Pennance, page 17].

[7] The range of occupation leases is described in Robbins [1989]. The menu includes "tenancy at sufferance", "tenancy at will", "tenancy for years", "year to year tenancy" and "periodic tenancy".

The rent payable under a ground lease is generally fixed by reference to the value of the site at the date of the lease contract, presumably taking into account any restrictions on the tenant imposed by the landlord and their mutual expectations relating to future rental levels and property values. The terms of the lease contract may make provision for periodic rent reviews to keep the rent in line with future property values. The rent paid under a ground lease is generally low in relation to the full market rental value of the developed property since the improvements or building, when erected on a site, provide the excellent security for the payment of the ground rent. Except in rare circumstances the head-tenant is not likely to default since the property (site plus building) would revert to the landlord. Hence these ground leases are considered to be particularly secure, especially when the structure is new or near new and the lease term is long. However the quality of the security may decline as the lease term shortens and/or as the structures become less valuable in the marketplace. This is one of the important differences between an occupation lease and a ground lease: with an ordinary occupation lease the credit standing of the tenant is particularly important since the property security is generally of limited value, and with a ground lease the leasehold interest itself offers significant security.

The actual granting of a ground lease is often preceded by a building agreement; an agreement that after the erection of buildings (or subdivision provided) to the required specifications, the landlord will execute a lease for the land. This affords a fee simple holder a greater measure of flexibility in the event the terms of the building agreement are not carried out. Ground leases - or agreements where these precede the granting of the lease - are likely to specify the form of land use permitted, the timing and type of development, the period of the ground lease, the rent payable, the landlord's and tenant's obligations, and the end-of-lease arrangements relating to the reversion. In general such ground leases tend to provide for **net rental** arrangements where the tenant assumes all responsibility for all operating expenses. In fact for income tax purposes the tenant who erects the building is assumed to "own" the building and can claim capital cost allowance (CCA) at the same rate and terms as a fee simple owner.[8]

[8] The income tax considerations of leasing are explained in more detail in section 6 of this report.

The end-of-lease arrangements underline the essential difference between freehold and leasehold interests. The tenant obtains possession of the land, subject to payment of a ground rent, for a term of years. Legally, he owns neither the land nor any buildings erected upon it. (The question of who actually built or paid for the buildings is irrelevant in this context.) The tenant owns only a interest which will cease to exist at the end of the lease. In turn the landlord retains only the right to the ground rent for the term of the lease plus the reversion to the whole parcel of land-and-building at the end of the lease term.

## 3.4 Advantages and Disadvantages of the Leasehold Option

The advantages and disadvantages of the leasehold option can be characterized as being in two classes: those which apply to the leasing of significant holdings in one or more locations, and those which relate to the leasing of a single property or a series of single properties in different locations. The first class of advantages and disadvantages refer to the use of a "leasehold system" while the second refer to site and situation specific advantages and disadvantages. In the former situation, the advantages claimed for use of the leasehold system lie into three areas:

1. Unification of the separate development functions of land ownership (planning, and subdivision and building). This represents an additional set of land use controls.
2. Maintaining good property management after development has occurred. and
3. Redevelopment efficiencies.

### 3.4.1 Unification of Separate Development Functions

The first advantage claimed for the leasehold option is that it will offer more and better opportunities for land use controls since the landlord can specify in the lease document any site specific conditions that are deemed desirable at the time (assuming of course that the tenant will agree and that the rental rate will reflect these additional constraints). The landlord may wish to use such terms and conditions in the lease contract for two reasons: to ensure the residual property value is maintained at the maximum possible value; and to ensure the development and use of the leased site is consistent with land use on adjacent sites (presumably also owned by the same landlord).[9]

This particular advantage must be considered in a modern context. Prior to the extensive use of public land use controls, it was reasonable to use either the lease option or a sale with restrictive covenants to control the development and subsequent use of particular sites.[10] In fact the lease option would be preferred to the sale with restrictive covenants on grounds of enforcement and effectiveness. However with modern land use controls in place, the use of the leasing option has less to offer in terms of land use control: less, but still some advantages. The lease contract can still be used to specify land use which is more stringent than, but consistent with, local land use by-laws. However the significance of this advantage has been greatly reduced with the introduction of modern public land use controls.

The unification of the development functions also allows the landlord to capture the positive externalities (and minimize negative externalities) created through the use of the leased lands.[11] This implicitly assumes that the landlord has more than one site, either adjacent or in close proximity, and the use of one affects the value of the others. Hence by maintaining land use controls, a landlord could structure the lease documents in such a way as to capture the positive externalities (and avoid or minimize the negative externalities). In effect to "internalize" the externalities.

It should be noted however that in order to realize significant positive externalities it will be necessary for the landlord to control a significant market share. A landlord supplying six lots or houses in a given area will be a "price-taker" in most respects and have very little control on the environment. A supplier of 200 lots or houses may be able to influence the market and enjoy the benefits of positive externalities.

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[9] These arguments are developed by Archer [1974], Archer [1977] and Bryant [1972]. A counter argument is presented by Pennance [n.d.].

[10] The importance of such planning control through the use of leasehold estates is apparent in reading the history of some of the large leasehold programmes. See, for example, IFHP [1986], especially pages 7-15.

[11] For a discussion of externalities and their role in real property markets see Hagman and Misczynski [1978] and Siegan [1972]. An extension earlier analysis is found in the Uthwatt Report [1942].

It should also be noted that this advantage is also one of the disadvantages of the leasehold system. While the lease document may provide for what seems to be a reasonable land use at the time the contract is signed, the passage of time may well alter the market circumstances and changing the lease document accordingly may be difficult, particularly if the original tenant has sub-let. The "tighter" the lease contract in the first place, the less flexible it is likely to be and the more difficult it will be to change.

### 3.4.2 Good Property Management

The second advantage mentioned relates to the ongoing property management. The argument is advanced that the leasehold contract can afford better ongoing control of a site. Once again this argument might have carried more weight before the widespread use of public land use controls. The landlord can specify the required level of maintenance to prevent the leased area from becoming run-down.

The realization of this advantage obviously rests with the strength of the lease covenants and the enforcement mechanisms available at the time these are breached. If market forces warranted the maintenance and repairs to the standard set out in the lease contract, then the tenants would have an incentive to do so. If market forces did not warrant such repairs and maintenance it is doubtful that they would be enforced by the courts, particularly in residential leases, if they were deemed unreasonable.

### 3.4.3 Redevelopment Unification

The third advantage claimed for the leasehold system is that it provides for unification of title for redevelopment. The implicit assumption is that the end of the lease term will coincide with the proper time to redevelop. Hence redevelopment is made more efficient. This advantage rests on the fact that all leases can be designed to end at the same time,and at the right time, hence permitting redevelopment without the need for extensive and costly land assembly. These circumstances are likely to be the exception, not the norm. Such as system would, so the argument goes, avoid both the need to share developers profit in land assembly and avoid the "prisoner's dilemma" (where no one land owner is prepared to be the first to re-develop) so common in such circumstances.[12]

This redevelopment argument is not convincing. While it is true that having all leases expire at the same time will permit complete redevelopment, it is not clear that the timing will be necessarily correct. How is it possible to decide today, when the lease contract is signed, that, say 50 years from today, is the correct time? In some sense this can become a self fulfilling prophesy since tenants will tend to let the property decline as the lease term approaches maturity. Moreover the dynamics of the market are such that what was once an efficient parcel of land (in terms of planning controls) is not necessarily the most efficient parcel 50 years later.

If the original lease term is, in fact, proven to be incorrect, tenants may complain that the landlord is making an unacceptable gain in that the reverted building is still the best use of the site and, in the case of a building lease, tenants feel they "own' the building. The fact that the economic life of the building may, and frequently does, outlive the lease term gives rise to a major source of concern relating to the distributional aspects. While the terms of the lease contract may be very clear, this does nothing to abate the feeling of injustice, particularly as a landlord acquires, through the termination of a lease, a building which was originally erected by a tenant. If such tenants are a small minority, their concerns will likely go unheeded. However as has been amply demonstrated in England, a large number of tenants facing similar circumstances can, and do, represent a strong political force. The fact that the government of England elected to overrule the leasehold contracts and grant new rights to tenants is ample evidence of the political risks of such leasehold systems.

The British White Paper on Leasehold Reform addressed this issue:

> Not unnaturally, an occupying leaseholder who, at the end of the term, has lived in it for a period of years, regards it as his family home. It is in such cases indefensible, if justice is to be done as between freeholder and occupying tenant, that at the end of the term, the law should allow the ownership of the house to revert to the freehold without his paying for it... These lease are beginning to fall in and the leaseholders are now experiencing the full harshness of the leasehold system. In the Government's view the basic principle of a reform that will do justice between the parties should be that the freeholder owns the land and the occupying leaseholder is

[12] The "prisoner's dilemma" refers to situations where all parties could benefit if they were to act collectively but it is in each individual's best interest to act in a contrary manner. If all criminals charged in a case remain silent, they are all freed; if one confesses he may get a light sentence but all suffer more than if no one confesses.

> morally entitled to the ownership of the building... [H.M.S.O. Cmnd. 2916]

The 1967 Leasehold Reform Act instituted these changes without any apparent regard for the fact the lease contracts, available to all sub-tenants, provided otherwise. A clear victory for distributional considerations over allocational considerations (or was it political considerations given the high percentage of tenants (voters)).

Archer [1974] summarizes these arguments in favour of a leasehold system as follows:

> The failure of the freehold land and statutory planning system of urban development to regulate new urban development and redevelopment in an efficient way raises the possibility of adopting an alternative urban development system in which the control and decision-making roles of landlords, developers,land users and urban planners are re-defined and re-structured.... This would provide a leasehold system of urban development (and redevelopment) in which the planning, land development and site allocation functions are centralized in a single organization while the building development is carried out by a large number of developers. [page 71]

While Archer is primarily concerned with the urban fringe, his analysis extends to the entire community through the redevelopment activities. It should also be noted that Archer explicitly assumes that the landlord must be in possession of significant tracts of land to realize these gains in the system.

Pennance [1974A] is somewhat more sceptical:

> Some informed commentators regard the building lease system as the perfect vehicle for informed land-use -planning, whether by public or private agencies. They stress the system's inbuilt capacity for flexible land-use control by means of leasehold covenants and the possibilities it offers for planning reversions and orderly redevelopment.... Others see it as an ideal mechanism when used in conjunction with public ownership to ensure that any increments in land value that accrue... finish up in the public purse....
> Others have been more critical of its disadvantages in practise. They have stressed the effects of such onerous covenants and lessor's restrictions on assignments and sub-leasing in hamstringing tenants' ability to adapt real estate to changing demands. They point to the tenant insecurity generated as the lease term begins to run out and to the loss felt by leaseholders on what they regard as expropriation without compensation of 'their' buildings at the end of the lease. [page 17]

On balance the advantages held for the widespread use of a leasehold system would appear to be largely pre-empted by our modern land use controls and extensive provision of public services.

On a smaller scale, the leasehold option offers some advantages to both the landlord and tenant, depending upon their circumstances. For some landlords the opportunity to sell fee simple is not attractive, either because of some personal planning requirements or because of the tax consequences of the sale rather than the leasing of the property. Hence the leasing option becomes attractive. Similarly for some tenants the leasehold option, which separates to a large degree the **consumption** of real estate from the **investment aspects**, offers opportunities to arrange a more optimal combination of consumption and investment. In particular the lease offers an tenant the opportunity of consuming a level of housing services that they otherwise could not afford to purchase, but at the expense of the investment aspects. It is this latter advantage that makes leasing attractive in addressing the affordability issue.

The leasehold option also has the potential to assist the cash flow problems facing tenants. The lease option can, at one extreme, provide **100% financing on the land component**, or alternatively, reduce the typical down payment required. In order to obtain 100% financing on the land, it follows that the tenant must be paying an annual (or monthly) rent rather than a prepaid land lease. While annual land payments are a common form of lease payments (and are used for many of the residential land leases in Canada), this arrangement has some unfortunate consequences. If the land rent is not subsidized, then either the tenant must face the prospect of annual increases in the site rent (although rent decreases are possible, the trend in land prices has been generally upward). If land rents are fixed for a set period of time, say 10 years, then the annual cash flow planning problem is lessen but the fixed rent, if it is not to be subsidized, will be greater than the one year (or spot) rent. Without worrying about the details at this stage, the ten year fixed rent would be approximately the average of the expected one year rents over the coming 10 years. For example, if the one year (or spot) rent is $1,500 per annum and rents are expected to increase at 5% per annum, then a tenant electing to pay annual variable rents would face the rent pattern shown in column 2 of Table 3.1. In contrast a tenant who elects a fixed rent for 10 years would face a fixed rent in the order of $1,823 (the simple 10 year average rent).[13]

[13] In fact the fixed rent would not generally be a simple average but this is sufficient for illustrative purposes.

| Table 3.1<br>Alternative Rent Schedules<br>Fixed and Variable Rents | | |
|---|---|---|
| Year | Variable Rent | Fixed Rent |
| 1 | $1,500 | $1,823 |
| 2 | $1,575 | $1,823 |
| 3 | $1,654 | $1,823 |
| 4 | $1,736 | $1,823 |
| 5 | $1,823 | $1,823 |
| 6 | $1,914 | $1,823 |
| 7 | $2,010 | $1,823 |
| 8 | $2,111 | $1,823 |
| 9 | $2,216 | $1,823 |
| 10 | $2,327 | $1,823 |

Hence in selecting the "100% land financing" option, tenants must decide whether they can afford to face an uncertain annual variable rent schedule or whether they prefer a certain rent schedule. Obviously the longer the rent is fixed, the higher the rent paid at the beginning of the lease term (relative to the variable rent) and conversely towards the end of the rent period. This problem is exactly the same as the one facing a mortgagor: to select a five year fixed interest mortgage or a variable rate and variable payment mortgage. And the evidence strongly suggests the borrowers opt for certainty (the fixed rate mortgage) and one suspects the tenants would behave similarly.

There is another possible land financing arrangement and that is to prepay, or partially prepay, the land rent and finance this separately or jointly along with any improvements. At the extreme, the tenant could agree to fully prepay the land rent. If this is the case, then the leasing arrangement does less to resolve the downpayment concerns. Assume for the moment a house is available for $200,000 and a loan can be obtained for 75%. In this case the household faces a $50,000 downpayment requirement and payments on a standard $150,000 loan.

Assume further that the fee simple site represents 40% of the developed property value. If the option exists, the household might consider a fully prepaid land lease costing, say $60,000, and erecting their own house at a cost of $120,000 for a total cost of $180,000. (the land leasing results in a "savings" of $20,000). **If the household** could still arrange a 75% loan, the required downpayment is $45,000 (a "savings" of $5,000 over the fee simple option) and the loan is $135,000 ($15,000) less than the purchase option. **Providing the lenders do not reduce the loan-value ratio** available on the lease option below 72.2%, the household could realize some reduction in the downpayment. This aspect is more fully developed in section 6 but it is obvious that the leasehold option has the potential to either reduce the downpayment and/or to reduce the periodic payments, even allowing for some slippage to the lenders.

## 3.5 Income Tax and Leasehold Interests

Frequently one finds some income tax advantages in using the leasehold option rather than outright sale. In terms of this report, there are no income tax advantages to the landlord since the landlord is assumed to be the Crown (or a near Crown agency). Are there any income tax advantages (or disadvantages) to the tenants? Three classes of tenants should be considered:

1) The head-tenant occupant who uses this as the principal residence.
2) The head-tenant whose principal business is developing real property and who will sub-lease or assign once the building is erected. and
3) The head-tenant whose principal business is <u>not</u> the development of real property but who has developed on building, on leased land which is then sub-leased or assigned.

### 3.5.1 <u>Principal Residence of Head-Tenant</u>

If the leasehold interest is to become the principal residence of the occupant, then it holds **no income tax implications**. In Canada the principal residence is an "after tax matter" and neither lease payments nor interest payments are tax deductible, nor is imputed rent taxable (unlike the USA where interest payments, but not lease payments, are tax deductible for principal residences). This principal residence, whether fee simple or leasehold, is paid for out of after tax dollars (payments on any mortgage, both principal and interest, lease payments, and all operating costs).[14] On the other hand the imputed rent is not taxable and capital gains are not taxable. Hence for a tenant who leases from the Crown, builds and occupies as a principal residence, there are no income tax implications. It does not matter whether the land rent is periodic or prepaid.

### 3.5.2 Head-Tenant Whose Principal Business is Real Estate

If the land lease is to an intermediary head-tenant who erects the building and then sub-lets, or assigns, some tax implications come into play, and the effects are not always straightforward. If such an investor buys fee simple, he may deduct interest on the mortgage and capital cost allowance (CCA) on the building component even if these create a negative taxable income. Similarly the investor who leases the land and erects the building may deduct interest, the CCA according to the same rules, and the land rents. Once again there may result in a negative taxable income. It should be noted that the tax rules which prohibit a "CCA created loss" do not apply if the taxpayer is conducting real estate as a principal business.[15] Therefore, if such investors purchase the land, they may deduct all available CCA plus all interest on the mortgage (which presumably finances both the land acquisition and the building development). Alternatively such investors could lease the land with periodic land rents, deduct the land rents, available CCA on the building and interest on the building and interest on the mortgage (presumably for the building component only). If the land lease is prepaid, the investor could deduct CCA available on the building, interest on the mortgage (on both the building component and the prepayment for the land) and amortize the land lease prepayment over the lease term in some "reasonable manner."[16]

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[14] A principal residence may be "a housing unit, a leasehold interest in a housing unit, or...." Income Tax Act para 54(g).

[15] Subsection 1100(1) of the Regulations of the Income Tax Act restricts the maximum amount of CCA that a taxpayer can claim with respect to real property that is considered to be rental property. The effect of the restriction is to limit CCA otherwise available, such that taxable income is not reduced below zero. This restriction does not apply to "a corporation whose principal business was the leasing, rental, development or sale or any combination thereof, of real property owned by it..."

[16] The prepaid land rent is not a capital cost, not part of the Class 13 and not subject to the 5-40 year straight line regulations. The annual deduction claimed for prepaid land rent may vary from year to year but straight line amortization is generally accepted. A test of "reasonableness" is applied to the amortization.

The resulting income tax implications for this type of head-tenant will depend upon the amount of land rent deducted each year relative to the change in mortgage interest occasioned by the changing loan amount for the leased land (v. fee ownership).

Once the head-tenant sub-lets to an occupier, with periodic rents, the rents received become taxable income (subject to deduction of expenses). If the head-tenant sub-leases or assigns on a prepaid basis, the prepaid rent can be allocated, for tax purposes, over the period to which it reasonably applies (even though it is prepaid).

If the sub-tenant is using the property for residential purposes, whether as a tenant or as a principal residence, no income tax implications arise.

### 3.5.3 Head-Tenant Whose Principal Business is Not Real Estate

The third category is the occasional investor who becomes a head-tenant, erects a building on the leased land and then sub-lets or assigns. What complicates matters in this case are the limitations on the deductions. Without unnecessary details, the deductions, including interest on the loan, CCA and land rent cannot exceed the net operating income (rents less operating expenses) obtained from the property. When they do, less CCA must be taken. In periods of rapid increases in property values, prices are bid up and the rental income represents a smaller portion of the overall expected yield (the remainder coming from capital gains). Similarly high interest rates implies higher interest payments for every dollar borrowed and these two circumstances combine to push deductions beyond the permitted level. These points will be developed and illustrated more fully in section 6. Sufficient to note at this stage that the present income tax limitations on deductions for rental properties for this class of head-tenant, combined with high interest rates and high levels of capital gains on real property have taken away some of the former advantages of land leasing.[17]

[17] In 1989 several income tax changes were made with respect to capital and operating leases. These changes do not affect the leasing of real property or land. For a description of the changes, see Budget Papers, Department of Finance, Canada, (April 27, 1989) pp 44-48.

## 3.6 Leasing: Pros and Cons

It has been claimed that leasing, not just land but any asset, offers the advantage of **"off-balance sheet" financing**. That is, the lease obligations do not appear as an obligation within the financial statements, but rather as a footnote. This was once an important consideration but is of limited value today for two reasons: modern accounting principles are promoting more complete disclosure; and auditors are becoming much more concerned that all major financial obligations be noted, and prominently so. In fact the move is towards current value accounting which is to include the value of all material obligations. Major rating services are mindful of such "off-balance sheet" obligations and take these into consideration. All in all this is not likely a matter of significance and would not be perceived today as a major advantage. In fact it is the abuses of the past that have made our current financial community so aware of these "non-liability" liabilities.

One other advantage mentioned in the terms of reference for this study was the fact that the land lease rate is generally lower than the interest rate on mortgages (reflecting the extra protection value of the reversionary interest affords to the landlord). This argument rests on the notion that the yield required in the market is a composite of two parts: a "dividend" and a "capital gain" component. The argument is advanced that a mortgage lender sets the interest rate to reflect the fact there is no capital gain on the mortgage (if held to maturity), the return is all in the dividend or interest. In contrast the landlord sets the rental rate with the knowledge there is an expected capital gain (assuming property values increase). Obviously there are other differences due to risk and administrative costs, but these can be left aside for now.

Current market conditions illustrate this point. Mortgage rates are in the range of 13-14% yet the ratio of current rents to market prices are in the order of 6-8% (and expected capital gains account for much of the difference). While these conditions indicate potential for "savings" by using the lease option, providing the market is working with some degree of efficiency, the "savings" should be just enough to offset the loss of downstream benefits. A proper cost-benefit analysis will reveal the significance of this advantage: an advantage in addressing affordability but at the expense of saving in the long run. Once again this point will be illustrated in section 6.

What are the principal disadvantages of the lease option in specific cases (as opposed to a major leasehold system)? The most obvious one is that most Canadians are not familiar with the option, and those that are do not seem to favour it. Moreover the lending institutions in Canada appear to discriminate against leasehold interests, both in terms of the loan-to-value ratios offered and in the interest rates. This lender discrimination appears to increase as the lease term shortens. This lender discrimination does not appear to be limited to Canada [Fry and Mak, 1984]. The combination of lender discrimination and market resistance makes the leasehold interest a less marketable asset than the fee simple. This point was noted in the District of North Vancouver and the City of Vancouver relating to their residential leases, and was one of the major factors prompting the District of North Vancouver to discontinue their land leasing program and permit tenants to buy up their fee simple interests (see section 5).

The other major disadvantages are those relating to the lease as it approaches either the end of the term or the point of rent review. Whether through ignorance, neglect or differences in future outlooks, tenants appear to feel "cheated' when they must give up their "home" to a landlord, even though the lease contract so provided many years earlier. Similarly rental increase, especially if they occur infrequently and represent significant increases, evoke a sense of "unfairness". If the tenants are a small minority, they likely have little choice but to accept. But as was illustrated in England (see section 5), a major block of tenants (who are also voters) can influence government to take action against private contracts and rewrite the contracts in the **interest of equity,** as seen after the fact.

There are some other minor, and temporary, disadvantages of the residential leasehold option in that many of the provincial statutes have not been updated to fully acknowledge the role of residential leases in modern society. The fact that provinces do not allow condominiums to be built on leased land is an inconvenience which should be addressed. Even in B.C. the land used for condominiums must be leased from the "crown" or "government agency" and the "condominium owner" has the right to be paid for the building value at the end of the lease term. Just why the leases must be from the public sector and not the private sector is subject to some debate but it presumably reflects a belief the public landlord will be more honourable and fair.

On balance the single most significant advantages of the leasehold option is that it permits a separation, in part or in total, between the consumption of housing services and the investment decision. In the fee simple option, the household simultaneously decides upon their consumption and investment strategy, except as so far a mortgage financing can alter these. The ground lease option provides the household with a means of deciding upon housing consumption, independent of the investment decision: they can live in their dream home (on leased land or leased in total) while investing their equity money elsewhere. To the extent this improves the efficiency of the market, society gains.

# 4. AFFORDABILITY: A DIGRESSION

The term "affordable", as it relates to housing, refers to a largely subjective determination of some level at which a household has a problem paying for their housing. It is generally defined by the CMHC and various other public and private organizations as **annual housing costs** (including rent or mortgage payments, and property taxes) which do not exceed 30 percent of the gross annual income of a household. Affordable housing also implicitly encompasses housing that meets acceptable health and safety standards and that is adequate and suitable for the particular occupant. It should be noted that reference to "affordability" generally relates to **annual cash flows**, not incomes and expenses which may or may not represent cash outlays. As Goldberg [1983] notes, in determining affordability, consideration must be given to house and land prices, rents, financing costs, transaction costs and maintenance costs, all of which affect the cost of owning or renting housing. Fallis [1983] states that the full argument for measuring affordability should be that if a household spends more than 30% of its income on housing <u>and has a low income</u>, then it will not have sufficient money left over to acquire the socially acceptable minimum of other goods and services, therefore there is a social problem.

Fallis goes on to outline several problems with the traditional definition of affordability. The traditional measure of affordability implies that households with high incomes spending more than 30% of their income on housing have a housing "problem", which is clearly wrong since these households have chosen to consume more than the socially acceptable minimum level of housing. The traditional approach is also misleading in that it labels the inadequate consumption of non-housing items as a housing problem and diverts attention from the basic problem that, for many households, income is too low to buy the socially acceptable minimum of all commodities.

Hulchanski [1984] notes that CMHC used a "core housing need" approach which referred to lower income households spending more than 30% of their income on rent. While this is still an arbitrary definition, at least it removes high income households from consideration and addresses some of the concerns raised by Fallis.

The Vancouver City Planning Department, in a 1981 study, used a rent-to-income ratio of 25%

applied to different sizes of households and incomes to determine the level of "affordable" rents.

Other measures of affordability include the portion of households that can afford the median priced house. Tucillo [1983] states that if housing expenditures are restricted to 25% of household income, then this measure indicates declining affordability; however, the fact that many households are sustaining mortgage payment-to-income ratios in excess of 25% means the arbitrary value of 25% is a reasonable criteria.

Other affordability studies have compared changes in the ratio of housing costs to incomes over time to indicate declining affordability. The problem with this approach, according to Fallis [1983], is that the comparisons have usually used an inappropriate index of housing costs. Fallis contends that the cost of consuming the **flow** of services provided by a house should be measured (either with rental equivalency or user cost) rather that the acquisition cost of housing, presumably because of the investment component of a house purchase.

Another measure that has been used is framing the affordability question as "Is it more difficult for the young family today to buy a house than for the young family 20 years ago?" Again Fallis contends that the user cost of consuming the flow of shelter must be used in the determination.

It should be noted that "affordability" can have another meaning: a **capital constraint**. Some households are able to meet the annual (actually monthly) cash flows after depositing a reasonable downpayment but they do not have the downpayment required. In the absence of borrowing constraints, such households would simply borrow more but the borrowing constraints are real and binding. The majority of the literature describe affordability in terms of meeting the annual (or monthly) cash flow requirements.

One solution to the affordability issue would be to require the households to consume cheaper housing, but this conflicts with the requirement that the housing be "adequate". Moreover at the lower end of the price (and income) scale, there may be no housing which meets even the lowest of acceptable standards and still is affordable. To some extent there is a paradox: raising housing standards to protect the lower income household simultaneously make housing less affordable.

It is also obvious that almost any household could find a house which had monthly payments that would exceed 30% of their income. However for these households the "over-expenditure" on housing would be a matter of choice: the concern here is with those households who cannot find housing **of an acceptable minimum standard that costs less than 30% of their income.**

The Ontario Government recently utilized the 30% affordability criteria when they published some housing development guidelines that define affordable housing to be housing that would be affordable to low and moderate income households (i.e. within the lowest 60 percent of the income distribution in specified housing regions) [Ontario, 1989]. The reason these guidelines were published, and why they provided for local variation in incomes, rents and housing prices, is that the policies relate to new housing development and the requirement that developers provide 25% of their new housing to fit within the affordability guideline. The government is attempting to ensure that all new developments provide at least 25% "affordable housing" to serve the lowest 60th percent of the income scale.

Affordable price and rental benchmarks published by the Ontario government in November 1989 were calculated based on Census household income data, adjusted for inflation, a 30 percent gross debt service ratio, a real property tax rate equal to 0.10 percent of the house value, a mortgage rate of 12.25 percent amortized over 25 years, and rents based on 30 percent of monthly household income. Accordingly, in the Toronto CMA for example, 1989 household income in the 60th percentile was $55,800, resulting in an affordable house price benchmark of $157,500 and an affordable monthly rental benchmark of $1,400 [Ontario Information Bulletin, 1990]. Ontario's policies appear to require that 25 percent of all new housing be affordable. That is, the price to the initial purchaser of the dwelling or the rent paid by the initial tenant be affordable to households within the lowest 60 percent of the income distribution. Just how this is to be enforced is less clear.

While the Ontario policies, if enforced, would ensure some new housing which is affordable to the 60th percentile of incomes, the plan does not appear to provide any mechanism to ensure these are actually made available to this particular targeted income group. Moreover there appears to be no provision to prevent subsequent resale outside this income group, a major problem in the earlier Home program (see next section). Unless these housing units are "locked into" an income specific market, it is unlikely the plan will have significant impact on the affordability concerns. And even if the housing units are locked in, it should be apparent that the Ontario plan is not likely to assist those most in need: the bottom 25% of the income scale who are most often cited as the group needing assistance. For a discussion of the implications of a subsidy on subsequent purchasers, see section 7.

Some mention should be made of the "parentage" of the 30% guideline for affordability. This ratio has been used for a number of years, with minor modifications for what is included in the cost side of the ratio. Since housing costs are paid from after tax income, but this ratio is based on pre(income) tax, changes in income tax over time should be considered. This has not been the case in Canada since this ratio has not been adjusted to reflect any changes in the effect of taxation. Hence, as the share of income taken for tax purposes has increased over recent years, no corresponding adjustment has been made in this ratio.

# 5. RESIDENTIAL LAND LEASING IN PRACTICE

## 5.1 Other Countries

Since the main purpose of this report is to explore the use of land leases to address the affordability issue, this review of the use of residential leasing elsewhere will be brief. Residential ground leases are common in many parts of the world and have been in one form or another since earliest times. For example, the central government owns all or part of the land for urban development in Israel, the Sudan, Kenya, Uganda, Hong Kong and Singapore, and in the national capitals of New Delhi, India and Canberra, Australia. These governments have adopted various forms of administration and management including government agencies, empowering municipalities to act or granting leases of large areas to private organizations. Local or municipal leasehold systems are in place in some cities in the Netherlands, Sweden, Norway, West Germany, and England. Private leasehold estates are traditional in Britain (although this is changing), Ireland and Hawaii [Archer, 1984 and IFHP,1985]. Generally such leasehold rights are considered to be proprietary rights and are treated as real property rights.

About 90 percent of the land in Israel, is state-owned [Darwin, 1987]. However, while state leasing policies cover about 90% of the lands in Israel, the remaining 10% is amongst the most valuable central urban lands in the country, it is privately held and sets the market for most land transactions [Haim Darin-Drabkin, 1977]. The Israel Lands Authority (ILA) is the national government agency empowered to manage the state land and to implement development plans formulated by the Israel Land Council, the nation's land policy body. National land policy is guided by four principles:

- Land is allocated only after its use has been determined and its planning completed.
- The ILA is empowered to terminate or nullify a lease contract if the developer fails to complete any phase of development within the time prescribed in the contract. Thus land hoarding and speculation is discouraged.
- Urban land not designated for public purpose can <u>only be leased and not sold except</u> with government approval.
- Only 24,500 acres (10,000 ha) of the urban land administered by the ILA may be disposed of as freehold land. [Darwin, page 84-85]

Public land is allocated according to the developer and the land use. The main residential land use allocations are granted to the Ministry of Housing and Building for the supply of certified housing, development companies and private developers,. and the "self help" housing scheme (under which local residents seeking improved standard of living are offered land parcels at attractive prices in developing towns).

Under the original leasehold system (1965 version) lease terms were for 49 years with the right of extension for another 49 years. The initial pre-payment by the leaseholder represented between 40 percent and 80 percent of the then prevailing market value of the land (as determined by the government assessor). The actual percentage depended on the development status of the region in which the land was located and the designated use. Ensuing annual payments comprised 5 percent of the remaining unpaid balance of the assessed land value, but every seven years the ILA may add 35% to the "unpaid balance" to compensate for increased land values. For example if the initial payment was 40%, the subsequent annual payments were 3% (5% x 60%) of the annual land value. Lease extensions required a new contract but not a new first payment. The annual payments on renewal were based on the value of the land, valued as an undeveloped parcel, at the time of renewal.

When the lease is sold (assigned) to another tenant, the ILA was entitled to a "consent payment" of up to one-third of the increment in land value.

In 1974 the system of residential leasing was changed. Beginning in 1974 all new leases provided for <u>prepaid</u> rent equal to 91% of the estimated land value. This change reflected a "desire to minimize the financial relationship and the ensuing friction between the landowner and the leaseholder" [Darin, p.91]. Consent payments were also eliminated. In addition, all renewals of existing residential leases would require fully prepaid renewal rents.

The trend in the leasehold system appears to favour long (renewals up to 999 years) lease terms and higher prepaid rent requirements to minimize friction with tenants at rent renewals and at the time a lease is sold.

In those cases where tenants (or prospective tenants) were offered a right to acquire a fee simple interest, the majority elected to continue lease, because of the financial attraction of the particular lease arrangement in which the prepayment is only 91% of estimated land value.

In **Hong Kong**, an extreme example, all land is owned by the Crown which leases the land in the New Territories on a 99 year lease from the Chinese government (ending in 1997). All development is leasehold, leases for land available to the private sector are sold at auction to the highest bidder. Originally, leases were for terms of 75.99 or 99.9 years but urban area lease terms have since been standardized to 75 years, renewable at a re-assessed yearly rent. The policy for land grants and leases was changed in 1985 following the Sino-British Joint Declaration. Land grants are now made for terms expiring no later than June 30, 2047. Both a lease premium and nominal rent are payable on leases until June 30, 1997, after which an annual rent representing 3% of the property's rateable value will be charged. Leases expiring on or before 1997 may be extended to 2047.

Leasehold covenants in Hong Kong are used to complement town planning policy, but a considerable degree of flexibility is imported into the system by a policy of surrender and re-grant of leases where higher density development is planned. In allocating land, priority is given to government housing programs. Land for the public rental projects of the Hong Kong Housing Authority and for the Home Ownership Scheme (HOS) is provided free. The HOS is a program designed to provide lower-middle income families and public housing tenants the opportunity to purchase apartments at lower-than-market prices. Special terms are also granted to non-profit housing organizations.

The **Australian** Government owns the freehold of all the urban land and most of the federal territory area in the national capital of Canberra. All private development in Canberra is conducted through building leases which are administered by the Department of the Interior and its subordinate body, the National Capital Development Commission.

Planning control and the discouragement of land speculation during the development of the capital were driving factors in the decisions of the government to acquire the territory for the capital and to lease land for private occupation [Neutz, 1988]. Additional objectives were to ensure the availability of land for government purposes and to allow grants of land at little cost to non-profit bodies. The leasehold system was later altered to include the private sector in a development role the city, thereby freeing public sector resources for those development tasks exclusively within the realm of government while retaining full public sector planning control over development.

As in Hong Kong, private housing sites in Canberra are allocated at land auctions. The "price" of each site generally comprises the amount of the premium bid plus the reserve price. The reserve price is the upset price representing the costs of subdivision and site servicing multiplied by a valuation factor. A site is withdrawn if bids do not at least meet the reserve price. Residential leases, for a term of 99 years, are granted by tender. The tender price (the premium) was initially the price over and above an annual rent set at 5% of assessed value of the land. In 1970 the bidding became a fully prepaid system and annual rental payments were effectively abolished. "Once developed, leases could be bought and sold like freehold elsewhere." Lease terms extend up to 99 years at the end of which the site may revert to the government with compensation for the building. The government has stated that residential leases will be renewed at the expiry of their terms without requiring payment of an additional premium. Lease clauses specify land use, minimum values of the improvements and time limits for completion of development.

It might be argued that the structure of leaseholds in Canberra comes very close to that of freehold:

> Virtually everyone who buys a residential lease in Canberra is relatively new to Canberra and so new to leasehold. The land an individual builds his house on is still land, whether he holds in freehold or under lease, and he buys it at auction, pays no rent on it, is entitled to the use of it for longer than he can possibly live and can sell it under the same conditions, then there is no difference to him between leasehold and freehold. Thus, for practical purposes, he holds it freehold and pays for it accordingly. [Brammal,1972, pages 53-58]

It may therefore be argued that the similarity in structure of leaseholds to freeholds produced large price increases for Canberra residential land. Archer [1977] has noted that prices and premiums have compared favourably with prices paid for fully serviced sites in other Australian cities which did not use leaseholds [Archer, 1977]. However, the government did respond to increases in the overall level of land prices and premiums by introducing two special classes of auction. The first, the "restricted class" of auction was designed to maintain price stability to enable persons with limited resources building their first home in Canberra to purchase sites at lower (subsidized) prices. The second, the "grouped lot" class of auction enabled "speculative builders" to purchase groups of sites as single lots thereby permitting economies of scale in building; at the time of Archer's paper, 40 percent of private house sites were sold at "grouped lot" auctions.

The Australian government's present philosophy that land development functions will be privatized in Canberra could result in reduced integration of planning and development. As developers are likely to want to influence lease conditions by demanding more permissive land use clauses in order to enhance the market value of leases, there will be increased pressure to convert leaseholds to freeholds. Ultimately, the present effectiveness of leasehold system as a planning development instrument could be adversely affected.

The present situation in Canberra is moving more and more towards a fee simple system with traditional land use controls. The fully prepaid lease has created a long term (99 year with renewal) valuable asset which is fully marketable. Breaches of lease covenants appear to be poorly enforced.

In some parts of **Sweden, Finland, and the Netherlands**, leasehold is increasingly used as a land policy instrument to combine public ownership and control of land with private development. Sweden has one of the oldest, most extensive municipal land leasehold systems in the world. The officially stated reason for the widespread use of the system is to retain title and control in order to regulate growth and design and to earn revenue - the appreciation in land values benefits society rather than the private developer or owner. The country's tax system is structured such that homeownership is not financially advantageous relative to renting or leasing. Unlike Canadians, the Swedish people do not have a strong preference for homeownership due to cultural reasons as well as substantial legislative protection given to lessees. Ninety-nine percent of all land leases are municipal leases, 95 percent of these leases are of a residential nature [IFHP, 1985].

Rather than follow the British example of giving the leaseholder power to acquire the freehold and thus diminish the power of leasehold controls, Swedish legislation has in recent years sought to intensify leasehold control by permitting more frequent re-negotiation of rents. The lease is valid for an unlimited period, Under the perpetual leasehold, the leasehold right is indefinite but is divided into terms. The first contract has a term of 60 years (for housing sites) and ensuing contracts have terms of 40 years. After each term, the landowner and tenant must agree on the conditions for a new contract; arbitration or litigation is employed in the event that private negotiations fail to produce agreement.

Lease payments are set below market value (subsidized) and are designed to cover only the interest on the financing charges of the land and infrastructure costs, but not reimbursements for capital expenditures. Upon entering a new lease the leaseholder pays an annual amount representing a percentage of the property value (consisting of the cost of the land to the city including the purchase price, site preparation costs,and interest and administrative expenses). All amounts are assessed at book value, do not account for inflation and therefore do not reflect market value. Rents are set for 10 year periods, the percentage rates being based on a recommended rate issued annually by the Swedish Association of Local Governments based on the current average interest rate on municipal bonds with a 10 year maturity. Thus the scheme resembles a loan to the leaseholder equivalent to the cost of the land to the government with the land rent being the interest payments on the loan. Renegotiated rents are based on the property's market value, a "fair" return on it, restrictions specified in the lease and rents for comparable properties [Ratzka, 1981].

The leaseholder's interests are well protected by legislation. Leases are subject to termination notice (2 years prior to the end of the lease term) but the municipality is obliged to prove in court that there is a compelling public interest for the land to be used for another purpose. Municipalities may also be obliged to expropriate land with suitable compensation if they wish to repossess the property prior to the expiration of the lease and to compensate leaseholders for the improvements on the land should the lease not be renewed upon expiry.

Stockholm has had an aggressive policy of land acquisition to add to its "bank of land". The city is one of 52 Swedish municipalities, out of a total number of 220 municipalities, which has made considerable use of the leasehold system. By 1970, it owned about 128,500 acres (52,000 ha) of land including virtually all the undeveloped land within its boundaries. Total leasehold land represents about 7,200 acres (2,900 ha), 80 percent of which is residential land. Municipally-owned residential land comprises 53 percent of all residential land in the city, most of which is located in the outer districts and satellite towns.

The goals of the Stockholm system were threefold:

- to reduce the housing costs for low and middle income households;
- to recapture future expected increases in land value for the public; and
- to increase planning control over the city.

According to an analysis by Ratzka [1981], the system has largely failed as a single detached dwelling housing subsidy instrument for low and middle income households. These households tend to be apartment tenants for economic reasons while middle and upper income households are more likely to reside in single detached dwellings. As the municipality does not employ income criteria in allocating residential sites, upper income households, which do not require such assistance, tend to benefit from the subsidies and only a small portion of the subsidies reach more needy households. Further Ratzka's ex post cost revenue analysis concluded that although municipal landowners earned a return above cost under this scheme, they did not earn as much as they could have. The system has also been found to allocate and utilize housing stock in a non-optimal manner: many two-person households occupy leasehold houses while young families occupy high-rise apartments. It has been subsequently proposed that subsidies be phased out in favour of market level rents with the resulting incremental revenues allocated directly to low and moderate income households through housing allowance programs.

In the past, cities in Finland did not have the right to sell the land donated to them and so relied on the leasehold system to allocate state owned land to the public. Today, leasehold is used by the larger cities to ensure desired, socially beneficial land uses and to protect land users from rising land values. The programs are governed by national legislation (*Landlease Act, 1966*) supplemented by municipal laws. Residential ground leases run for 60 years. Estimated values for leased land are 10 to 50 percent lower than those for freehold land [IFHP, 1985, page 21].

In the Netherlands, leasehold contracts may be perpetual or temporary (i.e. the term is limited to a certain period at the end of which the land reverts to the landowner, usually without compensation to the tenant). A perpetual system of leaseholds, with 50 year terms, operates in the city of Amsterdam. Except for social housing, ground rents are negotiable. Generally, the rent or "canon" is a percentage of the estimated land value (which may or may not represent market value) and the rent is fixed for the entire term unless otherwise agreed upon. In Amsterdam, rents are adjusted for inflation every 5 years. The city's laws provide for the conversion of a temporary leasehold into a perpetual one, city planning and managerial considerations permitting. Conversion requires payment of a "conversion sum" to the municipality. Prepayment of the ground rent for one term is allowed. The payment is the capitalized value of total annual rents and does not include possible rent adjustments. Thus this perpetual option is a popular means of avoiding periodic rental increases during the term of the contract [ IFPH, page 21].

In contrast to Sweden and Finland, leaseholds are in decline in Britain and Ireland. Land leasing in Britain has historic roots in the feudal land system and has traditionally been extensively used by private landowners. Landowners, life tenants and others who were prevented from selling their land under the law, allowed others to develop the land under leasehold arrangements. At its peak just before the First World War approximately one-third of all households were tenants under leasehold arrangements. In London, this proportion was probably close to two-thirds. The effects of rent control legislation since 1915 and the related growth of public housing and owner-occupation based largely on suburban single-family freehold dwellings has markedly affected these proportions. Apart from famous historic estates in London, Birmingham and other areas, modern apartment developments and some comprehensively managed residential estates where leasehold covenants are used to maintain the character of the area, neither municipal housing developments nor private housing developments make much use of the leasehold system.

Legislation such as the *Leasehold Reform Act*, 1967, enacted to strengthen the position of tenants, has also discouraged the use of leasehold. The statute gives the tenant equitable rights to the dwelling and the landowner equitable rights to the site; in exchange for payment of compensation equal to the value of the site and any development value, qualified tenants are entitled to require the landlord to convey the freehold to them. In the alternative, the leaseholder may obtain an extension of the original lease (normally 99 years) for 50 years at a current ground rent [McDonald, 1969]. In Ireland, the law dictates that land for private housing be disposed of in fee simple (freehold) and assists leaseholders in purchasing freehold in their property, normally at lower than market prices.

The United States provides a number of examples of the use of leaseholds in residential development but the practice is not widespread, nor does it appear to be used as an instrument of housing or government planning policy. Freehold sales of land in Indian reservations continues to be discouraged by the federal government, such land is usually only available on long-term leasehold. The state of Maryland has a history of residential development on leasehold dating back to the original land grant by Charles I of England in 1632 [duBois,1943]. Private developers in California have adopted the ground lease for single detached residential developments [Shenkel, 1964].

Of all the American states, ground leases are most common in Hawaii where land ownership remains concentrated in relatively few hands and residential leaseholds are customary. The largest landowners are the federal and state governments (the state owns about half of the gross acreage of the state) and a few large private estates [Boothby, 1980]. Almost all leasehold housing is relatively new, having been built after the Second World War. Thirty percent of residential-use land is leased and 90 percent of all residential leasehold land is owned by three landlords [Fry and Mak, 1884; Palfin, 1979]. The large estates normally establish lease terms of 50 to 55 years. The ground rent is fixed for the first 15 to 25 years and then is reset for the remainder of the term. At the expiration of the lease, the lessee has the option of renegotiating a new lease, otherwise the land and improvements revert to the landowner. The law requires lessors to compensate tenants for improvements remaining on the land when the lease expires. Tenants may remove their houses within a given period after the expiry of the lease. Legislation was introduced to establish a "fair" rent formula in response to ongoing concern over substantial rent increases.

While most leasing arrangements in United States appear to be business leases, leasing for residential purposes is widespread in other regions of the world. The preceding survey of the systems in various jurisdictions indicates varied reasons for leasing including tradition, the desire to maintain control over use and development of land, the regulation of growth and design of a municipality, taxation, social assistance and the earning of local revenue. If there is an overall trend, it would appear to be towards a fee simple system, or at least a prepaid leasehold system under which the contact between landlord and tenant are kept to a minimum. Judging from the type of changes which have occurred (a move to longer term leases, prepayment and better renewal options), the friction is greatest at the time of rent review and renewal or termination.

## 5.2 Residential Leasing in Canada

There are several instances in Canada where federal and provincial government-owned land has been leased to provide housing assistance for low and moderate income households. However use of leaseholds is not widespread in Canada apart from those associated with government-controlled park and recreational lands (e.g. Banff, Alberta) and with Indian Reserve lands (which are extensive). Specific provincial leasing programs operated in Ontario and B.C. will be discussed below since there is at least some available information.

Residential leasehold also remains a relatively uncommon practice for local government in Canada (leasing is so uncommon that Miron [1988] does not even mention it in his extensive review of Canadian housing policy). A survey undertaken by Wolfe [1984] to ascertain the extent to which land leasing has been used by the 75 largest Canadian municipalities indicated that an extremely small number had any experience with residential leasehold programs beyond those associated with non-profit housing projects. Of 75 municipalities surveyed by Wolfe, 47 responded. Of the 47 respondents, only 16 indicated that they had leased land for residential purposes. Of the 13 respondents who provided details, only 4 (Hull, Quebec; Fredericton, New Brunswick; District of North Vancouver and Vancouver, B.C.) had undertaken more than occasional nominal value leases for non-profit housing. The remaining 9 municipalities appear to have experience limited to unique situations or non-profit co-operatives.

Not only are there few examples in Canada, either provincially or locally, where leaseholds are significant, almost no systematically assembled data are available for analytical purposes. In terms of the volume of leasehold interests created, the Ontario HOME program, the District of North Vancouver residential leasing program and the leasing of City owned land in Vancouver are the largest. Yet in all three cases the available data for analysis are quite incomplete.

In 1967, the Ontario Government implemented the Home Ownership Made Easy (HOME) program to assist middle income households to achieve homeownership.[18]. The HOME plan underwent four

[18] Background information concerning the Ontario HOME program has been supplied by the Ontario Housing Corporation. A number of the documents supplied have no title and appear to be internal memos and reports.

major program changes including March 1969, 1971, June 1973, August 1975, and March 1977 [OHC, unpublished, 1977]. Under the original program the province offered residential lots for sale at moderate prices, which it had assembled and serviced. The most commonly used purchase arrangement was a 50 year lease with payments based on the book value of the land (including the acquisition, development and servicing costs) and on the preferential interest rate applicable to the *National Home Act* financing of the land assembly project in which the lot was located[19]. Homes built on the land were privately financed and could not sell above a given maximum price (e.g. originally $15,000 for a 3 bedroom house)[20]. The possibility of unfair capital gains realizable by lessees upon resale of the subsidized lots at market prices resulted in the requirement that leases run for a minimum term of 5 years at the end of which a tenant could purchase the land at market value (market value was determined at the beginning of the lease). Any resale during the 5 year period had to be approved by the Ontario Housing Corporation. Increases in the resale price during the five year period were limited to $500 per annum. The Ontario Housing Corporation (OHC) did not have any purchaser eligibility requirements under the original terms of the HOME program. Lots were marketed on a "first come - first served" basis and builders, along with individuals, could bid to lease (but not purchase) individual lots for subsequent re-letting or assignment once the house was complete.

The home program was modified five times between the time of its inception and its termination in 1978. In March, 1969, the initial purchase option for fee simple and the agreement for sale option were eliminated. The leasing options, with an option to purchase any time after 5 years, continued in force.

As it became apparent that the process of rationing lots to individuals was a major problem (common to situations in which goods and services are sold at less than market prices), in 1971 the program was changed to permit only builders to bid through a "Builder's Proposal Call" System.

[19] Alternatively the lots could be purchased for cash in fee simple at or near market value or by agreement for sale based on a 35 year amortization, with the interest rate based on the then current NHA Section 58 interest rate [O.H.C., unpublished report, 1977]. Both the lease and agreement for sale options were fully assignable.

[20] The price limits were subsequently increased for larger units. If the sale was freehold, there was no control on prices.

In 1973 a "suggested" maximum family income of $12,500 was introduced, but this was not effectively controlled. Also in 1973, continued public concern over potential windfalls gained by lessees prompted a change in the program regulations to require lessees to purchase the leased lots at current market value rather than at market value set at the beginning of the lease. The Ontario Mortgage Corporation also began offering financing at below market interest rates to assist in the purchase of HOME properties.

The purchaser eligibility requirements were extended to include a one year Ontario residency requirement and to disqualify a purchaser of a HOME unit from re-entry to the plan. Further, and more stringent regulations were introduced in April 1974 restricting purchasers to:

1) Single income families with less than $14,500 household income and two income families of less than $17,000;
2) A maximum gross debt service of 30%;
3) First time buyers;
4) Homes for owner-occupation; and
5) Married or common-law couples or single parents with legally dependent children.

Because of the high demand for builders, a lottery draw was introduced to provide an orderly and fair queuing system for ultimate purchasers ("Subsidy by luck, not need")

A further modification in 1975, permitting the lots to be purchased at current market value assisted by second mortgages provided by the province, was a response to complaints that increases in land prices were surpassing the ability of leaseholders to save for the purchase of the land. This replaced the lease option. The minimum second mortgage payments amortized only the book value of the lots. The difference between book and market values had to be paid upon sale of the house or at the termination of the mortgage. The HOME program was later replaced by a new program tied to the federal Assisted Home Ownership program, but using the HOME name. Under this scheme, the province provided additional grants to homeowners who, after receiving the federal subsidy, were still obliged to put 30 percent or more of their income towards mortgage payments and property taxes. By 1978 HOME had been terminated altogether.

Between 1967 and 1975 over 20,000 lots were involved in the HOME program which was credited with reducing the cost of housing through lower downpayment requirements and carrying costs, thus increasing housing choices for households, and also with providing "no frills" housing which was otherwise not made available by the private market [Fallis, 1980]. As for who benefitted from HOME, an analysis by Fallis indicates that the scheme appears to have achieved its objective of improving housing affordability for middle-income, young families as 75 percent of homeowners assisted were from the middle third of the income distribution and under the age of 35. However, due partially to problems inherent in the scheme and partially to the class of homeowners it targeted, the large housing assistance benefits provided through the program were probably allocated in a sub-optimal manner. Firstly, because HOME lacked eligibility controls, high income households were not prevented from joining the program. Fallis demonstrated that almost 25 percent of the program's beneficiaries belonged to the upper third of the income distribution in 1974 -- homeowners with income of at least $15,000 in 1974. Moreover, as private financing was required for the construction of the dwellings on the leased land, low-income households were disqualified from participation in HOME because they could not meet the eligibility requirements set by private lenders.

Malvern was a large project involving extensive use of HOME in its development in the early 1970's. The project encompassed about 1,700 acres of raw land in north-east Metropolitan Toronto which had been acquired by the Ontario government in the 1950's for its land bank but which was not serviced until the 1970's.[21] The land leasing scheme under HOME enabled households to acquire lots at book value which represented prices at least 50 percent below the current market value of comparable lots in other areas of Metropolitan Toronto. The concerns over unfair capital gains associated with HOME are clearly evident from the Malvern experience.[22] Although the housing subsidy made homeownership available to households who could otherwise not afford to buy a home, the socio-economic goals of the program were largely subverted as many leaseholders put their houses on the market at the expiry of the compulsory five year lease period in 1975 and 1976 in order to take advantage of the resulting large tax-free capital gains [Rose, 1980].

[21] For one analysis of the purchasers see Characteristics of Purchasers, OHC, 1975.

[22] See Globe and Mail, August 28, 1975, pp. 1-2; Toronto Star, June 10, 1974, p.3, August 19, 1975, p. 1 and A2; and August 27, 1975, p. 2.

East York is one of several municipalities in Metropolitan Toronto where the Ontario Housing Corporation has provided housing assistance to lower-income households by means of a land leasing program. In this case, provincially-owned land was leased to developers who in turn were required to sell homes to eligible households at lower-than-market prices. The first set of leases included fixed-price buy-back options.

The province of Manitoba also considered a lot leasing scheme which shared many of the same features as the Ontario plan. [Narvey, 1975].

In British Columbia *Home Conversion and Leasehold Loan Act* was enacted in 1974 [RSBC 1979,c.170]. Under this Act certain Crown-owned lands in BC were made available by way of leasehold tenure, combined with mortgage loans issued by the government, to persons with one or more dependents or to non-profit cooperatives who covenanted to build primary residences on land leased from the Crown [Ministry of Social Services and Housing, 1981]. The loan terms required applicants to complete construction of their dwellings within a given time and in a manner approved by the government. Applicants could not sell the completed dwellings or assign their interests in the land at prices greater than those specified by loan covenants, nor could they rent the dwellings to other occupants.

The program was limited in scope since it was applicable only to specific projects. Under some arrangements, builders were granted mortgages to develop subdivisions, individuals purchasing lots from the builders then assumed the government leasehold mortgages and took on land leases (usually with 60 year terms and options to purchase).

Funding for the B.C. leasehold loan program ended in 1984 and no new loans have been issued since. The BC Home Mortgages Branch of the Ministry of Social Services and Housing administers remaining loans. Unfortunately there is little empirical evidence with which to evaluate the success, but the number of dwelling units promoted under the program is small, and are located primarily outside the major urban areas.

At the local level, the University Endowment Lands (adjacent to the City of Vancouver, but technically unorganized territory) was an early entry into the residential leasing market. The University of British Columbia had been granted a large parcel of land and the income from the sale or leasing of these lands was to provide a perpetual income for the University. In the first instance these lands were leased for residential purposes (during the 1940's), but under pressure from the tenants, and in need of more instant cash, the University lands were subsequently sold in fee simple to the tenants in possession during the 1950's.

The District of North Vancouver was also one of the first municipalities in B.C. to attempt a major residential leasing program. Not only was the District one of the first to promote leasing, they created some useful market data in the manner in which they called for bids. In the early 1970's the District initiated a land leasing scheme through which it made available the residential land which it had earlier acquired from real property tax sales. The introduction of leaseholds was a response to community concerns about escalating land values and the affordability of single family residential property. The objectives of the new scheme were:

1) To reduce the cost of land to the consumer so as to ensure that the savings would be passed on to the consumer rather than the developer and that the disposal of municipal land would not constitute a "giveaway" or taxpayers assets;
2) To facilitate future assembly of the land for possible reallocation to future uses or a second development cycle; and
3) To achieve the above objectives without a drastic drop in annual payments into the Tax Sale Land reserve to offset annual capital expenditures on the reserve lands [Williams, 1978].

Under the program, tenants leased lots for 99 years on a fully prepaid basis. The unique feature of the scheme was that potential lessors were required to submit bids on freehold and on leasehold bases for each lot. The District then chose the preferred method of disposal whether by freehold or leasehold. Price differentials between freehold and leasehold bids varied from 5 percent for what can be considered premium "view lots" to 18 percent in situations where there was a large supply of equivalent freehold lots available on the free market.

Problems encountered by leaseholders eventually led to the termination of the residential leaseholds in 1983. In particular, tenants wanting to "sell" (assign) their leasehold interest found that the values of their properties were significantly below those of freehold properties, that the time taken to sell leasehold lots was significantly longer and that debt financing was not so readily available. These difficulties were no doubt exacerbated by the proportionately large market supply of equivalent freehold property at any given time. In effect, leasehold tenure and the accompanying possibility of reversion of the properties at the end of the term discounted not only the value of the land but also the value of the improvements. Further, despite their discounted market values, leased properties were assessed for municipal taxation purposes as freehold land with freehold values because tenure is not recognized by the Assessment Authority as a basis for reducing assessed values.[23] Consequently, whatever savings may have been gained by leasing in the first place were negatived by the costs associated with marketing the lots on the free market.

Leaseholders of all but a couple of the approximately 240 single detached residential leasehold lots exercised their option to purchase the freehold in their property since 1983. The District presently is only involved in residential ground leasing in as far as it relates to the development of non-profit housing projects which are funded by other levels of government.

The <u>City of Vancouver</u> leases residential land in False Creek and Champlain Heights including several major housing developments comprising a total of approximately 200 ha of land and over 3,500 units.[24] The reasons for the disposition of land by leasehold rather than freehold included both planning control objectives and housing affordability objectives. The City was concerned not only with maintaining control over the development of the projects, particularly given the scale of

[23] In British Columbia real property taxes are only levied on the fee simple, not the fee subject to the lease plus the leasehold interest.

[24] Unfortunately the records of the City are not complete but in the early 1970's plans were developed for the City to acquire title to a variety of lands on the South side of False Creek in order to facilitate comprehensive planning. The City elected to subsequently dispose of the residential lands by leasehold to avoid future problems in re-assembly [See Wolfe, 1984].

the projects and their strategic locations in the city, but also with ensuring a housing mix that reflects its housing policy of providing households of every income class the opportunity of living at the projects. Additional reasons for the decision to lease rather than sell the lands were the desire to capture value appreciation on reversion, and the preservation of the large land parcels for future redevelopment without the need for massive land reassembly efforts.

The leases in False Creek have 60 year terms. Given that the leases were the first of their kind in the province at the time of their inception, several rent payment options were offered to improve the marketability of the project's condominiums. The options were:

1) Prepayment of rent; or
2) Fixed annual rental payments for 30 years with rent to be renegotiated at the 30th, 40th and 50th year; or
3) Fixed annual rental payments for the first 30 years including an initially agreed-to rental increase at the 15th year, with rent to be renegotiated at the 30th, 40th and 50th year; or
4) Fixed annual rental payments for the first 3 years with annual increases in payments indexed to inflation until year 30. Rent to be renegotiated at the 30th, 40th and 50th years.

In the first phase of the project, 11 percent of leaseholders elected to prepay, 80 percent opted for the second payment method, five percent for the third method and four percent for the fourth method.

However during 1989 the City of Vancouver reviewed the potential problems associated with the pending rent reviews and the increasing differences in "prices" for condominiums within the same project: price differences due solely to the form of the lease selected some years ago. There is evidence the tenants are becoming more conscious of the impact of increasing rents on their "property values". As is most often the case with leasing, the problems do not appear until sometime later as the lease term approaches the end or as a rent review approaches.

### 5.3 Residential Leasing in Practice

What conclusions, if any, can be drawn from this brief literature review? **First,** one concludes that where residential land leasing forms a significant part of the market, it is part of a more comprehensive public sector land policy, not simply isolated instances designed to address the affordability concerns. **Second,** residential land leasing is not significant in either USA or Canada and is less so today than 10 years ago. The major provincial land leasing programs have been discontinued, and in most cases the existing land leases have been sold off to the occupying tenants. **Third,** one of the most active municipal governments (District of North Vancouver) in terms of residential land leasing has discontinued the practice in favour of selling fee simple. Given the fact they had a carefully designed plan and philosophy towards land leasing, particular care should be given to their analysis.

**Fourth,** we find no instances of provincial or local governments in Canada actively assembling land for a residential land leasing program. Where land leasing continues, it is for land already owned by the public sector, and in most cases, it is to low income or "not for profit" housing organizations such as co-operatives.

One major exception to this observation is the newly formed joint venture initiated by the City of Vancouver to create a company to develop "affordable housing" using City owned lands, lands acquired elsewhere, and public and private capital [VLC Properties Ltd., 1990]. While the activities of the joint venture are not restricted to land leases, the City owned lands are to be leased, with possible options to buy. It is too early to judge the success of this joint venture since it is only now developing any housing.

A **fifth** observation that can be found in the literature is the pre-occupation with "end-of-lease" provisions and the handling of land rent reviews. Given the attention these receive in the literature, it is apparent these are two points of much controversy and a source of considerable difficulties.

The **final** conclusion is that, while ample descriptive literature exists, there are few empirical studies, especially North American based. Little is known about the longer term price trends for leasehold interests as contrasted with fee simple interests. For example, in the City of Vancouver in the False Creek area there are leasehold condominiums aside fee simple condominiums, and the leasehold condominiums are of two types: prepaid rents with periodic rent reviews and annual rents with periodic rent reviews. Unfortunately while the "sales price" data are available, along with the financing data, there are, at least at the present time, insufficient data to undertake rigorous analysis. Similarly the indian reserve lands adjacent to the City of Vancouver offer a potentially rich empirical data base with both annual and prepaid land leases being "sold" in the marketplace, some with, some without pending rent reviews. Unlike the False Creek properties which have 60 years land leases and the provision that the occupying tenant "owns" the building at the end, the Salish and Musqueum lands are 100 year leases and do not provide that the occupying tenant "owns" the building at the end of the lease term.

Until empirical evidence on these and other land leasing projects are analyzed, we can only rely on theory and descriptive information to guide policies.

# 6. ANALYSIS OF LEASEHOLD OPTIONS

## 6.1 A General Framework for the Valuation of Property Interests

While it is not the intention of this report to develop extensive mathematical models, some basic concepts are best developed using some simple mathematics. This will enable us to better identify the opportunities for using the leasehold option to most effectively address the affordability issues. Therefore in this section several basic models will be developed and analyzed.

Before developing the models relating to the "lease-purchase" decision and the valuation of leasehold options, it is helpful to identify two potential markets for such leasehold interests. For simplicity, one market is defined as the "**principal residence market**": the granting of land leases to the ultimate occupier (even though there may be a middle man to construct the building) who occupies the residence as a principal residence (under the definition of the *Income Tax Act*). The other market is the "**tenancy market**" where a head-tenant constructs the building and sub-leases or assigns to sub-tenants for short periods of time on an occupation lease arrangement. This distinction is important since, in Canada, the former case will be treated as "owners" for most important tax purposes while in the latter case the head-tenant is treated as a landlord for tax purposes and the sub-tenants will have no unique income tax attributes. Property owners claiming a "principal residence" have a basically tax free investment (no tax on imputed rents nor on capital gains, except the lifetime limit) and claim no expenses (unlike the USA where interest on the mortgage is deductible). This distinction will simplify the analysis which follows.

It is also important to keep in mind that much of the literature on the "buy v. lease" decision relates either to the non-residential market or to the residential market in the USA. In both of these cases income taxes are important considerations in the decision. In the case of the non-residential market, rents, interest on mortgages and capital cost allowances are all recognized as having income tax consequences. Similarly in the USA, interest on the mortgages is tax deductible, but lease payments are not. Hence in both cases some tax adjustments are necessary and reflected in the literature.

In Canada, owners of principal residences are tax exempt, except for the lifetime tax free capital gain restriction. However for that sector of the residential market which is most likely to use leaseholds as an alternative to fee simple ownership, this is not likely a binding constraint (for all practical purposes). Interest payments on the mortgage are not tax deductible nor are lease payments, hence there are no tax considerations which are unique to the land lease are necessary in Canada providing the property qualifies as the principal residence. Hence in the "final user" or principal residence market it is possible to ignore all income tax considerations when comparing the purchase and lease options: all cash flows represent after tax money.

In the case of the "tenancy" market, the head-tenant can deduct the lease payments and, providing they construct the buildings, can deduct capital cost allowance but the rules governing the deduction of CCA will depend, in part, on the status of the head-tenant. However the differing treatment between the tax status of a purchaser and that of a taxpayer who is a head-tenant are not identical and tax consequences can bias the "purchase v. lease" decision (as will be developed later).

It will also be helpful to remove from the analysis the common features that appear in both the purchase and lease options. These will include the operating expenses (but not mortgage payments), imputed rents and most transaction costs (at least those associated with the physical move). The focus should be on those costs and benefits which are different, either in amount or timing, in the purchase and lease options.

With these opening comments in mind, it is possible to structure the "principal residence" market in a rather straightforward manner by looking at the market valuation of the various options.

The market price (P) of the unencumbered fee simple can be characterized as representing the **present value of all expected future market rents.**[25]

$$P = \sum_{t=1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} = \frac{MR}{r-g} \qquad (1)$$

where

P = price of the unencumbered fee simple at t=0

MR = expected market rents per year at t=0

[25] The outcome is the same whether the fee is unencumbered or the lease contract is at market rent levels.

g = growth rate for market rents

r = market determined discount rate

Equation 1 simply states that the market value or price of the fee simple interest will, at all times, be equal to the present value of all future market rents, discounted at the prevailing market discount rate. Considerations of operating expenses are ignored since the purpose is to compare this purchase option with the leasehold option and the same operating expenses, except the rent paid, will apply.

It is possible to split the valuation of the fee simple into two components: a present value of market rents for the first $L$ periods of time plus the present value of market rents following the $L$ period of time.

$$P = \sum_{t=1}^{L} \frac{MR \cdot (1+g)^t}{(1+r)^t} + \sum_{t=L+1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} \tag{2}$$

or

$$P = P_{MR,L} + P_{REV} \tag{3}$$

where

$P_{MR,L}$ = price of a fee simple during the lease term for $L$ periods at market rents (MR)

$P_{REV}$ = price of a revisionary interest in fee simple realized after $L$ periods at then prevailing market rents.

In a rather perfect world, this price of an unencumbered fee simple interest can be represented as the sum of several parts:

P = Price of fee simple subject to a lease
+ Price of the leasehold interest

or

$$P = P_{f,L} + P_{l,L} \tag{4}$$

where

$P_{f,L}$ = price of the fee simple subject to a lease for *L* years

$P_{l,L}$ = price of the leasehold interest having *L* years remaining

However if the lease contract rent (CR) is set at market rent (MR), the leasehold interest $(P_{l,L})$ has no value. On the other hand if the contract rent is not equal to market rents (in most cases the contract rent is less than market rents) then the leasehold interest has value.

And for reasons that will become apparent later, this can be rewritten so that the price of the unencumbered fee simple interest is equal to

P = Price of the rental income stream during the lease
+ Price of the reversionary interest
+ Price of the leasehold interest

$$P = P_{CR,L} + P_{REV} + P_{l,L} \tag{5}$$

where

$P_{CR}$ = present value of the contract rent (CR) during the lease period
$P_{REV}$ = present value of the reversionary interest

In other words, the price of an unencumbered fee simple interest is the sum of the price of the rents paid under the lease plus the price of the reversionary interest plus the price of the leasehold interest, all prices expressed in present value terms.

In this expanded form, these parts share a common denominator which is the market rental value (MR) of the property. Assuming for the present that the leases are all written at a contract rent (CR), the various parts can be characterized as follows:

$$P_{CR,L} = \sum_{t=1}^{L} \frac{CR \cdot (1+g^*)^t}{(1+r^*)^t} \tag{6}$$

where

CR = contract rent in t=0

$g^*$ = growth rate for the contract rents

$r^*$ = discount rate for this level of contract rents[26]

and

$$P_{l,L} = \sum_{t=1}^{L} \left[ \frac{[MR \cdot (1+g)^t - CR \cdot (1+g^*)^t]}{(1+r_l)^t} \right] \tag{7}$$

where

$r_l$ = discount rate for this type of leasehold interest

And this illustrates the fact that the leasehold interest, at least at a theoretical level, only has value if the contract rent paid is less than the market rents, otherwise the value is zero.

Finally the present value of the reversionary interest can be characterized as the present value of the expected resale price of the property at the end of the lease term (*L*). Assuming property values increase at the same rate as market rents (which is expected in the long run), the price prevailing at the end of the lease is expected to be

$$P_L = P \cdot (1+g)^L \tag{8}$$

and the present value of the reversionary interest will be

[26] The market discount rates will differ to reflect differing risk. For a discussion of the selection of discount rates see Brown and Johnson (1988) and Dybvig (1990).

$$P_{REV} = \frac{P_L}{(1+r)^L} = \frac{P \cdot (1+g)^L}{(1+r)^L} \tag{9}$$

but expressed in terms of the common thread of rents (MR), this is

$$P_{REV} = \sum_{t=L+1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} = \left[\frac{MR \cdot (1+g)^L}{(r-g)}\right] \cdot \left[\frac{1}{(1+r)^L}\right] \tag{10}$$

In other words, the present value of the residual interest is simply the present value of all future market rents receivable after the lease term (L) expires (which is the same as the present value of the fee simple price realizable in year L).

Given the initial concern is to use the lease option without subsidy, it follows that the contract rents (CR) must equal market rents (MR) and, aside from tenant improvements which will be considered later, the leasehold interest will have no market value since equation 7 is zero.[27]

Given these circumstances, the price of the fee simple can be described as

$$P = P_{MR,L} + P_{REV} \tag{11}$$

or

$$P = \sum_{t=1}^{L} \frac{MR \cdot (1+g)^t}{(1+r)^t} + \left[\frac{MR \cdot (1+g)^L}{(r-g)}\right] \cdot \left[\frac{1}{(1+r)^L}\right] \tag{12}$$

In other words, the market value (or price) of the fee simple, when leased at full market rents, is equal to the present value of the rental payments for the lease term *(L)* plus the present value of the rental payments following the expiration of the lease term. Note that both rental flows are discounted at the same rate which is the market discount rate for this type of investment. Why?

[27] Technically it is sufficient that the present value of the contract rents be equal to the present value of market rents. There is no need for period by period equality. Hence the contract rents could be treated like a graduated payment mortgage until increasing rents and still not involve a subsidy provided the present value equalled the present value of the market rents.

Because all that has been done is to split the rental flow through time, without changing the risk.

Equation 12 provides the insights necessary to evaluate the potential for the leasehold option since it is apparent that the potential **savings** from using the leasehold option, where **no subsidy** is involved, are equal to the present value of the residual interest (or $P_{REV}$) and this can be estimated directly by reference to the lease term (L), the growth rate (g) and the discount rate (r).

$$P_{REV} = \left[\frac{MR \cdot (1+g)^L}{(r-g)}\right] \cdot \left[\frac{1}{(1+r)^L}\right] \tag{13}$$

and since

$$P = \frac{MR}{(r-g)} \tag{14}$$

then

$$P_{REV} = \left[P \cdot (1+g)^L\right] \cdot \left[\frac{1}{(1+r)^L}\right] \tag{15}$$

and

$$\frac{P_{REV}}{P} = \frac{(1+g)^L}{(1+r)^L} \tag{16}$$

In a slightly modified form

$$P_{f,L} = P - P_{REV} \tag{17}$$

and since

$$P_{REV} = \frac{P \cdot (1+g)^L}{(1+r)^L} \tag{18}$$

Then

$$P_{f,L} = P \cdot \left[1 - \frac{(1+g)^L}{(1+r)^L}\right] \tag{19}$$

and

$$\frac{P - P_{f,L}}{P} = \frac{(1+g)^L}{(1+r)^L} \tag{20}$$

Equations 16 and 20 both state that the percentage saved by using the leasehold option is dependent upon the discount rate (r), the growth rate (g) and the length of the term of the lease (L) (or more generally the remaining term on the lease) and this discount is equal to the ratio of (1+g) divided by (1+r), all compounded L times.

It should be noted that these equations have all ignored, for most purposes, the possibility of adjustments in the discount rates. What has been developed thus far implicitly assumes that the marketplace is "perfect and efficient". In real life transaction costs, lender biases and market resistance will all play a part in modifying the discount rates. For example, empirical evidence suggests that the value of an existing leasehold interest plus the value of the fee simple subject to the lease may in fact be less than the value of the unencumbered fee simple interest. In a perfect market, with no transactions costs, this should not happen: the sum of the parts should equal the value of the whole.

These points will be explored more fully later in this section, but first some more tools for deciding whether the lease option is a meaningful option. Thus far the emphasis has been on the "savings" occasioned by the use of the leasehold option but there are clearly off-setting decreases in "benefits": the tenant sacrifices all or a portion of the residual interest in the property at the end of the lease term. In a perfect market, the present value or price of this residual interest sacrificed would be exactly equal to the savings in costs but as will be noted later, this need not be the case for individual investors, nor in fact for the market if inefficiencies or imperfections exist.

In order to develop the analysis further several leasehold scenarios will be presented and illustrated. However it is first necessary to address one final point, the "purchase v. lease" decision process. This will be presented in the next section, followed by the illustrative work.

## 6.2 The Buy Versus Lease Decision

The lease v. purchase decision can be treated as a specific application of the more general investment decision-making models: select the best investment from amongst a menu of alternatives. The generally acceptable criteria states that one should select any project with a **net present value greater than zero,** and where mutually exclusive alternatives are concerned, to select that competing alternative which provides the **highest net present value.**

In this context the net present value is defined as the present value of all benefits less the present value of all costs, all present values being determined at the decision-makers appropriate discount rate (which should reflect the opportunity cost of the money).

$$NPV = PV(C) + PV(B) \tag{21}$$

where

PV(C) = Present value of the costs (expressed as negative benefits)

PV(B) = Present value of the benefits

And the investment is acceptable if the NPV > 0.

In comparing the lease and purchase options, one accepts the option which has the highest NPV

$$NPV_p = PV(C_p) + PV(B_p) \tag{22}$$

and

$$NPV_l = PV(C_l) + PV(B_l) \tag{23}$$

where

$NPV_P$ = net present value of the purchase option

$NPV_l$ = net present value of the lease option

Equation 22 and 23 can be expanded to reveal the full dimensions of the decision model

$$NPV = \sum_{t=1}^{T} \frac{C}{(1+k)^t} + \sum_{t=1}^{T} \frac{B_t}{(1+k)^t} \tag{24}$$

where

T = Investment horizon

k = opportunity cost or personal discount rate

It should be noted that if the investment alternatives are considered to be in different risk categories, then the appropriate discount rate is the "risk adjusted" discount rate.

Figure 6.1 provides an illustration of the mechanics of this "lease v. buy" decision in the context of a principal residence. Several points should be noted. First note the net present values are almost always negative. This is because the important benefit of the imputed rent is left out, as are all other common cash flow items, since the concern is only with making the right decision, hence common costs and benefits can be ignored. It should be noted that the transaction costs are assumed to be the same in the lease and purchase option.

The household should be indifferent between the lease and the purchase option **if their personal discount rate is the same as the markets' and if they plan to occupy for the full lease term.** Why? Because the market will price the prepaid lease using the market determined discount rate and the negotiated lease term. Any variation from either of these will disturb the equilibrium as between the fee simple and lease option. Note in part 1 of Figure 6.1, which assumes the individual discount rate is the same as the markets'(9%), the difference in the net present values for purchase and leasing is zero at an expected holding period of 40 years, the lease term. Any resale before that time results in a shift in favour of the purchase option. In part 2, the individual discount rate is taken as 12% and the market at 9%, a more likely scenario where the household has other pressing demands on their cash flows (hence higher opportunity cost than the market as a whole), and we see a shift in favour of the lease option when the expected occupancy period is 20 or more years. Conversely in part 3, the assumed individual discount rate is 7% and in all cases the purchase option is preferred.

It should also be noted that the use of the net present value decision model implies that all alternatives are within the feasible set (eg the investor can afford to undertake any one of the alternatives, and perhaps more than one). This may not necessarily be the case with the residential leasehold options: the households may not be able to afford the purchase option. In such cases the maximization of net present value does not make sense and the definition of the decision must be altered to reflect this fact. This issue will be examined later in this section. In the next few sections of this report three alternative leasehold arrangements will be analyzed in terms of their contributions to the affordability issue: (1) the landlord erects and owns the building; (2) the tenant erects the building, but the landlord owns it upon termination of the lease; and (3) the tenant erects and owns the building. In each of these three arrangements, various financing alternatives, including fully prepared for cash, fully prepaid with a mortgage and periodic land rent plus mortgage, are considered. Following these examples, the analysis shifts to the more complex issues surrounding the use of leasehold interests where the head-tenant intents to act as a traditional landlord providing shorter term occupation leases to sub-tenants. These situations are more complex because of the differing income tax implications.

# Figure 6.1
## Illustrative Purchase v. Lease Decision

Growth rate = 5%
Market rate = 9%
Rents = $12,000

| Option | Cost at Year | Benefits at | Benefits at | Benefits at |
|---|---|---|---|---|
| Year | 0 | 10 | 20 | End of Lease |
| 1. Discount rate 9.0% | | | | |
| Fee simple<br>NPV | $300,000<br>300,000 | $488,668<br>($93,581) | $795,989<br>($157,971) | $2,111,997<br>($232,759) |
| Prepaid Lease<br>Lease Term = 40<br>NPV | $232,759 | $202,275<br>($147,316) | $157,971<br>($204,572) | 0<br>($232,759) |
| Differences | $67,241 | $53,735 | $46,601 | $0 |
| Percent | 22.41% | 11.00% | 5.85% | 0.00% |
| 2. Discount rate 12.0% | | | | |
| Fee simple<br>NPV | $300,000 | $488,688<br>($142,662) | $795,989<br>($217,482) | $2,111,997<br>($277,303) |
| Prepaid Lease<br>Lease Term = 40<br>NPV | $232,759 | $202,275<br>($167,632) | $157,971<br>($216,383) | 0<br>($232,758) |
| Differences | $67,241 | $24,970 | ($1,100) | ($44,544) |
| Percent | 22.41% | 5.11% | -0.14% | -2.11% |
| 3. Discount rate 7.0% | | | | |
| Fee simple<br>NPV | $300,000 | $488,688<br>($51,586) | $795,989<br>($94,301) | $2,111,997<br>($158,960) |
| Prepaid Lease<br>Lease Term = 40<br>NPV | $232,759 | $202,275<br>($129,933) | $157,971<br>($191,936) | 0<br>($232,759) |
| Differences | $67,241 | $78,347 | $97,635 | $73,799 |
| Percent | 22.51% | 16.03% | 12.27% | 3.49% |

### 6.3 Landlord Erects and Owns the Building

## Case 1

Market rents = Contract rents
Building in Place Prior to Lease
No Subsidy

This case assumes the landlord erects the building, then grants a lease for a term of "L" years. In the first instance it is assumed that the tenant "purchases" the leasehold interest (prepays all rent) on an all cash basis.

It is assumed that the contract rent is equal to the expected full market rent at all times, hence no subsidy is involved. Without attempting to be overly rigorous, we assume

$MR_t$ = market rents in period t

and

$$MR_t = MR \cdot (1+g)^t \tag{25}$$

where

MR = market rent at time zero

g = growth rate for the market rent

r = market discount rate

The annual contract rent for the property is at all times estimated to be equal to market rents.

### 6.3.1 Purchase Option

Under these circumstances the option to buy the fee simple interest would involve a cash payment of \$P. Imputed rents and operating costs are ignored since these are common to both the purchase and lease option. Transactions costs are ignored for the same reasons.

The unique costs for the fee simple interest is \$P which can be split into

$$PV(C)_P = \sum_{t=1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} = \frac{MR}{(r-g)} \tag{26}$$

$r$ = market discount rate

$g$ = growth rate for market rents

It should be noted that r > g, otherwise the value would be infinitely large.

and for later convenience this can be rewritten as

$$PV(C)_P = \sum_{t=1}^{T} \frac{MR \cdot (1+g)^t}{(1+r)^t} + \frac{MR \cdot (1+g)^T}{(r-g) \cdot (1+r)^T} \tag{27}$$

And these costs are already expressed in present value terms.

The present value of the **unique benefits** recovered at the time of resale (T) are

$$PV(B)_P = \frac{MR \cdot (1+g)^T}{(r-g) \cdot (1+k)^T} \tag{28}$$

where $k$ = personal discount rate.

The **net present value** of the purchase option is the difference between the present values of equations 27 and 28. Both sides (equation 27 and 28) are already expressed in present value terms At a discount rate of k% (the personal discount rate appropriate to this type of investment), the net present value is

$$NPV_P = \sum_{t=1}^{T} \frac{MR \cdot (1+g)^t}{(1+r)^t} + \sum_{t=T+1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} - \frac{MR \cdot (1+g)^T}{(r-g) \cdot (1+k)^T} \tag{29}$$

In the purchase option, the net present value will depend, amongst other things, upon the relationship between the market discount rate (r),the individual discount rate (k), and the holding period.

### 6.3.2 Prepaid Lease

In the case of the **fully prepaid lease option**, the present value of the costs will be

$$PV(C)_l = \sum_{t=1}^{L} \left[\frac{MR \cdot (1+g)^t}{(1+r)^t}\right] \tag{30}$$

where

L = remaining term on the lease

and at the time (T) the leasehold is "sold" (assigned), the present value of the **benefits** recovered are

$$PV(B)_l = \sum_{t=T+1}^{L} \frac{MR \cdot (1+g)^t}{(1+r)^{t-T} \cdot (t+K)^T} \tag{31}$$

where

$PV(B)_l$ = present value of the market value of the leasehold interest having L-T years remaining providing T is less than the lease term L, zero otherwise.

This implicitly assumes the head-tenant, and all subsequent sub-tenants have the right to assign the remaining term of their lease. This case also implicitly assumes that the tenant has no residual value at the end of the head lease (eg no claim for the building value).

The net present value of the leasehold option is

$$NPV_L = \sum_{t=1}^{L} \frac{MR \cdot (1+g)^t}{(1+r)^t} - \sum_{t=T+1}^{L} \frac{MR \cdot (1+g)^t}{(1+r)^{t-T} \cdot (1+k)^T} \tag{32}$$

6.3.3 Purchase v. Prepaid Lease

In this rather perfect world it is clear that the difference in the present value of the **costs** between the purchase option and the prepaid lease option (equation 29 - equation 32) is equal to the present value, at the market rate (r) of the reversionary interest realized by the fee simple holder at the end of the head lease term (L) or

$$\text{Savings} = P_{REV} = \sum_{t=L+1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} = \frac{MR \cdot (1+g)^L}{(r-g) \cdot (1+r)^L} \tag{33}$$

And this represents the "savings" to be realized by using a fully prepaid, non-subsidized, leasehold interest when the "purchaser" is to pay all cash (this is the same as was identified in section 6.1). Note that this "saving" is offset by a reduction in the present value of the benefits realized upon resale which is equal to the present value of the reversionary interest **but discounted at the individual discount rate.**

While this is an unusual situation which will only address the affordability issue from the point of downpayment or equity requirements, it serves to set up the general approach. It is obvious that the "savings" from using a leasehold option depend entirely upon the lease term (L) and the ratio of the growth rate in property values to the market discount rate for this type of property. All else being equal, the longer the term of the head lease (L) the lower the savings from using the leasehold option. Why? Because the savings are equal to the **present value of the reversionary interest** and the further this is removed into the future, the lower the present value since r% > g%. Similarly the higher the ratio of the growth rate to the discount rate, the higher the saving from using the leasehold option. Why? Because the saving increases as the ratio of (1+g)/(1+r) increases. In fact, as was noted in the previous section, the percentage saved by using the leasehold option can be simply characterized as

$$\textit{Percent saved} = \frac{(1+g)^L}{(1+r)^L} \tag{34}$$

By way of illustration, assume the market rent for a property is $12,000 per annum, the appropriate market discount rate is 9 % for this type of property and the growth rate in rents is expected to be

3% per annum. Under these circumstances the market price of the fee simple should be $200,000, which is the market rent divided by (.09 - .03)

$$P = \frac{MR}{(r-g)} = \frac{\$12,000}{(.09-.03)} = \$200,000 \tag{35}$$

If this property were to be leased at full market rents, fully prepaid over the lease term of 40 years, the price of the lease would be

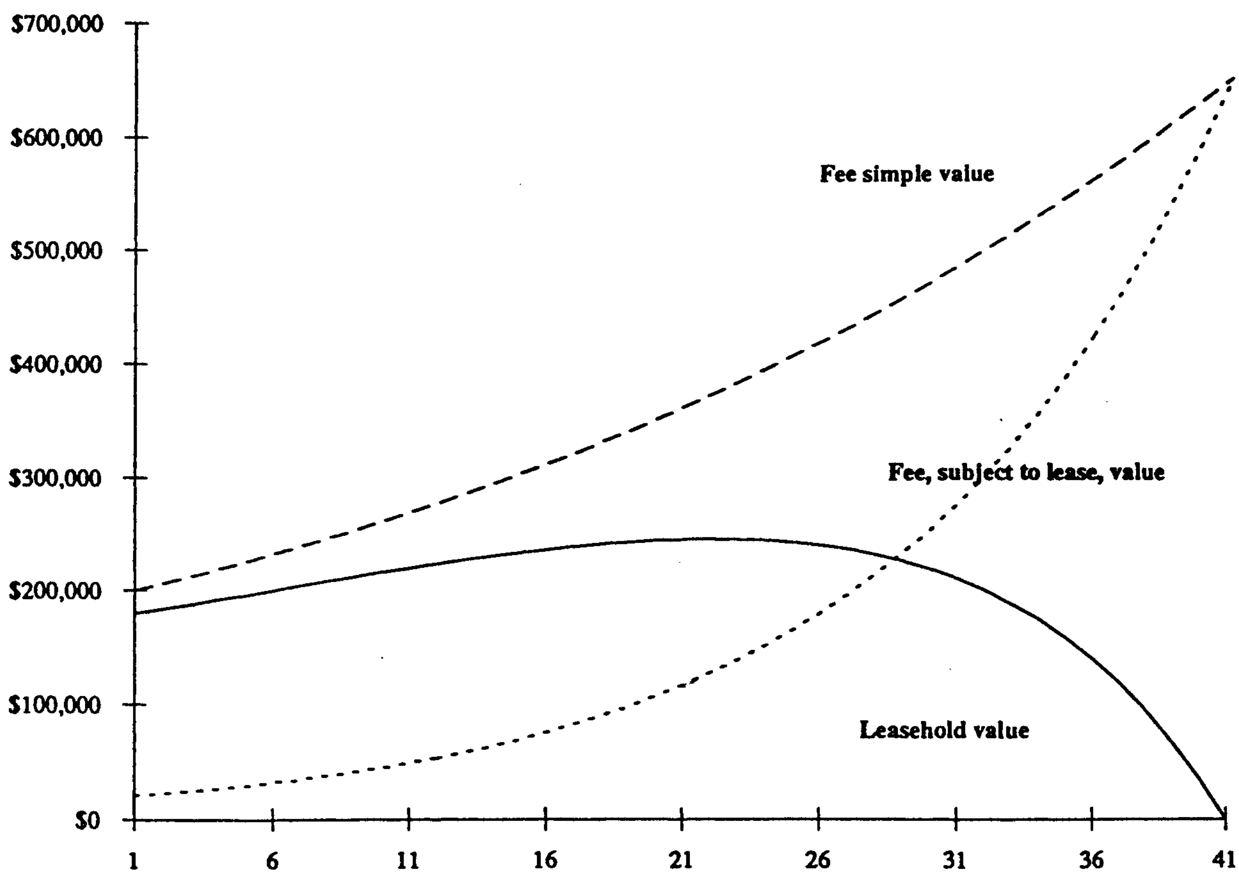
$$P_{L,40} = \sum_{t=1}^{40} \frac{\$12,000\ (1.03)^t}{(1.09)^t} \tag{36}$$

And for a lease term of 40 years, the price will be $179,229. Therefore a household would "save" $20,771 over the price of the fee simple, a savings of 10.39%. However under these same assumptions, the household that elects to acquire the leasehold interest (and "save" $20,771) has an asset that is worthless in 40 years time while the fee simple owner would have an asset worth $652,408 ($200,000*(1.03)$^{40}$). Figure 6.2 illustrates the time path for the three interests in that property; the leasehold, the fee subject to the lease and the unencumbered fee simple. Note that under these circumstances (3% growth in rents and 9% discount rate), the leasehold value actually increases for the first 25 of the 40 years. Changing only the lease term, the price of the lease and the "savings" provided are as shown in Table 6.1.

Table 6.1
Illustrative Savings Using Leasehold Tenure
($12,000 income, 3% growth, 9% discount rate)

| Lease Term | Price of Leasehold | Savings | Percent Saved |
|---|---|---|---|
| 40 | $179,229 | $20,771 | 10.39% |
| 60 | $193,306 | $ 6,694 | 3.35% |
| 80 | $197,843 | $ 2,157 | 1.08% |
| 100 | $199,305 | $ 695 | 0.35% |

Figure 6.2
**Time Path of Values**
**($12,000 income, 3% growth, 9% discount rate)**



Two points are apparent from this example (even allowing for some fine tuning on the various discount rates): First the savings from using the leasehold option decline rapidly as the lease term is extended. Second the savings are relatively insignificant, given the scale of the affordability problems, for lease terms beyond 60 years (at least at these growth rates and discount rates). However before coming to any hard conclusions, consider the summary in Figure 6.3. These percentage savings are based on different discount rates and growth rates, but all using the same equations as were developed earlier.

As noted in Figure 6.3, at any give set of rates (growth rate and market discount rate), the longer the lease term, the lower the percent savings. Similarly, for any given lease term, and any given market discount rate, the higher the growth rate, the greater the percent savings. Conversely, for any given lease term and growth rate, the higher the market discount rate, the lower the percent savings.

If one were to accept that a 10% savings was necessary to justify promoting such a leasehold program (because there will be some market resistance), then it is apparent from Figure 6.3 that lease terms in excess of 60 years will only be effective at high growth rates, coupled with low discount rates.

### 6.3.4 Some Qualifications

The calculation of the savings in this case assume "perfect market" conditions. That is the market discount rates are not distorted because of the lack of acceptance of the leasehold tenure. In fact the empirical evidence tends to suggest that the market acceptance of leaseholds interests is weak (due in part to concerns for liquidity-marketability, particularly as the lease term approaches the end) and the market discount rate (r%) used in calculation of the costs and benefits on resale for the leasehold option may be wrong. Moreover as the remaining term on the head lease approaches zero, the discount rate applied to the remaining lease term is likely to increase (indicating a serious market concern for short term leasehold interests). As a consequence the price of the leasehold interest, both when it is created and when it is resold (assigned at any point less than L) is likely less than indicated above and the savings will be somewhat less than calculated.

**Figure 6.3**
**Percent Savings Through Leasing**

| Lease = 40 years | | Growth Rates | | | | |
|---|---|---|---|---|---|---|
| Discount rate | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 |
| 0.06 | 21.47% | 31.7% | 46.68% | 68.44% | n/a | n/a |
| 0.07 | 14.75% | 21.78% | 32.06% | 47.01% | 68.69% | n/a |
| 0.08 | 10.16% | 15.02% | 22.10% | 32.41% | 47.35% | 68.93% |
| 0.09 | 7.03% | 10.39% | 15.29% | 22.41% | 32.75% | 47.68% |
| 0.10 | 4.88% | 7.21% | 10.61% | 15.55% | 22.73% | 33.09% |
| 0.11 | 3.40% | 5.02% | 7.39% | 10.83% | 15.82% | 23.04% |
| 0.12 | 2.37% | 3.51% | 5.16% | 7.57% | 11.05% | 16.09% |
| 0.13 | 1.66% | 2.46% | 3.62% | 5.30% | 7.75% | 11.28% |
| 0.14 | 1.17% | 1.73% | 2.54% | 3.73% | 5.45% | 7.93% |
| 0.15 | 0.82% | 1.22% | 1.79% | 2.63% | 3.84% | 5.59% |
| Lease = 60 years | | | | | | |
| 0.06 | 9.95% | 17.86% | 31.89% | 56.62% | n/a | n/a |
| 0.07 | 5.66% | 10.17% | 18.15% | 32.24% | 56.93% | n/a |
| 0.08 | 3.24% | 5.82% | 10.39% | 18.45% | 32.58% | 57.23% |
| 0.09 | 1.86% | 3.35% | 5.98% | 10.61% | 18.74% | 32.92% |
| 0.10 | 1.08% | 1.93% | 3.45% | 6.13% | 10.83% | 19.03% |
| 0.11 | 0.63% | 1.12% | 2.01% | 3.56% | 6.29% | 11.06% |
| 0.12 | 0.37% | 0.66 | 1.17% | 2.08% | 3.68% | 6.46% |
| 0.13 | 0.21% | 0.39% | 0.69% | 1.22% | 2.16% | 3.79% |
| 0.14 | 0.13% | 0.23% | 0.41% | 0.72% | 1.27% | 2.23% |
| 0.15 | 0.07% | 0.13% | 0.24% | 0.43% | 0.75% | 1.32% |
| Lease = 80 | | | | | | |
| 0.06 | 4.61% | 10.06% | 21.79% | 46.85% | n/a | n/a |
| 0.07 | 2.17% | 4.75% | 10.28% | 22.10% | 47.18% | n/a |
| 0.08 | 1.03% | 2.25% | 4.88% | 10.50% | 22.42% | 47.51% |
| 0.09 | 0.49% | 1.08% | 2.34% | 5.02% | 10.72% | 22.73% |
| 0.10 | 0.24% | 0.52% | 1.13% | 2.42% | 5.16% | 10.95% |
| 0.11 | 0.12% | 0.25% | 0.55% | 1.17% | 2.50% | 5.31% |
| 0.12 | 0.06% | 0.12% | 0.27% | 0.57% | 1.22% | 2.59% |
| 0.13 | 0.03% | 0.06% | 0.13% | 0.28% | 0.60% | 1.27% |
| 0.14 | 0.01% | 0.03% | 0.06% | 0.14% | 0.30% | 0.63% |
| 0.15 | 0.01% | 0.01% | 0.03% | 0.07% | 0.15% | 0.31% |
| Lease = 100 years | | | | | | |
| 0.06 | 2.14% | 5.66% | 14.88% | 38.76% | n/a | n/a |
| 0.07 | 0.83% | 2.21% | 5.82% | 15.15% | 39.10% | n/a |
| 0.08 | 0.33% | 0.87% | 2.30% | 5.98% | 15.42% | 39.45% |
| 0.09 | 0.13% | 0.35% | 0.91% | 2.38% | 6.14% | 15.69% |
| 0.10 | 0.05% | 0.14% | 0.37% | 0.95% | 2.46% | 6.30% |
| 0.11 | 0.02% | 0.06% | 0.15% | 0.39% | 1.00% | 2.55% |
| 0.12 | 0.01% | 0.02% | 0.06% | 0.16% | 0.41% | 1.04% |
| 0.13 | 0.00% | 0.01% | 0.02% | 0.06% | 0.17% | 0.43% |
| 0.14 | 0.00% | 0.00% | 0.01% | 0.03% | 0.07% | 0.18% |
| 0.15 | 0.00% | 0.00% | 0.00% | 0.01% | 0.03% | 0.07% |

It is noted that the "saving" or contribution to the affordability issue is expressed as an equity reduction in this case, but with minor exceptions this represents the amount that is available for making property more affordable through the leasing option. Cases 2 and 3 provide minor extensions using mortgage financing or annual land rents to re-allocate these "savings" through time in the form of mortgage payments.

## 6.4 Landlord Erects and Owns the Building: The Standard Mortgage Transaction

### Case 2

Fully Prepaid Lease
Market rents = Contract rents
Building erected by landlord
Landlord "owns" building at end of lease
No Subsidy
Standard Mortgage financing used

Case 2 is an extension of case 1. It assumes an individual uses a normal mortgage having a loan-to-value ratio of "$l/v$" to finance the acquisition. This loan is amortized over a period of "AM" years with a mortgage constant of "c" per year.

The purchaser of the fee simple faces cost outlays equal to the equity paid plus the series of loan payments, including the outstanding balance or the payments on renewal. Expressed in terms of a present value over an assumed holding period of T years, these costs for the fee simple owner include

$$PV(C)_F = \left[(1-l/v) \cdot P\right] + \sum_{t=1}^{T} \left[\frac{(l/v \cdot P \cdot c)}{(1+k)^t}\right] \tag{37}$$

where

| | |
|---|---|
| $(l/v \bullet P \bullet c)$ | = mortgage payments per year |
| $(1 - l/v) \bullet P$ | = original equity |
| $l/v$ | = loan to value ratio |
| c | = mortgage constant |

and this purchaser enjoys benefits at the time of the resale equal to the expected resale price of the property less the outstanding balance on the mortgage. Expressed as a present value, these benefits are

$$PV(B)_p = \frac{P \cdot (1+g)^T - OSB_T}{(1+k)^T} \tag{38}$$

Obviously if T > or = AM, the outstanding balance on the loan (OSB) is zero.

The loan payments and the outstanding balance at any time depend entirely upon the amortization period (AM), the loan-to-value ratio (l/v) and the mortgage constant (c).

The net present value of the costs and benefits to the fee simple buyer are dependent upon the growth in property values, the personal discount rate (k), the loan terms and the holding period.

In the case of the prepaid leasehold option, the present value of the initial costs, assuming full prepayment of the contractual rents at market levels, and similar loan terms to those available on a fee simple, would be

$$PV(C)_l = (1-l/v) \cdot P_l + \sum_{t=1}^{L} \left[ \frac{l/v \cdot c \cdot P_l}{(1+k)^t} \right] \tag{39}$$

where

$P_l$ = value of the leasehold interest

The benefits for the leaseholder at the time the lease is assigned in period T (T<L) are

$$PV(B)_l = \sum_{t=T+1}^{L} \frac{MR \cdot (1+g)^t}{(1+k)^t} - OSB_T \tag{40}$$

If T>,L, the benefits are zero. It should be noted that the "savings" in this case through the use of the leasehold interest is exactly the same as in Case 1. These savings are the difference between the purchase option and the prepaid lease option and this is equal to the present value of the reversionary interest at the end of the head lease (the same as in Case 1) or

$$Saving = \sum_{t=L+1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} \qquad (41)$$

**Just how these savings are used is another matter.** In case 1 the entire savings were used in the form of reduced equity in the all cash deal. In this case the savings might take the form of reduced equity requirements or/and reduced payments.

It is expected that there will be some "loss" through the use of the leasehold estate. This loss or slippage is likely to occur in three places: the leasehold interest may be discounted in the marketplace at a lower rate than the fee simple cash flows; lenders may be unwilling to grant the same loan-to-value ratio on a long term prepaid lease as they grant on a fee simple; and the mortgage constant for the leasehold estate may be higher than for the fee simple.[28] It is however unlikely that the market adjustments would be sufficient to make any significant differences.

Consider the simple example from the previous cases. A household has the opportunity to purchase for $200,000 or "buy" a prepaid lease for 40 year for $179,229 (see Table 6.1). If the purchase option is selected, and the purchaser arranges a loan for $150,000 (75%) bearing interest at 12% (semi-annual compounding) amortized over a 25 year period, the monthly payments would be $1,548 per month. Therefore the cost stream facing the purchaser is $50,000 downpayment plus $1,548 per month for the term of the mortgage plus the refinanced payments or outstanding balance. In contrast, the household that purchases the prepaid lease for $179,229 can apply their $50,000 downpayment and would only require a loan of $129,229 (which is 72% of the price of the leasehold interest). Assuming no increase in interest rates from the mortgagor, the monthly payments would be $1,331, a 14% reduction from those facing the fee purchaser. What appears as a "saving" of 10.4% in the price of the interests ($200,000 v. $179,229) becomes a "saving" of 14% in payments because, in this illustration, the full saving is applied to the mortgage portion, not the equity portion. Obviously the "saving" could be applied to both the downpayment and the loan amount. For example a lender may permit a full 75% loan on the leasehold value. In such a case the downpayment would be reduced to $44,807 (25% of $179,229) and the loan amount would be $134,422 bearing payments of $1,387 per month.

[28] For a discussion on the selection of discount rates see Dybvig [1990].

What would happen if lenders adjusted the mortgage rate to compensate for greater risk on a leasehold interest? Obviously this would reduce the "savings" created by the use of the leasehold. In this particular example, lenders would have to increase the leasehold mortgage rate (from 12%) to 14.35% to generate an equivalent payment stream and such a large increase is quite unlikely. If a more modest increase - of say one-half percent - was required (to 12.5%), the leasehold mortgage payments would be $1,379 which results in an 11% reduction over the fee simple payments.

## 6.5 Landlord Erects and Owns the Building: Annual Land Rents

### Case 3

Annual Land rent payments
Market rents = Contract rents
Building erected by tenant[29]
Landlord "owns" building at end of lease
No Subsidy

This case differs from the first two in that the rent paid for the land is paid annually (or monthly), but at the full market rents. The present value of the savings in this case are exactly the same as in Case 1 and 2, however the cash flow implications are somewhat different. In Case 2 the tenant had an opportunity to finance a portion of the (prepaid) land rents using conventional mortgages with fixed periodic payments, at least during the term of the mortgage. At the end of the term of the mortgage, the tenant was assumed to refinance for another term (say 5 years). The mortgage payments on refinancing would go up or down depending upon the direction of the change in interest rates.

In this case only the building component is financed using conventional mortgages but the land component is 100% financed by the landlord (or superior tenant) with annual payments for land rent which increase each year by the growth rate for the site.[30] As a consequence, the initial payments (of land rent plus mortgage payments) will be lower than in case 2 but the payments are expected to increase annually over the term of the head lease, independent of what happens to the interest on the mortgage at renewal time, because the land rent will increase annually.

Returning to the example, if the fee simple is purchased, the costs will be the same as set out in case 2: $50,000 downpayment and $1,548 per month for the term of the mortgage plus the refinancing

[29] Note that while the tenant is financing 100% of the building, it does matter who erects it. If the head tenant is to be the occupant, then it is of no consequence but if the head tenant is a developer or investor who intends to sublease, then the preferred (income tax) arrangement is for the head tenant to erect the building. In this illustration the head tenant occupies the space and who actually erects the building is of no consequence.

[30] The case in which the land rent is annual and the tenant prepays all of the building rent is ignored as an unrealistic option.

payments or outstanding balances. If this particular annual leasing option is selected, then the household must find a mortgage to finance the building component. Assuming that the loan can be arranged on the same terms as a fee simple loan, then one needs to determine the building value to compare the cost flows. Assume the building value is 60% of the total fee simple value, or $120,000. Given the available downpayment of $50,000, a loan of $70,000 is required to finance the building and this will cost $722 per month. The site rent will be $4,800 for the first year, or $400 per month (40% of $12,000 total rent). The total payments are $1,122 in the first year. However these payments are expected to increase each year at the growth rate for the site, and this is assumed to be 3% in the example. Therefore the combined monthly payments are as shown in Table 6.2.

Table 6.2
Annual Land Rents Growing at 3%
(Standard Financing For Building
Component of 60% of Fee Simple Value)

| Year | Payment on Loan = | Land Rent = | Total Monthly |
|---|---|---|---|
| 1 | $722 | $400 | $1,122 |
| 2 | 722 | 412 | 1,134 |
| 3 | 722 | 424 | 1,146 |
| 4 | 722 | 437 | 1,159 |
| 5 | 722 | 450 | 1,172 |
| 10 | 722 | 522 | 1,244 |
| 15 | 722 | 605 | 1,327 |
| 20 | 722 | 701 | 1,423 |
| 25 | 722 | 701 | 1,535 |
| 26 | 0 | 838 | 838 |
| 30 | 0 | 943 | 943 |
| 35 | 0 | 1,093 | 1,093 |

And while the site rents are increasing at 3% per annum, the total payments increase less because of the component represented by the fixed mortgage payments. What happens after the mortgage term ends depends upon the mortgage market conditions. It should be noted that the combined payments are less than for case 2 since the tenant is not required to finance the "present value of the future growth in rents" which would be the case when rents are prepaid. The parallel here is the price level adjusted mortgage where loan payments are increased as inflation increases to preserve a "real" return.[31] This is exactly the same situation where the site rents are increased to provide a constant return. And it should be noted that many of the problems plaguing the price level adjusted mortgages will be evident here: an attractive package until an unexpectedly large increase occurs.

It is helpful to summarize the illustrations developed thus far. Recall that the fee simple would cost \$200,000, rents are assumed to increase at 3% per annum, the discount rate for the fee is 9%, loans are available at 75% of the value of the interest and bear interest at 12% (and for illustration we assume the same terms). The results are summarized in Table 6.3. As expected, leasing the entire property on an annual basis is the "cheapest solution" (for the first 10 years at least) but the tenant has no asset of value (the leasehold interest is worthless). Leasing the land annually and financing the building is the next most attractive, at least for the first 15 or so years, and some leasehold value exists since the tenant could assign to a sub-tenant and realize some valuable consideration (under the particular assumptions this option would have a market value equivalent to 60% of the fully prepaid option (the ratio of building to total value) (see Figure 6.4).

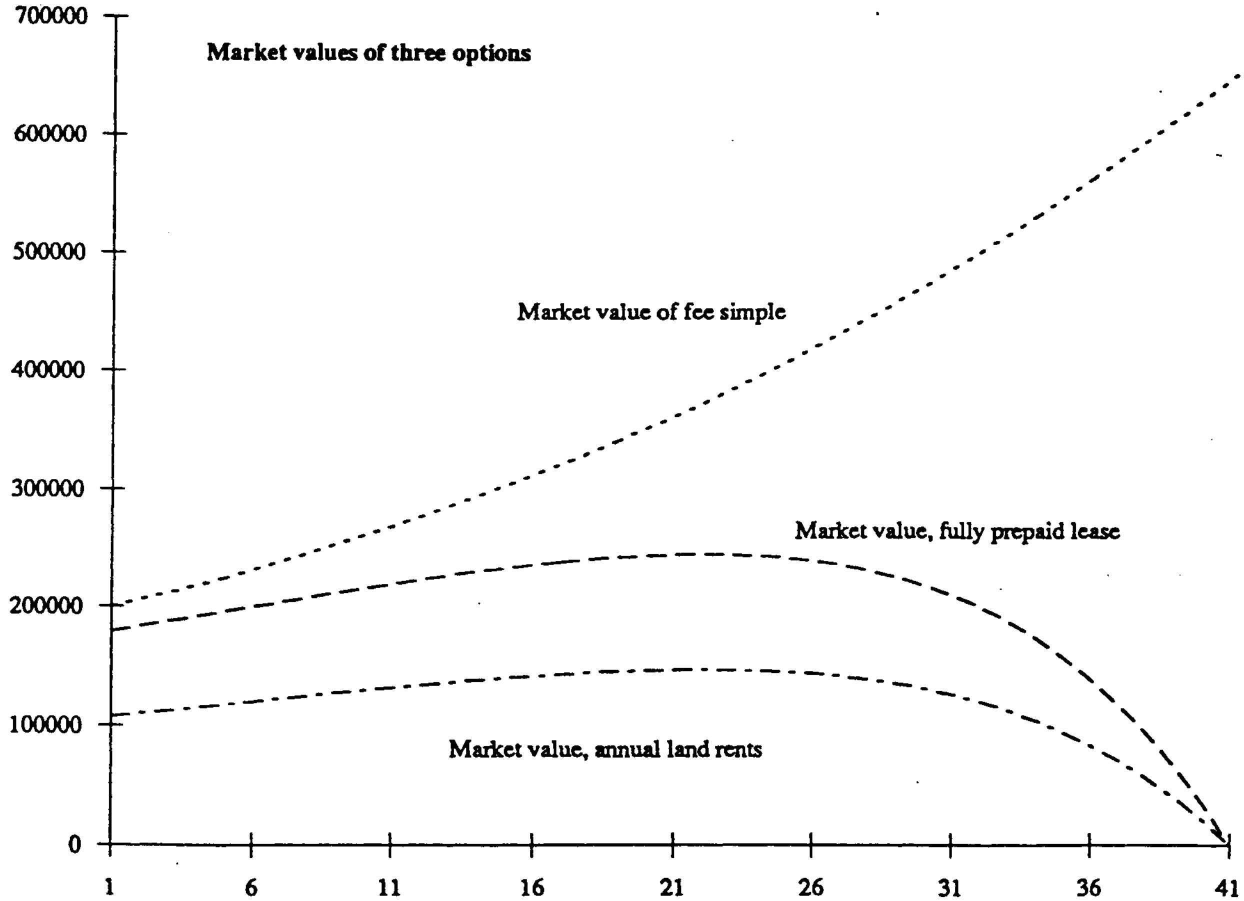
Two comments are noted. First these illustrations assume the mortgage lenders do not adjust mortgage terms to reflect any difference in risk on the leasehold interests. Second the analysis assumes land rents, building rents and total rents all increase at the same rate. More generally one would expect land rents to increase faster than building rents, therefore the option of annual land rent becomes relatively less attractive.

[31] For an analysis of the price level adjusted mortgages see Manchester [1984].

Table 6.3
Comparison of Options When The
Landlord Erects and Owns the Building
Monthly Payments: No Subsidy

| Year | Fee Simple With Mortgage | PRepaid Lease With Mortgage | Annual Land Rents Mortgage Building | Full Rent Total |
|---|---|---|---|---|
| 1 | $1,548 | $1,331 | $1,122 | $1,000 |
| 2 | 1,548 | 1,331 | 1,134 | 1,030 |
| 3 | 1,548 | 1,331 | 1,146 | 1,061 |
| 4 | 1,548 | 1,331 | 1,159 | 1,093 |
| 5 | 1,548 | 1,331 | 1,172 | 1,126 |
| 10 | 1,548 | 1,331 | 1,244 | 1,305 |
| 15 | 1,548 | 1,331 | 1,327 | 1,513 |
| 20 | 1,548 | 1,331 | 1,423 | 1,754 |
| 25 | 1,548 | 1,331 | 1,535 | 2,033 |
| 26 | 0 | 0 | 838 | 2,094 |
| 30 | 0 | 0 | 943 | 2,357 |
| 35 | 0 | 0 | 1,093 | 2,732 |
| 40 | 0 | 0 | 1,267 | 3,167 |
| 41 | 0 | 0 | 0 | 0 |

# Figure 6.4
Illustrative Market Values of
Three Interests in Real Property



## 6.6 Tenant Erects The Building but Lessor Owns Building

### Case 4

**Fully Prepaid Lease**
**Market rents = Contract rents**
**Building erected by tenant**
**Landlord "owns" building at end of lease**
**No Subsidy**

This case differs from the previous one in only one respect: the tenant has a fully prepaid **land lease** and pays directly to have the building erected, but **the landlord retains the "ownership"** of the building at the end of the head lease. Providing the growth rate in site value and building values (and rents) are identical, this case results in exactly the same savings as the case where the landlord erects (and owns) the building but the tenant "buys it" for $L$ years. Assuming the markets are reasonably efficient, the site rent should reflect the expected future value of the building at the end of the lease term.

As in the previous case, the **costs and benefits** of the purchase option remain the same.

In the leasehold option, the initial costs can be characterized as

$$PV(C)_l = \sum_{t=1}^{L} \left[ \frac{MR_s \cdot (1+g_s)^t}{(1+r)^t} \right] - \left[ \frac{MR_B \cdot (1+g_B)^L}{(r-g_B) \cdot (1+r)^L} \right] + \left[ \frac{MR_B}{r-g_B} \right] \qquad (42)$$

where

| | | |
|---|---|---|
| $MR_s$ | = | market rents for the site |
| $MR_B$ | = | market rents for the building |
| $g_s$ | = | growth rate for the site value |
| $g_B$ | = | growth rate for the building value |

The other variables are the same since it is unlikely the market would require any other adjustments in the rates.

and the benefits recovered upon resale (assignment) are

$$PV(B)_t = \sum_{t=T+1}^{L} \frac{MR_s \cdot (1+g_s)^t}{(1+r)^t} + \sum_{t=T+1}^{L} \frac{MR_B \cdot (1+g_B)^t}{(1+r)^t} \tag{43}$$

if the leasehold is assigned before the head lease expires (T < L), otherwise the benefit is zero.

Note that in this case the tenant sub-leases or assigns the right to realize the full market rents from time *T* until the end of the lease term (L).

The savings derived from this leasehold option are somewhat more complicated to determine, but they can be characterized as being equal to the present value of the site value at the end of the lease term **plus the present value of the building value at the end of the lease.**

Therefore the savings should be

$$PV(Savings) = \frac{MR_s \cdot (1+g_s)^L}{(r-g_s) \cdot (1+r)^L} + \frac{MR_B \cdot (1+g_B)^L}{(r-g_B) \cdot (1+r)^L} \tag{44}$$

And if the growth rates are identical, this reduces to the familiar saving of

$$PV(Saving) = \frac{MR \cdot (1+g)^L}{(r-g) \cdot (1+r)^L} \tag{45}$$

And we once again note that the saving from using the leasehold option is a function of the lease term (L) and the ratio of the appropriate growth rate to the appropriate discount rate.

If we continue this simple example and assume that the site to property ratio is 0.4/1.0, and assume that the building increases in value at the rate of 1% per annum, and that the site grows at 6% per annum[32], then the "saving" in this case will be approximately 15.9%. As is noted in Table 6.4, the higher the growth rate in site value relative to the growth rate in building value, the greater the

[32] For a site ratio of 0.4/1.0, this results in an average growth of 3% overall.

saving.

Table 6.4
Percent Saving Leasehold v. Fee Simple
Prepaid Land Lease, Tenant Erects Building
Landlord Owns Building at End of Lease

| Site to Total Value Ratio = 0.4/1.0 | | | |
|---|---|---|---|
| | Assumed Growth Rates Site/building | | |
| Lease term | 3%/3% | 4.5%/2% | 6%/1% |
| 40 | 10.4% | 11.6% | 15.9% |
| 60 | 3.4 | 4.3 | 8.1 |
| 80 | 1.1 | 1.7 | 4.4 |
| 100 | 0.3 | 0.7 | 2.5 |
| | | | |
| Site to Total Value Ratio = 0.25/1.0 | | | |
| | 3%/3% | 6%/2% | 9%/1% |
| 40 | 10.4% | 13.5% | 28.6% |
| 60 | 3.4 | 6.1 | 25.8 |
| 80 | 1.1 | 3.1 | 25.2 |
| 100 | 0.3 | 1.6 | 25.0 |

Overall growth of 3% is assumed.

It is noted from Table 6.4 that if any fixed total growth rate (3%) is re-allocated to different land and building growth rates, then the higher the growth rate for land relative to the building, the greater the savings by leasing land. Similarly if the growth rate for land exceeds that for the building then the higher the ratio of site to building, the greater the savings.

Before moving to the next case, it is useful to note the maximum "saving" from the leasehold options are achieved if:

1. The developed property, not just the land, is leased;
2. The lease term is kept as short as possible (recognizing some serious market resistance to short term leases); and
3. The growth rate for property prices is high.

It might be noted that this case could involve financing for both the prepaid land plus the building, in which case it is exactly equal to Case 2, or for only the building component in which case it is a variation of Case 3 but worth a larger downpayment (prepaid land) and small annual payments, (building mortgage).

## 6.7 Tenant Erects and Owns the Building

### Case 5

Lease Land Only
Market rents = Contract rents
Building erected by tenant
Tenant "owns" building at end of lease
No Subsidy

This case differs from the last case in that the tenant has a fully prepaid **land lease**, pays directly to have the building erected, but retains the "ownership" of the building at the end of the head lease. In this context ownership of the building implies that the landlord must pay the tenant the market value of the building at time L, the end of the head lease and this fact is reflected in the leasing arrangements.

In this case the **costs and benefits** of the purchase option remain the same as in case 1 and need not be repeated here.

In this leasehold option the present value of the costs can be characterized as

$$PV(C)_L = \sum_{t=1}^{L} \left[ \frac{MR_s \cdot (1+g_s)^t}{(1+r)^t} \right] + \left[ \frac{MR_B}{(r-g_B)} \right] \tag{46}$$

where

| | |
|---|---|
| $MR_S$ | = market rents for the site |
| $MR_B$ | = market rents for the building |
| $g_s$ | = growth rate for the land |
| $g_B$ | = growth rate for the building |
| $r$ | = market discount rate |

Note in this case the "savings" are less than in the previous case (because the landlord does not give the tenant any credit for the building value which reverts). However the tenant has higher benefits. The benefits recovered upon resale (assignment) also differ from the Case 4.

$$P_{L,L-T} = \sum_{t=T+1}^{L} \left[ \frac{MR_s \cdot (1+g_s)^t}{(1+r_s)^t} \right] + \sum_{t=T+1}^{\infty} \frac{MR_B \cdot (1+g_B)^t}{(1+r)^t} \tag{47}$$

if the leasehold is assigned before the head lease expires (T < L).

At the time the head lease expires, the recovery for the tenant is simply the building value

$$B_L = \sum_{t=L+1}^{\infty} \frac{MR_B \cdot (1+g_B)^t}{(1+r)^{t-L}} \tag{48}$$

With a little arithmetic it can be shown that the savings derived from this leasehold option,expressed in present value terms, and relative to the fee simple purchase, are

$$PV\ (Savings) = \frac{MR_s \cdot (1+g_s)^L}{(r-g_s) \cdot (1+r)^L} \tag{49}$$

and since the $MR_s$ is simply the full MR times the site to value ratio {(MR).(s/P)}, if there are no adjustments to the discount rates for the site and the building, and the same growth rates are used for the site and the building (a possibility), then the savings in this case would simply be a fraction equal to the site to total price ratio of the savings in Case 1 and that is what is illustrated in the following table.

$$PV\ (Savings) = l/v \cdot \left[ \frac{MR \cdot (1+g)^L}{(r-g) \cdot (1+r)^L} \right] \tag{50}$$

And we once again note that the savings from using the leasehold option are a function of the lease term (L), the ratio of the appropriate growth rate to the appropriate discount rate and, of the ratio of site to value. The only difference in the savings between case 1 and case 5 is the fact that the savings in case 5 are less since the land rent ($MR_S$) is less than the full rent (MR) for the land plus building. Hence the realizable savings are reduced by the ratio of the building value to the total value.

In the following table it is assumed that the growth rate and the discount rate will be the same for the site and for the fee simple interest which includes both site plus building.

Table 6.5
Illustrative Savings Using Leasehold Option
Tenant Owns Building At End of Lease
Discount rate 9%; Growth 3%

| Lease term | Assumed land/value Ratio | | | |
|---|---|---|---|---|
| | .25/1.0 | .4/1.0 | .5/1.0 | .6/1.0 |
| 40 | 2.6% | 4.2% | 5.2% | 6.2% |
| 60 | 0.8 | 1.3 | 1.7 | 2.0 |
| 80 | 0.3 | 0.4 | 0.5 | 0.6 |
| 100 | 0.1 | 0.1 | 0.2 | 0.2 |

Note that these "savings" are less than comparable data from Table 6.4 because the tenant in this case receives a residual benefit whereas in Case 4 the landlord "inherited" the building at the end of the lease. These savings are calculated using equation 49.

This particular model in which the tenant "owns" the building at the end of the head lease addresses a major concern with building leases: how do you ensure the tenant maintains the building as the lease term approaches zero? One answer is to provide an incentive to do so. Whether this approach will be sufficient inducement for the tenant to maintain the building to the end will depend more on market circumstances than any behavioral considerations: the tenant will invest to maintain the building only if there is reason to believe the money will be recovered (if the market value exists for the maintained property).

Using the same data as was used in Figure 6.2, the $200,000 fee simple purchase would, if leased for 40 years on a prepaid basis for the land only,assuming a .6/1.0 site to value ratio, and with no adjustments in the growth or discount rates, "sell" for a 6.2% discount.

## 6.8 Subsidized Leasehold Arrangements

Up to this point the residential leasehold options considered have not involved subsidies. In each case the "savings" were limited to the present value of the reversionary rights to the landlord. While the analysis did not explicitly demonstrate the potential slippage in the marketplace, through altered market discount rates applied to leasehold interests, through discount rate adjustments for the site and the building component and for loan terms for leasehold interests, the potential for such adjustments has been noted. It is, however, unlikely that these adjustments would materially alter the level of gains achievable to address the affordability issues.

The question then remains whether the "savings" are sufficient to warrant promoting the leasehold concept one more time (bearing in mind it met with less than wild enthusiasm last time) or is it necessary to provide further subsidies? The leasehold options can be made to appear attractive to anyone in desperate need of assistance and one seldom hears complaints at the time the lease arrangement is negotiated. However later, when the initial tenant attempts to get out into a preferred alternative (fee simple), the realization sets in that the lease has afforded poor protection from the elements of the market: in all probability traditional home ownership is further removed since it is unlikely the household savings rate would keep pace with fee simple values. It seems that it is only at this later stage that the tenant realizes the downside of being out of the equity market. Forced savings in the form of mortgage payments do have some redeeming grace.

Whether a subsidy is necessary depends to a large degree on who one attempts to help but also upon the market conditions. In periods of high rates of increase in property values, the "savings" realizable through leasing are correspondingly higher (but the disadvantages of being a tenant for prolonged periods is greater). At low rates of increase the savings potential is less.

Using the basic facts of 9% discount rate, 3% overall growth rates, and a reasonable 0.4/1.0 site to building ratio, the "savings" available on the various options are summarized in Table 6.6.

Table 6.6
Summary of Potential Leasehold Savings

| | Lease Term | | | |
|---|---|---|---|---|
| 1. Landlord Claims Building | 10.4% | 3.4% | 1.1% | 0.3% |
| 2. Tenant Claims Building | 4.2% | 1.3% | 0.4% | 0.1% |

If the affordability concern is for those just below the ability to purchase, then long term leasehold interests in the 40-60 year range have some potential. Such leasehold interests have some degree of marketability and these can be designed to provide a "toehold" for households seeking to become owners (by creating a valuable asset). One would only expect such leaseholds to be considered as temporary alternatives, perhaps while a downpayment is accumulated for a fee simple interest. The limited evidence suggests lease terms of 40 years or less are not going to meet with great market acceptance and would likely not appeal to those just below the margin.

If the assistance is to go beyond those just below the affordability line, then some subsidies will be necessary since it is unlikely the combination of preferred lease term and growth rates for properties will be such as to provide sufficient savings to move far down the scale. The subsidies provided by the landlord through the leasehold option can be of two forms: a reduction below market levels for annual lease payments or a reduction in the prepaid rents required (either through reduced rent levels or through increased discount rate used to determined the prepayment of rents: the mechanics are different but the results are the same).

It should be noted in passing that in many cases where leaseholds are an important form of tenure, some subsidy is involved (Israel, Sweden, Stockholm) by granting rents at less than market value and/or permitting tenants to switch to fee simple at a reduced price.

## 6.9 The Tenancy Position

Thus far the analysis has focused on the situation where the leasehold interest becomes the principal residence. The circumstances differ somewhat in a situation where the head-tenant erects the building and sub-lets or assigns, much as a fee simple landlord would do, for shorter term occupation leases. In this case the "savings' take a somewhat different form because of potential income tax considerations.

Consider an investor who would like to become a landlord. The investor has an option to purchase the site for $80,000 and put up a building costing $120,000. This project can be financed with a mortgage bearing interest at a of 12%. Assume for the moment the potential rent is $12,000 net of the operating expenses. These stylized facts are approximately the same as were used in earlier examples. It is further assumed the growth rate in rents and values will be 3% per year.

The investor is permitted to deduct the operating expenses, the interest on the loan, plus capital cost allowance on the building at a rate or 4% (but only one-half in the first year of operation).

Table 6.7 provides a base case for the analysis. This is a fee simple purchase for $200,000 with $80,000 land and $120,000 for the building. Net operating income is set initially at $12,000 (a 6% "dividend rate" or overall capitalization rate). The net operating income increases at 3% per annum. The maximum mortgage (12% rate, 25 year amortization) is set equal to a loan in which the payments consume 95% of the net operating income in year 1 (in this case a loan-to-value rate of 48.5%). An income tax rate of 50% is assumed.

Note that in this case, it is not until year 8 that the full capital cost allowance (CCA) can be claimed. The investor has substituted a cash expense (interest) for a non-cash expense (CCA). This implicitly assumes that the investor is not in the business of real estate development and leasing and cannot use CCA to generate negative cash flows.

To complete the picture, the property is assumed to be resold after 10 years at an overall capitalization rate of 6% (same as at the purchase) and full CCA recapture is assumed to occur.

Under these circumstances the investor can expect to earn an internal rate of return at 4.71%.[33]

The same investor, if in the business of real estate, could use maximum CCA even if it generated a negative income. Such a situation is reflected in Table 6.8. The facts are identical to the previous ease except the full CCA is used. The resulting internal rate of return is 4.87% a modest improvement over the non-sheltered investor.

The increase in the internal rate of return is modest because CCA plays a small role in this example (due to the high percentage (40%) allocated to land). However even if land were a much lower percentage of the total, the impact of full tax sheltering in the after tax internal rate of return is minor. For example at 20% allocation to land, the non-sheltering internal rate of return is only 4.79% (v. 4.71%) and the sheltering internal rate of return is 5.02% (v. 4.87%).

If the same property were made available on a prepaid lease basis, for $179,229 for a 40 year prepaid lease, the yields realized by the head-tenant actually decline. Assuming lenders wills till permit 95% of the net operating income to be applied to a loan, a loan-to-value of 51% can be arranged. Under these circumstances an investor (head-tenant) who is not in the real estate business would earn an internal rate of return of 4.51% (v. 4.79% as a fee sample) and a head-tenant who is in the business would earn 4.80% (v. 4.91% for fee simple). The reason the yields on the leasehold are lower is that the residual value does not increase at the same rate as the fee simple: the head-tenant does not enjoy the same level of capital gain[34](See Tables 6.9 and 6.10).

It is not reasonable, in fact, that a head-tenant - landlord would settle for a lower yield than a fee simple landlord. The yields noted above simply reinforce the point that an adjustment is necessary in the risk adjusted discount rate applied to leasehold interests.

The results in Table 6.7 through 6.10 all assume a 9% discount rate for all interests in real property and 3% growth in all values. Both investors and lenders are likely to treat leasehold interests as

[33] The low internal rate of return is of little consequence to the issue at hand but in a later section we examine the implications for a rental with higher yields.

[34] It is assumed the head tenant erects the building and can claim CCA.

having greater risk, albeit not too much greater for long term ground leases. As a consequence a higher discount rate is likely to be applied to the leasehold interest hence a lower prepaid price. Therefore the "discount" or "saving" in cost for leaseholds would be larger than illustrated previously.

Depending upon the tax status of the head-tenant-landlord (whether they are or are not in the real estate business) the leasehold price would have to fall to $177,000 (from $179,229) for the investor who is not in the business or to $178,000 (from $179,229) for the investor who is in the real estate business in order to provide 10 year after tax internal rates of return equivalent to those earned by fee simple owners. Such adjustments for the leasehold prepared price are very minor and do not detract from the general conclusion that prepaid land leases for residential renting are not an attractive solution to affordability since such arrangements would not be attractive to investors seeking profits (but will likely be attractive to non-profit co-operatives seeking to provide quality housing consumption without the investment component.

Tables 6.11 and 6.12 extend the land lease option to an annual ground rent, adjusted annually to reflect market conditions. As expected, yields for the two types of head-tenants-landlords are further reduced since the head-tenant has no value attached to the land: the leasehold value is entirely tied to the building value.

On balance, site or ground leasing, whether prepaid or periodic rents, appears to offer little to the profit seeking investor. In the case of the head-tenant who is not in the real estate business, present market conditions coupled with the maximum possible loan already make it impossible to take full CCA in the entry years of the investment.

## Table 6.7

### Fee Simple, No Tax Sheltering With CCA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Fee simple, No tax sheltering with CCA available | | | | | | | |
| | | | Pro-forma income and cash flow statement | | | | | | | |
| | | | | | | | | | | |
| **Inputs** | **Inputs** | | **Inputs** | **Inputs** | | **Summary returns** | | | | |
| Annual land rent | $0 | | Minimum DCR | 0.95 | | net present | | | | |
| Initial Price | $200,000 | | Loan/vaue | 46.03% | | Value @10%= | ($39,550) | | | |
| Land as % of total price | 40.00% | | Loan rate | 12.00% | | | | | | |
| Land value | $80,000 | | Amortization | 25 | years | Internal rate | | | | |
| Building value | $120,000 | | PMTS/year | 12 | per year | of return = | 4.79% | | | |
| CCA rate | 4.00% | | Compounding | 2 | per year | | | | | |
| Initial Gross income | $12,000 | | I periodic | 0.98% | per period | | | | | |
| Growth rate (gross income) | 3.00% | | Annual PMTS | $11,400 | per year | | | | | |
| Percent operating expense | 0.00% | | Periodic PMTS | $950 | per period | | | | | |
| Income tax rate | 50.00% | | Growth land rent | 0.03 | | | | | | |
| MURB (1= yes,0=no) | 0 | | Maximum loan | $92,063 | | | | | | |
| ATCF discount rate | 10.00% | | Resale dividend | 6.00% | | | | | | |
| Leasehold (1=yes, 0=no) | 0 | | OCR resale | 9.00% | | | | | | |
| Lease term | 40 | | Land ratio: end | 40.00% | | | | | | |
| Prepaid(1=yes,0=no) | 0 | | Site amortize | $0 | per year | | | | | |
| **Income and cash flows** | | | | | | | | | | |
| | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** |
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| Gross rent | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - operating expenses | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| - Land rent | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Before CCA income | $1,253 | $1,694 | $2,155 | $2,639 | $3,147 | $3,681 | $4,243 | $4,835 | $5,461 | $6,122 |
| - CCA | $1,253 | $1,694 | $2,155 | $2,639 | $3,147 | $3,681 | $4,217 | $4,049 | $3,887 | $0 |
| = Taxable income | $0 | $0 | $0 | $0 | $0 | $0 | $26 | $787 | $1,574 | $6,122 |
| * Tax rate | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| = Tax payable | $0 | $0 | $0 | $0 | $0 | $0 | $13 | $393 | $787 | $3,061 |
| | | | | | | | | | | |
| Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Loan payments | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 |
| - Land rent | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Before tax cash flow | $600 | $960 | $1,331 | $1,713 | $2,106 | $2,511 | $2,929 | $3,358 | $3,801 | $4,257 |
| - Taxes payable | $0 | $0 | $0 | $0 | $0 | $0 | $13 | $393 | $787 | $3,061 |
| = After tax cash flow | $600 | $960 | $1,331 | $1,713 | $2,106 | $2,511 | $2,916 | $2,965 | $3,014 | $1,196 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Outstanding balance (end) | $91,410 | $90,676 | $89,851 | $88,925 | $87,884 | $86,714 | $85,400 | $83,923 | $82,263 | $80,399 |
| Principal paid | $653 | $734 | $825 | $927 | $1,041 | $1,170 | $1,314 | $1,477 | $1,659 | $1,864 |
| Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| | | | | | | | | | | |
| Undepreciated balance | $120,000 | $118,747 | $117,053 | $114,897 | $112,258 | $109,111 | $105,430 | $101,213 | $97,164 | $93,278 |
| CCA maximum | $2,400 | $4,750 | $4,682 | $4,596 | $4,490 | $4,364 | $4,217 | $4,049 | $3,887 | $0 |
| CCA if not MURB | $1,253 | $1,694 | $2,155 | $2,639 | $3,147 | $3,681 | $4,217 | $4,049 | $3,887 | $0 |
| Cumulative CCA | $1,253 | $2,947 | $5,103 | $7,742 | $10,889 | $14,570 | $18,787 | $22,836 | $26,722 | $26,722 |

Table 6.8
Fee Simple, Tax Sheltering With CCA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Fee simple, tax sheltering with CCA available | | | | | | | |
| | | | Pro-forma income and cash flow statement | | | | | | | |
| | | | | | | | | | | |
| **Inputs** | **Inputs** | | **Inputs** | **Inputs** | | **Summary returns** | | | | |
| Annual land rent | $0 | | Minimum DCR | 0.95 | | net present | | | | |
| Initial Price | $200,000 | | Loan/vaue | 46.03% | | Value @10%= | ($37,800) | | | |
| Land as % of total price | 40.00% | | Loan rate | 12.00% | | | | | | |
| Land value | $80,000 | | Amortization | 25 | years | Internal rate | | | | |
| Building value | $120,000 | | PMTS/year | 12 | per year | of return = | 4.91% | | | |
| CCA rate | 4.00% | | Compounding | 2 | per year | | | | | |
| Initial Gross income | $12,000 | | I periodic | 0.98% | per period | | | | | |
| Growth rate (gross income) | 3.00% | | Annual PMTS | $11,400 | per year | | | | | |
| Percent operating expense | 0.00% | | Periodic PMTS | $950 | per period | | | | | |
| Income tax rate | 50.00% | | Growth land rent | 0.03 | | | | | | |
| MURB (1=yes,0=no) | 1 | | Maximum loan | $92,063 | | | | | | |
| ATCF discount rate | 10.00% | | Resale dividend | 6.00% | | | | | | |
| Leasehold (1=yes, 0=no) | 0 | | OCR resale | 9.00% | | | | | | |
| Lease term | 40 | | Land ratio: end | 40.00% | | | | | | |
| Prepaid(1=yes,0=no) | 0 | | Site amortize | $0 | per year | | | | | |
| **Income and cash flows** | | | | | | | | | | |
| | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** |
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| Gross rent | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - operating expenses | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| - Land rent | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Before CCA income | $1,253 | $1,694 | $2,155 | $2,639 | $3,147 | $3,681 | $4,243 | $4,835 | $5,461 | $6,122 |
| - CCA | $2,400 | $4,704 | $4,516 | $4,335 | $4,162 | $3,995 | $3,836 | $3,682 | $3,535 | $0 |
| = Taxable income | ($1,147) | ($3,010) | ($2,360) | ($1,696) | ($1,015) | ($314) | $408 | $1,153 | $1,926 | $6,122 |
| * Tax rate | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| = Tax payable | ($573) | ($1,505) | ($1,180) | ($848) | ($507) | ($157) | $204 | $577 | $963 | $3,061 |
| | | | | | | | | | | |
| Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Loan payments | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 |
| - Land rent | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Before tax cash flow | $600 | $960 | $1,331 | $1,713 | $2,106 | $2,511 | $2,929 | $3,358 | $3,801 | $4,257 |
| - Taxes payable | ($573) | ($1,505) | ($1,180) | ($848) | ($507) | ($157) | $204 | $577 | $963 | $3,061 |
| = After tax cash flow | $1,173 | $2,465 | $2,511 | $2,561 | $2,613 | $2,668 | $2,725 | $2,782 | $2,838 | $1,196 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Outstanding balance (end) | $91,410 | $90,676 | $89,851 | $88,925 | $87,884 | $86,714 | $85,400 | $83,923 | $82,263 | $80,399 |
| Principal paid | $653 | $734 | $825 | $927 | $1,041 | $1,170 | $1,314 | $1,477 | $1,659 | $1,864 |
| Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| | | | | | | | | | | |
| Undepreciated balance | $120,000 | $117,600 | $112,896 | $108,380 | $104,045 | $99,883 | $95,888 | $92,052 | $88,370 | $84,835 |
| CCA maximum | $2,400 | $4,704 | $4,516 | $4,335 | $4,162 | $3,995 | $3,836 | $3,682 | $3,535 | $0 |
| CCA if not MURB | $1,253 | $1,694 | $2,155 | $2,639 | $3,147 | $3,681 | $3,836 | $3,682 | $3,535 | $0 |
| Cumulative CCA | $2,400 | $7,104 | $11,620 | $15,955 | $20,117 | $24,112 | $27,948 | $31,630 | $35,165 | $35,165 |

## Table 6.9

### Prepaid Land Lease, No Tax Sheltering With CCA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Prepaid lease, No tax sheltering with CCA available | | | | | | | |
| | | | Pro-forma income and cash flow statement | | | | | | | |
| | | | | | | | | | | |
| **Inputs** | **Inputs** | | **Inputs** | **Inputs** | | **Summary returns** | | | | |
| Annual land rent | $0 | | Minimum DCR | 0.95 | | net present | | | | |
| Initial Price | $179,229 | | Loan/vaue | 51.37% | | Value @10%= | ($32,794) | | | |
| Land as % of total price | 33.04% | | Loan rate | 12.00% | | | | | | |
| Land value | $59,212 | | Amortization | 25 | years | Internal rate | | | | |
| Building value | $120,017 | | PMTS/year | 12 | per year | of return = | 4.51% | | | |
| CCA rate | 4.00% | | Compounding | 2 | per year | | | | | |
| Initial Gross income | $12,000 | | i periodic | 0.98% | per period | | | | | |
| Growth rate (gross income) | 3.00% | | Annual PMTS | $11,400 | per year | | | | | |
| Percent operating expense | 0.00% | | Periodic PMTS | $950 | per period | | | | | |
| Income tax rate | 50.00% | | Growth land rent | 0.03 | | | | | | |
| MURB (1=yes,0=no) | 0 | | Maximum loan | $92,063 | | | | | | |
| ATCF discount rate | 10.00% | | Resale dividend | 6.00% | | | | | | |
| Leasehold (1=yes, 0=no) | 1 | | OCR resale | 9.00% | | | | | | |
| Lease term | 40 | | Land ratio: end | 30.00% | | | | | | |
| Prepaid(1=yes,0=no) | 1 | | Site amortize | $1,480 | per year | | | | | |
| **Income and cash flows** | | | | | | | | | | |
| | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** |
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| Gross rent | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - operating expenses | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| - Land rent | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 |
| = Before CCA income | ($227) | $214 | $675 | $1,159 | $1,667 | $2,201 | $2,763 | $3,355 | $3,980 | $4,641 |
| - CCA | $0 | $214 | $675 | $1,159 | $1,667 | $2,201 | $2,763 | $3,355 | $3,980 | $0 |
| = Taxable income | ($227) | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $4,641 |
| * Tax rate | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| = Tax payable | ($114) | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $2,321 |
| | | | | | | | | | | |
| Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Loan payments | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 |
| - Land rent | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Before tax cash flow | $600 | $960 | $1,331 | $1,713 | $2,106 | $2,511 | $2,929 | $3,358 | $3,801 | $4,257 |
| - Taxes payable | ($114) | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $2,321 |
| = After tax cash flow | $714 | $960 | $1,331 | $1,713 | $2,106 | $2,511 | $2,929 | $3,358 | $3,801 | $1,937 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Outstanding balance (end) | $91,410 | $90,676 | $89,851 | $88,925 | $87,884 | $86,714 | $85,400 | $83,923 | $82,263 | $80,399 |
| Principal paid | $653 | $734 | $825 | $927 | $1,041 | $1,170 | $1,314 | $1,477 | $1,659 | $1,864 |
| Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| | | | | | | | | | | |
| Undepreciated balance | $120,017 | $120,017 | $119,803 | $119,128 | $117,969 | $116,302 | $114,102 | $111,339 | $107,984 | $104,003 |
| CCA maximum | $2,400 | $4,801 | $4,792 | $4,765 | $4,719 | $4,652 | $4,564 | $4,454 | $4,319 | $0 |
| CCA if not MURB | $0 | $214 | $675 | $1,159 | $1,667 | $2,201 | $2,763 | $3,355 | $3,980 | $0 |
| Cumulative CCA | $0 | $214 | $889 | $2,048 | $3,715 | $5,916 | $8,678 | $12,033 | $16,014 | $16,014 |

Residential Leasehold Estates

## Table 6.10
## Prepaid Land Lease, Tax Sheltering With CCA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Prepaid lease, tax sheltering with CCA available | | | | | | | |
| | | | Pro-forma income and cash flow statement | | | | | | | |
| | | | | | | | | | | |
| Inputs | Inputs | | Inputs | Inputs | | Summary returns | | | | |
| Annual land rent | $0 | | Minimum DCR | 0.95 | | net present | | | | |
| Initial Price | $179,229 | | Loan/vaue | 51.37% | | Value @10%= | ($29,473) | | | |
| Land as % of total price | 33.04% | | Loan rate | 12.00% | | | | | | |
| Land value | $59,212 | | Amortization | 25 | years | Internal rate | | | | |
| Building value | $120,017 | | PMTS/year | 12 | per year | of return = | 4.80% | | | |
| CCA rate | 4.00% | | Compounding | 2 | per year | | | | | |
| Initial Gross income | $12,000 | | i periodic | 0.98% | per period | | | | | |
| Growth rate (gross income) | 3.00% | | Annual PMTS | $11,400 | per year | | | | | |
| Percent operating expense | 0.00% | | Periodic PMTS | $950 | per period | | | | | |
| Income tax rate | 50.00% | | Growth land rent | 0.03 | | | | | | |
| MURB (1= yes,0=no) | 1 | | Maximum loan | $92,063 | | | | | | |
| ATCF discount rate | 10.00% | | Resale dividend | 6.00% | | | | | | |
| Leasehold (1=yes, 0=no) | 1 | | OCR resale | 9.00% | | | | | | |
| Lease term | 40 | | Land ratio: end | 30.00% | | | | | | |
| Prepaid(1=yes,0=no) | 1 | | Site amortize | $1,480 | per year | | | | | |
| Income and cash flows | | | | | | | | | | |
| | Year | Year | Year | Year | Year | Year | Year | Year | Year | Year |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Gross rent | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - operating expenses | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| - Land rent | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 | $1,480 |
| = Before CCA income | ($227) | $214 | $675 | $1,159 | $1,667 | $2,201 | $2,763 | $3,355 | $3,980 | $4,641 |
| - CCA | $2,400 | $4,705 | $4,516 | $4,336 | $4,162 | $3,996 | $3,836 | $3,683 | $3,535 | $0 |
| = Taxable income | ($2,627) | ($4,491) | ($3,841) | ($3,177) | ($2,495) | ($1,795) | ($1,073) | ($328) | $445 | $4,641 |
| * Tax rate | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| = Tax payable | ($1,314) | ($2,246) | ($1,921) | ($1,588) | ($1,248) | ($898) | ($537) | ($164) | $223 | $2,321 |
| | | | | | | | | | | |
| Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Loan payments | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 | $11,400 |
| - Land rent | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Before tax cash flow | $600 | $960 | $1,331 | $1,713 | $2,106 | $2,511 | $2,929 | $3,358 | $3,801 | $4,257 |
| - Taxes payable | ($1,314) | ($2,246) | ($1,921) | ($1,588) | ($1,248) | ($898) | ($537) | ($164) | $223 | $2,321 |
| = After tax cash flow | $1,914 | $3,206 | $3,251 | $3,301 | $3,354 | $3,409 | $3,465 | $3,522 | $3,579 | $1,937 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Outstanding balance (end) | $91,410 | $90,676 | $89,851 | $88,925 | $87,884 | $86,714 | $85,400 | $83,923 | $82,263 | $80,399 |
| Principal paid | $653 | $734 | $825 | $927 | $1,041 | $1,170 | $1,314 | $1,477 | $1,659 | $1,864 |
| Interest | $10,747 | $10,666 | $10,575 | $10,473 | $10,359 | $10,230 | $10,086 | $9,923 | $9,741 | $9,536 |
| | | | | | | | | | | |
| Undepreciated balance | $120,017 | $117,617 | $112,912 | $108,396 | $104,060 | $99,897 | $95,902 | $92,065 | $88,383 | $84,848 |
| CCA maximum | $2,400 | $4,705 | $4,516 | $4,336 | $4,162 | $3,996 | $3,836 | $3,683 | $3,535 | $0 |
| CCA if not MURB | $0 | $214 | $675 | $1,159 | $1,667 | $2,201 | $2,763 | $3,355 | $3,535 | $0 |
| Cumulative CCA | $2,400 | $7,105 | $11,621 | $15,957 | $20,120 | $24,116 | $27,952 | $31,634 | $35,170 | $35,170 |

Table 6.11

Annual Land Rent, No Tax Sheltering With CCA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Annual land rent, No tax sheltering with CCA available** | | | | | | | |
| | | | **Pro-forma income and cash flow statement** | | | | | | | |
| | | | | | | | | | | |
| **Inputs** | **Inputs** | | **Inputs** | **Inputs** | | | **Summary returns** | | | |
| Annual land rent | $4,800 | | Minimum DCR | 0.95 | | net present | | | | |
| Initial Price | $120,000 | | Loan/vaue | 46.03% | | Value @10%= | ($25,384) | | | |
| Land as % of total price | 0.00% | | Loan rate | 12.00% | | | | | | |
| Land value | $0 | | Amortization | 25 | years | Internal rate | | | | |
| Building value | $120,000 | | PMTS/year | 12 | per year | of return = | 4.31% | | | |
| CCA rate | 4.00% | | Compounding | 2 | per year | | | | | |
| Initial Gross income | $12,000 | | i periodic | 0.98% | per period | | | | | |
| Growth rate (gross income) | 3.00% | | Annual PMTS | $6,840 | per year | | | | | |
| Percent operating expense | 0.00% | | Periodic PMTS | $570 | per period | | | | | |
| Income tax rate | 50.00% | | Growth land rent | 0.03 | | | | | | |
| MURB (1=yes,0=no) | 0 | | Maximum loan | $55,238 | | | | | | |
| ATCF discount rate | 10.00% | | Resale dividend | 6.00% | | | | | | |
| Leasehold (1=yes, 0=no) | 1 | | OCR resale | 9.00% | | | | | | |
| Lease term | 40 | | Land ratio: end | 0.00% | | | | | | |
| Prepaid(1=yes,0=no) | 1 | | Site amortize | $0 | per year | | | | | |
| **Income and cash flows** | | | | | | | | | | |
| | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** | **Year** |
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| Gross rent | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - operating expenses | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Interest | $6,448 | $6,400 | $6,345 | $6,284 | $6,215 | $6,138 | $6,051 | $5,954 | $5,844 | $5,721 |
| - Land rent | $4,800 | $4,944 | $5,092 | $5,245 | $5,402 | $5,565 | $5,731 | $5,903 | $6,080 | $6,263 |
| = Before CCA income | $752 | $1,016 | $1,293 | $1,584 | $1,888 | $2,209 | $2,546 | $2,901 | $3,276 | $3,673 |
| - CCA | $752 | $1,016 | $1,293 | $1,584 | $1,888 | $2,209 | $2,546 | $2,901 | $3,276 | $0 |
| = Taxable income | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $3,673 |
| * Tax rate | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| = Tax payable | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,837 |
| | | | | | | | | | | |
| Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Loan payments | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 |
| - Land rent | $4,800 | $4,944 | $5,092 | $5,245 | $5,402 | $5,565 | $5,731 | $5,903 | $6,080 | $6,263 |
| = Before tax cash flow | $360 | $576 | $798 | $1,028 | $1,264 | $1,507 | $1,757 | $2,015 | $2,281 | $2,554 |
| - Taxes payable | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,837 |
| = After tax cash flow | $360 | $576 | $798 | $1,028 | $1,264 | $1,507 | $1,757 | $2,015 | $2,281 | $718 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Outstanding balance (end) | $54,846 | $54,406 | $53,911 | $53,355 | $52,730 | $52,028 | $51,240 | $50,354 | $49,358 | $48,239 |
| Principal paid | $392 | $440 | $495 | $556 | $625 | $702 | $789 | $886 | $996 | $1,119 |
| Interest | $6,448 | $6,400 | $6,345 | $6,284 | $6,215 | $6,138 | $6,051 | $5,954 | $5,844 | $5,721 |
| | | | | | | | | | | |
| Undepreciated balance | $120,000 | $119,248 | $118,232 | $116,938 | $115,355 | $113,467 | $111,258 | $108,712 | $105,811 | $102,534 |
| CCA maximum | $2,400 | $4,770 | $4,729 | $4,678 | $4,614 | $4,539 | $4,450 | $4,348 | $4,232 | $0 |
| CCA if not MURB | $752 | $1,016 | $1,293 | $1,584 | $1,888 | $2,209 | $2,546 | $2,901 | $3,276 | $0 |
| Cumulative CCA | $752 | $1,768 | $3,062 | $4,645 | $6,533 | $8,742 | $11,288 | $14,189 | $17,466 | $17,466 |

Table 6.12
Annual Land Rent, Tax Sheltering With CCA

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Annual land rent, tax sheltering with CCA available | | | | | | | |
| | | | Pro-forma income and cash flow statement | | | | | | | |
| | | | | | | | | | | |
| Inputs | Inputs | | Inputs | Inputs | | Summary returns | | | | |
| Annual land rent | $4,800 | | Minimum DCR | 0.95 | | net present | | | | |
| Initial Price | $120,000 | | Loan/vaue | 46.03% | | Value @10%= | ($22,595) | | | |
| Land as % of total price | 0.00% | | Loan rate | 12.00% | | | | | | |
| Land value | $0 | | Amortization | 25 | years | Internal rate | | | | |
| Building value | $120,000 | | PMTS/year | 12 | per year | of return = | 4.63% | | | |
| CCA rate | 4.00% | | Compounding | 2 | per year | | | | | |
| Initial Gross income | $12,000 | | i periodic | 0.98% | per period | | | | | |
| Growth rate (gross income) | 3.00% | | Annual PMTS | $6,840 | per year | | | | | |
| Percent operating expense | 0.00% | | Periodic PMTS | $570 | per period | | | | | |
| Income tax rate | 50.00% | | Growth land rent | 0.03 | | | | | | |
| MURB (1= yes,0=no) | 1 | | Maximum loan | $55,238 | | | | | | |
| ATCF discount rate | 10.00% | | Resale dividend | 6.00% | | | | | | |
| Leasehold (1=yes, 0=no) | 1 | | OCR resale | 9.00% | | | | | | |
| Lease term | 40 | | Land ratio: end | 0.00% | | | | | | |
| Prepaid(1=yes,0=no) | 1 | | Site amortize | $0 | per year | | | | | |
| Income and cash flows | | | | | | | | | | |
| | Year | Year | Year | Year | Year | Year | Year | Year | Year | Year |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Gross rent | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - operating expenses | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| = Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Interest | $6,448 | $6,400 | $6,345 | $6,284 | $6,215 | $6,138 | $6,051 | $5,954 | $5,844 | $5,721 |
| - Land rent | $4,800 | $4,944 | $5,092 | $5,245 | $5,402 | $5,565 | $5,731 | $5,903 | $6,080 | $6,263 |
| = Before CCA income | $752 | $1,016 | $1,293 | $1,584 | $1,888 | $2,209 | $2,546 | $2,901 | $3,276 | $3,673 |
| - CCA | $2,400 | $4,704 | $4,516 | $4,335 | $4,162 | $3,995 | $3,836 | $3,682 | $3,535 | $0 |
| = Taxable income | ($1,648) | ($3,688) | ($3,223) | ($2,752) | ($2,273) | ($1,787) | ($1,290) | ($781) | ($258) | $3,673 |
| * Tax rate | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| = Tax payable | ($824) | ($1,844) | ($1,611) | ($1,376) | ($1,137) | ($893) | ($645) | ($390) | ($129) | $1,837 |
| | | | | | | | | | | |
| Net operating income | $12,000 | $12,360 | $12,731 | $13,113 | $13,506 | $13,911 | $14,329 | $14,758 | $15,201 | $15,657 |
| - Loan payments | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 | $6,840 |
| - Land rent | $4,800 | $4,944 | $5,092 | $5,245 | $5,402 | $5,565 | $5,731 | $5,903 | $6,080 | $6,263 |
| = Before tax cash flow | $360 | $576 | $798 | $1,028 | $1,264 | $1,507 | $1,757 | $2,015 | $2,281 | $2,554 |
| - Taxes payable | ($824) | ($1,844) | ($1,611) | ($1,376) | ($1,137) | ($893) | ($645) | ($390) | ($129) | $1,837 |
| = After tax cash flow | $1,184 | $2,420 | $2,410 | $2,403 | $2,400 | $2,400 | $2,402 | $2,406 | $2,410 | $718 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Outstanding balance (end) | $54,846 | $54,406 | $53,911 | $53,355 | $52,730 | $52,028 | $51,240 | $50,354 | $49,358 | $48,239 |
| Principal paid | $392 | $440 | $495 | $556 | $625 | $702 | $789 | $886 | $996 | $1,119 |
| Interest | $6,448 | $6,400 | $6,345 | $6,284 | $6,215 | $6,138 | $6,051 | $5,954 | $5,844 | $5,721 |
| | | | | | | | | | | |
| Undepreciated balance | $120,000 | $117,600 | $112,896 | $108,380 | $104,045 | $99,883 | $95,888 | $92,052 | $88,370 | $84,835 |
| CCA maximum | $2,400 | $4,704 | $4,516 | $4,335 | $4,162 | $3,995 | $3,836 | $3,682 | $3,535 | $0 |
| CCA if not MURB | $752 | $1,016 | $1,293 | $1,584 | $1,888 | $2,209 | $2,546 | $2,901 | $3,276 | $0 |
| Cumulative CCA | $2,400 | $7,104 | $11,620 | $15,955 | $20,117 | $24,112 | $27,948 | $31,630 | $35,165 | $35,165 |



Residential Leasehold Estates

# 7. THE "MODEL" LEASE

## 7.1 Key Decisions For Lease Design

The purpose of this section is to focus on unique concerns associated with the design of long term residential land lease contracts. Issues common to most property leases will be ignored as they are well documented elsewhere (see Anger and Honsberger, 1985). In order to draft a meaningful lease contract, it is first necessary to have a clear view of the purpose of the leasing program and the form it will take. Who will erect and own the building(s)? Is there to be a subsidy, and if so, what kind? Is this subsidy permanent or is it to be recovered? Will the landlord restrict the rights of the tenant to realize gains, either earned or unearned, upon the sale (assignment or sub-lease) of the property? If so, how is this to be accomplished? Assuming the landlord (in this case the Federal government) complies with local and provincial development regulations and guidelines such as the Ontario "25% affordable housing" planning guidelines, can the landlord ensure the original tenant does not unreasonably profit at a later date? Answers to these questions will be necessary if the lease contract is to achieve the desired objectives. However, before considering these questions, it is first helpful to narrow down the leasehold options under consideration.

The maximum contribution, in the absence of a subsidy, from a leasing option to the affordability issue is made when the lease calls for an annual rent at the prevailing market levels, with annual rent adjustments to reflect market changes (the twin sister of the price level adjusted mortgage). There are two factors contributing to these savings: the fact the tenant does not have to "pre-purchase the growth in land rents" and the fact it minimizes the need for third party mortgage financing for the land component. At the same time a tenant with such a land lease faces a higher degree of uncertainty since there is no upside limit on the rental increase (other than the market)[35].

While the annual rental payments provide the greatest contribution to the affordability concerns, these are excluded from consideration for three reasons: the establishment of annual market value rents creates too much uncertainty for tenants who are expected to erect the improvements; such

[35] One modification that can be added to such a lease is that some ceiling be placed on annual rental increases, such as a moving average or capping provision similar to that used for real property tax systems. However this frequently just compounds the problem by postponing the day of reckoning.

arrangements will adversely affect the tenants ability to arrange third party financing for the improvements; and this type of rental covenant almost certainly locks tenants into a tenant position with very little chance to ever become owners (of fee simple). Therefore attention is focused on longer term prepaid land lease options which provide a greater degree of certainty for the tenant.

### 7.2 Who Erects and Owns the Improvements?

The nature of this lease program is to provide federally owned land for residential purposes. While it is possible for the Crown to erect the improvements and then lease the finished product on a prepaid basis, it is explicitly assumed that the head tenant will be responsible for the creation of the improvements to the leased (raw) lands. Therefore the head tenant will be responsible for finding the necessary funds to finance the costs of the improvements. However the landlord may wish to exercise some control over the timing and nature of the improvements (a common feature of long term land leases). Generally the long term land lease is not executed until the head tenant has erected the agreed upon improvements. Therefore the landlord should plan to grant an "option to lease the land", exercisable once the head tenant has completed the agreed upon improvements. Moreover this option period should have a reasonable time frame for the head tenant to complete the improvements in order to prevent the head tenant from sitting on an undeveloped land option. It may also be desirable to explicitly deny the head tenant the right to assign or sub-let until the specified improvements are completed, thereby preventing the head tenant from "speculating" with the undeveloped leasehold interest (exceptions may be allowed by the landlord where the justification appears to be reasonable).

Further the landlord and tenant should agree, in advance, as to the nature, quantity and quality of improvements that are to be erected on the leased lands. Since the permitted uses and densities may be uncertain at the time the lease document is drafted, it may be more desirable to set out a procedure for obtaining the approval of the landlord for the type, quantity and quality of improvements to the site once local government approvals are obtained.

Having decided that the head tenant will erect the improvements, and taken care to ensure the improvements will be of the type expected and completed when expected, the next major decision is "who owns the improvements at the end of the land lease?" In the absence of contractual agreement, the landlord would own all site improvements upon termination of the land lease. However it is sometimes argued that having the tenant "own" the improvements (and the landlord being obliged to purchase these at the end of the lease) promotes better care of the improvements towards the end of the lease. Such arrangements are common but frequently result in costly arbitration to determine the value of the improvements once the lease term expires. If the improvements simply revert to the landlord, no valuation is required. Of somewhat greater importance at the outset is the fact that the ownership of the improvements at the end of the lease will affect the amount of prepaid land rent at the start of the lease. If the tenant erected improvements revert to the landlord at the end of the lease term, this will be taken into consideration in setting the prepaid land rent (see section 6.6) and result in a lower prepaid amount than would be the case if the tenant owned the improvements at the end of the lease term. Therefore, if the primary focus of the program is to improve affordability today, then some gains can be realized by having the landlord own the improvements at the end of the lease term (and face the possible political pressures that may arise at that time when a number of tenants simultaneously "lose their homes to the Crown"). In the remainder of this section, it is implicitly assumed that the landlord owns the improvements at the end of the lease term.

## 7.3 To Subsidize or Not To Subsidize?

In designing a model land lease it is necessary to decide upon the objectives of the leasehold program. In this case, the purpose is to improve affordability through the use of prepaid land leases. But to what degree is affordability to be improved? If the intent is to make adequate housing affordable to those households who just fall short in their ability to purchase, then a prepaid 40-60 year land lease at market rents will provide the 5% - 10% reduction in initial capital cost which may be sufficient to permit them to become owners of a leasehold interest. Providing there are no covenants to the contrary, this leasehold interest could be expected to increase in value (through increasing land and improvement values), albeit not as rapidly as the fee simple counterpart. The realizable gains in the early years of the leasehold estate, both anticipated and unanticipated, would assist tenants who wished to switch to fee simple ownership ("selling" their leasehold interest at the prevailing market value and buying a fee simple interest). Alternatively, the leasehold contract could provide a covenant granting the tenant an option to purchase, at the then prevailing market price, the fee simple subject to the existing lease (basically "trading-in" the leasehold plus and option price for the fee simple). In this situation, no subsidy is involved and the fee simple owner captures all gains on the fee simple interest subject to the lease. However, the tenant captures any increase in leasehold value at the time the option is exercised.

Consider a household which is just below the affordability line for a $150,000 house, where the land component is worth $50,000 and the improvements are worth $100,000. The overall property value is expected to increase at 3% per annum and investors would expect an overall yield of 9%. For simplicity assume the land and improvement components each increase at 3% (this assumption will bias downward the realized saving through land leasing). Assume that the potential buyer has $50,000 for a down payment and a $100,000 loan is available for the fee simple bearing interest at 12% compounded half yearly (25 year amortization) with payments of $1,032 per month. If real property taxes are 1% of property value, the annual PIT would be $13,383 and, at 0.30 debt service ratio, an annual income of $44,609 is required to service the loan for the fee simple.

As an alternative, the household could acquire a 40 year prepaid land lease for $34,422 and erect the $100,000 dwelling[36]. In this case, if the full $50,000 is available for a down payment, the loan required would be reduced from $100,000 to $84,422 , the monthly payments reduced from $1,032 to $871 (assuming no change in interest rates) and the annual income required to service the loan (plus $1,000 annual real property taxes) reduced from $44,609 to $38,179. This 14% reduction in household income required to service the loan (plus property taxes) will, at the margin, improve affordability, but put the purchaser in the position of a tenant, not fee simple owner. Note that a higher land to improvement ratio will make the land lease option even more attractive in that the initial costs would be reduced more.

If a household has the income necessary to service a 75% loan, but is lacking the necessary down payment of 25%, the prepaid land lease option would have the impact of reducing the down payment requirement.

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[36] See section 6.6 for the derivation of the "saving" created by this type of prepaid land lease.

Given the leasehold can assist households with a moderate (10%+/-) shortfall in either the required down payment or servicing income, how do these households ever move to fee simple - or is this even a concern? The fee simple value increases each year (3% per annum in this example) and the leasehold value increases, at least in the early years of the lease, but at a lower rate. Hence each year the tenant's interest declines relative to the fee simple and the cost to shift to fee simple increases.

Obviously a provision could be made in the lease document which would provide an option to permit the head tenant (or subsequent sub-tenants) to purchase the underlying fee simple. But unlike the previous HOME program, the option price need not be fixed at the initial property value. Under the HOME program tenants were granted an option to buy after 5 years at the initial fee simple price ($150,000 in the example). But this may have been a needlessly rich subsidy. Assume rents (and fee simple values) increase at 3% for purposes of this example. After 5 years the fee simple would be worth $173,891 and the leasehold interest would be worth $149,922, a difference of $23,969 (an "exercise price for the option" or right to acquire the fee simple interest from the landlord). At the end of 5 years the tenant who initially borrowed $84,422 would owe $80,589. The income required to switch from a leasehold position to a fee simple interest would be that income needed to refinance the outstanding balance of $80,589 plus the price to exercise the option ($23,969). If future interest rates on the loan remained at 12%, the household income necessary to service the refinanced loan plus the annual real property taxes (1% of the value of the value of the fee simple at the time the option is exercised) would be $48,954 (up from the $44,609 needed to acquire the fee simple 5 years earlier, and up from the $38,179 required to initially acquire the leasehold. This represents an average annual rate of growth in household incomes of approximately 5.5% (assuming no incremental savings to reduce the refinanced loans).

What elements are necessary to make this prepaid lease with an option to purchase work in practice? It will work providing the initial prepaid lease can qualify for regular mortgage terms (or close to regular terms), the household income increases, in relative terms, as illustrated; that the ratio of fee simple value to leasehold value remaining as illustrated, and that mortgage rates upon exercising the option to buy and refinancing the outstanding balance on the leasehold loan do not increase. Not all of these variables can be controlled, but much of the risk can be eliminated. First, the government (also the landlord) can help to ensure the initial loan terms on the prepaid lease are not significantly different from those for fee simple by subordinating the fee simple as collateral for the leasehold loan and by providing loan insurance (paid for by the borrower). Second, loan rate insurance could be provided over the initial loan term, thereby eliminating the interest rate risk on refinancing. Third, the initial loan could provide an option for a mortgage renewal, to a full amortization period, say anytime up to 5 years, providing the option to buy the fee simple interest is exercised (so the tenant/borrower could refinance both actions at one time).

These actions alone will remove much of the risk, from the tenants point of view, and at only modest changes in risk to the landlord and lender. They will also increase the likelihood of the tenant shifting to an ownership position since the cost to switch is minimal at the early stages but increases through time in a rather predictable fashion. What remains is the risk that property values (both fee simple and leasehold) will increase more rapidly than expected and that the tenant's household income (or savings) will not keep pace. This possible outcome cannot be adequately addressed within the leasehold program without an implicit subsidy such as provided in the HOME program. But it should be noted that forces which cause property values to increase in general terms will also likely affect income levels in the community.

It appears, therefore, that some reasonable degree of assistance can be made available to households who are slightly below the "affordability line" and the assistance can maximize their chances to switch to a fee simple position with minimum subsidy and with a reasonably straightforward prepaid lease coupled with some innovative assistance in managing the risk on the refinancing (and purchase) loan.

If the purpose of the leasehold program is to help those most in need of assistance, then the leasehold program, without a subsidy, is likely to be of limited value. Even with very short term prepaid leases (25-40 year) the savings are not sufficient to reach far below the "affordability line". If it is this group that is to be assisted, a significant subsidy, and mechanism to ensure it goes to the right households, will be required. The question then arises whether it is better to establish a lease document and infrastructure to work directly with tenants or simply lease the land to non-profit co-operatives, where there is a proven mechanism in place. The arguments for the latter seem significant.

If a subsidy is involved, then the landlord must decide how best to grant the subsidy and whether it is to be a permanent or temporary (during occupation of the leased lands) subsidy. If the subsidy is to be permanent, it can take the form of either a reduction in the prepaid land rent or a subsidized option to purchase the underlying fee simple interest. If the subsidy is to be temporary, then the option to purchase is of no value and the subsidy must take the form of rents reduced below market levels (thereby resulting in a lower (subsidized) prepaid land rent.

As noted earlier, the value of the prepaid leasehold will likely increase in the early years, assuming inflation exceeds the natural decline occasioned by the reduced remaining term of the lease, but the increase will not keep pace with the price of fee simple. Therefore, in the absence of other forms of savings, tenants will fall behind in their ability to acquire fee simple. If the long run goal of the household program is to promote ownership, some means must be developed to assist or encourage the tenant to save in order to shift to fee simple ownership. If some or all of a subsidy is to be recovered, the job of saving to shift to fee simple is made all the more difficult (but not necessarily impossible). On the other hand, one does not want to subsidize the leasehold and then allow the tenant to resale (assign) at a profit, only to ask once again for assistance. An alternative strategy would be to provide assistance for current housing consumption, but not necessarily for the tenant to become the owner of a fee simple interest (the investment component). In other words less importance may be placed on the ability of the tenant to eventually shift to fee simple.

It was noted in the review of the literature that one common complaint with the HOME program was that it produced large subsidies for the fortunate few who acquired the leases (and were able to resale after five years when they acquired the fee simple at a subsidized value). Recall that under the original HOME program the tenant had two sources of subsidy available: the original subsidized land lease payment and the right to buy the fee simple after five years at the original land value. Providing land values did not decline, the tenant could benefit from both sources of subsidy. In fact the rapidly rising property market made the right to purchase at historic prices extremely attractive (a large subsidy). These features of the HOME program caused concern amongst those who did not participate and prompted the government to change the program.

If the developer (or in our case the landlord) wanted to prevent the tenant from benefiting from the subsidy upon resale (or assignment), how could this be achieved? It would be possible to include a lease covenant which provides that the subsidy, either at the original amount or some other amount, had to be repaid if the lease is assigned or sub-let. If the original subsidy is to be repaid, this amount could be easily identified and documented but, in a rising market, the tenant may still gain. If the current value of the subsidy at the time of transfer of ownership of the leasehold interest, is to be repaid, then some formula is required to calculate this amount. This could be either a share of the then prevailing market value or be based on some prescribed rate of return. For example if the unsubsidized land lease is worth $50,000, but it is made available for $40,000 (a subsidy of $10,000), then upon resale (assigning) the landlord could plan to recover the (original) $10,000; plan to recover the original 1/5th interest; or plan to recover $10,000 plus some prescribed interest.

In the first instance, the effect of recouping the original dollar subsidy depends on market conditions when the head tenant assigns or sub-lets. Assume the head tenant "sells" in period T. If the market price for the leasehold interest in period T exceeds the original subsidized price, the full dollar subsidy can be easily recouped (treated as a registered "interest free" second mortgage). If, on the other hand, the resale price is less than the original subsidized price, then recovery of the original subsidy is not likely. Why would this be the case? Because the head tenant would be reluctant to sale if he had to also put up extra cash, beyond the realized leasehold value, to move.

Note that when the price realized in period T exceeds the original subsidized price, then the original head tenant benefits somewhat by keeping the surplus gain. In this case the Crown (or agency recovering the surplus) would not have sufficient funds to continue offering equivalent relative subsidies to future buyers (unless new subsidy dollars are made available). Given the most common circumstances are that house prices will increase, this recovery plan assists the initial head tenants by allowing them to gain from the leasehold program and makes it more expensive for the recovering agency to operate a perpetual revolving subsidy program.

A second subsidy recovery plan is to structure the subsidy component as a "participating, zero interest rate loan" whereby the recovery (the participation) is equivalent to the ratio of the original subsidy to the original market value multiplied by the resale price. In this case, the recovery will depend on the relationship of the resale price to the original prices. If the resale price exceeds the original subsidized price of the leasehold interest, a full subsidy recovery is likely. In this case the Crown recovers sufficient funds to grant an equally proportionate subsidy to another tenant, and the original head tenant holds his own relative to the market prices. However if the resale price is less than the original subsidized price, then recovery is less likely since the original head tenant has no incentive to sell. Moreover it is unlikely (for political reasons) that any Crown agency would enforce a claim for subsidy recovery against a purchaser who has sold his house for a loss.

The third approach to recovering the subsidy is to set out, in advance, an expected return on the original subsidy. Let s% be the annual required rate of return on the subsidy. When the head tenant "sells", he must repay the subsidy in the amount of

$$\text{Recovery} = \text{Original subsidy} * (1+s)T$$

Providing the leasehold interest increases in value, at least at the rate s%, the head tenant will be better off in period T than he was at the start. However if the leasehold value increases at less than s% per annum, recovery of the subsidy is less likely since the head tenant has a strong incentive not to sell.

Note that if s% = g%, the required return is equal to the growth rate in the leasehold values, then alternatives 2 and 3 have the same net effect.

In the first alternative the calculations are simple and the tenant essentially has an "interest free loan" for the holding period. This is relatively easy to document in advance. In the second case the landlord has a joint interest (participation) in the property and the recovery would be based upon the original share and the observed resale price (hence avoiding an appraisal). This is essentially an "interest accruing, zero rate, participating loan". In the last case, the recovery would be set out in advance as to the rate of interest (and this would essentially be an "interest accruing loan", likely registered as a second mortgage). Note that these three alternatives have the advantage of simplicity and avoid the need for appraisals (which can be a source of difficulties). However, to promote mobility, less than full recovery might be considered in those cases where market prices of the leasehold interest do not increase sufficiently to enable the original tenant to sell and be at least as well off as when the initial subsidy was originally granted.

### 7.4 Recovery of "Unearned Gains"

In designing the land leasing program, it is also necessary to make another basic decision relating to the ownership of "unanticipated and/or unearned increments" in the leasehold values. Does the landlord intend to restrict the rights of the tenant to enjoy increases in the value of the leasehold interest, either unanticipated or unearned, upon sale (assignment or sub-lease) of the leasehold interest? While this decision shares some common features with the subsidy recovery issue, there are major differences. One can argue that a subsidy is intended to provide temporary help, not permanent help and, as such, should eventually be recouped. Moreover the amount of the initial subsidy can be reasonably estimated and a variety of means can be designed to recoup. The amount, source and "ownership" of "unanticipated and/or unearned increments" is less apparent.

The position is sometimes advanced that the leasehold system should be used as a means to capture all windfall gains. This notion of capturing the "unearned increment" was attempted in practice in the United Kingdom in a more general context (see Uthwatt Report, 1942) and subsequently dropped, not because the principle was necessarily wrong but because of the measurement problems. The idea of recouping unearned increments has its origin in the notion that much of the increase in property values is due to public works, and consequently the public should recoup all or some of the increments. More sophisticated versions hold that all unearned increments should be taxed away and used to compensate those who suffer unearned losses, a position which reflects the considerable externalities which persist in the real property market.

The desire to restrict the right of a tenant (and presumably all sub-tenants) to realize a gain upon resale (assignment or sub lease) generally rests on the notion that increments in land (or property) values are not earned by the tenant but rather reflect earning to the land component, hence the landlord. In the more general case it is argued that such unearned increments should accrue to the public at large, since, it is argued, it is not the actions of the private property owner which created these increments but rather the "public works". While it can be argued that the "public" creates these unearned increments, in fact they could also be due to private actions of tenants, the particular landlord or other private landowners in the area. If such cases the "external benefits" should be recaptured by the parties who created them. Unfortunately this is easier said than done since the determination of the responsible party is difficult and the allocation of value, either rents or capital value depends on appraised allocations. Less is heard of the idea of recouping unearned increments in order to reallocate the gains to responsible private property holders. The assumption is generally made that "unearned increments" are due to public actions and belong to the "public", not to surrounding private owners or some combination of public and private sector. Not surprisingly even less support is voiced for the argument that private property owners (or tenants) who suffer "unearned losses" due to adverse public or private actions should be compensated by the public: truly a one sided argument.

In the case of land leases, the position is advanced that the landlord should receive all unearned increments since they do not "belong to the tenant" who has done nothing to enhance the land value. In fact it is common for private landlords to structure lease contracts in a manner which permits the landlord to capture increases in the land value (such as the use of periodic rent reviews to bring contract rents to market levels). However in such cases the tenant is generally protected by ensuring the increases in land rents does not include increases due to tenant improvements.

The concern with respect to increments in the leasehold value are all the more sensitive when the landlord is the Crown: Why should particular private tenants realize unearned or unanticipated increments on the (re)sale of their leasehold interest if they have done nothing to produce the increment? Accepting for the moment that the landlord wants to ensure the tenant does not realize such increments upon (re)sale of the leasehold interest, this may be addressed by either preventing such increments or taxing away all increments once they occur. Before exploring this in detail, it is first necessary to understand the nature of the value of the leasehold interest and to decide what is meant by "unanticipated and unearned increments".

The signing of a lease contract creates an asset - the leasehold interest - and this asset may or may not have a positive value at any time throughout its life. It was noted earlier in section 6.6 that the value of a leasehold interest depended upon the relationship of the contract rent to the market rent, the remaining term of the lease, who owns the improvements at the end and the prevailing discount rate. At the time the contract is signed with the prepaid land lease, the amount of the prepayment (assuming no subsidy) is equal to the present value of all expected future rents, discounted at the then prevailing market rate for such a contract. If the landlord is to own the tenant improvements at the end of the lease term (without paying compensation), then the present value of this benefit is also taken into account in setting the amount of the prepaid land rents. Using the example in this section it was assumed that the current market value for the land was $50,000 and it would increase at 3% per annum compounded. If one similarly assumes the improvement value (of $100,000) would increase at 3% per annum and eventually be owned by the landlord, then the amount of the prepaid land rent for a 40 year prepaid land lease was calculated to be $34,422. In addition the tenant erected a $100,000 improvement. The assumptions inherent in this calculation are summarized in Table 7.1.

The assumptions agreed upon in Table 7.1, at least for purposes of negotiating the prepaid land rent, include an assumed growth of 3% per annum in the value of the land and the improvement components, an assumed constant discount rate of 9% and a negotiated 40 year land lease, $100,000 improvement and landlord ownership of the improvements at the end of the lease term. Note that assuming a 3% growth in values coupled with a constant discount rate is the same as assuming a 3% growth in land and building rents with a 9% discount (or capitalization) rate.

Assume the tenant "sells" the leasehold interest in year 10. What would constitute an "unanticipated" or "unearned" increment? At the time the original lease was negotiated, the landlord and tenant agreed, at least for purposes of negotiating the land rent, that rents and values would increase at 3% per annum. These assumptions result in the "anticipated" (or "scheduled") leasehold values shown in Table 7.1, column 6. Therefore if the tenant sold the leasehold interest in year 10 for exactly $164,708, he would realize an "anticipated gain" of $30,286 ($164,708-$134,422). If in year 10 the leasehold were sold for less than $164,708, an "unanticipated loss" would occur. Similarly if the leasehold were sold for more than $164,708 in year 10, an "unanticipated gain" would occur. Given the original prepaid land rents were based on the assumed 3% increases in both land and improvements (rents and) values, there can be no justification in seeking to recapture any increments in the leasehold value up to and equal to the anticipated values as set out in Table 7.1. Whether

Table 7.1
Anticipated values of leasehold interest

| 1<br>Year | 2<br>Value of land @3% growth | 3<br>Value of Building @ 3% growth | 4<br>Value of fee @3% growth | 5<br>Present value of reversion | 6<br>Value of leasehold |
|---|---|---|---|---|---|
| 0 | $50,000 | $100,000 | $150,000 | $15,578 | $134,422 |
| 1 | $51,500 | $103,000 | $154,500 | $16,980 | $137,520 |
| 2 | $53,045 | $106,090 | $159,135 | $18,509 | $140,626 |
| 3 | $54,636 | $109,273 | $163,909 | $20,174 | $143,735 |
| 4 | $56,275 | $112,551 | $168,826 | $21,990 | $146,836 |
| 5 | $57,964 | $115,927 | $173,891 | $23,969 | $149,922 |
| 6 | $59,703 | $119,405 | $179,108 | $26,126 | $152,981 |
| 7 | $61,494 | $122,987 | $184,481 | $28,478 | $156,003 |
| 8 | $63,339 | $126,677 | $190,016 | $31,041 | $158,975 |
| 9 | $65,239 | $130,477 | $195,716 | $33,834 | $161,882 |
| 10 | $67,196 | $134,392 | $201,587 | $36,880 | $164,708 |
| 11 | $69,212 | $138,423 | $207,635 | $40,199 | $167,436 |
| 12 | $71,288 | $142,576 | $213,864 | $43,817 | $170,048 |
| 13 | $73,427 | $146,853 | $220,280 | $47,760 | $172,520 |
| 14 | $75,629 | $151,259 | $226,888 | $52,058 | $174,830 |
| 15 | $77,898 | $155,797 | $233,695 | $56,744 | $176,951 |
| 16 | $80,235 | $160,471 | $240,706 | $61,851 | $178,855 |
| 17 | $82,642 | $165,285 | $247,927 | $67,417 | $180,510 |
| 18 | $85,122 | $170,243 | $255,365 | $73,485 | $181,880 |
| 19 | $87,675 | $175,351 | $263,026 | $80,098 | $182,928 |
| 20 | $90,306 | $180,611 | $270,917 | $87,307 | $183,609 |
| 21 | $93,015 | $186,029 | $279,044 | $95,165 | $183,879 |
| 22 | $95,805 | $191,610 | $287,416 | $103,730 | $183,686 |
| 23 | $98,679 | $197,359 | $296,038 | $113,065 | $182,973 |
| 24 | $101,640 | $203,279 | $304,919 | $123,241 | $181,678 |
| 25 | $104,689 | $209,378 | $314,067 | $134,333 | $179,734 |
| 26 | $107,830 | $215,659 | $323,489 | $146,423 | $177,066 |
| 27 | $111,064 | $222,129 | $333,193 | $159,601 | $173,592 |
| 28 | $114,396 | $228,793 | $343,189 | $173,965 | $169,224 |
| 29 | $117,828 | $235,657 | $353,485 | $189,622 | $163,863 |
| 30 | $121,363 | $242,726 | $364,089 | $206,688 | $157,401 |
| 31 | $125,004 | $250,008 | $375,012 | $225,290 | $149,722 |
| 32 | $128,754 | $257,508 | $386,262 | $245,566 | $140,696 |
| 33 | $132,617 | $265,234 | $397,850 | $267,667 | $130,183 |
| 34 | $136,595 | $273,191 | $409,786 | $291,757 | $118,029 |
| 35 | $140,693 | $281,386 | $422,079 | $318,015 | $104,064 |
| 36 | $144,914 | $289,828 | $434,742 | $346,636 | $88,105 |
| 37 | $149,261 | $298,523 | $447,784 | $377,834 | $69,950 |
| 38 | $153,739 | $307,478 | $461,218 | $411,839 | $49,379 |
| 39 | $158,351 | $316,703 | $475,054 | $448,904 | $26,150 |
| 40 | $163,102 | $326,204 | $489,306 | $489,306 | $0 |

Assumes a 9% discount and capitalization rate.

there is a case for recapturing gains beyond those originally anticipated is another matter: why have the unanticipated gains occurred? Are they because the tenant erected a better building than anticipated? Because the tenant has taken better care of the property? Or because the land is worth more because of some reason unrelated to actions of the tenant?

In this same context, what is meant by "unearned increments"? Presumably in this leasehold context, "unearned increment" means the same as "unanticipated increments" because we note that a 3% "earned increment" is built into both the land and improvement components of the lease negotiation.

One approach to handling the "unearned increment" issue is to simply tax (recapture) all excesses above the scheduled leasehold values. This is the least attractive alternative since a tenant, knowing the surplus is to be taxed away, might decide to sub-let at an artificially low rate (or with some "under the table" payments). Moreover tenants would see this as an opportunity to apply political pressure to reduce or eliminate the recovery. If this alternative is used, the landlord would need to reserve the right to approve the next tenant and monitor the sub-leasing or assignment. Moreover the landlord would want to ensure that some restriction was placed on the title to provide for the recovery of the "tax". The easiest way is to insert a clause which provides that the lease be terminated if the recovery tax is not paid upon assignment or sub-leasing. Such a provision would ensure that the new tenant pay the "tax" rather than risk loosing the lease.

Can the prepaid lease be drafted to ensure that the tenant does not realize any unanticipated or unearned increments, thereby avoiding the problems of "taxing"? The answer is yes. The original lease can be drafted to include an option in favour of the landlord which provides that the landlord has an option to purchase the leasehold interest at any time at a value equal to the value of the leasehold interest set out in Table 7.1, column 6. For convenience, these values will be referred to as the "scheduled values" since they can be set in advance as a schedule of option prices. These scheduled prices are based upon estimates or forecasts used to negotiate the prepaid land rents. The timing of the decision to sell (assign or sub-lease) is left entirely with the tenant. If, at some future date, the landlord anticipates a sale might occur at a price which is less than the scheduled leasehold value, the option to purchase the leasehold interest would not be exercised, but would remain in effect with the next sub-tenant. This would ensure tenants did not realize any "unearned increment" upon resale, but does not commit the landlord to purchase. Under this arrangement the landlord only prevents unearned increments if the tenant sub-lets or assigns. If market rents increase more than 3% per annum, the tenant enjoys the unearned increment personally so long as he continues to occupy the property. The only way to ensure the tenant neither realizes an unearned increment upon sale nor during the occupation is to have annual contract rents set equal to market rents.

It should be noted that using the option to purchase alternative, with the scheduled option prices, assumes all unearned increments belong to the landlord, even those due to the improvements[37]. But in the case of the proposed leases, the improvements are to belong to the landlord even though they are erected by the tenant: The only claim the tenant has is to use the property for 40 years without additional rents. Tenants may not like the idea of granting this option to the landlord but it must be noted that leases are contracts negotiated between two parties and the tenant does not have to accept the deal. Moreover if the tenant thinks the option prices are too low, then logic dictates that the prepaid rents may also be too low. Why? Because higher option prices would imply either higher expected rents for the remainder of the lease term or lower discount rates for future rents and values. In either case the prepaid rents should be set higher.

It should also be noted that one could negotiate the prepaid land lease based on the premise that the landlord may exercise a right to increase rents, up to the then prevailing market value, upon sale (assignment or sub-lease). If this is the case, the "purchaser" or sub-tenant would not be prepared to pay a premium to the prior tenant to assume the land lease. If this option is used, it will be necessary to provide that the original (or prior) tenant be compensated at an amount equal to the anticipated leasehold value. One suspects that neither the landlord nor the tenants would favour this alternative. The tenant would not like it because the landlord is doing the resale negotiations and this may adversely affect the amount he receives. The landlord would generally prefer to avoid the hassle of renegotiating rents.

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[37] In some cases the increment in property values will reflect either the direct actions of the tenant or the landlord. However in many cases the increment is the result of third party or public sector actions. In the case of these Federal residential land leases, voluntary compliance with provincial or local policies may create an opportunity for windfall gains arising from the voluntary compliance. In such cases the need to recapture is more compelling. In section 7.5 such an example is presented where the (Federal) landlord voluntarily complies with the "25% affordable" guidelines in Ontario and in other provinces.

The more important question is to ask whether the landlord should even attempt to prevent or recoup unearned increments. The record of public authorities recovering from private tenants is very poor and such attempts will likely be a source of continuing trouble and likely arbitration. The whole concept assumes the "unearned increment" is due to the actions of the "particular landlord" and the tenant contributes nothing, beyond that anticipated in the lease negotiations. It is entirely possible some increment is due to actions of other private property owners (and therefore it is less clear why the landlord should assume exclusive ownership of the gains) or even to the actions of the tenant (in which case the unearned gains are really "earned gains" for the tenant. There is no means of proving that the increment is due entirely to actions of the particular landlord. However the voluntary compliance with provincial and local policies, such as the "25% affordable housing" policies, provides an example of the unearned increment created in the market, but potentially available to the tenant only because of the voluntary actions of the landlord. If the (Federal) landlord elected not to comply, tenants would not be in a position to see such an unearned increment arise in the first place (see section 7.5). Therefore the justification for preventing or recapturing is more compelling.

One must also ask if landlords are to recoup positive "unearned increments" will they also compensate tenants who realize "unearned losses" (sell for less than the scheduled leasehold values)? Not likely, but the arguments are identical (again except in the case of the voluntary compliance). Finally it should be noted that the purpose of this (public sector) leasing program is to assist those in need. To recoup "unearned increments" is to make it even more difficult to shift into an ownership position in the future.

On balance the recovery of unearned increments appears to be an attractive component of the leasehold program but it is not likely to produce significant incremental income to the landlord since, if history is any guide, future enforcement is highly unlikely. The empirical evidence from jurisdictions making extensive use of public leasehold system is overwhelmingly one-sided: Attempts to recapture unearned increments in land leaseholds have been discarded in virtually every jurisdiction (see Section 5). In fact the converse is the norm: Existing tenants are given preferred lease terms and options to convert to fee simple. The previous Ontario HOME program is more characteristic of the practice than is any effort at recapturing unearned gains. Even the new "25% affordable development" guideline for Ontario residential developments has carefully addressed the subsequent resale issue by permitting the first time buyer can keep any market gains.

## 7.5 Voluntary Compliance With Provincial and Local Policies

Thus far the concerns relating to recovery of subsidies and "unearned increments" have been discussed. What happens when the landlord, in this case the Federal government, voluntarily complies with some restrictive local or provincial policies? By way of example consider the recently implemented Ontario "25% affordability" policies. Under these policies, communities must ensure that 25% of all new housing is available at an "affordable" price (or rent) and the definition of affordable varies across locations. According to the officials in charge, the 25% policy applies to the aggregate, but the standard practice is to require each development to provide the 25% affordable units (with possible exceptions for very small developments). It appears an individual developer may have 100% market units on one site providing the 25% affordable units are provided elsewhere in the community.

Consider the implications of such a program as it relates to the proposed federal land leasing program. The effect of the Ontario "25% affordable" policy on private land owners can be likened to a re-zoning. Prior to re-zoning, the private landlord owns a property zoned for duplex units, which are in demand. The local community announces that the site is re-zoned for single detached units (a lower density). As a consequence the owner of the land at the time of the re-zoning announcement suffers a loss in property value. Builders will simply bid less for the site since the new land use zoning results in lower incomes from development. Hence it is the land value, not developers profits, that decline with the re-zoning. The decrease in developers income is "capitalized" into the bid prices for the land. Obviously developers who purchased the land prior to the re-zoning will realize lower profits since their land price is fixed. A converse example was the MURB program where land became more valuable because of the higher prices realized by developing MURB's.

In the case of the Ontario "25% affordable" policies, if it affects developments in a particular community, it will have the affect of lowering land bid prices, not developers profits. Consider the likely outcomes. Prior to the policy, developers bid for raw land based on the assumed number of units which could be built on a site, the estimated construction costs, profit expectations and estimated sale prices for the developed product. . The bid price for the raw land is a residual value determined as follows:

$$L^m = n\,(P^m - C^m)\ \text{- Expected Profit}$$

where

$L^m$ = bid price for the raw land at market levels
$P^m$ = market price for market determined outputs
$C^m$ = market costs for market determined outputs

What happens after the 25% affordable policy is in effect? It obviously depends on whether the guideline is binding. If the market prices for the freely determined market units are at or below the affordable level, the policies have no market effect. However if the affordable prices are below the market prices, then developers appear to have three choices: they can sell 25% of the market units at the affordable price (and take lower profits or hope to acquire the raw land for less): they can seek higher densities to permit more units and lower the land cost per unit (but the local government is not required to accept this idea); or they can develop 25% of the units to a lower standard or smaller size to preserve profit levels. The consequences of each can be illustrated in terms of their effect on bid prices for land.

$$L^s = n\,(P^m - C^m)\ -\ .25n\ (P^m - P^*)\ -\ \text{expected profits}$$

$$L^d = n^*(P^* - C^*)\ \text{- expected profits}$$

$$L^c = n\,(P^* - C^*)\ \text{- expected profits}$$

The first outcome is unlikely (a bid price of Ls for the raw land): developers will not knowingly set the bid price for the land at such a level as to reduce their own profits (by an amount equal to the loss in revenue for the 25% subsidized units). In the second case a bid price of Ld is expected.

In this case a higher density is negotiated for the site and both the market price for the completed units and the construction costs may change with the altered density. However since the higher density, coupled with the 25% affordable units is less profitable than the former density (otherwise developers would have done this before), the bid price for the land will decline, but the amount of the decline will be tempered by the higher density. In the last case the bid price for the land (Lc) reflects the fact that both market prices and construction costs change, but the number of units remains the same, and the amount of the decline in the bid price for the raw land will depend on the relative changes of market prices and construction costs.

It should also be noted that the private developers are not likely to be concerned with future "unearned" increments that might accrue to owners of the affordable units. Once the project is completed and sold, the developer moves on to another project. Unless the private development is on leased lands, the developer has no lingering interest in the project. Moreover the Ontario policy does not convey any powers to local government to ensure the 25% affordable units remain affordable in the future. Subsequent resales will occur at the then prevailing market prices and initial owners may realize an unusual gain.

This then raises the question: Does this program further complicate the potential use of federal residential leases? It should be noted that this Ontario development requirement is not legally binding on lands owned by senior levels of government, but it is the practice of the Federal government to follow provincial and local land use regulations. Therefore, one might reasonably assume any federal residential leasing program would follow these "affordability guidelines" in Ontario. This would also raise a supplementary issue of whether a federal residential leasing program in other provinces would (or should) have similar provisions built into the lease document. To the extent the federal government elects to respect the 25% affordability guideline for new development, either within Ontario or extended to other provinces, then they have a direct concern as to how the reduction in land values due to voluntary compliance should be safeguarded in the future. In a real sense the voluntary compliance amounts to a subsidy to the head tenant.

One needs to first decide what Federal subsidy is likely to be involved in the Ontario program. The amount of the subsidy depends on how the 25% is achieved. If the landlord leases the land at a reduced price to provide normal developers profits while selling 25% of the units at the affordable prices, then some fortunate tenants (or sub-tenants) have the potential to realize a one time subsidy. This then raises the question of recovery and it would be possible to ensure the subsidized units could only be assigned or sub-let after the subsidy is repaid. In such cases the subsidy could be registered as a second mortgage as discussed in section 7.3. This may not be sufficient to ensure the affordable units remain affordable and further steps may be desirable. Such options are discussed below.

A more likely alternative is that the developer will produce 25% of the housing to a lower standard, or with smaller units, and sell at the "market price" for such affordable units. This would mean the developer would bid less for the land and the cost of voluntary compliance is then equal to the reduced land bid price. If this is the case, the initial occupying tenant will get a product that might not otherwise be available on the market, but would not be able to assign or sub-let in the future at any unusual profit (as the affordable units would presumably be worth less in the market at any future date). These smaller or cheaper units will have a market value which is equal to or less than the affordable level. Upon resale, in period T, the regular market units and the affordable units will resale for their respective market prices. This would then raise the question of preventing tenants from realizing "unearned increments" in value and the remedies would be the same as discussed earlier.

The possibility also exists that tenants in the affordable unit might upgrade or add space and move the price of the affordable units upwards beyond the affordability level. If this is a matter of concern, then some covenants will be necessary to prevent upgrading and increasing the dwelling size, without prior approval by the landlord. It should be noted that if tenants elects to make improvements or expand the size of the unit without approval, they may suffer a loss if the landlord has reserved an option to purchase at the predetermined scheduled prices for the leasehold interest. The landlord may exercise the option to buy out the leasehold interest at the scheduled value. However, in the early stages of the life cycle of these regulated units, it is unlikely that the profit from upgrading an affordable unit to the same standard as a market unit would be sufficiently attractive to promote such activities. Compliance will not be a major concern. While it is unlikely that such tenant improvements will be detected, the risk of having the landlord exercise the option to buy the leasehold interest at the pre-determined option price will be sufficient to ensure compliance.

On balance compliance with the Ontario 25% affordable policy will not likely create any unusual problems for the land leasing program providing tenants are required to obtain approval prior to improving the site and providing the landlord has an option to purchase the leasehold interest, at pre-determined prices, when the tenant decides to move. This will ensure the tenant does not benefit from unearned increments arising because of voluntary compliance with provincial and local policies.

## 7.6 Conclusions on the Model Lease

On balance it appears that the leasehold system can be of some help for both the moderately below "affordability" household and those with greater needs. If the focus is to assist those just below the line to eventually become owners of fee simple, a short term (40-50 year) prepaid leasehold system, coupled with an option to purchase at the prevailing market value, some risk adjustment for financing, both at the time the lease is negotiated and upon refinancing to purchase, and no subsidy should be sufficient. This would likely permit such tenant to save the funds necessary to exercise the option to purchase. If, on the other hand, the purpose is to provide temporary assistance, the option to purchase can be removed.

For households further below the "affordability line", the land leasehold by itself is not sufficient. Assistance in the form of a subsidy, either a reduced land price or income subsidy, is necessary. This then raises the question as to whether the subsidy, in whole or in part, is to be recovered. Any attempt to recover the subsidy will make it more difficult (but not impossible) for the tenant to save the funds to convert to fee simple ownership. On the other hand, by recovering the subsidy the leasehold program can be expanded to assist new tenants.

The possibility of recapturing (taxing) "unearned increments" in land (or property) value is noted but the recommendation is that this not be included as part of the leasehold arrangement. The problems of enforcing such recapture schemes are numerous and the evidence elsewhere suggests it will not be made to work, either because of valuation problems, political pressures, or a combination of both. A preferred method to be used, in appropriate circumstances[38], is to prevent the unearned increment from happening, and this can be accomplished by providing the landlord with an option to purchase the leasehold interest (when the existing tenant elects to "sell"). Providing such an option is established at the time the lease is negotiated, the tenant will be able to have this reflected in bid prices for the prepaid land lease using estimates which are also part of the calculation of the prepaid leas payment.

As a final issue, one needs to decide what administrative structure would be necessary to enable the federal government to embark on a residential land leasing program. Is it necessary to establish a major operation to administer such leaseholds or can this be accomplished through other existing vehicles. To the extent this program is designed solely to use existing surplus lands, it would seem more cost effective, and less politically sensitive, to simple lease to non-profit cooperatives. The non-profit co-operative is a proven system and the weaknesses are known so there will be no surprises at some later date. The cooperative can also act as a buffer between the sub-tenants (occupants) and the (public) landlord and this may reduce pressures to grant ex-post subsidies.

[38] And the voluntary compliance with provincial and local policies is such an example.

## 8. CONCLUSIONS

The literature review indicates that leasehold interests in the residential sector are not a major element in North America. Moreover the use of residential leases is less common today than it was 10-20 years ago. In other countries the leasehold tenure form continues to be used but England, France, to a lesser degree, and Ireland all seem to have moved or are moving away form this form of tenure. There are no major industrialized countries strongly promoting leasehold tenure except those which have it tied to other land policies. Moreover, it is highly unlikely that residential leaseholds would gain significant acceptance in Canada, given the strong tradition of "ownership".

This does not imply that such tenure options cannot play an important role in the residential sector, but it will be limited in scope. Leaseholds can be valuable to households seeking to separate the housing consumption from the savings activity. They are also useful for those households who are not able to participate in the required level of savings implicit in the purchase of as house.

While empirical evidence is lacking, it appears that sufficient savings are possible (but accompanied by offsetting loss of benefits) to warrant using the leasehold form of tenure to assist households in need. In order for the "savings" to be sufficiently large to offer real assistance, the lease term must be reasonably short (under 60 years) and should be directed to the "principal residence" occupant.

A simple property valuation model is developed which isolates the value of a leasehold interest, the value of the fee simple during the lease term, and the reversionary interest in the fee simple. It is noted that as long as the tenant pays full market rents for a property, the market value of the leasehold interest is zero. In this case (which implicitly assumes the landlord erects the building and charges full market rents or that the tenant erects the building and it reverts to the landlord at the end of the lease), the maximum "savings" in cost due to the use of the leasehold interest is equal to the present value of the reversionary fee simple interest. In a relatively efficient market, this savings is exactly offset by a reduction in the value of the asset (the benefits) received.

More specifically, the cost savings are

$$PV\ (Savings) = \sum_{t=L+1}^{\infty} \frac{MR \cdot (1+g)^t}{(1+r)^t} \tag{51}$$

or

$$PV\ (Savings) = \frac{MR \cdot (1+g)^L}{(r-g) \cdot (1+r)^L} \tag{52}$$

and since

$$P_T = P(1+g)^T = \frac{MR \cdot (1+g)^T}{(r-g)} \tag{53}$$

then

$$PV\ (Savings) = \frac{P \cdot (1+g)^2}{(1+r)^L} \tag{54}$$

The cost savings are equal to the present value, at market discount rates, of the value of the fee simple interest at the end of the lease term (and this is exactly what the tenant sacrifices to achieve the cost savings).

The amount of the potential cost saving is dependent upon the length of the lease term, the growth rate in market (and contract) rents and prices, and the market discount rate. Since the required discount rate (r%) is logically greater than the expected growth rate (g%), the longer the lease term (L), the lower the percentage cost savings (since the percent savings in cost is a direct function of the ratio $(1+g)^L/(1+r)^L$).

Since the present value of the savings are

$$PV\ (Savings) = \frac{P \cdot (1+g)^L}{(1+r)^L} \tag{55}$$

then the percent saved relative to fee simple is

$$\text{Percent Saving} = \frac{(1+g)^L}{(1+r)^L} \tag{56}$$

At any reasonable range of discount rates and growth rates, the percentage saved in the acquisition cost of a leasehold interest relative to a fee simple becomes very small (less than 5%) once the lease term exceeds 60 years.

In the case where the tenant erects and owns the building, but pays market rent for the lands, the percent saved using leasehold relative to freehold value is somewhat reduced since the savings only relate to the reversionary interest of the <u>land</u> (assuming the landlord must buy the building at the end of the lease). At the same time, the tenant who erects the building creates a valuable asset (leasehold interest) since the tenant can sub-let or assign the lease, with the building in place. The value of the leasehold interest in this case will equal the present value of future rents on the <u>building component only</u>, plus any claim against the landlord for building value at the end of the lease.

In these cases where the tenant erects and owns the building, the "saving" in cost, relative to the fee simple option, depends upon the lease term (L), market discount rate for this type of leasehold (r%), the expected growth rate in property value (g%), <u>and</u> the ratio of site to property value (S/P). The higher the site as a percent of total property value, the greater the potential saving (but always less than if the landlord erects the building), all else equal.

It should be noted that when the head-tenant uses the leased property as a principal residence, there are no income tax considerations that differ from those of a fee simple owner. Moreover, since the landlord is assumed to be the Crown (or near Crown agency), there are no income tax consequences for the landlord.

However, if the head-tenant is a "middle-man" adding the building to leased land, then assigning or sub-leasing, either prepaid or period rents, then some income tax considerations come into effect. Assuming the sub-tenants treat the property as a principal residence, they have no income tax considerations. It is only the head-tenant who becomes a landlord.

If the head-tenant is primarily in the business of real estate (leasing, development, etc.) then the site rent can be deducted and interest on borrowed funds along with full capital cost allowance (even if it results in negative taxable income) in calculating taxable income. For such a taxpayer the taxable income may be negative but there are no differences in tax status as between leasing and buying. The only difference in taxable income arises because in the fee simple case, interest on funds borrowed to buy the land is deductible whereas in the land lease can, site rent and interest on borrowed funds are deductible.

If the head-tenant is not principally involved in real estate development and leasing, then some income tax differences will arise as between fee simple and land leases. For such a taxpayer the capital cost allowance cannot be used to generate a negative taxable income. In the case of a fee simple purchase, interest on borrowed funds and capital cost allowance may be claimed as expenses against income while in the leasehold option, interest, capital cost allowance and rent may be claimed. It is more likely that full capital cost allowance could not be claimed in the lease option (since interest on a normal mortgage plus full capital cost allowance presently are likely to exceed the net operating income from the property), making this relatively less attractive to such a taxpayer.

It appears, however, that in the residential sector of the market, income tax considerations are not likely to seriously affect the decision to lease or buy the site. If the income tax affects of leasing were important to investors who are "in the business of real estate", they likely already have the corporate vehicles to create their own leasing arrangements.

Given the potential "cost savings" from using the land lease option are dependent upon the market discount rate, growth rate in property values (neither of which can be controlled by the landlord or tenant) and the length of the lease, are the savings sufficient to help address the affordability issue? The answer is yes - at the margin. But in the absence of a subsidy, tenants electing the leasehold option are not likely to be able to accumulate funds at a sufficient rate, unless their particular household income increases significantly, to shift from leasehold to fee simple ownership. A major complaint with the Ontario HOME program was that the tenants were receiving large windfall gains as they exercised their option to purchase after five years at subsidized prices (set 5+years earlier). Yet without this subsidy, it is unlikely the tenants could have afforded to buy fee simple.

If the overall goal of the program is to provide affordable housing without regard for the tenants ability to eventually acquire a fee simple position, then the lease option has potential to generate a meaning cost saving. In these circumstances, the shorter the lease term, the greater the savings, all else equal. However, shorter lease terms are less attractive to lenders, so some assistance in financing shorter term (say 50 years) leases will be required (a loan guarantee). At the same time, such short term leases will necessarily involve a "buy-out" provision for the tenant-supplied improvements (i.e. the building) and some carefully worded valuation process will be required in the lease.

If, on the other hand, the goal is to provide temporary help through leaseholds with the intent of having the tenants eventually become fee simple owners, then some greater degree of subsidy will be required. As in the case of the Ontario Home program, the tenants who most need assistance are not likely to have sufficiently large increases in household income to permit them to consume the leased property and simultaneously accumulate capital at a rate equal to the typical escalation in house prices. Therefore to promote home ownership, in the traditional sense of fee simple, it will be necessary to restrict (subsidize) the rate of escalation in the price for exercising the option to purchase. In such circumstances it is desirable to restrict the subsidy to those most deserving.

If it is the intention of the government to provide a subsidy but recover this on any resale (or assignment) of the leasehold interest, then two general points should be noted. First, any recovery, either in full or in part, will make it more difficult (but not necessarily impossible) for the owner (tenant) to move into a fee simple interest. Even in the early stages of a prepaid leasehold the increase in market value is not likely to keep pace exactly with that of a fee simple. The owner (tenant) slips slightly behind each year but can presumably save funds elsewhere to make up some of the difference. Any subsidy repayments simply makes it more difficult to switch to fee simple and will discourage mobility (at the margin) since the owner (tenant) needs to stay to maintain the subsidy. Second, any future recovery of the subsidy will be controversial and the larger the concentration of owner (tenants), the more political will be the decision to recoup. Therefore it is important the fact of recovery and the method of determination of the amount be clearly set out and acknowledged. Clarity and simplicity are key ingredients in any subsidy recovery plan. Subjective inputs such as appraised values should be avoided.

The possibility of recapturing (taxing) "unearned increments" in land (or property) value is noted but the recommendation is that this not be included as part of the leasehold arrangement. The problems of enforcing such recapture schemes are numerous and the evidence elsewhere suggests it will not be made to work, either because of valuation problems, political pressures, or a combination of both. A preferred method to be used, in appropriate circumstances, is to prevent the unearned increment from happening, and this can be accomplished by providing the landlord with an option to purchase the leasehold interest (when the existing tenant elects to "sell"). Providing such an option is established at the time the lease is negotiated, the tenant will be able to have this reflected in bid prices for the prepaid land lease using estimates which are also part of the calculation of the prepaid leas payment.

Compliance with provincial and local policies such as the Ontario 25% affordable policy will not likely create any unusual problems for the land leasing program providing tenants are required to obtain approval prior to improving the site and providing the landlord has an option to purchase the leasehold interest, at pre-determined prices, when the tenant decides to move. This will ensure the tenant does not benefit from unearned increments arising because of voluntary compliance with provincial and local policies.

The desire for fee simple ownership and the institutional arrangements that support such desires are strong in Canada. Residential leaseholds are not likely to make major inroads and could, therefore, be used is the more specialized situations such as co-operative housing. Alternatively one could use a simple subsidy recovery program, with emphasis on simplicity and clarity. Such a recovery program, with or without a means test, would enable the Crown to re-offer new subsidies to other households at some future date.

## BIBLIOGRAPHY

Anger and Honsberger, Law of Real Property, (2nd edition), Vol. 2, 1985 (A.H. Oosterhoff and W. B. Rayner), Aurora, Canada Law Book Inc.

Archer, R.W. "The public land and leasehold system in Canberra, Australia: The use of the leasehold land tenure base for financing the capital's development, 1958-71", American Journal of Economics and Sociology, Vol. 36, No. 4, October 1977.

Archer, R.W. "The leasehold system of urban development: Land tenure, decision-making and the land market in urban development and land use", Regional Studies, Vol. 8, 1974, pages 225-238.

Atmen, Thomas, "Land banking in Stockholm", Habitat International, Vol. 11, No. 1, 1987, pages 47-55.

du Bois, Ayers J. "The long term lease as an instrument of home finance", The Appraisal Journal, October 1943, page 354-366.

Baen, John S. and Paul C. Iwuchukwo, "Lease purchasing as a public financing technique", Real Estate Review, Vol. 18 (3), 1988, pages 54-58.

Boothby, Wallace Jr. "The ground swell in ground leasing", Real Estate Review, Winter 1980, pages 94-97.

Brown, Ralph J. and Dennis A. Johnson, "Inflation, valuation, and the discount rate", The Appraisal Journal, October 1986, pages 549-555.

Bryant, R.W.G. Land, Private Property Public Control. Harvest House Ltd. Montreal, 1972.

Bucknall, Connor, Fine, Ginsburg The Leasehold Condominium: Problems and Prospects, Report of the Ontario Task Force on Leasehold Condominiums, Toronto, 1975.

Bucknall, "Leasehold condominiums", 14 Osgood Hall Law Journal, (1976), p. 29.

Capozza, Dennis R., The Value of Long-Term Leased Property, Unpublished draft manuscript, 1989, University of British Columbia.

Copes, John M. "Another look at leaseholds", Valuer, July 1977, pages 614-619.

Darin, D. "The evolution of the urban land lease system in Israel", Habitat International, Vol. 11, No. 1, pages 83-95.

Development Planning Associates Limited, Leasehold Land Tenure: Alternatives and Impacts, A Report Prepared for Central (SIC) Mortgage and Housing Corporation, 1978.

Diegelman, Dave. "Land lease - a solution for builders", Real Estate Digest, May 1980, pages 3-4.

Dilmore, Gene. "How to value leasehold estates", Real Estate Review, Fall 1978, pages 94-98.

Duffy, Robert E. "Residential land leases provide new opportunities", Journal of Real Estate Development, Summer 1985, pages 5-14.

Fallis, George. Housing Programs and Income Distribution in Ontario. Ontario Economic Council. University of Toronto Press, Toronto, 1980.

Fry, Maxwell and James Mak. "Is land leasing a solution to unaffordable housing?", Economic Inquiry, Vol. XXII, October 1984, pages 529-549.

Fujiyoshi, Gilbert T. "How to extract a rate of return for leasehold land", Real Estate Appraiser & Analyst, Summer 1984, pages 29-30.

Greening, H.E. et al. "The future of the leasehold system", Incorporated Auctioneers Journal, Vol. 37, No. 9, October 1963, page 342-343.

Goldberg, Michael A. The Housing Problem. A Real Crisis? A Primer on Housing Markets, Policies and Problems. UBC Press. Vancouver, 1983.

Greenspan, David B. "The importance of ground leases", Urban Land, August 1984, pages 34-35.

Hagman, Donald G. and Dean J. Misczynski (eds) Windfalls for Wipeouts, Chicago, American Society of Planning Officials, 1978.

Hawk, James J. "Land-purchase-leaseback / leasehold loan: an old idea whose time has come", Real Estate Issues, Fall-Winter 1981, pages 21-24.

Halper, Emmanuel B. "People & property: negotiating the operating leasehold", Real Estate Review, Summer 1975, pages 77-83.

Harris, Jack C. Ground leasing: key to affordable housing?, Texas A & M University. Texas Real Estate Research Centre, College Station. Texas 1982.

Heimburger, P. "The use of municipal land ownership as an instrument in influencing the structure of urban development: Sweden's experience", OECD U/ENV/73.8. Paris, 1973.

Heller, Robert. "Sales of leasehold interests means cash", Real Estate Weekly, December 12, 1983, pages I - 1.

H.M.S.O.(a), Leasehold Reform in England and Wales, London, Cmnd 2916, 1966.

H.M.S.O.(b), Leasehold Committee. Final Report, London, Cmnd. 7982, 1950.

Howenstine, E. Jay. Attacking Housing Costs: Foreign Policies and Strategies. Center for Urban Policy Research - Rutgers. New Brunswick, 1983.

Howes, J.S. "Leasehold valuation and the treatment of sinking funds", Valuer, October 1975, pages 620-624.

IFHP, Leasehold. Report by the International Federation for Housing and Planning - Working Party on Urban Land Policy. Budapest, October 1985.

Kanner, Stephen Barrett. "Residential ground leasing", Real Estate Law Journal, Vol. 10:82, Summer 1981, pages 82-85.

Kenneth, Duncan T. "Leaseholds and some valuation notes", Appraisal Review Journal, Spring-Summer 1980, pages 93-97.

Kuehnle, Walter R. "Possessory vs. leasehold interest", Real Estate Issues, Summer 1978, pages 27-36.

Knight, Bill, (ed.), Hong Kong 1986. Hong Kong Government Press, 1986.

McDermott, James, Kathleen Flynn, and Edward Frackonwiak, (ed) Canadian Commercial Real Estate Manual, Deboo: Toronto, 1990 (Especially pages 40.11 through 40.35).

McDonald, I.J. "The leasehold system: Towards a balanced land tenure for urban development", Urban Studies, Vol. 6, No. 2, June 1969, pages 179-195.

McIntosh, A.P.J. "Valuing U.K. leasehold property interests", International Real Estate Journal, Vol 5, No. 1, 1983, pages 10-13.

Meningoff, Stephen J. "Master ground lease: ownership tool for '80's", Realty, December 20, 1983, page 74.

Meningoff, Stephen J. "Alternative to sale: master ground lease", Real Estate Forum, February 1982, page 108.

Neutze, M. "The Canberra leasehold system", Urban Law and Policy, 9(1988.), pages 1-34.

Narvey, Kenneth M., Lot Lease Report, A report for the Manitoba Housing and Renewal Corporation, February 1975, pages 1-24 + Appendix.

Ontario Ministry of Housing, Outline AHOP/HOME, undated, pages 1-2.

Ontario Housing Corporation, 1964-84, (Annual Report, 1984), Ministry of Municipal Affairs and Housing.

Ontario Housing Corporation, Characteristic of Purchases, April, 1975, Unpublished report on HOME Lot Projects.

Palfin, Richard A. "Lease and freehold price differentials in Hawaii," The Appraisal Journal, April 1979, pages 227-242.

Pavlich, Dennis J. The Strata Titles Act, Butterworths (Vancouver), 1978.

Pennance, F.G. "Report: Residential Building Leases", Unpublished Manuscript, n.d.

Ratzka Adolf D. 60 Years of Municipal Leasehold in Stockholm, Swedish Council for Building Research, Publication D2, 1980.

Ratzka, Adolf D. "Land banking in Stockholm: An evaluation of municipal residential leasehold as a public finance and housing subsidy instrument", Journal of American Planning, Vol. 47, July 1981, pages 279-288.

Rhoads, Thomas John. "Appraising the growing number of longterm residential leaseholds", Valuation, June 1984, pages 24-28.

Robbins, Carol J. "Title 83, Landlord and Tenant" in the Canadian Encyclopedic Digest (Western), Third Edition, Carswell Company Limited, Vol. 21, pages 89.1-89.274.

Rose, Albert. Canadian Housing Policies 1935-1980. Butterworth. Toronto, 1980.

Rose, J. Philip and David E. Robinowitz, "The ground lease as the foundation of future real estate development", The Real Estate Finance Journal, Summer 1990, pages 22-25.

Schloss, Nathan. "Leasing as a tool in urban land management", Real Estate Report, 1978, 2nd half, pages 3-4.

Shenkel, W.O. "Residential net ground leases", Journal of Property Management, Vol. 29, No. 4, March-April 1964, pages 180-193.

Shern, Mary S. "The ground-lease Hawaiian style; historical accident in Hawaii makes homeownership possible for many", Real Estate Today, July 1981, pages 7-8.

Siegen, Bernard H. Land Use Without Zoning, Heath and Co., Lexington, 1972.

Simeon, James C. "Affordable housing," Policy Options. May 1990, pp. 26-28.

Smith, Charles C. and Harold A. Lubell. "Mortgaging the leasehold", Real Estate Review, Fall 1977, pages 13-15.

Trowbridge, Carl R. "The value on a leasehold differs from the value of a lease", The Appraisal Journal, January 1978, pages 124-127.

Tullock, Gordon, Private Wants, Public Means, Basic Books, New York, 1970.

Uthwatt Committee, English Expert Committee on Compensation and Betterment, Final Report, Cmd. 6486, 1942.

Vargha, Louis A. "An economic view of leasehold and fee simple tenure of residential land in Hawaii", Honolulu: University of Hawaii Land Study Bureau, Bulletin No. 4, 1964.

VLC Properties Ltd., Affordable Rental Housing, May 22, 1990, Bulletin (Vancouver), pages 1-2.

Waddell, John, "Title 29, Condominiums" in The Canadian Encyclopedic Digest (Western), Third Edition, Carswell Company Limited, Vol. 6, Pages 29.1-29.87.

Williams, G.A. "Municipal Land -- Resource or Commodity?" Report by municipal Land Agent to Council". District of North Vancouver, B.C. March 2, 1978.

Wolfe, Patricia A.T. Leasing Municipal Land for Residential Purposes, Major Paper, Faculty of Commerce and Business Administration, The University of British Columbia, September 1984.

---"Affordable housing on leased land", SPAN, August-September 1978, page 2.

---"Building on leased land can make housing more affordable for all", Real Estate Insider Newsletter, July 16, 1979, pages 1-2.

---"For-sale houses on leased lots", Housing, February 1981, pages 46-53.

---"Ground leases: an agreeable option", Urban Land, August 1983, page 40.

Ontario, Ministries of Municipal Affairs and Housing," Increasing Housing Choices: Implementation Guideline for the Land Use Planning for Housing Policy Statement", 1989.

B.C. Ministry of Social Services and Housing," Inquiry into Social Housing in BC: The Search for Common Ground". Preliminary Report. B.C. Ministry of Social Services and Housing, April 21, 1981.

---"Leasehold Conversion Gathers Steam", Hawaii Business, 24(3) September 1978, pages 64-76.

---"Let's be more realistic on leasehold values", Investors Chronicle, January 28, 1977, pages 234-235.

Australian Institute of Urban Studies, Second Report of the Task Force on the Price of Land, Canberra. August 1972.

---"Virtual demise of Hawaii's leasehold system predicted", Farm and Land Realtor, December 1978, p. 9.