BONUSING DOWNTOWN HOUSING: AN EVALUATION OF GOALS AND MEANS

by

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B. A. ( Honours ), University Of Calgary ( Calgary ), 1975

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS in

THE FACULTY OF GRADUATE STUDIES

School Of Community And Regional Planning

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

September 1982

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Abstract

The purpose of this thesis is to examine the potential effectiveness of a relatively new zoning innovation - residential density bonuses. The investigation examines the extent to which such bonuses are likely to stimulate the development of housing in the downtown areas of large North American cities. As a prerequisite to the evaluation of density bonuses, the underlying goal, that is, the desirability of more housing in the downtown, is first considered. The likely effectiveness of a bonus system is then evaluated in light of the public goals to be realized and the expected impact of bonuses on downtown real estate markets.

Chapter One provides an introduction to the problem area noting that, despite the apparent advantages of bonus systems, there is cause to doubt their effectiveness. Three objectives are established for the thesis: firstly, to re-examine the arguments for downtown housing; secondly, to evaluate the potential effectiveness of bonus systems, and; thirdly, to discuss other mechanisms which might complement or replace bonus systems. Parameters governing the investigation's scope and limitations are discussed.

Chapter Two presents, as an example, a brief description of the bonus system used in downtown Vancouver. The underlying goals, and the analysis undertaken in defining the bonuses themselves, are discussed. The results of interviews with a number of local developers are summarized, drawing attention to
the strengths and shortcomings of the system in practice and suggesting inconsistencies in its most basic assumptions and premises.

An historical perspective on the evolution of the downtown core is presented in Chapter Three. Attention is drawn to the implications of sustained employment growth on the area's character and residential function. The public goals and policies which emerged in response to changing conditions in the area are examined, and the underlying arguments supporting the housing goal are critically reviewed. It is concluded that the arguments are largely intuitive, emotional and value based, supported by a very limited base of empirical evidence and analysis.

Chapter Four examines the evolution and construction of "density bonuses" as a mechanism for land use control. Their expected effectiveness is then evaluated in light of land valuation and real estate investment theory. It is argued that the methods for calculating bonuses are overly-simplistic, that bonuses are unlikely to be sustained over time and that, in any case, they are most likely to be captured by original landowners, providing little or no incentive for subsequent landowners. It is concluded that these shortcomings seriously undermine the expected usefulness of bonus systems in stimulating the provision of residential development in the downtown.

In Chapter Five, the goals for downtown are re-examined.
Alternatives to the provision of housing as a "solution" to the downtown's "problems" are put forward. Alternative means of providing housing are identified. Chapter Six outlines a series of questions and issues related to the topic which could provide directions for further research.

In the concluding chapter the implications of the findings are discussed. It is suggested that the arguments for housing in the downtown should be re-considered within a strategic context, that is, in terms of the role of housing as a legitimate downtown function rather than as a bandaid solution used to repair the negative consequences of employment growth in the area. It is suggested, further, that the expectation that "bonuses" for housing might provide a positive economic inducement for developers over time is largely an illusion, and one which should not be promoted without more convincing arguments first being established. Finally, the need for a rigorous examination and evaluation of such techniques, before and subsequent to their application, is emphasized.
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Acknowledgement

I am grateful for the perceptive and supportive comments of my principal advisors, Jay Wollenberg, Jonathan Mark and Craig Davis. Their insights and enthusiasm have made the project challenging, instructive and enjoyable.

I am especially thankful for Sheila's patience and encouragement during these past two years, for the thesis was as much her endeavour as it was mine.
I. INTRODUCTION

For several decades urban policy makers have sought to encourage the development of housing within and close to the downtown areas of large cities. Residential uses, compared to other land uses, have declined in most Canadian and American downtowns with the resulting imbalance of employees to residents raising a number of questions about the future role of downtown. Efforts to re-introduce housing have been difficult for both private and public sectors alike. In the 1960's, the technique of "bonus" zoning appeared, offering real estate developers additional building density in exchange for the provision of a variety of public amenities. In the 1970's, bonuses were used to stimulate the construction of dwelling units within the central business districts of several large cities. Residential density bonuses, and the mixed-use projects which they created, were promoted as a zoning innovation which would actually reward the marketplace for providing housing downtown. Bonusing, as a land use control mechanism, was a particularly unorthodox form of public intervention as it represented a very pro-active attempt by policy makers to manipulate the economic viability of private projects in an effort to achieve public purposes.

It is evident from the dearth of literature addressing either the theory, application or effectiveness of density bonuses that there have been few critical reviews of either the concept or its application. (That is not to suggest that
specific bonus schemes have not been examined in exhaustive detail by individual developers evaluating the potential of particular sites.) Superficially, at least, one can observe that where residential bonus schemes have been implemented, some amount of housing may have been built. One might infer from this that bonuses do work and, therefore, that public objectives are realized - but there is cause for doubt.

At a practitioners' workshop in Vancouver in October, 1981, local developers, investors, planners and architects met to discuss the effectiveness of the residential bonus system used in downtown Vancouver. Throughout the workshop two questions emerged repeatedly as the central concerns of those using the bonus system:

- what should the public goals be with respect to the downtown and what contribution might new housing in the area make towards achieving those goals?
- if, indeed, the arguments for increasing downtown housing are defensible, how effective can a bonus system be in stimulating residential development?

The suggestion was put forward by several participants that the bonus system was an illusion - that in practice it simply did not exist. Where developers were, in theory at least, to be offered an economic inducement for the provision of dwelling

'Mixed-use Workshop (Proceedings forthcoming) held in Vancouver on October 1, 1981, and sponsored by the Canadian Housing Design Council.
units in mixed-use projects, in fact they had usually paid dearly for that opportunity and, if anything, the bonus was more an economic burden than it was an incentive. From the private sector's perspective, it was argued, the bonus system was not working as the planners had expected it to. Similar perceptions of the bonus system surfaced during subsequent interviews with local developers presently engaged in mixed-use projects in Vancouver's downtown bonus areas.

Doubts have been raised on behalf of the "public interest" in bonusing more generally, most notably in William Whyte's² unreserved criticism of New York City's bonus system. While Whyte was not referring to residential bonuses specifically, his accusation that the increased building bulk generated by bonused floorspace may generate more public costs than benefits, stands in direct opposition to the prevailing literature which, generally, suggests that bonuses provide a "something for nothing" solution. The suggestion that bonusing offers a relatively costless mechanism for improving downtowns, Whyte argues, is fallacious, and the extent to which it offers developers an incentive is, at the very least, highly questionable.

² Whyte, 1981.
A. OBJECTIVES

The purpose of this thesis is to look beneath the assumed desirability of downtown housing and assumed usefulness of the bonusing technique. The thesis will re-examine the purpose, workings and potential effectiveness of the residential density bonuses used to encourage the provision of dwelling units within the predominantly commercial areas of large downtowns. The following objectives have been established for the thesis:

- to trace and critically review the goal of increased housing in the downtown;
- to critically review the assumptions, workings and limitations of residential bonuses so as to determine the conditions under which they might be effective in stimulating the development of housing in the downtown; and,
- if the goal of increased housing is found to be defensible, other public actions which might complement or replace the density bonus mechanism will be briefly examined.

B. PARAMETERS OF THE ANALYSIS

The development and application of residential density bonuses in North American downtowns has occurred only since the 1960's and has neither amassed an extensive body of literature nor a broad base of well-documented experience upon which to draw. While there do exist a small number of articles which
discuss this new "innovation" in land use control, and by-laws from those cities which have implemented bonuses, it has not been possible to find any reports which evaluate the actual effectiveness of downtown residential bonuses after they have been in place for some period of time. As such, the investigation has been limited to an examination of information gleaned from various sources, most of which fall short of "hands on" experience. Nonetheless, these, coupled with interviews with developers actively involved in bonused projects, have provided a sufficiently informative and insightful basis upon which to undertake the analysis. The principal sources of information have included:

- planning literature relevant to the planning of downtowns and alternative land use control mechanisms;
- literature dealing with the theory of land valuation and investment analysis;
- economic feasibility studies undertaken for several municipalities in the course of their developing bonus systems;
- downtown planning documents for approximately fifteen large cities in Canada and the United States;
- written summaries from several workshops dealing with downtown residential bonuses in Vancouver; and
- interviews with developers who have been, or who are actively involved in bonused, mixed-use
projects in downtown Vancouver.

A second major parameter of the thesis is related to the emphasis placed on the economic aspects of bonus systems, with less attention being given to the social/environmental consequences of the projects which may result. The reason for this imbalance is that bonus systems need not necessarily imply a particular form, environment or type of tenant, although they often do. The structure of a bonus system - for example, whether expensive or subsidized units are bonused, the opportunity to transfer density to other sites, the method by which density is calculated - can be designed either to create a prescribed result or to permit maximum flexibility in project design. What the resulting housing and population characteristics will be, while of obvious concern to policy makers, become second-order questions in comparison to the underlying question of whether the bonus is likely to result in any housing at all. The focus of the thesis is clearly on the latter question.

Finally, the notion of "downtown housing" need not be limited to the provision of dwelling units within the downtown's commercial areas. Adjacent residential districts, for example, the West End, False Creek and the site of B.C.

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3The "downtown", in conceptual terms, includes the commercial/retail centre and the predominantly non-residential transition areas which typically surround it, commonly referred to as the "core" and "frame", respectively. In particular situations, abutting residential districts may also be included.
Place, (all of which abut Vancouver's downtown) may play a key role in terms of achieving public goals for the downtown. However, as density bonuses have typically been applied within commercial areas, such areas will provide the focus for the examination. The importance of adjacent residential districts will be considered where their impact on the downtown may be of significance.

As an introduction to the mechanics of bonusing, and the complications which surround its application, a brief case study of Vancouver's system will be presented. The two most critical questions will then be explored in the subsequent chapters:

- should housing be encouraged in the downtown?
- if increased housing in the downtown is desirable, are residential density bonuses likely to be effective?

Finally, other public actions which might complement or replace the bonusing mechanism will be discussed and conclusions drawn from the analyses.
II. DOWNTOWN VANCOUVER - AN EXAMPLE OF BONUSES IN PRACTICE

In 1975, the City of Vancouver implemented a density bonus system to encourage the provision of residential developments in certain districts within the downtown. A preliminary statement of goals for the area had been prepared in 1974, with the following proposals related specifically to housing in the area:

- to improve the human environment downtown by encouraging a mixture of activities, including housing, to provide variety and diversity over a 24-hour day, to reduce the problems of access to work caused by daily commuting and to enhance the effectiveness of mutually supporting activities and services; and
- to encourage further growth in appropriate downtown activities by encouraging new housing, in varied locations and for varied income groups.

The bonus ratios were proposed in 1974, and subsequently tested by a consultant engaged by the City to examine the likely impact of the proposed density provisions on development. The feasibility study, conducted by Western Realesearch Corporation

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4 City of Vancouver, Zoning and Development By-law, 3575, 414.
5 City of Vancouver, 1974.
6 When the development guidelines were approved by Council in 1975, the reference to "varied income groups" was not stated explicitly.
Ltd., examined the viability of development projects in six locations, assuming different density ratios in each. Development on each site was analysed to determine the "developer's profit", initially assuming that there would be no financing used and, subsequently, assuming that a 75% loan/value mortgage would be obtained for the commercial component. Estimates of required developer's profit levels were used as benchmarks against which projected returns (to both capital and equity positions) could be evaluated. For each of the six sites examined, prototypical projects were evaluated assuming first the existing zoning, then the proposed density ratios (which always implied reductions in permissible commercial density) and, finally, an assortment of density ratios in which additional residential densities were added to the existing commercial zoning. Without exception, whether for straight office development, office/retail or office/retail/residential prototypes, development of the sites was found to be uneconomical given existing market conditions.

"Generally speaking it would appear as though the proposed zoning regulations will not encourage the flow of private capital into mixed commercial/residential developments within the study area. In effect, the proposed zoning regulations cause a "downzoning effect" which generally decreases the profit potential on many developable sites in the study area."

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7 Western Realesearch Corporation Ltd., 1975.

8Developer's profit was defined as the difference between the capitalized value of the proposed development upon completion and its capital cost.

9 Western Realesearch Corporation Ltd., 1975.
The factors which were felt to contribute to the general level of low returns included the impact of a previous downzoning of commercial densities in September, 1973, rising construction costs, low demand, rising land costs and the shortage and high cost of mortgage funds. Rental units, in particular, were argued to be uneconomical as a result of provincial rent controls, the relationship of construction, land and financing costs and the federal income tax laws related to apartment construction - all of which were beyond the direct influence of the City of Vancouver. The analysts indicated that even with increases of 3 F.S.R. above the proposed densities, development viability would not be substantially improved.

Very soon after the report was completed the City of Vancouver engaged a second group of consultants to re-assess the probable market response to the mixed-use zoning proposals. The consultants reviewed the methodology and findings of the Western Realesearh study, met with local developers, architects and landowners and prepared recommendations with respect to:

- possible amendments to the zoning proposals;

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10 Western Realesearch Corporation Ltd., 1975, 3.

11 The amount of floorspace (or size of building) which is permitted on a given site is regulated by the site's F.S.R. (Floor Space Ratio). The F.S.R. is simply a ratio of permitted floorspace to available site area - an F.S.R. of 3 would permit 3 square feet of floorspace for each square foot of site area. For example, a 300' X 120' development site would have a site area of 36,000 square feet. An F.S.R. of 3 would permit the construction of 108,000 square feet of floorspace. If each floor of the building had 10,800 square feet the resulting building would be 10 stories high.

• other measures which the City might take to encourage downtown housing; and
• a framework for analysing the impact on investment of alternative zoning proposals.¹³

They argued that the use of specific "rules of thumb" to estimate average costs and revenues was overly restrictive and not an accurate description of the range of values which actually exist in the marketplace. To illustrate this, the analysts altered the initial assumptions by:

- decreasing land values by 8%;
- decreasing the capitalization rate by 5.5%;
- reducing the parking requirement (costs) entirely;
- increasing net retail rents by 20%;
- reducing building costs by 11%; and
- reducing interest rates by 12.5%.

They then analysed the impact of each modification (cummulatively) for one of the prototypical sites. Their conclusion was not entirely unexpected—although each change, by itself, is relatively small, if all of the changes follow the same direction (i.e., reduce costs and increase revenues) their cumulative impact on project economics may be significant.¹⁴ They argued the need for detailed sensitivity analysis so as to more realistically assess expected returns at

¹⁴ Baxter et al, 1975, 11.
specific locations and under various market conditions.

The resolution of final density ratios occurred in 1975, and the Zoning and Development By-law was amended accordingly. Residential development was to be permitted throughout the downtown (by substituting residential for permitted commercial space) and encouraged in specific areas through the use of density bonuses (Figure 1). In areas A, B and C (office core), for example, the residential uses could be substituted for commercial uses up to a maximum of 3 F.S.R. The permitted commercial densities in these areas are 9, 7 and 5 F.S.R., respectively. By contrast, in areas D and E, residential uses are allowed in addition to the permitted commercial densities, yielding projects which are larger where housing is included. Area D, for example, permits 3 F.S.R. commercial and 2 F.S.R. residential (referred to as 3 + 2) although, through the substitution of residential for commercial space a project could conceivably accommodate only 2 F.S.R. commercial and 3 F.S.R. residential (2 + 3). Finally, areas F, G and H have base commercial densities (5, 4 and 2 F.S.R., respectively) and allow an additional square foot of commercial floorspace for each foot of residential floorspace constructed, to prescribed maximums (5 + 1 + 1, 4 + 1 + 1 and 2 + 2 + 2 respectively).

From the bonus system's inception in 1975, until 1980 (approximately), the bonuses drew very little response from the market. Five mixed-use projects were developed in the bonus areas (Figure 2) and none in the most central office core.
1. Subject to conformity with the guidelines, and clause 3 below, the maximum permitted density (floor space ratio) shall in no case exceed the amount shown for each of the eight density areas within the district as illustrated on Map 2 and described below:

A In the area denoted by the letter 'A', the maximum density for any permitted use shall be floor space ratio 9.00.

B In the area denoted by the letter 'B', the maximum density for any permitted use shall be floor space ratio 7.00.

C In the area denoted by the letter 'C', the maximum density for any permitted use shall be floor space ratio 5.00.

D In the area denoted by the letter 'D', the maximum density for any non-residential use shall be floor space ratio 3.00; however, an additional floor space ratio of 2.00 may be permitted for residential use.

E In the area denoted by the letter 'E', the maximum density for any non-residential use shall be floor space ratio 1.00; however, an additional floor space ratio of 2.00 may be permitted for residential use.

F In the area denoted by the letter 'F', the maximum density for any non-residential use shall be floor space ratio 5.00; however, for every square foot of residential floor area, an additional square foot of non-residential floor area shall be permitted up to a maximum additional floor space ratio of 1.00 for residential use and a maximum additional floor space ratio of 1.00 for non-residential use.

G In the area denoted by the letter 'G', the maximum density for any non-residential use shall be floor space ratio 4.00; however, for every square foot of residential floor area, an additional square foot of non-residential floor area shall be permitted up to a maximum additional floor space ratio of 1.00 for residential use and a maximum additional floor space ratio of 1.00 for non-residential use.

H In the area denoted by the letter 'H', the maximum density for any non-residential use shall be floor space ratio 2.00; however, for every square foot of residential floor area, an additional square foot of non-residential floor area shall be permitted up to a maximum additional floor space ratio of 2.00 for residential use and a maximum additional floor space ratio of 2.00 for non-residential use.

2. Hotels shall be considered to be a commercial use.

3. Within the Downtown District, residential floor area may be substituted for commercial floor area, provided however that in no case shall the density (Floor Space Ratio) of residential use exceed 3.

Source: City of Vancouver, Zoning and Development By-law 3575, 1975, p.415.
Figure 2: Downtown Vancouver - Mixed-use Projects Using Residential Bonus Provisions, February, 1982.

STAGE OF DEVELOPMENT

BUILT................................. ○
UNDER CONSTRUCTION.............. □
APPROVED............................. ▼
PROPOSED.............................. ◆
RENOVATIONS.......................... ♦
where residential uses were permitted through substitution, but were not bonused. Three of the five projects, (projects numbered 1, 2 and 3) were relatively large, providing 166, 72 and 454 units respectively, and each took the form of a separate residential structure sharing a common site with an office building. The remaining two projects (4 and 5), incorporated the placement of a few units (8 and 6 units, respectively) atop office buildings.

In 1979 and 1980, market conditions in downtown Vancouver began to change significantly. The demand for office space, which had been sluggish since the mid-1970's, began to rise, with office space shortages anticipated for 1981-1982. At the same time, residential prices throughout the city were rising steadily. With the apparent success of the nearby False Creek development (in marketing some expensive multi-residential units in a central city location), there evolved the expectation that perhaps there did exist a small group of consumers who might choose to live downtown. While residential projects may not have been viable in and of themselves, favourable expectations, coupled with the rising demand for office space, may have made the risk involved in marketing units in mixed-use developments sufficiently tolerable to undertake construction. A flurry of development applications appeared in 1980 and 1981. By February, 1982, there were 6 mixed-use

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16 City of Vancouver, January, 1982, 11.
projects under construction, another 11 projects with outstanding development approvals and no less than 9 projects being proposed within the study area. Interviews held with several developers involved in current projects/proposals uncovered a number of shared attitudes and experiences which begin to illustrate both the application of, and related problems with the bonus system used in Vancouver.

- It was felt that the downtown core has little competitive advantage in terms of marketable amenities when compared to residential areas around the downtown (e.g. Fairview Slopes, False Creek, B.C. Place). For a similar or lower price, prospective customers could receive more amenity with less noise in a predominantly residential area. Despite the advantages of access to work, shops, restaurants and cultural activities the area's image and environment make it very difficult to market dwelling units.

- It was generally felt that "bonused" density is normally purchased as though it were commercial space: that is, a 4+1+1 F.S.R. site would be exchanged on the market at a price based on a development potential of 6 F.S.R. of commercial. As such, developers who purchase land normally pay a high price for the residential potential, a price which demands that a high rent or sales price for the units be realized. Those interviewed felt that
the bonus offered little, if any, incentive to subsequent developers/landowners.

- As the demand for office space decreases, mixed-use sites with a residential "bonus" become less desirable, as the residential component can result in inefficiencies and extra costs and complications which cannot be carried by rents from the commercial space.

- At any point in time, there may be a variety of developer "types" involved in mixed-use projects - some prefer to develop and hold the project for a long time while others prefer to retain ownership of the office component but sell the dwelling units immediately, and still others who prefer to simply construct the project and sell it as soon as possible. Differing objectives on the part of developers are reflected in the kinds of feasibility analysis which they undertake and their perceptions and tolerance for risk.

- Project viability is, to a large extent, a function of the site's location relative to the existing distribution of activities, particularly with respect to the office component. Residential viability is extremely difficult to predict as the sub-markets for various types/costs of units is poorly defined. Most of the dwelling units presently under construction were, as of February,
1982, to be marketed as luxury condominiums, although there is a great deal of uncertainty as to the size of the sub-market groups which might consider purchasing them. It was felt that those developers with projects currently under construction were having a great deal of difficulty in identifying potential buyers and actually selling the units.

- Some of the developers interviewed felt that they would consider building a mixed-use project again if assured of its economic viability at the outset.

The developers interviewed were unanimous in their view that the bonus system did not normally provide the incentive which it may have been intended to. Several specific reservations were raised with respect to the potential effectiveness of the bonus system:

- it is inefficient to provide a small number of dwelling units on top of an office building;
- housing will only be built if effective demand exists - bonuses and zoning cannot create demand;
- the economic incentive implied by the bonus system does not seem to exist in practice;
- the building's aesthetic qualities may not be as good in a mixed-use project;
- it is not entirely clear what the City hopes to achieve with respect to the area's "residential component": are small numbers of large, expensive
units perched atop office buildings really likely to result in an improved downtown? When the market for downtown housing is strong, why should a residential density limit of 3 F.S.R. be maintained when it may actually restrict the amount of housing which could be built?

These comments regarding the workings of Vancouver's downtown bonus system and the kind of residential component which it can create echo the questions raised by developers in 1975\(^\text{17}\) and which were again re-stated at the mixed-use workshop in October, 1981. The following chapters examine these questions in turn, beginning with the arguments for and against increased housing in the downtown.

\(^{17}\) Baxter et al, 1975
III. IS DOWNTOWN HOUSING DESIRABLE?

Historically, city centres have served as a focus for business, cultural activities and community life. The area's character reflects the constant evolution of activities and forms which emerge in response to changes in the demand for and allocation of activities throughout the urban area.

In the past, the intensity of downtown activities and physical form of the area (buildings, street width and layout) were, in part, a function of technology: how high a building could be built, how far one could reasonably commute to work given existing modes of transport. Technological innovations applied in the early 1900's, coupled with economic growth and changes in the affluence and preferences of consumers appear to have been the underlying forces which have, over the past five or six decades, substantially contributed to a specialization of the downtown's function. Specialization and sustained growth, in turn, have contributed to the demise of the surrounding residential areas.

Downtowns have not evolved by accident - they have, instead, been shaped and re-shaped by the constant interplay of public policy and the marketplace - sometimes moving in tandem - sometimes in opposition. What the downtown is today, and

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18 Heilbrun, 1974, 19-56.
the role it ought to play in the future, particularly with respect to the provision of housing, can only be considered within the context of the complex relationship between public goals and the marketplace. Attention must be drawn to the trade-off of goals which may occur when one choice or "role" for downtown is promoted over another, as occurs for example, with the desire to permit unconstrained office development while also hoping to establish a residential base in the area.

The purpose of this chapter is firstly, to briefly trace the recent evolution of large North American downtowns, focusing on the changes which have occurred with respect to the areas' resident population and housing stock. Secondly, the current goals which have been adopted with respect to downtown housing will be identified and their rationale examined. Finally, the case for more housing in the downtown will be debated to make explicit the values, assumptions and possible consequences of alternative goals.

A. AN HISTORICAL PERSPECTIVE

The following discussion is intended to provide the reader with a general description of the trends and evolution of public goals which led to current efforts to introduce housing into the downtown. It is, admittedly, an over-simplification of the complex forces and conditions which have shaped Canadian and American downtowns (and public attitudes towards them) since the early 1900's. The sequence of changes affecting downtowns has not always occurred in the linear fashion presented here,
nor has the timing of changes or major influences (e.g. the Federal Urban Renewal Programs) coincided in Canada and the United States. Further, very large cities (New York and San Francisco, for example) can have at least a ten to twenty year lead on smaller cities (Toronto, Calgary, Vancouver) in terms of the problems being experienced and the solutions developed. Further, Canadian downtowns have not experienced nearly the same degree of social unrest and declining investment as have their U.S. counterparts, nor were their changes always affected by similar legislative constraints or public funding programs. Despite these differences, the central problems confronting the downtowns of large cities, and the public goals adopted for them in the 1970's, share many similarities on either side of the border.

A number of technological innovations in the early 1900's allowed land to be used more intensively than ever before.¹⁹ Advancements in building construction techniques and lifting mechanisms enabled the development of highrise buildings and the efficient vertical movement of people and goods. The provision of public transit systems and the use of the private automobile allowed the downtown labour force to commute greater distances. But while the ability to use land more intensively was a necessary condition for change it was not, by itself, sufficient to bring about the major changes occurring in downtowns during the 1940's and 1950's. It was only when this technology was

¹⁹ Heilbrun, 1974, 32; Cook, 1980, 6.
combined with a market demand for intense, centrally located office space that the most dramatic changes to the downtown's form, environment and function began to occur.

The period of rapid economic expansion which began in the late 1940's following W.W.II created the employment growth and, hence, the market demand for office floorspace which dominated the downtown's growth for the next three decades. The increasing importance of the tertiary and quaternary sectors within the industrial base, combined with a growing economy, resulted in a sustained demand for downtown office space.\textsuperscript{20} The growth in employment, with the majority of employees commuting by car or transit, had a number of consequences for downtowns generally. A "typical" downtown in the late 1940's and 1950's might have reflected the following kinds of changes taking place:

- the development of office employment and commercial floorspace would typically be the dominant growth factor, causing land values in the core to rise to such a level as to outbid other land uses (industrial, warehousing, residential);
- the demand for central city accommodation was falling as the affluent middle and upper classes moved to the mushrooming suburbs.\textsuperscript{21} The housing stock which remained within and beside downtown was

\textsuperscript{20} Weimer, 1960, 17; Ginzberg, 1979, 48-53; Yeates, 1975, 172.
\textsuperscript{21} Hirsch, 1973, 70.
poorly maintained, commanding relatively low rents and typically occupied by lower income households. Many dwelling units were demolished, providing new sites for commercial development or surface parking;

- the reduced demand for downtown housing from families with children, coupled with growing housing demand by downtown workers, led to changes in both the area's housing stock and demographic mix;

- as families moved to the suburbs, so too did the growth in retail activity, capturing the comparative advantages of closer proximity to households, ample free parking and weather controlled shopping environments.\(^{22}\) The retail outlets which chose to remain or to locate downtown became increasingly specialized;

- surrounding the downtown, inner city property values were depressed, if not declining, in the face of low investment.\(^{23}\) The impact of falling investment on American cities, because of their high concentrations of low income households, was particularly severe. What were once considered to be stable neighbourhoods were beginning to be viewed as "slums" and "ghettos", infested with

\(^{22}\) Cook, 1980, 6; Weimer, 1960, 14; Weaver, 1977.

residential "blight". In some American downtowns, the owners of low-cost rental apartments abandoned their properties outright.\textsuperscript{24}

The affluence and population growth of the 1940's and 1950's had drawn residents and retail activity away from the downtown, while the growth of office floorspace had contributed to the development of a highly specialized activity base. Public policy reinforced these movements by encouraging the concentration of downtown employment and permitting, if not actively promoting, the removal of the area's housing stock. Overall, there appeared to be two strong sentiments about the downtown which were widely shared by planners and politicians alike:

- that commercial growth was a source of strength for both the downtown and the city generally, and should be encouraged and accommodated at all costs; and
- that "blighted" areas were undesirable, and should be redeveloped in a major way.

The city was described as being the "body", and the downtown the "heart" — a heart which had to be big, strong and pumping for the body to survive.\textsuperscript{25} Strength was believed to lie in commerce and employment, not in a combination of business and housing. Downtown Toronto, for example, was described in

\textsuperscript{24} Heilbrun, 1974, 259.
\textsuperscript{25} Cox, 1962, 109; San Francisco, 1966, 13.
the following terms:

"The great, vital hub of Toronto, and its region. In the interests of everyone, it is imperative that it expand and flourish, becoming a greater, finer, more efficient, beautiful and exciting city centre. Development must be channeled to it, where business can be conducted most effectively, and should not be allowed to draw its vitality to other sites."

There was no end in sight for the sustained growth of employment; the symbol of progress and prosperity. Large tracts of land were zoned for dense commercial development, especially in the most central parts of the downtown. Widespread concern arose over the presence of blighted areas which either lacked re-investment interest or which reflected what were thought to be undesirable social conditions - poverty and sub-standard housing conditions. These were an uncomfortable embarrassment in an atmosphere of growth and prosperity, and were thought to unnecessarily limit the more exciting role which the downtown could assume:

"Some symptoms of this restricting influence (the inability of the CBD to adapt to changing needs) are worn-out central city areas, drabness, unsightliness, shabbiness, inadequate parking and congested streets; in other words, blight."

It was felt that something was needed to counter the deteriorating physical conditions and underutilized areas within

26 City of Toronto, 1967, 45.
27 Weaver, 1979, 57.
28 Cox, 1962, 110.
and surrounding the downtown. Reductions in market demand for housing downtown, in combination with the anticipation of the core's peripheral expansion and the need for surface parking, had substantially reduced the amount and quality of the housing which had previously surrounded the commercial core. Yet it had happened very quickly, and at such a scale that the marketplace could not immediately redevelop all of the blighted areas for other uses. The old housing stock was disappearing, but what would be its successor? The marketplace shared little interest in redeveloping blighted areas - office users preferred to be concentrated in established office areas while warehousing and industrial uses were better accommodated outside of the downtown. There was little effective demand for downtown housing. Real and perceived social unrest (racial tension, robbery, violence) in blighted areas had made residential development for higher income households too risky, and land costs in the commercial core itself were prohibitively high for residential uses.

The public sectors in both Canada and the United States responded to the situation with the creation of "urban renewal" programs, attempting to "improve" the central city's blighted areas by stimulating private re-investment and providing alternative housing for existing low-income residents. Throughout the 1950's and early 1960's urban

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30 Carver, 1975, 139.
renewal schemes were put into action in most major Canadian and American cities, making use of federal financial support for the preparation of renewal plans, land assemblies and development projects. The public powers of condemnation (expropriation) were liberally used to undertake major land assemblies in blighted areas and the land was then sold or leased at below-cost to stimulate private development interest. Public agencies often became principal tenants in an effort to further reduce developers' risks. Public housing projects were constructed and were characteristically very dense so as to both reduce land costs/unit and satisfy the high demand for subsidized housing. In the United States, approximately 36 urban renewal projects had been completed by 1960, another 65 were scheduled for completion in 1960 and 1961, and an estimated 700 projects were in the planning stages.\(^3\)\(^1\)

In Canada, the adoption of urban renewal followed the U.S. program by several years, with the federal government beginning its participation through the financing of local urban renewal studies. In 1964, this involvement was expanded to allow federal contributions to be made towards the preparation of urban renewal schemes and the implementation of civic improvement programs. By 1969, when the program was effectively halted in Canada, the federal government had financially supported 198 urban renewal studies, which resulted in 135

\(^3\)\(^1\) Weimer, 1960, 19.
schemes and 48 specific projects. As Carver suggests, the grander intent of urban renewal had really been to build upon the remaining attributes of run-down areas without erasing everything that presently existed. However, the program soon became noted for its first stage (assembly and site clearance) and, with inadequate financial support for the conservation of that which was to be retained, the program took on a pejorative meaning.

Urban renewal, as a mechanism for "improving" downtowns and providing low-cost housing, came under attack from all sides for a variety of reasons:

- it was argued to be insensitive to the presence of neighbourhoods, individuals and physical attributes of the renewal area — it was a "bulldozer" approach which replaced rather than regenerated;
- it was too costly in terms of the public subsidies involved;
- too often it failed to stimulate independent private investment in the blighted areas;
- the housing projects which were developed were too big and too dense — becoming highrise "ghettos";
- it artificially increased/supported land values.

3 Carver, 1975, 136.
which could not be supported by the market in the program's absence;

- the program lacked objective standards by which the merits of urban renewal could be judged, resulting in its successfulness being difficult to measure;
- it might have been better administered at the local or regional level in order to be more flexible and responsive to local conditions;
- it may have been an unnecessarily massive form of public intervention to stimulate re-investment. Other, less complex mechanisms may have been equally effective in encouraging the private sector to undertake its own land assemblies, e.g. tax relief for those owners who pool their properties or direct land subsidies to development companies.

In Canada, the dismantling of the Urban Renewal Program in 1969 marked the end of any comprehensive effort on the part of the federal government to revitalize downtown areas.\textsuperscript{35} By the end of the 1960's, Canadian cities were left with detailed urban renewal plans and, in varying amounts, a supply of assembled, developable land, but with little hope for federal financial support. Many cities had designated districts around the

\textsuperscript{35}McLemore, et al ( 1975 ), note that in Canada, the Urban Renewal Program was subsequently replaced by the Neighbourhood Improvement Program ( N.I.P.) and Residential Rehabilitation Assistance Program ( R.R.A.P.), neither of which had direct application to the downtown core area.
downtown as high density residential areas but had no effective way of stimulating residential development,\textsuperscript{36} short of direct financial participation.

By the late 1960's, communities were beginning to re-examine their goals and policies for the downtown. The plans of the early 1950's and 1960's had encouraged and serviced continued office expansion, the consequences of which were now becoming increasingly apparent:

- the rapid growth in office employment and floorspace required the expansion of transportation systems, amenities and public facilities and had contributed to a general deterioration of environmental quality (loss of direct sunlight, creation of wind tunnels, loss of historic buildings, etc.);\textsuperscript{37}

- the residential population had either stabilized at very low levels or was continuing to decline. This, it was argued, contributed towards the downtown becoming "dead" in the evenings and on weekends, to the underutilization of public and private infrastructure and to a need for the continued provision of commuter services;\textsuperscript{38}

- the make-up of the downtown housing stock was continuing to change - ground-oriented, large units

\textsuperscript{36} For example, see City of Toronto, 1975, A-48.
\textsuperscript{37} Freilich, 1981, 5; Cook, 1980, 6.
\textsuperscript{38} City of Toronto, 1975, A-17; Weaver, 1979, 63.
were being demolished and apartment buildings (which had provided relatively inexpensive suites) were redeveloped, largely the result of pressures to provide development sites and parking lots to service the growth in office development. "White painting" was emerging in the inner city, resulting in the renovation of existing single-family structures in residential areas surrounding the commercial core and further reducing the supply of low cost housing. Luxury condominiums and large apartment buildings were beginning to appear along the edges of the downtown and, to a limited extent, in mixed commercial/residential projects. Questions were being raised by social commentators, planners and citizens alike—what happens to the residents forced to relocate? Who could afford to live in the expensive units being built? Would there be any place for moderate income office workers to live? What contribution should the downtown make towards meeting the need for additional housing in the city generally?

- the downtown was still struggling to maintain its declining retail base, which threatened a further reduction in the area's vitality and drawing power.⁹

⁹ Weaver, 1979, 66; Wilkin, 1979, 23.
• a vocal and visible reaction against rapid change was beginning to surface among those directly affected by freeways, urban renewal and private redevelopment. Public awareness of the costs of growth was beginning to rise amid changing social values related to the quality of life; energy conservation, the historical pattern of redevelopment, fiscal constraints, and so on. In some cities, interim development control by-laws were enacted to temporarily limit the construction of large office buildings while cities re-formulated plans for the downtown.

The attitudes of growth and re-building prevalent in the 1950's and 1960's were, themselves, breeding the search for an alternative philosophy towards social and material conditions. The desire to make the downtown more than simply a place of economic production - that it become a place of enjoyment, activity and diversity - gave support to the arguments for downtown housing. The emphasis given the role of housing in the downtown's recovery took on a zeal which reflected a striking-back against the entrenched pro-growth attitudes of earlier decades, and the kind of downtown which they had created.

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41 For example, in Toronto, see the Official Plan Amendment (By-law 347-73) and the Holding By-law (By-law 348-73) and in Vancouver, see Lindell, 1982, 49.
The plans for downtown which emerged in the 1970's were fundamentally different from their 1960's predecessors. When they referred to the need for a "healthy" downtown, it was now in terms of a more balanced mix of commercial and residential activities, an improved physical environment and a stronger role for downtown in terms of meeting the social goals of the community, particularly with respect to housing. The plans attempted to create a better fit between the growth of downtown activities and its infrastructure - treating public facilities as both supports and constraints on the growth of downtown employment. A greater emphasis was placed on mass transit as the principal mode of transport for work-related trips. In a number of cities, the rationalization of growth, public services and environmental quality resulted in a downzoning of commercial development potential from the generous densities which had been granted in the 1950's.² At the metropolitan level, efforts were launched to decentralize a greater proportion of future office growth from the downtown to regional centres. Within this context of changing conditions and goals, the case for increased housing within the downtown was re-surfacing, and the underlying intents becoming more broadly based.

²For example, see Vancouver (Western Real Estate Corporation Ltd., 1975, 3) and Toronto (City of Toronto, 1975a, 98).
B. DOWNTOWN HOUSING - UNDERLYING GOALS

A strong commitment to increasing the amount and mix of downtown housing is emphasized in the recent plans of virtually all of the major cities examined. Policies identify the need to protect viable residential neighbourhoods around downtown, to create residential precincts within downtown and to encourage the provision of accommodation throughout downtown as a single use or as a component of mixed-use projects. The degree of emphasis placed on residential development varies from plan to plan, as does the comprehensiveness of the housing goals and policies adopted. Planners have argued that the rationale for increasing the downtown's residential population is based on a number of propositions (which re-appear consistently throughout planning documents). The reasons given for enlarging the residential base are sometimes inter-woven with goals related to what the housing should be like (affordability, target groups, physical or environmental aspects of the buildings, etc.) although, generally, very specific objectives about the kind of residential mix and environment to be created through the bonus are less evident. We will consider first a synthesis of the rationale which has been advanced in downtown planning documents for promoting residential development, identifying the goals to

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3For examples, see San Francisco, 1981, H-7; Denver, 1981, iii; Calgary, 1978, 64; San Diego, 1979, 38; Ottawa, 1979, 25; Philadelphia, 1976, 10; Seattle, 1981a, 3; Atlanta, 1976, 26; Minneapolis, 1979, 18; Buffalo, 1971, 46; Portland, 1978, 1; Vancouver, 1974, 56; Edmonton, 1981; or Toronto, 1975.
be achieved, the contribution which housing is argued to make towards achieving those goals and the assumptions/values which underly each argument. The rationale will then be discussed in terms of the validity of assumptions and alternative values/solutions which might also be considered in defining goals and choosing among alternative means.

1. GOAL#1 - EFFICIENCY

It is a well accepted view that local governments should be responsible managers of public resources, promoting the fullest utilization of existing capital investments as well as the cost/effectiveness of planned expenditures while, more generally, being cognizant of the private costs resulting from public actions. The underutilization of public investments in the downtown is frequently cited as an inefficiency, as is the construction of road/transit improvements to service commuters while large tracts of downtown land remain virtually vacant (e.g. urban renewal areas, railway rights-of-way, obsolete warehouse/industrial areas). The introduction of housing, it has been argued, could reduce these inefficiencies in several ways:

- reducing public and private commuting costs by having more workers within walking distance of downtown jobs; and
- by intensifying land uses on underutilized sites, more fully utilizing existing infrastructure and
generating greater tax revenues from blighted areas.

2. GOAL#2 - A "LIVABLE" DOWNTOWN

There is clearly the perception reflected in planning documents that the downtown is "dead", uninviting and inhospitable. There are, as well, arguments and sentiments that the area should not be lifeless - rather, that it should be robust and enticing, a mixing of social, cultural and shopping activity and a reflection of the city's energy and diversity - every evening, every weekend. It has been widely argued that a city needs a focus or centre of activity, and that that focus should be the downtown - after all, has that not been its historic role? and is a focus still not needed? and is the downtown not in a central location? and are there not already activities and facilities to build upon?

A greater downtown residential population is believed to make two important contributions to this intended revival of activity and atmosphere:

- increasing the number of downtown users, thereby providing a broader basis of market support for a greater mix of activities extending beyond the working hours; and
- by providing the casual, informal surveillance of public areas (sidewalks, parks) which might allow other users to feel safer and more relaxed (and
thereby drawing more users to the area).

3. GOAL#3 - BROADENING LIFESTYLE OPTIONS

In recognizing a variety of consumer preferences for living arrangements and lifestyle options (and the possibility that some households might prefer a downtown location) it has been argued that housing should be permitted throughout the downtown. Further, it is sometimes argued that the option to live downtown should not be limited (as the market would do) only to those consumers having effective demand. It is sometimes argued that all households should have the opportunity to choose among a range of alternative housing forms and locations and that the availability of affordable units for the downtown labour force may be in the best interests of downtown businesses anyway (which will be discussed later). It is sometimes felt that the area's existing residents have value as having created a recognizable neighbourhood, that their residency should be protected and that they could provide the foundations for a new downtown community.

Permitting the development of market units throughout the core would only provide a partial step towards achieving this goal - incentives and/or requirements have also been justified on the basis that affordable units should be provided.
4. GOAL#4 - SUPPORTING DOWNTOWN ACTIVITIES

It is widely accepted that downtowns should continue to expand their employment opportunities and level of retail sales. For existing businesses to expand and for new firms to locate downtown there must exist an available labour supply within an easy commuting distance. For retail outlets to thrive and expand, there must be sufficient consumer demand.

The creation of a substantial residential population within the downtown, it is argued, could have two favourable consequences:

- by accommodating more households (many of which might be employees), the downtown may remain competitive with the expansion of businesses elsewhere in the city in terms of relative proximity to the labour force; and
- more consumers within walking distance of downtown retail activity will undoubtedly lend market support to existing businesses and generate a wider variety of retail/entertainment activities.

It has also been argued that more residents may result in a greater variety (and improved quality) of public services and amenities being provided throughout the downtown — benefits which could be enjoyed by all downtown users.
5. GOAL#5 - STABILITY IN THE LONG RUN

The downtown has become increasingly specialized in both its form (closely spaced office towers) and function (office-oriented employment). It has been argued that a high degree of specialization increases the area's vulnerability should there be sudden or major shifts in the economy, or should there emerge a more advantageous location (outside of downtown) for such activities. The locating of employment outside of downtown may occur spontaneously, within the marketplace, or be encouraged/enforced through employment decentralization policies. The integration of a substantial residential base, it has been argued, might ensure continued activity and tax generating ability for the area should business activity decline. As residential buildings would typically be developed at substantially lower densities than intensive office buildings (and likely spaced further apart), the physical character of an area with housing might also prove to be more adaptable than one without.

C. HOUSING AS A "SOLUTION"?

It is clear from the arguments advancing the provision of downtown housing that we are dealing with both factual and normative propositions. The factual propositions— that net savings of public resources will result, or that more residents will support a broader base of retail activities— may be, to some extent, measurable through empirical investigation. The
normative propositions — that low-income households should have the opportunity to live downtown, or that existing neighbourhoods should be protected/reinforced — are not capable of being tested, but may only be debated and reconsidered in light of different values, circumstances and interests. Between the extremes of fact and value lies a less charted (but no less important) area of debate dealing with the relationship between users and their environment — for example, at what point does building size, the availability of direct sunlight or the frequency of social encounters on a sidewalk begin to adversely affect the user’s perception of security and his level of physical comfort? The appropriateness of housing in the downtown is clearly as much a value-based judgement as it is a "technical" prescription.

While there is no shortage of good intentions about the desirability of housing in commercial areas one is hard pressed to find in many downtown planning documents any rigorous or qualitative analysis (or reference to such analysis) of whether the net social benefits to be gained are expected to exceed their costs — although it is consistently assumed that they will. There are several aspects of this assumption which deserve closer scrutiny.

It would be misleading to suggest that bonused housing is without public cost, for there may be incremental costs related to servicing the resident population and environmental costs generated by the additional building bulk (the reduction of
sunlight and views, etc. ). Off-setting these costs may be marginal reductions in commuting costs and perhaps the benefits of a more lively, safe environment. What is not clear is the extent to which residents within the downtown will increase pedestrian volumes, public facility use and levels of evening/weekend activity - will their contribution be enough to off-set possible public costs? Most of the downtown plans reviewed assume that the public benefits will likely exceed the costs - and perhaps they do - but there appears to be little indication that detailed empirical analysis has been undertaken to support this position. This is not to suggest that greater residential densities adjacent to the downtown will not likely contribute to its vitality. What is unclear is whether the marginal contribution to vitality and efficiency of residents within the downtown is likely to exceed the public costs which may be created - is a limited amount of housing worth the public effort and costs which may be required to obtain it?

Reconsidering the argument that underutilized areas should be redeveloped we find two underlying questions - must they be redeveloped in the short run and, if so, is housing the best use for those areas? Underutilized areas are not created by chance, but rather reflect a changing pattern of consumer preferences.

"The expectation that environmental costs may result from increased density or bulk is, in fact, part of the rationale for establishing bulk controls on downtown commercial buildings. There is little basis for arguing that many of the costs resulting from bulk will be any less adverse where the building is occupied by residents, as opposed to businesses."
and purchasing power. Housing is lacking in these areas because the consumers of housing services have not demonstrated a sufficiently strong effective demand in the marketplace for housing in these locations. Where demand might exist, it may be the case that it is unable to compete with other potential users for the space, principally being downtown businesses and land investors. It could be argued that blighted areas signal the gradual transition in an area's "highest and best use" which, in the long run, will result in the area's redevelopment in response to market demand. But is the community willing to wait for the long run — for the market to slowly take its course — or is intervention desirable to hasten the transition or change its direction? It is not unlikely that different communities may have different tolerances for the presence of underutilized areas — there is probably no simple, generally applicable answer for all communities or for all blighted areas with respect to the desired timing of their redevelopment.

Even if a community chooses to stimulate redevelopment, it could be argued that other types of uses (e.g. institutional, office) might also result in a fuller utilization of existing infrastructure, supported by a greater densification of existing neighbourhoods around the downtown (but still within walking distance). The community might then debate the extent to which surrounding neighbourhoods should accommodate redevelopment and attempt to measure the differences in net public costs associated with each alternative.
While the desire to rejuvenate the downtown's activity base is a widely shared goal, increasing the resident population is essentially a demand-side solution - by adding residents, it has been argued, aggregate purchasing power is increased and a greater variety of activities supported. But there may be a supply-side solution as well. It might be argued that, if there is to be public intervention, it could be more effective if directed towards creating "people generators" (shopping areas, stadiums, etc.) which would attract users from across the urban area. This, in turn, might improve the downtown's image and amenity, thereby indirectly stimulating a stronger demand for housing in the area. Obviously, the philosophy of "provide housing, and activities may follow" is quite different from "provide more activities, and housing will follow". If a community were only interested in strengthening the downtown's activity base, they might adopt the latter approach, accepting the gradual provision of market housing as being desirable, although not a necessary prerequisite to generating more activity.

The rationale for housing, however, extends beyond simply the support of interesting activities for non-residents (employees, shoppers, visitors) and is given purpose in and of itself by virtue of the equity (variety of housing choices) and stability (mixed land uses/activities) arguments. The equity or "lifestyle" argument rests on the premise that the marketplace should not be the sole orchestrator of the spatial allocation of housing for various income or lifestyle groups.
Beyond what one could afford in the housing market lies the conviction that low income households should not be priced out of an area of the city which might be well-suited to their needs. It has been argued that there should be equal access to housing opportunities for a variety of household types. The ideal of "equal access", however, is tempered by economic realities - public agencies may face budget constraints which place severe limits on the provision of subsidized units in relatively costly locations. In terms of public efficiency, it may be more desirable to accommodate subsidized households in locations outside of the downtown and then subsidize their commuting costs. One might also question the extent to which certain kinds of subsidized households accommodated in the downtown core are really likely to satisfy objectives for the area. Some households (e.g. low income) may offer little market support for retail activities. Families with children may find the area to be unsafe and/or lacking the support services/amenities which they require. Still others (e.g. the elderly and unemployables) may make little contribution to reduced commuting costs or to a more accessible labour pool.

The right to "equal access" to the downtown as a residential location must be considered in light of the costs of supporting that right, the contribution which different kinds of households might make towards achieving the goals for the area and ,

There appears to be little indication that detailed empirical analysis has been undertaken to test the comparative costs/benefits of these two alternatives.
finally, the suitability of the location relative to the needs of different types of households.

In the final analysis, it is probably not possible to argue a defensible, generally applicable "yes" or "no" answer to the question of whether housing should be encouraged throughout the downtown. The analysis required for evaluating its desirability in a specific situation (e.g. location, economy, point in time) would demand a thorough investigation of the magnitude, timing and incidence of both benefits and costs of each of the "housing" and "non-housing" alternatives. These would then need to be evaluated in light of the mix of goals and interests which may exist within the community.

Because of the pervasiveness and complexity of potential economic, social and environmental impacts, such analysis would clearly be difficult. As discussed earlier, public and private benefits/costs may be largely non-economic (equity, social and environmental considerations) leading to problems with respect to their identification, measurement and comparison. Monetary impacts, while capable of empirical precision, may be equally difficult to estimate as one must deal with marginal costs, indirect impacts, public and private impacts and uncertainty. The opportunity costs of not having housing may be particularly difficult to reach agreement on considering the disparate goals (in terms of what the downtown ought to be like) which may exist among interest groups. Some may consider the opportunity costs to be reflected in a more limited set of choices for
citizens (in terms of places to live and interesting places to visit), in reduced user satisfaction (psychological discomfort) in being downtown, or in additional commuting costs to be incurred. Others may dispute or place little value on such considerations.

In reviewing the relevant literature and planning documents, it has been difficult to find very much technical analysis indicating that any particular kind or threshold amount of housing must be present in the downtown for the goals identified earlier to be realized. One normally finds only the argument that more housing of any kind would be preferrable to less. In any case, technical analysis could only measure and compare the magnitude/incidence of benefits and costs—the importance which is associated with each could be expected to vary among interest groups within the community. As the expected impacts were considered and debated, a political decision would emerge, drawing on the results of technical analysis but reflecting more the trade-off of interests and goals made by public policy makers. Whether a downtown becomes "better" or "worse" remains a judgement to be made by the city and the area's users, relative to their expectations of what downtown should or should not be. The area, and the process by which it is shaped, will not likely satisfy all of the goals of divergent interests.

One is left with the impression that the introduction of housing into the downtown as a means of achieving the variety of
goals discussed earlier has been based on a combination of limited technical arguments, good intentions and intuition. The goals for downtown, and the extent to which housing might contribute to their realization, are not propositions which should be readily accepted. Many of the arguments which underly their credibility appear to be untested. As well, it has been difficult to find examples of a rigorous examination of alternatives to either the future role of downtown or to the direct infusion of housing into the area as a solution to the downtown's "problems". In all of the cities examined, the solution was the same - the downtown should continue to accommodate the growth of employment while, at the same time, encourage the provision of housing to mitigate many of the undesirable conditions which such growth generates. Further, there was little indication that any investigations had been undertaken to evaluate the impact of housing built through bonus systems on the vitality, efficiency or qualitative aspects of downtown.

While one may argue the extent to which housing is or is not a prerequisite for the downtown's improvement, the fact that all of the municipalities examined regard increased housing as an opportunity to improve the area cannot be denied. Recognizing this commitment, but being well aware of the limitations of the arguments which underly it, we now turn our attention to the second question - is the density bonusing technique likely to be an effective mechanism for stimulating the market to provide new dwelling units - of any type or
amount? The following chapter addresses this question.
IV. BONUSES - IN THEORY AND PRACTICE

For a bonus system to be successful it must provide a sufficient economic incentive to induce development. There are several parameters by which its potential effectiveness can be gauged:

- can density bonuses provide an economic incentive and, if so, for whom?
- can the amount of bonus (additional square footage) and incentive (premium beyond earned returns) required to stimulate residential development be accurately determined?
- can the incentive generated by a bonus be sustained over time?

These questions provide a basis for the examination of the potential effectiveness of residential density bonuses which follows. The investigation will begin with a brief historical review of the evolution of density bonuses as a method of land use control, followed by a description of the mechanism itself and the manner in which bonuses have been calculated in the past. The notion of residential density bonuses will then be examined within the context of that body of theory which attempts to describe the processes by which land values and land uses are determined. The expected integration of bonuses within the marketplace will be considered in light of that theory.
Finally, a number of criticisms will be put forward in response to the questions raised above - criticisms which, it will be argued, seriously challenge the proposition that residential density bonuses are likely to be an effective land use control mechanism.

A. ORIGINATION

The general concept of "incentive" or "bonus" zoning is credited with beginning in New York City in 1961 as a reaction to the inability of the traditional land use zoning system to achieve newly emerging public goals. The land use controls then in use were not ensuring that the desired amenities were provided through redevelopment. Land in the downtown core was first down-zoned and a system of "bonuses" created which allowed developers to earn the previously permitted densities by providing pedestrian amenities (housing was not bonused). Barnett suggests that the "bonus" was provided in partial compensation for the down-zoning which occurred. Benson argues that a down-zoning did not occur in

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6 Rose, 1976, 62; Whyte, 1981, 24; Barnett, 1974, 40; Witherspoon, 1977, 18; Cook, 1980, 87-98. Both Cook, 1980, 115; and Weaver, 1979, 58; however, indicate that bonuses had actually been incorporated into Chicago's 1957 downtown zoning ordinance. A bonus system was also proposed for Vancouver in 1961, see City of Vancouver, 1961, 16.


8 Whyte, 1981, 24; Barnett, 1974, 40. For an example of the system's structure see Cook, 1980, 87.

9 Barnett, 1974, 40.
any real sense since the newly achievable densities were the same as those previously permitted. Whyte suggests that the bonus may have been a mechanism for promoting the substitution of new requirements/rules in place of the old development regulations which were previously in effect.

The use of density bonuses to obtain public amenities was applied in the downtown areas of a number of cities during the 1960's and 1970's. The technique was believed to benefit both the public environment (through the provision of amenities) and private development interests (through higher achievable densities). Residential density bonuses (mandatory and optional) were introduced in suburban areas in the early 1970's in an attempt to provide below-market housing in otherwise middle and upper income communities. As the desire to encourage housing in the downtown gained momentum through the 1960's and 1970's, attempts were made to use the "bonus" to entice office developers to incorporate housing into their

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50 Benson, 1970, 897.
51 Whyte, 1981.
52 The kinds of public "amenities" which are commonly gained through density bonuses include, among others, plazas, connections to public transit facilities, arcades, additional building setbacks (allowing sunlight penetration), theatres, elevated walkways for pedestrians and social/recreational facilities. See, for example, Cook, 1980, 109.
53 Cook, 1980, 23; Weaver, 1979, 59.
54 Erber and Prior, 1974.
55 For example, see City of Toronto, 1980, 39; Washington, D.C., (Zogby, 1979, 2); Anchorage (Cook, 1980, 110); City of Vancouver, 1975; City of Calgary, 1973, 127; Witherspoon, 1977, 18.
projects. The residential bonus was expected to overcome many of the problems which had historically hindered both private and public efforts to provide downtown housing. Investors had been reluctant to build housing downtown (except perhaps a limited supply of luxury condominiums) for several reasons:

- land costs/unit were typically too high;
- office construction (or the likelihood of future re-zonings to permit office development) was generally more profitable;
- downtown may have lacked a competitive level of residential amenity relative to other locations in the market;
- there may not have been evidence of a clearly defined or sufficiently large market demand for downtown housing; and/or
- mixed-use projects were still relatively unfamiliar, not sufficiently tested in the market and argued to be too costly, risky and complicated.

For their part, public agencies had constructed a limited number of projects using subsidies from senior levels of government, but the possibilities of major additions to the downtown stock were limited because:

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55 Weimer, 1960, 21; Cook, 1980, 8; Weaver, 1979, 65; Petersen, 1976.
• federal and provincial/state subsidy programs offered limited resources;
• land costs may have been too high for government subsidized programs (per unit cost maximums);
• public agencies did not want to create a perception that future downtown residents would reflect a disproportionate share of low income, elderly households. The Urban Renewal Programs had been viciously criticized and brought to a halt, and governments may have felt that a second major program could be poorly received. Even if successful, more subsidized housing might have discouraged private investment.

From the market's perspective, the "bonus" provided an unoffensive intervention — a market-oriented solution to the provision of housing downtown.\(^5\)\(^8\) The bonus appeared especially reasonable and attractive in light of the emerging trend back to mixed-use buildings — developers were to be given a choice

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\(^5\)\(^8\)One indication of the bonus system's apparent acceptance in the marketplace is that it has yet to be challenged in the courts, which may suggest that it is either well received, inconsequential to development or difficult to challenge. For a discussion of the legal aspects of bonuses see Benson, 1970; and Meshenberg, 1976, 43.
between single and mixed-use buildings, and rewarded if they opted for the latter. For the public sector, the technique appeared to offer an inexpensive, uncomplicated, low-risk stimulus for construction - a "something for nothing" solution.

B. DEFINITION AND STRUCTURE

The term "bonus" has been used liberally throughout the literature describing "incentive zoning" for residential uses. A general definition has been offered by Meshenberg which, in the simplest of terms, is "the opportunity (for developers) to earn more money". It is necessary, however, to make the definition more specific so as to differentiate between the additional building density created and the economic incentive which may or may not occur as a result. A bonus is used in this thesis to mean an addition to permitted building densities, and nothing more. The residential density bonus is essentially the granting of additional building density, beyond that which would

59While zoning and incentives for large-scale mixed-use projects in the downtown did not achieve wide support until the 1960's, landmark projects had been built in the 1950's, including Penn Centre in Philadelphia (1953), Midtown Plaza in Rochester (1956) and Charles Centre in Baltimore (1957). In 1975, Witherspoon estimated that approximately 100 large-scale mixed-use projects had been constructed throughout the U.S. For discussions of specific projects and the emergence of mixed-use generally, see Witherspoon, 1977; City of Toronto, 1975; Brownell, 1974; Cook, 1980, 8; and Weaver, 1979, 63.

60 Wilborn, 1973; Weaver, 1977, 59; Cook, 1980, 23.

61 Meshenberg, 1976, 45.
otherwise be permitted, for the "provision of housing."\textsuperscript{62} The additional density may accommodate either commercial or residential floorspace, or some combination of both. An incentive will refer to the landowner's ability to capture "unearned returns"\textsuperscript{63} (as a result of the bonus having been granted) through the development and/or disposition of his property. It should not immediately be assumed that because there is a bonus, there is necessarily an economic incentive created. An example of the bonus system now in operation in Toronto may help to further illustrate the general structure of density bonuses.

In the Financial District of downtown Toronto, a developer may construct a mixed-use project containing a maximum of 8 F.A.R. for commercial uses and 4 F.A.R. (or 750 units per hectare) for residential uses. Developers may be permitted a greater residential density (1,000 units per hectare) where the occupancy of the units is to be regulated so as to accommodate only the handicapped or elderly.\textsuperscript{6}\textsuperscript{4} City Council may also permit residential densities to increase by 25% where the owner agrees to provide the additional housing for the purposes

\textsuperscript{62}"Provision of housing" may take several forms, including the construction of units on-site, a cash-in-lieu payment/unit to a public agency, or an agreement to provide housing on an alternative site or at some later point in time.

\textsuperscript{63}Returns are earned in many ways—as payment for the use of capital, as a reward for expertise or talent, and as compensation for assuming risk. Whether or not returns are "unearned" depends upon the initial expectations of the investor—how much did he expect to receive in payment for his capital, expertise and the assumption of risk.

\textsuperscript{6}\textsuperscript{4}City of Toronto, 1980, 46.
of the assisted (government subsidized) housing program.\textsuperscript{65}

In practice, the conditions and amount of bonuses may be explicit and implemented on an as-of-right basis, or they may be introduced within the context of general policy intents and negotiated on a project by project basis.\textsuperscript{66} They may be general in nature — allowing unprescribed numbers of units of any household type, or they may be targeted at providing housing for very specific population groups (e.g. low income, elderly). In some cities, choosing to use the bonus may permit developers to enter a faster, stream-lined approval process and gain exemptions from other by-law requirements (e.g. building heights, setbacks).\textsuperscript{67} Conversely, in light of the bonus being provided developers may be required to submit their proposal to a more detailed review process.

Bonuses have been offered with two purposes in mind:

- as an intended incentive for developers to provide housing; and/or
- as compensation for a reduction in permissible commercial density where a down-zoning has occurred, or where a requirement to provide housing within new projects has been introduced.

Throughout the literature the density bonus is argued to provide an economic incentive to developers by permitting

\textsuperscript{65} City of Toronto, 1980, 41.
\textsuperscript{66} Cook, 1980, 23; Witherspoon, 1977, 18.
\textsuperscript{67} Cook, 1980, 78; Witherspoon, 1977, 18.
greater residential and/or commercial densities than previously achievable in return for the provision of various features (plazas, housing, etc.). For the latter type of "bonus" to be effective, proponents argue that the permitted density must be lower than that which could be sustained by the market but not so low as to be subject to challenge in the courts for its unreasonableness. There is a perception among proponents that an extraordinary gain may be realized because:

- the returns from providing the feature exceed its cost; and/or
- the total project will be larger with the bonused density, and that will generate a greater amount (in absolute terms) of profit; and/or
- the additional density does not have a land cost associated with it and therefore the returns need only cover construction/financing costs.

Conceptually, one would expect the returns from providing any bonusable feature to cover the costs of its provision and generate an extra return which provides an incentive for developers. The "incentive" depends upon the extent to which the costs and returns from the feature are sufficiently different, with the difference more than compensating for the effort and risk associated with providing the feature.

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C. CALCULATING BONUS AMOUNTS

It was noted earlier that the notion of residential density bonuses grew out of the creation and apparent success of amenity bonuses generally. As such, it is helpful to first review the manner in which general amenity bonuses have been calculated before examining the methods used in constructing and evaluating residential bonuses. The limitations of the methods used will then be critically reviewed.

In determining the amount of bonus to be given for a public amenity (e.g. plazas, theatres, arcades) the actual costs of producing the amenity are first estimated, usually on a square foot basis, with the annual cost of amortizing that expenditure then calculated. The analyst then calculates the amount of additional net leasable square footage required to generate an annual net cash flow sufficient to cover the amortization/maintenance costs of the amenity. A judgement is then made as to the amount of additional bonused floorspace required to generate the additional revenue which provides the incentive for developers to provide the amenity. Ruth and Krubkhkov provide an example of the procedure.\(^6^9\)

However, as a bonusable feature, housing is significantly different from the other features which are normally bonused. It differs in several respects:

- public amenity costs, relative to total project

\(^{69}\) Ruth and Krubkhov, 1966.
value, impose relatively minor costs and building alterations, especially when incorporated into building designs at an early stage. As such, amenity costs can be incorporated into total construction costs without having a major impact on the project's viability. The housing component, because of its sheer building bulk, can represent a major cost and physical component of a project;

- the provision of public amenities is relatively uncomplicated, typically requiring only the modification of building design or site layout, whereas the incorporation of housing introduces a number of complications with respect to the separation of title, additional financing and the division of management and operating expenses;

- public amenities are not normally revenue-generating and so the developer need not be concerned about marketing the amenity to consumers. Housing lies at the opposite extreme, with developers giving considerable attention to the competitiveness of their dwelling units. The profitability of housing, unlike public amenities, rests largely on its ability to generate a projected stream of revenues;

- bonuses given to create public amenities may not be expected to cover a portion of land costs. There is some confusion, on the other hand, as to whether
the return from the bonused housing component should cover a pro-rated share of land costs and provide a return to the land investment.

Because of these differences one cannot apply a simple "construction cost plus incentive" approach in determining the appropriate amount of residential density bonus to offer developers. One ought to also consider the additional complications and costs of housing, the extent to which commercial uses can subsidize residential costs, the expected markets for the units and the extent to which the residential floorspace should be expected to offset land costs. All of these factors might be expected to affect the amount of effort required and risk incurred by the developer, and therefore the level of returns required.

The level of analysis required to evaluate residential bonuses and incentives appears to be more complicated than that required for general public amenities. A number of cities have engaged economic consulting firms to evaluate the financial viability of their bonus proposals. The method of analysis in each of the three studies examined\(^7^0\) mirrored the kind of preliminary project assessment which developers undertake when

\(^7^0\)The three studies examined included Klein and Sears (Toronto); Western Realsearch Corporation Ltd. (Vancouver); Clayton Research Associates Limited (Edmonton). For additional examples, see also Wright, Mansell and Associates, 1978; Peat Marwick and Partners, 1973; Urbanics, 1978; and Baxter, 1975, 139.
first considering a new project. The analyses involved an estimation of the projects' creation costs (development, construction and land costs) and projected net operating revenues for the first full year of operation. The measures of profitability normally included one or both of the following two ratios:

- **Return on Investment (R.O.I.)**, which is net operating income (first year) divided by the creation cost;
- **Equity Yield Rate (Re)**, which is the first year's net cash flow (after debt service) divided by the investor's initial equity contribution.

Analysts sometimes included an examination of the "Break-even Revenue" (the gross revenue required to yield a given R.O.I. or Re) and/or a "Developer's Profit" ratio (the capitalized value of the first year's net operating income, less the creation cost, all divided by the creation cost). Without exception, the reports reviewed considered only the first year's projected operating flows and undertook the analysis on a before-tax basis. Land values were assumed to reflect current market prices and a share of land costs was normally apportioned to the bonused density. Sensitivity analysis was usually undertaken to examine the extent to which returns varied in response to changing land values, rents, interest rates and other key factors. On the basis of the analysis and local market conditions, the analyst then made a reasoned judgement as to the amount of bonused density required to induce developers
to provide the housing component. (The implications and limitations of the methodology applied in the studies will be examined in a subsequent section of the thesis.)

The reader should be cautioned that the findings and conclusions arising from area-specific analysis are not transferrable to other markets or cities, as real estate markets are, in general, local in nature. The values of the variables entering the analysis are often very specific to a particular downtown area (land values, permitted or bonused densities, demand/supply conditions for office and residential uses, developer/community expectations) or to a particular point in time (interest rates, mortgage availability, capitalization rates, tax provisions). As such, while the methods of analysis may be roughly similar in each case, the relative values of the input variables will undoubtedly vary with location and timing and can be expected to lead to very different results under different market conditions.

D. LAND VALUE DETERMINATION AND DENSITY BONUSES

It is not the intent of this section to provide a detailed examination of the full body of literature addressing the process by which land values are determined. Rather, only the general propositions which are most relevant to this

\footnote{For a concise, chronological summary of much of the relevant literature, see Mondor, 1978.}
The employment base in most downtowns has continued to expand as businesses choose to locate in close proximity to each other and in a central location relative to the urban labour force.\textsuperscript{72} As activities compete for the most centrally located land relative to the existing pattern of land uses, land values rise and the marketplace self-selects the most viable uses for a given location and time.\textsuperscript{73} Those activities which can offer the highest price for land may be expected to dominate the competition.\textsuperscript{74} As discussed earlier, most types of housing in downtown areas have been unable to compete with commercial uses, resulting in a reduction in the amount of housing which has existed downtown and making it increasingly difficult to introduce new housing into the area.

In theoretical terms, the value of land is equal to the present value of the future stream of net income which can be generated through its use and disposition.\textsuperscript{75} The value of land is established through the interaction of willing buyers and sellers negotiating a price which is, in the final analysis, deemed to be acceptable by both parties. Investors are

\begin{thebibliography}{9}
\bibitem{Foraconceptual} For a conceptual discussion of the spatial distribution of urban land uses, see Heilbrun, 1974, 118-120.
\bibitem{Heilbrun1974} Heilbrun, 1974; Nolan, 1978, 6. It is worth noting that "value" to particular investors may also be a function of their portfolios and investment objectives, leading them to place a higher value on the property than suggested by the present value of its future net income.
\end{thebibliography}
concerned with the net growth in their wealth\textsuperscript{76} generated by the use and eventual disposition of the land and its improvements. They offer a price which, in consideration of future cash flows expected to be generated by the property, gives them a return which they judge to be reasonable compensation for the use of their resources, the expected impact of inflation and a premium for the risks to be incurred.\textsuperscript{77} The projected change in their net wealth depends upon their estimation of consumer demand, available financing, the nature of their investment portfolio, tax impacts, the ownership form and alternative investment choices. Since each buyer may have different objectives, expectations of future cash flows and tolerances for incurring risk, it is reasonable to expect that each buyer will value the property differently.\textsuperscript{78} Sellers, on the other hand, have an asking price determined by the price of comparable property available for purchase, by their judgement as to what could be built on the site, by expectations of possible changes in zoning, and so on.

One effect of public land use controls is to limit permissible uses and densities. Where public policy is uncertain or changing, or where land uses and market conditions are changing significantly, a spectrum of future expectations and, hence, asking and bidding prices may characterize the land market. As market conditions change, so too will the property's

\textsuperscript{76} Greer, 1979, 7.
\textsuperscript{77} Bish and Nourse, 1975, 80-81; Greer, 1979, 11.
\textsuperscript{78} See, for example, Clayton Research Associates, 1980, 34.
In a competitive market, the exchange price should reflect the price which could be absorbed by the "highest and best use" for that property: \(^7^9\)

"...that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, and which results in the highest land value.\(^8^1\)"

In a competitive market, buyers would be expected to bid up the price to that level which permits the minimal acceptable return to the new owner,\(^8^2\) thereby bidding away excess or abnormal profits. Recognizing the different characteristics of competing buyers it has been argued that, in perfectly competitive markets, market prices may be set by classes of diversified investors taking advantage of various tax provisions and differential tax rates.\(^8^3\)

It has been argued too, that land values are a residual -- that value which remains after all factor payments have been made.\(^8^4\) In a competitive market, land prices rise to capture any "value" beyond that which exists at the most competitive

\(^{7^9}\) Hamilton, 1970, 54-55; Nolan, 1974, 20; Wilkin, 1979, 120.
\(^{8^0}\) Nolan, 1974, 18; Heilbrun, 1974, 121; Bish and Nourse, 1975, 84.
\(^{8^1}\) Boyce, 1975, 107.
\(^{8^3}\) For a discussion of diversification, see Gau, 1978.

\(^{8^4}\) Marshall, 1890; Barlowe, 1958, 238; Mills, 1969; Keiper, 1961; Heilbrun, 1974, 114; Wendt, 1974, 154.
level. Any unearned returns enjoyed by "middlemen" in the land development process should, in the long run, be mitigated by rising land prices.

The interaction of density bonuses and land value adjustments is critical. In theory, at least, one might expect any positive economic benefit associated with the bonus to be eventually, if not immediately, capitalized into the value of the land. The likelihood of this occurring, and the implications for the maintenance of an economic incentive are matters worthy of more careful examination. We will consider, firstly, the kind of "bonus" created when residential development potential (density) is added to the existing zoning on a property (be it commercial or residential). Secondly, we will examine the situation in which residential and commercial density is added to the existing zoning, but for which dwelling units must be built in order to utilize the bonused commercial density.

1. Additional Permitted Densities

If we consider first the type of bonus created when cities simply "add on" residential density to the densities previously permitted, we would find original landowners faced with two options - to either develop or sell the property. It can be anticipated that the owner will normally select the option which yields the greatest net present value (adjusted for risk).
a. Development

If the landowner decides to develop the property he will consider the options of either using the bonused density or ignoring it. This decision will be based on the peculiarities of the landowner, the market conditions for different uses and his willingness to develop a mixed-use project. Should he opt to build the housing component, he must make a decision as to whether to enter his land's value into the economic analysis at its accrued cost to him or at its replacement cost (market value). This decision is critical.\textsuperscript{85} The land's accrued cost to the original owner would include its original purchase price plus any net operating losses which were incurred during the holding period, brought forward to their present value. (The landowner might also include the opportunity cost of his capital during the holding period.) The land's replacement cost refers to the amount (per square foot) which the landowner would have to pay for comparable property at current market rates, that is, its current value in the marketplace.

If the original landowner values the land at its real cost

\textsuperscript{85} There remains some debate as to whether land should be valued at its accrued or replacement cost. Analysts such as Dewees (1975, 48) and Peat Marwick and Partners (1973, III-8) have emphasized the accrued cost approach. However, the valuation of land costs in the feasibility studies reviewed were based on surveys of current land values throughout the downtown (i.e., current replacement cost or "market value"). Land costs were usually applied to the project as a whole. However, in one feasibility study at least (Clayton, 1980), land costs were apportioned between commercial and residential development potential on a pro rated share of buildable square footage.
to him, the housing component would be apportioned a zero land cost since his original purchase price (pre-bonus) would not likely have incorporated the value of the residential density. The landowner would sell the dwelling units for whatever the market could bear and may realize abnormal returns depending on the level of demand for the units. If demand is high, the bonus would have contributed to his return by permitting residential development. If demand is low, the owner may still earn normal returns but be unable to realize abnormally high returns. Since residential uses are not required he retains the option to build or not to build and would be unlikely to build unless assured of earning at least his minimal required return.

Suppose, however, that the landowner's objectives included further development in the bonus area in the future. The owner considers his need to purchase other development sites realizing that, if other landowners are aware of the bonused density's economic value, he will be charged a premium for the bonused density. The size of the residential premium will be determined through negotiation. To maintain his participation in the market, the returns generated from this first project must provide sufficient funds to buy new land for future development. As such, the original landowner is likely to value his

See, for example, Clayton, 1980, 27. However, if the land had been purchased shortly before the creation of bonuses, but while expectations of potential bonuses prevailed, there is every likelihood that recent purchasers may have paid a premium for their sites in anticipation of the bonus being introduced.
residential development potential at an amount which reflects its replacement cost. This will establish a land cost/dwelling unit which is greater than zero and will increase the minimum acceptable sales/rent prices for the units. Is there now an "incentive" to build housing?

The answer depends on whether one looks at the situation relative to the landowner's past or future position in the market. Looking to the past, it is likely that the original owner has received an infinite return to his initial residential land investment (which was zero, where no speculative premium was paid) if the sale/rental of the units generates any return to land at all — and that might be a generous incentive indeed. Looking forward, however, we would expect that the landowner has only secured his future participation in the market — he may have realized an unearned return but those proceeds will likely be required to finance his next land purchase, which will be that much more costly as a result of the residential development potential. Clearly, the landowner would realize greater returns if he apportioned a zero land cost to the residential density, but he might not generate sufficient funds to stay active in the market. If one of his objectives is to develop other projects in the future, he has little option but to value his land at replacement cost when evaluating the viability of development.87

87 See, for example, Clayton, 1980, 35.
b. Disposition

Alternatively, the original landowner may sell the property in its undeveloped state. Assuming that he is informed, he will demand a premium for the economic value of the residential development potential. If the opportunity to build housing has any value in the market at all, he may realize an unearned return as a result of the bonus, depending on his initial expectations and the risks he has incurred. In the literature, this is commonly referred to as a "windfall" profit. 88

But what "incentive" is left for the subsequent landowner? Through his acquisition of the site the subsequent owner has paid a premium for the bonused density and has, therefore, a real land cost/dwelling unit which must be passed on to consumers. If the marketplace functioned efficiently, it would be expected that the amount of the premium would be such that any abnormal returns for the developer would be captured by the landowner. The subsequent owner may still realize abnormal returns if:

- the residential density was underpriced in the transaction; or
- if market conditions change and housing demand rises.

The subsequent owner might also sell the property, earning abnormal returns for the same reasons as noted above. However,

he also incurred some risk by paying a premium for the residential density. If the market for housing declines, or should development costs rise unexpectedly, he may be unable to develop or to re-coup his investment through disposition of the property. 89

The opportunity to earn abnormal returns as a consequence of improved market conditions or uninformed buyers and sellers should not be confused with the incentive intended through the density bonus. While the market for downtown housing may be poorly defined and, over time, even volatile, the possibility of earning abnormal returns is always present because:

- market conditions may fluctuate significantly; and
- some investors recognize, and can take advantage of imperfections in the marketplace.

This is equally true for any land use and for any real estate investment.

89 This risk is not peculiar to bonused sites but is, rather, characteristic of all forms of real estate. It is interesting to note that this was not a risk which the original landowner had been exposed to.
2. **Commercial/Residential Density Bonuses**

The second general form of bonus is one in which landowners are permitted to construct a given amount of additional commercial floorspace providing they construct, or cause to be constructed a related amount of residential floorspace. Again, we will consider first the options open to the original landowner at the time of the bonus's inception and then the situation facing subsequent owners.

a. **Development**

The landowner may choose to build only that amount of building previously permitted, ignoring the density bonuses. If demand exists to support additional commercial and/or residential floorspace the landowner may consider using the bonus since a smaller development may result in an underutilization of the site's potential. The landowner's decision to utilize the bonus will depend on several factors:

- supply/demand conditions for commercial space;
- supply/demand conditions for residential space;
- the relative viability of commercial and residential uses;
- the level of expected return relative to his required return;
- the extent to which he can overcome other complications related to the combination of uses on a single site.
Each of these factors will be considered in turn.

- **Supply/Demand Conditions for Commercial Space**

  The landowner's willingness to build will depend largely on his projection of the project's future stream of revenues, which in turn will be a function of expected rent levels and occupancy rates. Rents and occupancy rates are a function of both competition in the market and the general level of anticipated demand. If expected demand supports construction of both the base floorspace and the bonused increment the landowner might consider using the bonus. Anticipated demand for commercial space is normally a prerequisite for development, but it is by no means a sufficient criterion for a mixed-use project.

- **Supply/Demand Conditions for Residential Space**

  The landowner will examine the potential returns from the bonused residential component. Regardless of his attitude towards valuing the land component at his real cost or its replacement cost, he will want to identify the buyer sub-markets for which the dwelling units might be targeted and the likely returns to accrue from each sub-market option. If the residential component were viable, one would expect the landowner to be more willing to use the bonus although, again, residential viability would not likely be a sufficient criterion
for undertaking this form of development.

- **Relative Viability of Commercial and Residential Uses**

  The landowner will be primarily interested in the overall return generated by the mixed-use project. The landowner, it was suggested earlier, may have the ability to incorporate an otherwise uneconomical residential component into a mixed-use project because potentially low revenues can be off-set by:
  
  - a zero land cost/unit (at least for the first owner); and
  - by the excess revenues generated by the bonused commercial component, for which net operating revenues are not required to cover land costs.

  In both instances, it is assumed that the landowner does not value land at its replacement cost.

  Any "incentive" would apparently lie in the residual operating income generated by the total commercial component after the subsidy (if one is required) was transferred to the residential component. For an incentive to exist, net revenues from the overall project must exceed the developer's required return, thereby resulting in an unearned return. If this

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90 Under conditions of very low office demand and very high housing demand, it is conceivable that the residential component might actually subsidize the commercial component.
increment does not exist, the incentive will not exist.

This situation illustrates a fundamental relationship existing between the commercial and residential uses in the building for the original landowner. If the market for both is strong, then both components may be built. If office demand is high and residential demand low, a sufficient incentive may exist for the initial landowner to develop (assuming he does not value land at its replacement cost) but which, nonetheless, depends on the level of rents and the ratio and absolute amounts of the bonused densities. If office demand is low, and residential demand is high or low, an incentive to provide housing may exist depending on:

- the net revenues generated by the office space and dwelling units;
- the extent to which one of the uses requires subsidy; and
- on the assumption which the landowner makes about the land's value in the feasibility analysis.

Another, albeit unusual, situation might exist in which, despite low levels of demand for both office and residential floorspace, a landowner might still choose to develop using the bonused density. This might occur where the landowner is willing to forego short-term returns in order to satisfy long-term investment objectives.
• Potential Returns Relative to Required Returns

Greater returns, in an absolute sense, are not a valid indicator of the presence of an incentive. The benefit of returns generated by using the bonus can only be evaluated with respect to the required rate of return for each investor. Beyond the level of return which a given investor might demand, an incentive (or additional return) might be required to actually initiate residential development.

• Complications of Mixed-Use

Despite the possibility of capturing unearned returns, a number of complications can arise in the design and operation of mixed-use projects which may, in some situations, make it very difficult to use the bonused density at all. Difficulties may exist with respect to:

  • physical design – the arrangement of uses and structures on-site, spillover of noise and overview, difficulties in routing mechanical, electrical and structural systems through the building;
  • project financing – the need for separate long-term mortgages for different building components;
  • separation of ownership – the need to legally

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subdivide the land and/or building components, particularly where ownership of the commercial component is retained by the developer but dwelling units are sold separately (as an entire residential building or as individual condominiums);

• allocation of operating expenses/responsibilities among tenants/owners.

In some situations, such complications may impose additional costs or risks on developers and require higher levels of return as compensation. In other situations, the complications may pose problems which prohibit development entirely, or at least cause delays until circumstances change significantly.

The prudent landowner will consider each of these five factors carefully in judging the benefits to be gained through using the bonus. Several implications are immediately apparent:

• the potential benefit of the bonused density to landowners will depend largely on prevailing market conditions, which can vary significantly from location to location and which can fluctuate dramatically over time;

• the potential benefit of the bonused density will depend largely on the characteristics of the landowner or investor himself - his perception
of and tolerance for risk and uncertainty, his
development objectives and the financing terms and
tax position which might be unique to him;
• the potential benefit of the bonused density will
depend largely on the unique characteristics of the
site and project being considered, and on the
extent to which complications can be overcome
without undermining the project's viability.

But there is still another option for the landowner who has
just been granted a density bonus — he may sell the
property.

b. Disposition

As noted earlier a landowner, in determining his asking
price, will consider the full development potential of the
property. The opportunity to build additional office space and
dwelling units may be a very marketable commodity. The seller,
in rationalizing the highest reasonable asking price, will make
a judgement as to the economic worth of that opportunity and
adjust the asking price accordingly. He will argue that
prospective developers may fully utilize the bonus, and so he
will capitalize its value into the asking price. In a
competitive market, one would expect buyers to estimate the
revenue potential of the permitted and bonused densities and
adjust their offer price to the maximum which they are able to
pay while ensuring that their required return will still be
realized. As such, one would expect that in a competitive market the bonused density, if capable of contributing positively to the developer's returns, will be incorporated into the land price by both sellers and buyers. The additional commercial density, for example, may assume a land value/buildable square foot equal to that of the base commercial density, or it might assume a lower value if the residential market is slow (and where the commercial space would be expected to subsidize the bonused residential space).

The situation facing subsequent landowners under the commercial/residential density bonus would be similar to that discussed under the simple residential density scheme. Land valuation theory suggests that subsequent landowners will pay a premium for the bonused density if it has any potential in the marketplace at all. Even if the residential market is poor, a premium may be charged/offered for the possibility which exists to develop residential uses should market conditions change substantially in the future. Subsequent owners still have the option to develop or sell, but the potential for generating abnormal returns will have been substantially reduced as a consequence of their having paid, to some extent, for the value of the bonused density. Having paid for the bonus, subsequent landowners must now argue before the approving authorities that they must be granted the full bonus, for it is a necessity if the project is to be economically viable.\(^2\) Given that the bonus

has been paid for, the project's viability may very well be dependent upon it.

E. PROBLEMS AND SHORTCOMINGS

The previous discussion identifies limitations with respect to the potential effectiveness of residential density bonuses as a mechanism for stimulating the development of downtown housing - but the inherent flaws in bonusing must by made more explicit yet. While the following criticisms stop short of suggesting that residential density bonuses can never be effective they do suggest that their effectiveness may be quite limited in the short run, and even more seriously limited in the long run.

1. Can The Bonus Be Accurately Calculated?

It is extremely difficult to accurately calculate the amount of bonus needed to provide a sufficient incentive for a variety of investors. It was noted earlier that the analysis underlying the construction/evaluation of alternative bonus schemes in the several cities examined considered only the before-tax returns generated from the first full year's operation of prototypical mixed-use projects based on alternative bonus ratios. While this may be the approach adopted as a preliminary test of a project's profitability by developers, the approach misrepresents the true potential
returns to investors by failing to consider:\(^9^3\)

- the tax consequences of the project;
- the possibility of operating leverage (which may increase net cash flows in the long run);
- the impact of financial leverage (borrowing) on investor returns (omitted in some studies);
- the impact of capital appreciation and the proceeds from future disposition of the property;
- the variation of required returns which exists among different classes of investors;
- the impact on future land values resulting from any down-zonings which may have preceded, or may be implied by the bonus; and
- the range of cost/revenue estimates reflected in the market at a given point in time.

By using "developer's profit", however defined, it is implicitly assumed that the impacts of all of the above on investors' returns are incorporated into the capitalization rate or expected sales price of the property. However, the basis on which to estimate accurate capitalization rates or expected sales prices for office and residential uses combined may be difficult to determine because:

- there may be few comparables, as downtown mixed-use

\(^{9,3}\)For a discussion of the importance of these investment considerations see Greer (1979). Peat Marwick and Partners (1973, III, 15-18) also emphasize the limited view of returns reflected in the "first year only" analysis.
projects are not yet plentiful; and

- the complexity and dynamic nature of market conditions, government subsidy programs and physical design solutions which vary over time and among projects may make comparisons with other mixed-use projects very tenuous.

Failure to consider the long run, after tax impacts of the bonus may lead to a bonus ratio which is either unnecessarily generous or insufficient to induce long term investment in mixed-use projects. As Peat Marwick and Partners discovered in their survey of Toronto's downtown developers in 1973, the feasibility analysis used by most developers tended to be conservative, since it basically understated the return to the investor:

"In our interviews developers agreed that in periods of rising rents and land values, the potential return to their investment would be greater than that calculated in a simple rate of return feasibility analysis."

In favourable market conditions (e.g. rising revenues), the returns projected in the feasibility studies reviewed would clearly understate profitability and suggest that greater densities and bonuses should be permitted than may be necessary to achieve a given rate of return.

These difficulties deal specifically with predictions of the net cash flows of a project for different investors, but a second and related difficulty compounds the problem still
further - how does one estimate the amount of economic incentive necessary to stimulate use of the bonus? As discussed earlier, returns are earned in many ways - as payment for the use of capital, as a reward for expertise or talent, and as compensation for assuming risk. Whether or not returns are "unearned" depends upon the initial expectations of the investor - how much did he expect to receive in payment for his capital, expertise and assumption of risk. If the incentive is intended to provide an economic inducement, that is, an unearned return beyond that which would have been required by the investor, it is necessary to first know the investor's expectations with respect to returns. In this regard, it has been very difficult to find any empirical investigation/estimates of investors' expected returns from mixed-use development as compared to other classes of real estate or other types of investment.

There is yet another way of viewing the amount of bonus required and the method of its calculation. Generally, the amount of bonused density is argued to be dependent on existing and expected market conditions, with feasibility analysis being necessary to determine the final density figures. However, as Clayton Research Associates have argued, any increase in

94 The problem of differentiating "earned" returns from "unearned" returns is endemic to investment analysis generally, and not limited to the application of bonuses (although critical to it).

permitted densities will result in a relative advantage (additional density for a zero land cost) for existing landowners in the bonus area. As such, they argue:

"The correct additional residential density is a function of other planning considerations. In other words, good planning principles and the ability of the infrastructure to support additional density may dictate a set of maximum density regulations or parameters within which it would be prudent to keep new development."

One could argue that density maximums should be defined only by the same non-economic considerations (environmental impacts, service capacities, etc.) which provide the basis for public land use control generally.

2. Can The Incentive Remain Over Time?

Both the literature and the feasibility studies examined argue that the determination of final bonus ratios/densities must, by definition, reflect those densities required to create an incentive. Feasibility analyses have typically been based on current, short run market costs and prices, particularly where the analyses consider only the first year's operating flows. Following the subsequent re-zoning, the bonus ratios/densities may be unchanged for many years despite changes in market conditions which occur over time. The initial ratios/densities will reflect only the current cost/price relationships in

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residential and office markets. If at the time of the bonus system's construction, the relationships do not favour housing, a relatively large bonus may be required. However, as costs or prices change, or where government interventions are modified, the basis for rationalizing the chosen ratios/densities will shift. The densities required to initially create the incentive may become excessive or insufficient within a very short time, particularly where market conditions are rapidly changing. The bonus has no way of automatically adjusting to changing circumstances so as to maintain a satisfactory incentive (where one exists). It is not reasonable to assume that all aspects of investors' and the market's variability can be incorporated into a prescribed ratio of permitted/bonused densities which will continue to provide an incentive through time. If an incentive is to be maintained (if, in fact, one exists at all), the bonus ratios/densities must remain responsive to periodic shifts in market conditions. It might be desirable, therefore, to have in place a bonus system which always provides an incentive to at least some landowners and one which is capable of adjusting to changing market conditions. But while a self-adjusting system would be most practical, no such system appears to exist in practice. Ideally, a system by which the

[^97]: It is worth noting that in several feasibility studies (Realssearch, 1974, 7-9; Wilkin, 1979, 104) market conditions were so poor (i.e. construction/financing costs too high and expected revenues too low) that substantial decreases in assumed land value and increases in permitted densities were only expected to have a marginally beneficial impact on project feasibility.
market's actions ensure that an incentive exists (but which also keeps it to a minimum through competition) might be the most efficient and most easily manageable. The method by which the value of Transferrable Development Rights (TDR's) is established through the interaction of buyers and sellers might provide a starting point for beginning to construct such a system. Alternatively, the density ratios used in a given bonus scheme could be monitored regularly and adjustments made as market conditions change.

3. **For Whom Is The Bonus An Incentive?**

It was argued earlier that, in competitive markets, land values should adjust in the long run (if not immediately) to capitalize any economic value which the bonused density generates at a given point in time. As such, it has been argued that any unearned returns or "incentives" generated by the bonus are likely to accrue only to the original landowner. Subsequent owners may still capture unearned returns if market conditions become significantly more favourable for development (or if sellers were not well informed), but those returns will not have been created as a result of the bonused density. It might be desirable for the expected returns associated with the bonused density (or the amount of bonused density itself) to remain uncertain—contributing to greater uncertainty in the market and making it difficult for existing landowners to demand a high premium for the residential development potential.
Superficially, one might expect greater uncertainty to lessen the extent to which future benefits are capitalized into land value. Realistically, one would expect the marketplace to quickly develop other means of estimating the expected value of the dwelling units and the probability of being granted a particular amount of bonus on a given site. Participants in the land market would carefully watch the outcome of development applications and the success/failure of mixed-use projects. At the same time, approving agencies would likely be criticized for having vague goals and being unpredictable or arbitrary in their approvals. Still, with limited discretionary powers the approving authority might retain some chance of rewarding developers for providing housing.

Where the introduction of density bonuses follows the down-zoning of commercial development potential (as has occurred in several cities), it is questionable as to whether the bonus will create any incentive at all, especially for recent land purchasers. Land values prior to down-zoning will have reflected the previous commercial potential. When that potential is reduced, existing owners may incur a real or, at least, an opportunity cost in terms of diminished land values. The premium created by the residential bonus may or may not fully compensate owners for the loss in value.\(^9^8\) Where compensation is insufficient, one might expect landowners to hold the properties until they are able to either sell or

\(^{98}\) Dewees, 1975, 45; Western Realesearch, 1974, 21.
develop them without incurring a loss. Depending on market conditions, the amounts of density involved, and the holding ability of investors, the adjustment in land values could require a long period of time (during which housing may not be built).

4. Do All Landowners Receive An Incentive?

Finally, it has been argued that only some of the original landowners may receive the full benefit of any incentive generated by a bonus—those who have no long term intentions of remaining active in the market. For repetitive, "permanent" developers/investors, the unearned returns generated by their first development or land disposition will be required for the purchase of new sites in the area (now having an added premium for the bonused density). This group will be required to value their existing land holdings at their current market value and will thereby reduce the level of return achieved, perhaps to a point which eliminates unearned returns. In the end, the bonus might create unearned returns for "one shot" developers and land sellers but, for repetitive developers/investors, it may only contribute to higher land costs for future acquisitions.
F. **SUMMARY OF CRITICISMS**

It has been argued that the method of calculating the amount of bonus required to create a meaningful incentive for long term investors has been grossly over-simplified, if not misrepresentative of investors' likely returns. A far more sophisticated methodology would be necessary to provide a more credible estimate of the required incentive. Secondly, even if the incentive were accurately calculated at a given point in time, its value could be expected to fluctuate with changing market conditions. But even if it could automatically adjust for market changes occurring over time, land value and investment theory both suggest that the incentive's economic value would likely be capitalized into land value and lost to subsequent purchasers. In particular, original landowners (at the time of the bonus's introduction) who chose to sell their properties may capture an unearned return, absorbing any "incentive" generated by the bonus. Subsequent landowners could be expected to pay for the bonused density and, depending on prevailing market conditions, the residential component may result in either an economic advantage or financial burden for the mixed-use project.
V. BEYOND THE BONUS

Recognizing the market's tendency to eliminate all but the most expensive housing from the core area it is clear that public efforts to encourage or to ensure its provision represent a major intervention into the workings of the marketplace. In the absence of such public initiatives there is every likelihood that the growth of downtowns will continue to be dominated by business expansion, making the prospects for a larger residential base in the area even more distant.

The goal of increasing the stock of housing in the area may be appropriate; indeed, one is hard pressed to find a large North American city that is not supportive of the goal. Housing is argued to be desirable not only for its own sake (lifestyle/locational choice, efficiency of public investments) but also for the support which it is believed to lend to other activities occurring in the area (market support, labour supply, safer streets/parks, and so on).

The preceding analysis of the potential effectiveness of residential density bonuses suggests that the technique, at best, may be effective for only a small group of original landowners. While subsequent owners may construct mixed-use projects, such initiative is most likely to come from improved residential market conditions, or legal requirements to do so (even if the financial returns are minimal). Despite the
need for additional interventions to support housing, it is
difficult to argue that, in the long run, bonus schemes are not
beneficial, if only in a very limited way. They may make
several valuable contributions towards increasing the supply of
downtown housing:

- by drawing attention to the city's efforts to
  stimulate housing construction;
- by encouraging the development of mixed-use
  projects which, themselves, might stimulate
  development and consumer interest in downtown
  housing; and
- by providing an incentive for at least some
  developers to provide housing.

Although residential density bonus systems are probably not
capable of satisfying the high expectations which their
proponents may have for their effectiveness, dismissing their
contribution entirely would probably do the technique a
disservice.

In creating a residential environment, whether at the unit
level or for the mixed-use area as a whole, simply providing the
units through density bonuses may not satisfy a more
comprehensive set of public objectives with respect to housing.
A blanket bonusing approach may lead to housing in undesirable
situations and/or forms. There may be need for additional
control provisions/incentives related to qualitative aspects of
projects, the integration and interface of different building
activities, and to the relationship of new buildings to adjacent sites/buildings. Additionally, there may be required special provisions for the treatment of small sites, the phasing of development and the transfer of development potential.

Recognizing the bonus's limitations, it is useful to briefly discuss other techniques/actions which might be used to augment or use in place of bonus systems. The course of action in a particular situation would depend on the underlying goals which housing was expected to achieve and, as noted earlier, these may be related to either the spin-off benefits accruing to other downtown activities or to the benefits of housing for its own sake. Each will be discussed in turn.

A. HOUSING AS A "MEANS"

It is not inconceivable that the interests which dominate a municipal council may be supportive of housing only because of the expected benefits for downtown businesses and pedestrians. What is perceived as most important would be the numbers of people which housing might contribute to the area, and not so much the presence of the housing itself. In addition to techniques aimed at increasing the housing stock (discussed in the next section), there may be several "non-housing" actions which could be equally and, perhaps, more effective in increasing the number of people using downtown.

One approach might be to increase the amount and variety of
activity in the area and so increase its drawing power. Techniques might include the provision of incentives for crowd-generating activities (e.g. theatres, restaurants, a marketplace or exhibition center). The incentives might include density bonuses, land subsidies or joint public/private ventures. Complementing or leading these new activities might be the undertaking of physical improvements to the downtown's public area's - sidewalks, plazas, parks, natural amenities, and so on. In addition to physical/design improvements (lighting, landscaping, accessibility, signage, etc.), efforts might be made to provide a skeleton program of special events or entertainment for public areas.

A second approach might involve improving public accessibility to the area - if it is easy to enter by foot, car, bicycle or public transit, the volume of downtown users might increase significantly. Specific actions might include improving pedestrian routes into and through the area, increasing access to parking facilities (and/or lowering parking rates during non-working hours), designating bicycle routes while also providing storage facilities, and improving bus service and/or lowering fares for shoppers during non-working hours.

A third approach might involve substantially increasing residential densities in areas immediately adjacent to the downtown. Greater resident populations within a convenient walking or busing distance might lend support to the area's
retail activity and increase pedestrian volumes on principal shopping/access streets.

Each of these approaches requires public commitment and a degree of cooperation between the public and private sectors. A community might embark upon all three approaches and achieve many of the goals which housing is also aimed at realizing. It is conceivable that the improvements to the area's activity base and image might fuel market demand for housing in the area and, in the long run, contribute indirectly to increasing the area's residential base.

B. HOUSING AS AN "END" IN ITSELF

Where communities wish to develop a substantial housing stock downtown, for its own sake, they may choose to utilize a bonus system but they would probably be better served by directing their energies to the use of other methods. Residential density bonus systems must be kept in perspective with other mechanisms for providing housing - mechanisms which may be more effective and less costly in particular situations. While it is beyond the scope of this thesis to discuss the relative advantages and disadvantages of alternative mechanisms, it is worth identifying several which have been used by local and federal public agencies before. By far, the majority of mechanisms are aimed at stimulating the supply side, encouraging/requiring developers to provide housing of some type or amount. Among the mechanisms which provide an inducement
are:

- public subsidies of the financing costs of the residential component;
- property tax exemptions;
- relaxation of existing land use controls;
- shortened processing/approval periods for residential and/or mixed-use projects;
- increasing the supply of land zoned for residential uses; and
- direct public involvement aimed at stimulating and facilitating the market or filling in sub-market voids which the market has failed to satisfy. Mechanisms include land assembly, direct construction/management, joint ventures and demonstration projects.

Other mechanisms are of a more prohibitive nature, aimed at forcing the inclusion of housing or restricting the opportunity to develop other uses. These mechanisms include:

- re-zoning land (parcels or areas) to permit only residential or mixed-use structures;
- inclusionary requirements\(^9\)
- restrictions of residential development potential

\(^{9}\)It is worth noting that while bonuses were intended to fall within the former "inducement" category, once subsequent owners have paid for the bonused density, the bonus may be, in practice, little more than an inclusionary requirement (particularly where it is matched to bonused commercial density).
in competing areas outside of the downtown.

A second group of mechanisms may be used to stimulate the demand for housing in the area. These include:

- household income support for renters and/or condominium purchasers;
- an increased number/variety of activities in the area which make it a more appealing place to live;
- improvements in the provision of support services for area residents (homecare, childcare, etc.) and in the amount and quality of public amenity areas.
VI. DIRECTIONS FOR FURTHER RESEARCH

Debates over the desirability of housing in the downtown, and the most effective ways of providing it, are subjects which invite and require further exploration and research. Issues related to the social, environmental, physical and economic implications of the possible scenarios for the downtown provide ample latitude for both focused investigation and cross-disciplinary analysis, whether one's interests lie in theoretical constructs or case studies. The following re-statement of some of the "unknowns" discussed in the thesis might provide some initial ideas for further research.

- How valid are the arguments which underly the goal of increased housing? What are the full range of benefits and costs to be considered and to what extent can they be measured and compared? How should the technical analysis be organized and presented to decision-makers so as to clearly identify the consequences of the options which exist? How much impact has downtown housing had on vitality in specific downtowns?

- Can those who might choose to live downtown be identified and their numbers estimated? What kinds of housing (form, unit size, cost) are required to meet their demands? What amount of subsidy/unit would be required to make the units viable within
specific situations?

- What are the implications of different ratios of residents/employees in terms of any measurable, comparative indicators (e.g. retail vitality)? For a particular city, what would be the implications of having no housing whatsoever in the downtown, as compared to policies advocating as much housing as employment, more housing than employment, and so on?

- How do investors' returns from mixed-use buildings compare with returns from single purpose buildings? To what extent are additional returns, beyond those received for single purpose buildings, necessary to compensate developers?

- Are the occupants of mixed-use buildings satisfied with the combination of uses and form in which they live? To what extent are the uses mutually supportive? What expectations/attitudes do residents have towards any sense of cohesion which may or may not exist among residents of different buildings? Should any effort be made to provide or protect those features of the downtown which might contribute to a sense of community, however that might be defined?

- How could a bonus system be designed to be self-adjusting as market conditions change? How might the benefits of a bonus be assured of falling upon
those who build housing, and not on those who previously owned the land?

- How much commercial development potential does a given downtown need to accommodate its growth and ensure sufficient competition in the land market?

- What has been the actual impact of residential bonus systems in select cities in terms of the number and kinds of units built, the role of the bonus in affecting the development decision and the pattern and form of the downtown's residential component?

- In particular situations, how effective might other mechanisms be in stimulating housing construction in comparison to density bonuses? What kinds of public commitments would be required?
VII. CONCLUSIONS AND IMPLICATIONS

A community can choose the kind of downtown which it wants - there is no prescribed, single solution for what or how it should be, although there are costs and trade-offs associated with each choice. The recent experience of large North American cities suggests that, on paper at least, policy makers have wanted their downtowns to become both a center of commerce and a symbol of the community's vitality and character. In practice, however, the bias towards sustained employment growth has clearly dominated both the public and private sectors' attitudes towards the area's role and potential. While efforts have been made to stimulate the provision of housing, the consequences of commercial expansion (high land costs, speculation, deteriorating environmental quality) have stifled most attempts to protect or introduce housing into the area. In the competition for space, housing has little leverage against the ability of commercial activities to generate higher returns and so bid higher prices for land. Public policies aimed at pursuing and supporting both employment and residential activities appear ambivalent, for the scale of commercial development seems to have precluded the possibility of a greater amount of housing. Clearly, the desire to encourage housing and the ways in which employment growth is accommodated cannot be considered in isolation from one another.
The findings of this investigation have implications for both the future role of downtowns and for the construction and choice of mechanisms used to influence or control the use of land. Firstly, the question of whether there should or should not be more housing in the downtown must be viewed more as a strategic choice (what downtown should be) than as a bandaid for the area's problems (i.e. being lifeless, unsafe, inefficient). The downtown's role as a legitimate and desirable residential area has implications far beyond the practical matters of how to provide housing. For example, the determination of a relative or "target" balance between housing and employment, (be it defined in terms of acreages, floorspace, population sizes, growth rates, or whatever) would seem to be an obvious requirement at the policy level, yet there is little indication that it has been rigorously examined in the majority of downtown planning studies reviewed. One would expect that a more explicit description of the area's residential role might begin to bring into question the assumed continuation of unconstrained employment growth in the area. Where housing is to serve only as an appendage to the expansion of business, the likelihood of housing being developed downtown, and the quality of the resulting living conditions, probably become matters warranting re-consideration. Additionally, the need for housing within the downtown's commercial areas should be re-examined in light of the contribution which adjacent residential precincts can make to the downtown's vitality and efficiency. It may be sufficient to have relatively dense
resident populations adjacent to the downtown without requiring that people live within the commercial areas themselves. Dwelling units may be permitted in commercial areas, but not specifically encouraged (through incentives) or mandated (through development requirements). As discussed earlier, there appears to be little evidence of the impact of existing or projected residents within commercial areas on the realization of broader public goals for those areas.

Secondly, the illusion that most developers receive economic incentives—and that the bonus is likely to be a decisive means of achieving the goal—should not be promoted without more convincing arguments first being established. The suggestion that a residential base can be generated on the back of commercial development is perhaps wishful thinking. In relying on density bonuses, the timing, in fact the very possibility of achieving the desired residential outcome is still a function of the marketplace, and policy makers may feel that that is not good enough. Where potential downtown residents cannot support the costs of housing, it is unlikely to be developed. The usefulness of residential density bonuses has probably been over-sold—in fact, where residential densities are simply added to existing densities, the result appears to be nothing more than an "up-zoning"—a benefit to original owners but nothing that will provide an incentive over time. Likewise, the combination of additional commercial/residential densities is equally unlikely to provide an incentive to any but those original owners who choose to sell, rather than develop
their properties. On balance, despite the small contribution which bonuses might make to public awareness and mixed-use development, their presence may actually do more to undermine efforts to encourage housing by casting the illusion that something constructive is being done, and that housing will emerge because the bonuses are in place. A recognition of the limitations of bonuses may, in fact, do more to stimulate the creative development of alternative means for providing housing in the downtown, and thereby improve the likelihood of residential development occurring. As such, the alternative mechanisms identified in Chapter Five may be the only effective way of ensuring the introduction of any amount of housing downtown.

Thirdly, if policy makers are intent on having more people live downtown they will have to demonstrate a stronger commitment than simply providing incentives and subsidies to stimulate the construction of suitable dwelling units. There may be need for public improvements with respect to the delivery of social services, the provision of open space and public facilities and the level of environmental quality generally.

This investigation has drawn attention to the need for ongoing evaluation of new techniques in planning and land use control. While residential bonuses have only recently been applied in the downtown, the need for a more rigorous examination of their application is both warranted and overdue. It is hoped that this investigation will contribute towards such
an examination.
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