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## Studies and researches regarding the urban policies impact on land valuation

The authors develop a concept paper on the economic valuation of land. They detail the basic principles corroborated with the direct factors that modify the mathematical parameters and also the impact of construction on the land. Starting from the principles of Darin Drabkin, the authors develop, within the concept of a market economy, an urban land sale procedure by optimizing the control of land instruments. This study asks about the expected consequences of increasing the tax rate on the land component of real estate while reducing the rate at which the improvement is taxed. The first part briefly presents the consequences that land taxes are expected to produce given our theoretical understanding of land markets. These conclusions are blind to the planning and the institutional context of the development process. The consequences of moving from a general property tax to a land value tax in the Toronto and Ottawa regions are assessed by interviewing developers, planners and municipal finance officers. The conclusions summarise the main concerns that would be raised by moving toward land value taxation in the context of a growth management strategy that would make cities more compact.

Key words: *Valuation,*

*expertise, taxation*

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### 1. Methods

Land taxation policies have been used in some parts of the USA, Australia, Denmark, Syria, and Spain with the intention of stimulating development and increasing the intensity of urban land use (Lichfield and Darin-Drabkin 1980). The tilting of tax rates to place a greater burden on the land portion of real estate has also been used in Western Canada, New Zealand, South Africa and Jamaica to promote development. National land taxes in Japan were introduced to reduce speculation, stabilise land prices, and improve the efficiency of land use. Land taxes in Korea were intended to penalise the owners of under used land and combat monopolistic land accumulation (Youngman and Malme 1994). Indeed, Lichfield and Darin-Drabkin (1980: 92) describe the land value tax as "one of the oldest of the proposed remedies of the ills inherent in the urban land market".

### 2. Results

The expected consequences of taxing land rather than real property are summarised in the literature review by Skaburskis (1995). The move toward land value taxation can affect the substitution of capital for land in the production of real estate services, the accumulation of non-land capital within the economy, and the timing of development. The tax may induce regressive income redistributions as

old buildings are replaced earlier than they would if a more neutral tax was used to finance local services.

### *The Substitution Effects and Density*

The traditional assessment of the general property tax separates the tax base into a land and a building component. Netzer (1966: 204) points to the neutrality of a tax on the land portion of real estate, "since no possible response to the tax can ... improve the situation, assuming that landowners have been making maximum use of their sites prior to the imposition of the tax". The tax on improvements, however, distorts the returns a property owner can gain from the building relative to the returns that can be gained from alternative investments. The tax on improvements to land raises the perceived cost of buildings and the owner can reduce the tax burden by designing projects that use relatively more land in comparison to improvements. This leads to lower than optimum densities and forces the city to spread more than it would had a perfectly neutral tax been used to finance local services and infrastructure. By placing much smaller burdens on the owners of vacant land, the property tax encourages owners of under-developed land to hold it in this state for longer periods of time.

The analysis of the substitution effects by Brueckner (1986) shows that reducing the tax on improvements and increasing it on land within a part of a region can, in some cases, increase development activity and the demand for land by builders. The net effect of the increase in the tax rate on land, coupled with a revenue equalising decline in the rate on improvements, can lead to an increase in land values when the policy is applied to a small part of an urban region. The surprising implication of the analysis is that the positive effects of the lower improvements tax dominates, so that gradation gradation: see ablaut. unambiguously raises the value of land (Brueckner 1986).

This conclusion departs from the traditional view by showing that land prices are not always lowered by land value taxes. When the land value tax is applied in a small part of the housing market and the overall supply of housing in the region is unchanged, the policy can attract development activity to the area that exempts the tax on improvements. A land value tax implemented in a special district can increase development activity in that district, raise the density of new development and raise the price of land. The instrument may, therefore, be an ideal method for recovering the cost of major infrastructure investments such as transit lines and stations as it stimulates the early development that is needed to take advantage of the infrastructure investment.

### *Capital Accumulation Effects and Housing Prices*

The "new" analysis of the possible effects of a tax on land value follows two strands. One considers the effect of the tax on savings and capital accumulation while the other focuses on its effect on the profit maximizing timing of develop-

ment. Feldstein's (1977) article points to the indirect consequences of land taxes on investment behavior. Since the tax on land reduces the value of land, investors end up placing a larger part of their savings in the produced capital, such as, the "non-land" capital. The resulting increase in the country's capital stock changes the capital/land ratios at equilibrium causing the productivity of land to increase. As a result of the land value tax, "the price of land does not fall as much as the traditional theory predicts" (Feldstein 1977: 351). Follain and Miyake (1986) expand the general equilibrium analysis and show that the move to a land value tax in an open economy increases the investment in improvements that would eventually lower housing prices. The indirect effect of a tax on land increases the propensity to invest in the capital placed on land and this should lead to an overall increase in the intensity of land use.

### *Timing Effects and Density*

The second branch of the new theory considers the effect of taxes on development timing and project density (Arnott and Lewis 1979). The move toward land value taxation may affect the timing of development decisions as pointed out by Bentick (1979), Mills (1981), Wildasin (1982), Tideman (1982), Evans (1982), Anderson (1986), and Arnott (1996). The tax on land value, as defined by the present value of the future rents that will be gained from the developed real-estate will penalise most the land that is best left for later development and, thereby, favours the earlier development of vacant land. By hurrying the development of land, the tax favours lower density projects in growing cities by increasing most the burdens on the land that is best left for later development. Delays would lead to development decisions being made in the context of higher land values which would result in higher density projects. The land value tax is, therefore, expected to make cities more compact over the medium term by reducing the amount of underused land within the city. In the long run all new development would have lower densities than would be the case with a tax that delays development. However, in comparison with general property taxes, the timing effect is not expected to fully offset the substitution effect that leads to lower densities. The net effect of a shift from a general property tax to a land value tax is an increase in density. A lively debate has ensued in the literature regarding the effect of the definition of the land value tax base on profit maximizing development decisions and the consequences of changing the definition (Skaburskis 1995). A tax on a general assessment of the best use of the land that is defined in ways that are independent of its actual or prospective use was thought to avoid the timing distortions that can reduce project densities. A "standard value" for the land in a part of the urban region would be defined without reference to the particular characteristics of individual sites so as to avoid variations in the land value tax that reflect differences in the capitalized value of the prospective buildings that might be placed on the land (Vickery 1982). The standard value would ensure that the owners of lots that are best left for later development, hence more dense development yielding high-

er rents per square meter of land, are not assessed at a higher value and penalized relative to the owners of lots that are to be developed soon. Wildasin (1982), however, shows that land taxes would be neutral, non distortionary with regard to the timing of development, only if subsidies were paid to projects yielding current net losses. Arnott (1996), in the most comprehensive analysis of both the timing and density effects of land and property taxes, shows that the only neutral tax policy would have different tax rates on pre-development land rent, post-development site value, and post-development structural value. Furthermore, Arnott's conclusion suggests that the tax policy, that would leave development decisions undistorted, would tax the land under the building while subsidising the built component. The subsidy would increase with density when building quality is held constant. In summary, the expected consequence of the move toward land value taxation is the increase in density through the substitution effect and the reduction in the propensity of landowners to hold vacant or underused land. A spatially limited move toward land value taxation, as in a special assessment district, is expected to increase project density and speed up development activity. The quest for a perfectly neutral tax with regard to density and timing is expected to be impractical and, perhaps, not desirable.

#### *Induced Redistribution Consequences*

The immediate redistribution consequences of a move toward land value taxation would be the shift of tax burdens from owners of well built out property to the owners of underused or vacant inner city land. In the long run the land tax would reduce burdens on the developers and eventual owners of property that exploit fully the advantages of a site and increase burdens on the other owners. The fairness of these redistribution consequences may be questioned on the grounds that the owners of underused land may have paid a price that reflects the future value of the land under the current tax regime and would suffer financial losses while waiting for their development opportunities to emerge. Developers may also be penalized for land banking and land assembly can become difficult if the tax burdens are not fully capitalized back into lower land prices. These redistribution consequences may affect landowners and developers differently at different points in time but the extent to which they lead to a more efficient spatial structure, lower infrastructure and municipal service costs, and an overall reduction of the tax burden on real estate, the land value tax can be expected to benefit most property owners in the long run. The transition period, however, would be difficult. The early removal of old buildings that do not make the best use of sites that are zoned for higher intensity uses advances land use efficiency goals but creates regressive redistribution consequences across tenant groups. By increasing the holding costs of property, the land value tax may cause the early demolition of low priced housing and commercial floor space, reduce the supply of low priced space and, thereby, harm low income renters and marginal businesses. The new additions and the space offered in the commercial development may

increase filtering rates to counter the immediate regressive impacts in the long run. However, the land value tax may not be as harmful to lower income renters when compared to the general property tax that encourages owners to demolish their older low rent buildings to reduce tax burdens and leave the sites vacant while waiting for development opportunities to ripen.

The net redistribution effect of a move toward land value taxation, due to the change in development timing, is unclear.

### *The Interview Method*

The review of the theoretical literature suggested that a land value tax could be designed and implemented in such a way as to increase building activity, increase densities and reduce the tendency to hold vacant land in urban areas. However, the review of the empirical literature on land value taxation by Skaburskis (1995) does not yield conclusive results. The empirical studies of the Australian experience tend to reinforce the research worker's prior views. The analysis of the Pittsburgh experience is made difficult by the many other policies that were used in conjunction with the tax rate tilt to encourage the redevelopment of the city's downtown. The council's pro-development stance, for example, may have been more important than the tilt in tax rates. The failure of past research to empirically demonstrate the effects of land value taxes on development activity reflects the broad range of factors that simultaneously affect development and cloud the efforts to view the consequences of tax policy on urban form and regional development. Taxes are but one of many factors and their consequence may be too faint to observe through the noise created by the other factors affecting development in any one region. Cross-sectional studies may be inconclusive due to the many other factors that affect development and that can not be controlled for in empirical work. And finally, property and land taxes may just play too small a role in development decisions to create observable consequences.

This study recognizes that formal econometric methods are unlikely at this time to reveal the impacts of property or land taxation policy and attempts to approach questions regarding the consequences of land value taxation by asking developers, planners and local finance officers in the Toronto and Ottawa regions for their reactions and thoughts. The validity of this research approach is dependent on the belief that informed people can assess the impact of policy changes by drawing on their detailed knowledge of local conditions and on their past experience with development activity. At the very least, this research approach can identify the concerns that would be raised by the stakeholders in land development should land taxes be contemplated. The method can contribute to our understanding of the possible side- and after-effects of the policy and it can help develop implementation strategies. It is the best method for assessing the role of institutional and planning constraints on the possible consequences of land value taxation.

Municipalities within each of the two study regions were chosen for detailed analysis based on the desire to assure a mix of central core, mature suburban, newly

suburbanized and rural municipalities. Within each municipality, officials were identified in the planning and in the finance or economic development departments. The most senior official available who was informed on the topic was interviewed. Developers were chosen to represent a range of firm sizes, development portfolios, and geographical scopes of activity within each region. A total of 69 interviews were carried out in the two regions to focus on the factors considered in development decisions on project density, timing, location and use mix. The land taxation topic was raised with 39 key informants and their comments are summarized here. The distribution of the respondents by occupation is presented in Table 1.

Table 1. Occupation of the Key Informants.

Occupations of Key Informants	Ottawa	Toronto	Total
Finance Officials	6	6	12
Developers and Builders	7	9	16
City Planning Officials	5	6	11
<i>Total</i>	<i>18</i>	<i>21</i>	<i>39</i>

The use of interviews to gain information on the impacts of contemplated policy changes on urban development trends is problematic for several reasons. People are expected to offer self-serving answers. Interviewees may not be aware of the consequences of taxes on urban form or they may be unable to predict their own reactions to hypothetical changes in future policy. Their actual behaviour may be different from their stated behaviour and their opinions may therefore not reflect the actual consequences of changes in the tax policy. In addition to these difficulties are problems that may be created by the respondent's adverse reactions to the hardships induced by the transition to a new regime. George Break (1973) used to say that "an old tax is a good tax" because its burdens have been either capitalized or people have become used to new patterns of choice and behaviour. We anticipate these problems and have tried to adopt appropriate counter-measures. To some extent the problems are reduced by our interviewing municipal planners and finance officers who have different interests from developers. Furthermore, we made an effort to interview developers in different market sectors, such as, some with large land holdings and some who do not bank land, some involved in green-field development and some more closely associated with infill development, some engaged in exclusively low density tract housing development and some also involved in higher density condominium or rental development.

### *The Developers' Views*

The notion of land value taxation was unfamiliar to most of the 16 developers asked about land taxation; only four had heard of the concept. The other 12

required an explanation before they could begin answering questions about its potential impact. Ten out of thirteen developers that expressed an opinion thought that a tilt in tax rates would make raw land less attractive to purchase and develop and would reduce the value of vacant land. The degree to which land prices were reduced was seen to depend on the length of the approvals process because this determines how long the developer has to pay the higher taxes before the land can begin generating revenue. Reduced land values would in principle have the effect of making land easier to assemble and the increased carrying costs would pressure owners to develop vacant land quickly. However, the developers we interviewed warned that a shift to land value taxation would play havoc with the existing development process and dampen development activity in the long run. Most significantly, seven developers observed that the market place and the planning process set the rate at which raw land is converted to urban uses. Property owners do not tend to hold land vacant while waiting for allowable densities to rise. Rather, they try to develop their lands at the earliest opportunity. They develop when a market for the product is evident, when services are in place and when planning approvals have been obtained. These views of development timing differ from the dynamic profit maximizing behavior described in the theoretical literature. By raising the costs of carrying vacant land, the shift to a land value tax would increase the risk associated with the holding of land for development. In the worst cases, land value taxation was seen by developers to produce bankruptcies and cause some of the landowners who were waiting for approvals to "walk away" from their properties. The increased pressure to obtain approvals for immediate development would inundate planning departments and the appeals court as landowners, panicked by the announcement of the tax, try to rush their developments through. The land value tax would discourage large-scale land development and force developers into an inefficient process of purchasing small parcels of land only after they were convinced the market could absorb the product. This would tend to counteract the expected impact of lower land prices on the assembly of land. Not only would the development process become less efficient, it would be less fair than the current property tax system, undermining political support for the policy. The combination of high carrying costs and higher legal costs would favor larger developers and eliminate the mid-sized players. The reduction in land values would penalize the original landowners, often farmers whose operations on the urban fringe are already financially marginal. Some interviewees claimed that the higher carrying cost of land and the disruption of the development process would result in higher housing prices that would prevent lower income households from entering the homeownership market. A land value tax was thought to be inequitable because vacant land with no source of revenue would be taxed at the same rate as built-out land that generates a revenue stream. This would be a significant change from the existing principle that taxes should be linked to the demand a landowner makes on public services. The land value tax was seen by some respondents as a subsidy to the owners of already developed lots. One developer dismissed the idea of a tax designed to capture increases in land values on the grounds that they are already paying for the infrastructure

that enhances land values through high development cost charges. Developers did not recognize the social costs of keeping serviced land vacant.

The impact of a land value tax on development densities was also explored. Of the eight developers who offered firm opinions on the density impacts of a tilt in tax rates, six predicted that the change would increase project densities while two thought it would leave densities unchanged. Four residential developers thought that a land value tax would encourage the intensification of urban land use. They reasoned that if a land value tax has the effect of increasing the carrying cost of vacant land and reducing the cost of developed land, then developers would want to seek approval on the end use that had the highest value. This is entirely in line with the theoretical conclusions. However, this view was contradicted by two residential developers who claimed that market factors were of overwhelming importance and that taxes would not affect their choice of housing mix, hence their choice of density. Two commercial developers observed that a land value tax might reduce demolitions of under-tenanted buildings and leave the space on the market at a lower rent.

Even the developers who agreed that a land value tax might discourage speculation in vacant land and the demolition of existing structures and encourage higher density uses, thought that the tax would constitute an unjustifiable intervention into the property market and would distort the development process in highly destructive ways. They also thought that the rationale for a land value tax rests on the erroneous assumption that developers are in control of the land development process, that developers hold vacant land until it suits them to develop. The respondents saw themselves as being more passive actors reacting to markets and to the development approvals process. They build when the market for their product becomes apparent, not when they think that their long run profits are maximized. None of the developers would hold back on a financially feasible development because they thought that higher densities in the future might yield higher profits. The respondents uniformly favored the market value assessment of both land and improvements and thought that this was the fairest and most administratively efficient basis for local taxation. Where distortions were acknowledged, modifications to the market value system would be better than a wholesale shift towards land value taxes. For instance, one person noted that commercial demolitions could be prevented by using a graded property tax proportional to occupancy. In other words, demolitions could be prevented by charging lower, not higher, taxes on underused land. As expected, developers favor tax reductions.

Although some of the officials who expressed an opinion believed that a land value tax would provide an incentive for developing vacant land within built-up areas, they pointed out that this was only one factor determining the timing of land redevelopment. Officials in the central cities noted that most vacant land is unoccupied because it is zoned for industrial use (with councils reluctant to rezone for fiscal reasons) and soil contamination makes redevelopment of industrial land uneconomical. Some officials worried that the pressures for increased density created by a land value tax could result in "concrete canyons" and reduced urban vitality. They pointed out that many residents oppose high-density development

because of the associated increase in congestion of local services and amenities and because of the change that higher densities will bring to the social character of their neighborhoods.

However the officials, like the developers, were not sure that reduced land prices would make land easier to assemble as the higher taxes would make it harder to carry large land parcels and would encourage developers to phase their projects. Although the municipal officials generally agreed that the property owners in their cities did not routinely engage in speculation, they believed that a land value tax would reduce the small amount of speculative activity that was taking place. In terms of side-effects, the officials were concerned about the impact of a tilt in tax rates on residential neighborhoods and municipal revenues. A land value tax would be more volatile than the current tax regime because of the tendency for land values to fluctuate considerably from year to year. When zoning allows higher densities, the move to a land value tax would lead to sharp tax increases on low-density residential properties in the core areas which until now have been protected by shifting some of the tax burden to industrial and commercial uses and disrupt long established neighborhoods. Although municipal officials were less concerned than developers with potential bankruptcies due to higher carrying costs, concern was expressed that municipalities could be left with unpaid taxes if developers walked away from their land holdings as a result of the change in tax policy. Finally, central city planners were concerned by the fact that the land base is largely outside the core area and that a land value tax would ignore the major asset of central cities, namely the capital embedded in the built form. Central city planners were more supportive of land value taxation if it were to be applied on a region-wide basis with a pooled assessment base. Municipal officials expressed the view that land value taxation was politically untenable because of the dramatic shifts of tax burden during the transition period and because of the lack of correspondence between the tax assessment and the revenue potential of the property. However, if applied in specific districts rather than across the region, a land value tax could be politically acceptable. The land value capture tax (also called "benefits sharing tax" by the province, or "betterment levy" elsewhere) was considered attractive because it would be more closely tied to benefits derived by developers, while the municipality would recover a portion of the value increase that results from public investment.

Because of the mismatch between the development pressures created by a land value tax and existing institutional and cultural conditions, both the developers and planners agreed that the tax would be unfair and would make the development process less efficient. In the core areas, the redistribution of the tax burden towards older residential areas of the city was seen to be unfair as owners of lower valued property would be asked to pay more taxes. The tax would generate conflicts over density issues, lead to volatility in assessments, and create spatial redistribution flowing from the fact that the largest part of the taxable land base is seen to be in the suburbs, not in the central cities. Individual respondents suggested ways of handling these side effects. For instance, financial officials in the central cities suggested region-wide tax pooling as a way of maintaining the as-

assessment base of central cities under a land value tax system. Municipal planners suggested that increased attention be given to zoning considerations as a way of controlling density changes. In the peripheral areas, the problems include financial penalties on farmers, bankruptcies of smaller development firms, and an increase of development pressures in areas not yet "ripe" for development. If taxes are raised on "underused" peripheral lands, then owners will rush to expand the suburbs and increase the spread the urban region. Some officials thought that the problems could be addressed by stricter planning controls and improved staging of infrastructure investments. Arnott (1996) has suggested that it would be appropriate to exempt the peripheral land from property taxes until after the land is ready for development. This would require extreme sensitivity on the part of planners to designate land for urban development as the market for different building types expands. A fundamental concern of both developers and municipal officials in both mature and newly developing areas was that a land value tax is not linked to revenue potential. The land value tax does not score well on the "ability to pay" principle. A land value capture tax applied in discrete areas of the region where major public investments were being planned was suggested as an antidote to this concern and as an alternative to a broad based tax to correct for the distortions induced by general property taxes. When land value taxes are limited to specific sectors receiving infrastructure investments that are not covered by development cost charges, the policy can raise land values by channeling development to that sector.

### 3. Conclusions

The interviews generally confirm the main expectations developed by reference to theory:

- Land value taxes would speed up development.
- They would lead to more intense land use.
- They would reduce speculation.

Arguments against the land value tax include the unfairness claim due to the tax not reflecting the property's revenue potential. The two cities do not have the problem with vacant lots and the tax would increase inner-city development without the destruction of existing low rent buildings. Arguments regarding the unimportance of taxes in the development decision making process appear to be unfounded as the interviews could raise animated discussions on the harm that could be created by land value taxes such as, drive out the small developers, raise housing prices and exclude lower income households from the housing market all serious matters for public concern, all impacts that developers have attributed in the past to public policies that threaten their cash flows and possible profits. Either the developers were simply reacting to "unknown devils" or they could foresee the tax as having a real impact on their decisions. Efficiency concerns are also raised: More density may not be wanted in the inner city, smaller developers may,

in fact, be driven out of business by higher carrying costs and the development industry may become less competitive; staged development would be encouraged if the tax burdens are not fully capitalized back into land values and smaller scale projects may, in some cases, be less efficient than larger scale comprehensive projects; the transition period would create bottlenecks in current approvals processes and delays would become more onerous for a period of time; the rush to redevelopment in some parts of the city induced by the “announcement effect” of the policy would raise NIMBY concerns that would generate opposition to the policy.

A serious concern is raised by the possible spatial redistribution effects that would be brought about by a move to land value taxation. Inner city planners and finance officers believe that, because the largest amount of land is at the periphery of the city, the largest share of the tax base is in the suburban municipalities. Developers are most concerned about the increased cost of holding raw land during assembly or for future development. Arnott (1996) shows why the land at the periphery should not be taxed and justifies the exemption of agricultural land. Several policy-related conclusions follow:

- the land value tax should be applied within a designated urban boundary and not on raw or farmed land in the path of urban expansion. Taxing the land outside the urban boundary would increase the spread of the city by increasing the pressure for early development. The holding of land at the periphery by long term investors increases its price, which leads to higher density development and advances urban containment goals provided that leapfrog development is prevented.
- Land value taxes, coupled with tight designations of development sectors, can make cities more compact, but market conditions do not always evolving as planners assume. Delays in development may leave landowners with large tax burdens that are not supported by revenues. Thus, a land value tax may be a means of shifting to the owners of land a larger share of the costs attributable to market uncertainty.

The exclusion of raw land outside the development zones from the tax base means that almost all of the tax base is in the built-up part of the city and that the tax burdens placed on the owners of underused property in the inner city will be large. Assessment difficulties will be created by the dependence of the assessed land value on planning decisions. In the inner city, the size of the tax obligations will depend on the appraiser’s views regarding city growth, which may be affected by growth management plans and by the neighborhood’s redevelopment potential as determined by markets and land use controls. The distribution of tax burdens in the periphery will depend on the city planner’s designation of the development sectors, on their location, extent, and timing. Whether or not the anticipated difficulties and their associated legal costs mean that land value taxation is not worth considering depends on the severity of the problems that are generated by current growth patterns.

The implementation of a land value tax, in conjunction with the designation of development sectors, requires the close coordination between public sector

planning agencies and private sector development companies. If larger developers are able to deal more effectively with city planning departments than small developers, then equity and efficiency issues are raised.

The prospect of a sudden increase in tax obligations will make property owners want the designation of development sectors delayed until development is imminent. This will reduce the amount of land available for development at any one point in time and run counter to the goals the Province of Ontario had when insisting that municipalities keep a ten-year supply of land zoned for conversion to urban use and that a part of it be left for low-priced housing. Urban containment policies - whether they are tax policies or regulations - that do not explicitly address housing affordability problems, are regressive.

A land value tax may meet with NIMBY resistance because of its association with increased development densities. If this response leads to planning regulations that prevent higher densities, the rationale for implementing a land value is defeated. Fears about neighborhood destruction could be intensified if the sudden switch to a land value tax leads to a rush by owners, trying to avoid the new tax burdens, to redevelop their properties.

The implementation of land value taxation may create more short-term problems than the policy is expected to resolve. Site-value taxation may be superior to the present system of real property taxation, any conversion to such a scheme for local taxation in Canada would undoubtedly impose severe transitional costs on certain groups or individuals leading to unforeseen windfall gains or losses. For this reason and because there are not reliable estimates regarding the value of either the benefits of site taxation or the cost of making this change it would be quite unwise to consider seriously such a transition at this particular time".

Given the difficulties, are there any conditions that would make land value taxation worth considering? Possibly two.

1. Municipal or regional growth management. It appears that land value taxes will increase densities, speed up development and penalize the owners of underused urban land. They can, therefore, have a place within the pallet of instruments used in comprehensive growth management. But whether or not a growth management policy is effectively implemented will depend on the willingness of municipal councils in the region and the general public to bear its costs. (2) When the public does not recognize, and is not seriously concerned about, impending growth-related problems, as appears to be the case in Toronto and Ottawa at this time, the implementation of land value taxation may create more trouble than it is worth. In the absence of a strong consensus in favor of growth management, a series of tilts in the tax rates that gradually increases the burdens placed on land while reducing them on buildings will help reduce urban sprawl while avoiding the problems created by the announcement of a major change in tax policy.
2. Special service districts. The use of land value taxes in special districts to cover the cost of extraordinary infrastructure investments such as subway lines and stations would speed up the development that is needed to justify the investment, increase the density of development and thereby the number of users

of the services being constructed, and spread some of the risk associated with the public sector's investment to the primary beneficiaries in the private sector. The land value tax could be introduced in the negotiations and consultations as an integral part of the infrastructure investment decision.

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