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Recent Developments In Property Assessment And Taxation In Canada

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THE PAST TEN YEARS have been active ones for property tax reform in Canada. Most of the provinces have had committees of inquiry or royal commissions investigating the tax and these ultimately have made numerous detailed recommendations. From these recommendations and the reforms that followed or, in some cases, failed to follow, several clear trends emerge. Not all of these are discussed in detail. What follows is a selected sample of changes and provinces which give an idea of the whole. These changes occurred against a background of active theoretical and empirical economic research into the property tax. The developments in this area are not ignored. A picture emerges of a decade of significant reform but with many reforms still incomplete.

FISCAL SIGNIFICANCE

During the first half of this decade, the property tax became less significant as a source of revenue, especially for education. Between 1969–70 and 1974–75 it decreased from 3.7 percent of gross national product to 2.7 percent;[1] it was overtaken by the provincial corporate and personal income tax as the major provincial-municipal revenue source. Revenue from the provincial income tax increased by 165 percent while that from the property tax increased by only 35 percent. In 1975 in only three provinces (British Columbia, Saskatchewan, and Manitoba) did property tax revenues exceed those from the income tax.[2] As a source of revenue for elementary and secondary education, the property tax declined from 45 percent in 1969 to 37

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1. Lionel D. Feldman, "The Changing Role of the Real Property Tax in Canada," *Report of Proceedings of the Twenty-Seventh Tax Conference* (Toronto: The Canadian Tax Foundation, 1976), p. 717; and *National Income and Expenditure Accounts First Quarter 1976* 13.001 (Ottawa: Statistics Canada, 1976), pp. 2-3.
2. Feldman, "The Changing Role of Real Property Tax," pp. 716-717.

percent in 1974. The difference was made up by provincial transfers. Alberta eliminated the education foundation plan portion of the property tax completely, replacing it with provincial revenue. Both Prince Edward Island and New Brunswick replaced local property taxes with provincial ones. New Brunswick is eliminating the education portion of the property tax between 1975 and 1979, replacing it from other sources of provincial revenue.

This trend has been evident in the social services in general since the property tax is increasingly being used to finance hard municipal services such as fire protection and streets. Nevertheless, in a country where all provinces have locally elected school boards, the property tax remains an important source of financial autonomy in the management of schools.

Incidence

The question of property tax incidence has received considerable attention in the past ten years and is now the subject of some debate. Two schools of thought have emerged: one is the so-called "traditional" view and the other, the "new" view.[3] The traditional view has long been that the property tax is largely an excise tax on users, whereas the new view is one of capitalization of the tax. The theoretical foundations of these two views are presented, followed by an examination of the Canadian evidence. The theory of tax incidence was first placed in a general equilibrium framework by Harberger and in this context applied specifically to the property tax by Mieszkowski.[4]

There are two theoretical extremes of property tax incidence. The first, the excise tax extreme, has the property tax acting proportionately on all users of property. This occurs in the presence of a low price elasticity of demand for property relative to the supply elasticity. The tenant as a user of property is subject to almost complete shifting of the tax as landlords take advantage of inelastic demand by adding the tax onto the rent. Figure 1 illustrates this situation. D is the demand curve, S_o is supply before the tax, and S_t, which is T (the amount of the tax) units higher than S_o, is the after-tax supply curve. Line segment P_oP_t shows that 96 percent of the tax is borne by the user, either through direct periodic payment of the tax or through increased rental payments.

3. Henry Aaron, *Who Pays the Property Tax? A New View* (Washington, D.C.: The Brookings Institution, 1975), pp. 20-54.

4. See: Arnold C. Harberger, "The Incidence of Corporation Income Tax," *Journal of Political Economy* (June 1962):215-240; and Peter Mieszkowski, "The Property Tax: An Excise Tax or a Profits Tax?" *Journal of Public Economics* 1 (April 1972):73-76.

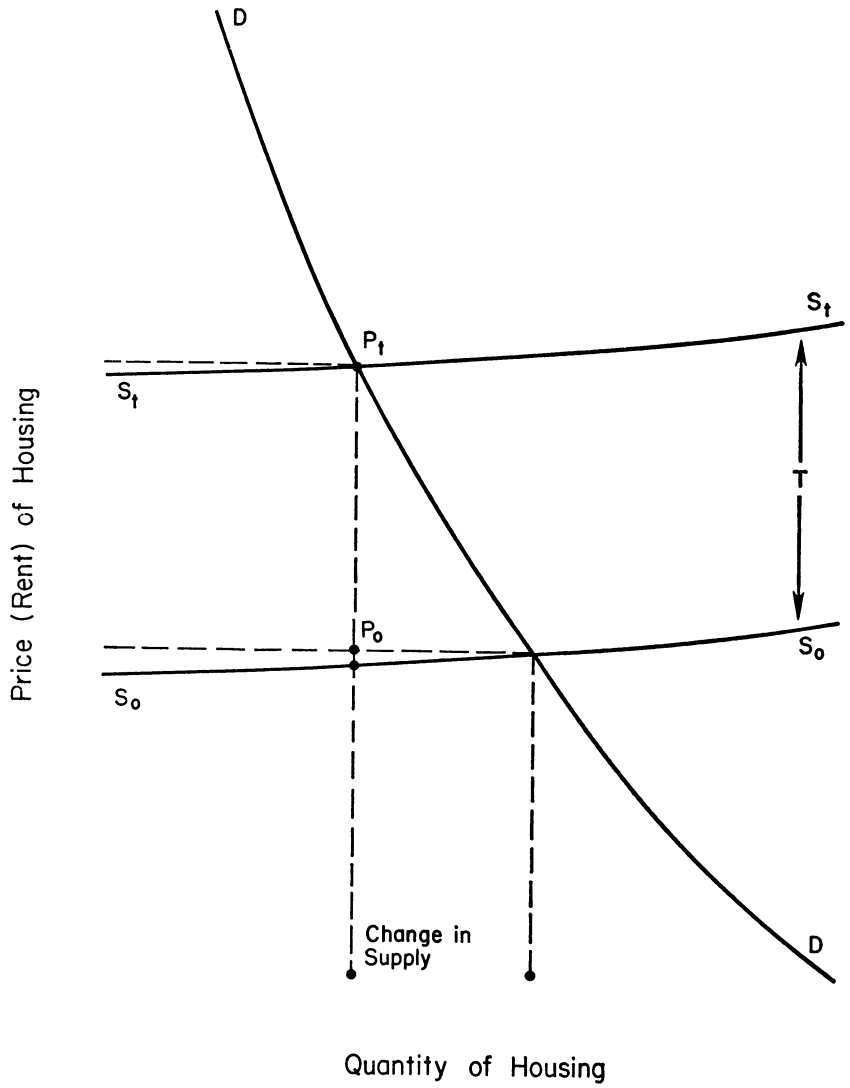

FIGURE 1
THE PROPERTY TAX AS A VIRTUAL EXCISE TAX

The second, the capitalization extreme, has the property tax acting as a liability that becomes attached to the property and reduces its value. When the tax is first imposed the property owner suffers a one-time capital loss equal to the discounted present value of the expected future stream of property tax payments. Subsequent owners of the property, even though they pay taxes, do not bear the burden since they were able to purchase it at this reduced price. The capitalization extreme occurs under conditions of a high price elasticity of demand for property relative to the supply elasticity. Landlords are not able to shift the tax to tenants because of their inability to alter

supply. Figure 2 illustrates this situation. As in Figure 1, the after-tax supply curve (S_t) is T units higher than the before-tax supply curve (S_o). But in this case the user bears only 8 percent (line segment P_oP_t) of the tax.

The traditional view has been that the tax on land is capitalized since the supply is more or less fixed but that the tax on the improvements (utility services and structures) acts as an excise tax.[5] The

5. Larry L. Orr, "The Incidence of Differential Property Taxes on Urban Housing," *The National Tax Journal* 21 (1968):253-262.

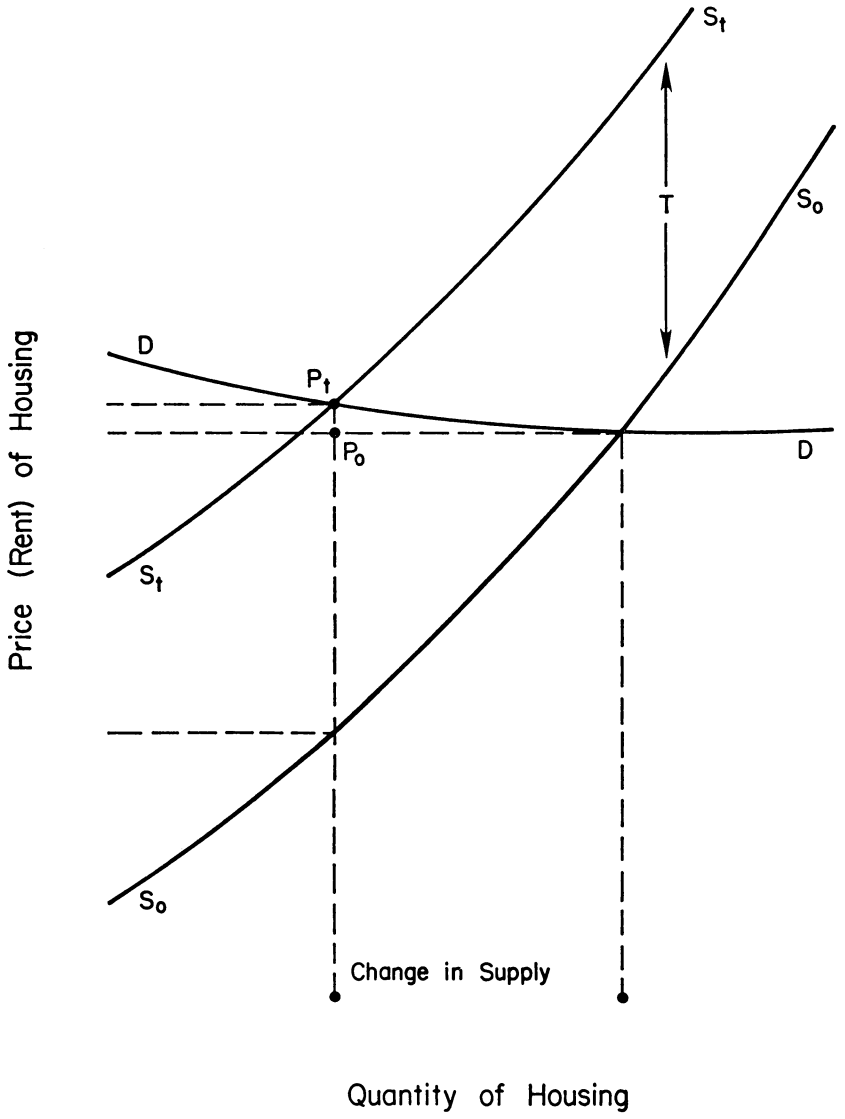

FIGURE 2
THE PROPERTY TAX VIRTUALLY CAPITALIZED

underlying assumptions are of zero price elasticity of supply for land and infinite price elasticity of supply for improvements. The latter assumption has been attacked as unrealistic. Certainly, the supply of improvements is highly inelastic in the short run which may be, as Orr points out, very long indeed.[6]

Clearly, the property tax as a capital tax on property owners is more progressive than it would be as an excise tax. The ownership of capital is concentrated in the upper income classes. Furthermore landlords cannot shift a capitalized tax to tenants who, as a rule, are less wealthy than landlords. Other aspects of the new view not covered here such as the use of permanent income as the income measure for incidence judgments also lend support to the belief of progressive incidence.[7] The rise of the new view has brought some faint praise to the most reviled of all taxes.

A number of incidence studies have been completed in Canada, many of which are reviewed by Bird.[8] Most are based on the assumption that the tax on the land is borne by the owner and that on the improvements by the user. Within the general equilibrium framework, this assumption is naive. A recent Canadian study on property tax capitalization by Wales and Wiens was unable to demonstrate any capitalization in a municipality in the Vancouver area.[9] Their study avoids one serious problem in empirically studying tax capitalization, the capitalization of services. Just as the tax attaches itself to the property as a liability, the resultant services such as better schools may be capitalized into the property value as an asset offsetting the tax liability. They steered around this problem by using one municipality (hence, a common set of services) with a variety of effective tax rates caused by inequitable assessments. The Wales and Wiens findings are at odds with those of the American studies reviewed by Aaron.[10] Furthermore, there is no compelling reason why the property tax should be capitalized in the United States and not in Canada. Bird concludes that "It is more sensible to be an agnostic than a true believer in either the traditional or the new creed."[11] The blissful conviction of the property tax's regressiveness upon which much

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6. Ibid., p. 253.

7. Aaron, *Who Pays the Property Tax?*, pp. 34-38; and Diane B. Paul, *The Politics of the Property Tax* (Lexington, Mass.: Lexington Books, 1975), pp. 18-20.

8. Richard M. Bird, "Who Pays the Property Tax?" *Report on Proceedings of the Twenty-Seventh Tax Conference,* pp. 736-763.

9. T. J. Wales and E. G. Wiens, "Capitalization of Residential Property Taxes: An Empirical Study," *Review of Economics and Statistics* 56 (August 1974):329-333.

10. Aaron, *Who Pays the Property Tax?*, pp. 65-66.

11. Bird, "Who Pays the Property Tax?" p. 746.

present-day policy is based has been replaced by almost total uncertainty.

Reducing Alleged Regressiveness

In Canada, as in the United States, the conviction of property tax regressiveness has induced provinces to adopt a variety of fiscal devices to counteract this alleged regressiveness. These devices include homeowner grants, property tax credits, and renter credits.[12] Ontario and Manitoba have systems of provincial income tax credits that apply both to homeowners and tenants. British Columbia has a similar system for tenants along with a homeowner grant that is not administered with the income tax. Alberta had a dual system resembling that of British Columbia, but the homeowner grants were abandoned when the property tax component of the school foundation program was eliminated. The renter-credit provision of the provincial income tax was retained. Saskatchewan has a system of homeowner grants but no provision for renters, the reverse of the current situation in Alberta.

The extent to which these measures actually reduce regressiveness or increase progressiveness is rather difficult to judge because of their complexity. In Manitoba the property tax credit is the lesser of: (a) $350 less 1 percent of taxable income (minimum $200), (b) total property taxes or 20 percent of total rental payments.[13] The first (a) provision is progressive since the amount of the credit is inversely related to taxable income but the second (b) provision is almost certainly regressive since both property taxes and rent are positively related to income. The overall incidence cannot be judged without recourse to empirical data. The Ontario system is even more complex. It contains occupancy cost (property tax or rent), sales tax, and pensioner credits in the same formula. The amount of the occupancy cost credit is positively related to occupancy cost and negatively related to income. The overall incidence cannot be determined by inspection of the formula alone. The Alberta renter credit is positively related to rent and negatively related to income. Since income and rent are positively related the impact among renters is uncertain. It is likely to be progressive in total though since it is unavailable to owners, who undoubtedly have higher incomes. The Saskatchewan grant to property owners is a proportion of the property tax

12. *Provincial and Municipal Finances 1975* (Toronto: Canadian Tax Foundation, 1975), pp. 134-139.

13. *Principal Taxes in Canada 1976,* 68-201E (Ottawa: Statistics Canada, 1976), pp. 28-29.

and is not related explicitly to income. Since there is no equivalent provision for renters, this credit is certainly regressive.

The odd assortment of provisions to increase the progressiveness of the property tax in Canadian provinces ranges in effect from probably progressive to clearly regressive with considerable uncertainty in between. They cannot be called circuit breakers; although in his analysis of the American situation, Aaron states that "circuit breakers differ so radically from one another in structure and size that applying a single label to them all seriously distorts reality."[14] Nevertheless, like most circuit breakers, their impact is highly questionable. Some provinces appear to be using them as a general welfare measure. Bird stated that "the real policy concern should not be with the incidence of any one tax but with the incidence of the tax system as a whole and, even more fundamentally, with the observed distribution of income and wealth."[15] Overall incidence should not be the concern of local governments since there is little they can do about it; and the property tax is not a very useful instrument for altering the distribution of income and wealth, in any case.

Assessment

During the sixties most Canadian provinces had commissions investigating the property tax, usually as part of a larger study of either taxation or municipal organization. In general they accepted the property tax as a necessary evil but recommended improvements in administration, particularly assessment. Most commissions recommended assessment at full market value but only two provinces, New Brunswick and Prince Edward Island, have such a system now in operation. Many of the others are moving in that direction. This section compares assessment practices in three provinces (New Brunswick, Ontario, and Alberta) and evaluates these against the standards for a taxation system recommended by the Ontario commission.[16]

The Ontario commission identified ten principles of taxation, the most important of which is equity.[17] They visualized three components of equity: equal treatment of equals, payment according to benefits received, and payment according to the ability to pay. The other nine principles are adequacy, flexibility, elasticity, balance, neutrality, certainty, simplicity, convenience, and economy of collec-

14. Aaron, *Who Pays the Property Tax?*, p. 72.
15. Bird, "Who Pays the Property Tax?" p. 748.
16. Lancelot J. Smith, et al., *The Ontario Committee on Taxation Report 1967* (Toronto: The Queen's Printer, 1967).
17. Ibid., pp. 8-20.

tion and compliance.[18] Such lists are quite popular and this one has a great deal in common with all the others. There are obviously going to be tradeoffs among the various principles in any real-world system of taxation.

The significance of market value assessment lies in the use of the market, that is, sale prices, as the ultimate criterion against which assessments can be compared. Market value assessment in Ontario is defined as "the amount that the land might be expected to realize if sold in the open market by a willing seller to a willing buyer."[19] A later subsection of the Assessment Act specifies that the market value of farm land shall be based on its use for farming purposes. New Brunswick uses a very similar definition. The Ontario Committee recommended "a requirement to assess properties at present market value as an unadorned requirement of the law, open to interpretation by the courts."[20] They were especially critical of the assessment-manual approach which they regarded as arbitrary and subject to rapid obsolescence. Although full market value is the standard used in New Brunswick and scheduled for use in Ontario, the actual fraction of market value used is irrelevant provided it is known and applied uniformly; halving the assessments and doubling the tax rate produces no change.[21] The Ontario Commission concluded that "extreme inequalities in property assessment, with resulting inequities in taxation have been hidden from view by the prevalence of gross underassessment"[22] but the problem was not simply underassessment but the complete lack of any uniform basis of assessment and the resultant impossibility of judging equity. Market value assessment, that is, some multiple of full market value, provides such a uniform basis and is the only basis consistent with general equilibrium theory.

New Brunswick moved to full market value assessment in 1967 as part of a massive restructuring of provincial-municipal relations which included full provincial funding of elementary and secondary education. Property assessment and taxation became provincial responsibilities. The program involved consolidation of the assessment acts, upgrading of assessors, greater centralization of the assessment function, and reassessment at market value of all properties. In the past ten years assessments have tended to lag behind rapidly rising

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18. Ibid., p. 16.
19. *The Assessment Act,* Revised Statutes of Ontario 1970 plus amendments (Toronto: The Queen's Printer, 1975).
20. Smith, et al., *The Ontario Committee on Taxation Report 1967,* p. 231.
21. Aaron, *Who Pays the Property Tax?,* p. 7.
22. Smith, et al., *The Ontario Committee on Taxation Report 1967,* p. 205.

sale prices but have been kept around 90 percent of market value.[23] New Brunswick has proven that it can be done and has provided some insight into how it can be done. Tampering with assessments is often politically unpopular regardless of how inequitable the existing situation is. The small size of New Brunswick (population of 635,000) may have made the job of selling the program easier, but a formidable effort was required as outlined by Meldrum.[24] An important aspect of reassessment that undoubtedly increased its palatability to the public was the appeals procedure. Any assessment could (and can) be appealed to one of two independent appeal tribunals. There is no charge for this and, most importantly, the burden of proof is on the assessor; he must demonstrate to the tribunal that his assessment is correct.[25] An appeal may be carried as far as the Supreme Court of New Brunswick. The New Brunswick system scores very well when judged by the Ontario Committee criteria.[26] It receives high marks for equity, simplicity, and fiscal neutrality—three tests that the property tax usually fails. Province-wide market-value assessment insures that the tax for defined classes of property has a constant effective rate and that within classes relative prices are not distorted. The latter condition is necessary for fiscal neutrality within the property class. Furthermore there are only a few property classes and they apply uniformly to the entire province.

The Ontario experience resembles a slow-motion rerun of the New Brunswick story. In 1970 the Province of Ontario took over the assessment function from the municipalities and proceeded to reassess all properties at market value. This was finished in 1975 to be implemented in 1976. At that time real estate values in Ontario were rising rapidly and the new assessments were obsolete before they were completed so the program was not implemented.[27] The introduction of market value assessment has been delayed three times and is now scheduled for introduction in 1979. It is expected that municipalities will be allowed to phase-in market value over a period of years for those properties that will bear larger absolute taxes. The present assessment situation in Ontario has been described rather generously as a mess. The assessments now in use have been frozen

23. Robert H. Craig, "The Assessment Function in Property Taxation," *Report of Proceedings of the Twenty-Seventh Tax Conference,* p. 732.

24. Advisory Committee on Intergovernmental Relations, *In Search of Balance—Canada's Intergovernmental Experience* (Washington, D.C.: Government Printing Office, 1971), pp. 64-70.

25. Ibid., p. 112.

26. Smith, et al., *The Ontario Committee on Taxation Report 1967,* pp. 8-20.

27. D'arcy W. McKeough, "Reform of Property Taxation in Ontario" (Budget Paper E), *Ontario Budget 1976* (Toronto: Government of Ontario, 1976), pp. E1-E15.

since 1970 and are based on an assessment manual dating from the early forties. In spite of the present chaos the introduction of market value assessment is likely to be accompanied by difficult political problems. When implemented, this system will probably have the same strengths and weaknesses as the New Brunswick system.

Before going on to the Alberta system of assessment, which is not a market value system, several additional aspects of market value as contrasted with the assessment manual approach will be examined. Market value assessment is a macro approach since the sole criterion against which assessments can be judged is the record of sales. Individuals make purchases and sales for a multitude of reasons. In the case of residential property, many of the factors that influence the market price may be intangible. In particular, the market value of a structure may bear no relationship to either its depreciated historical cost or its replacement cost. The value of the site (assumed vacant) plus the value of the structure does not, in general, equal the market value of the property. In Ontario the assessor has only to report the single value for each property.[28] The question of those characteristics of a property that determine market value and to what degree is essentially an empirical one, amenable to widely available statistical techniques. The multiple regression analysis of sales data is ideally suited to this purpose.[29] Using sales as cases with the selling price as the dependent variable and characteristics of the property believed to determine value as independent variables, an equation can be derived which predicts the selling prices of homes from their characteristics. This equation can then be applied to homes not involved in a sale to estimate their likely sale value. It is therefore possible to reassess properties as market conditions change without ever leaving the computer center. Each time a reassessment is due a recent sample of sales can be used to estimate new coefficients for the equation, which can then be applied to all properties. This technique is adequate for short-run price changes caused by inflation and other general market conditions. Longer run changes in prices caused by new construction technology might require new independent variables for the equation, but here again the work on properties built before the new technology could be done in the computer center. Dilmore pointed out the possibility of anomolous coefficients in regression

28. J. Lettner, "An Assessor Looks at Market Value," *Proceedings of the Fourteenth Annual Meeting of the Institute of Municipal Assessors of Ontario* (Toronto: The Institute of Municipal Assessors of Ontario, 1970), pp. 10-13.

29. See: Gene Dilmore, "Multiple Regression Analysis as an Approach to Value," *The Appraised Institute Magazine* 15, no. 2 (1971):52-54; and George W. Gipe, "The Application of Multiple Regression Analysis on Apartment Properties," *Aspects* 18 (September 1975):25-30.

analysis, that is, those that have a sign opposite to that expected by an appraiser (a negative coefficient for brick veneer in his example) but this is much less important than the goodness of fit ultimately achieved by the regression line.[30]

Alberta uses an assessment manual approach to value. The current manual which is to be replaced shortly is based on 1963 prices except for urban land.[31] A unit area of agricultural land is valued according to whether it is dry, irrigated, or pasture; whether it is in the northwest of the province or elsewhere; and how its soil compares to the best soil in its category.[32] Urban land is valued at 65 percent of its market value in the year of general reassessment.[33] Structures are assessed according to the detailed cost information contained in the manual. There are a number of arbitrary assessments based on a variety of criteria. These apply to grain elevators, pipelines, and wells among others. Judging the Alberta system using the Ontario Committee criteria gives mixed results. The Alberta system is more certain than a market value system but it is much less simple. It scores low on fiscal neutrality since the relative prices represented by the assessments quickly become obsolete causing distortions in resource allocation. For similar reasons it scores low on equity. These problems are less serious in Alberta because the property tax is not a major source of revenue. In 1975 it accounted for only 8.7 percent of combined provincial-municipal revenue compared to more than 12 percent for all provinces.[34] It became less significant over the years in Alberta as revenue from natural resources increased.

One can draw a parallel between the assessment manual approach which adds costs of structural elements to determine the assessment of a structure and a market value approach which uses multiple regression. Both approaches involve formulas that are linear and additive but the similarity ends there. A typical assessment manual will contain hundreds of additive costs and the sum is not a market value. Research conducted in Ontario showed that reasonably accurate estimates of residential housing sale prices could be made using only two variables, age and floor area, with the results being very accurate for

30. Dilmore, "Multiple Regression Analysis as an Approach," p. 54.

31. *Standards and Methods of Assessment,* Appendix A to *The Alberta Gazette,* October 14, 1967 (Edmonton: The Government of Alberta, 1967).

32. E. L. O'Neil, "Assessment and Property Tax in Alberta," (unpublished paper, January 1977).

33. *Standards and Methods of Assessment,* p. 1205.

34. *Local Government Finance: Revenue and Expenditure 1974 and 1975,* 68-203 (Ottawa: Statistics Canada, 1976), pp. 17-19; and *Provincial Government Finance: Revenue and Expenditure Estimates 1975,* 68-205 (Ottawa: Statistics Canada, 1976), pp. 26-27.

newer houses.[35] Other studies have used many more variables and achieved somewhat better results. As Gipe pointed out, nonlinear and interaction terms can be built into the regression equation making it a very powerful approach indeed.[36]

In all provinces there has been a trend toward assessment as a provincial responsibility or at least as a provincially controlled function. Only in Quebec and, to a lesser extent, Manitoba is there still a lack of comparability among municipalities in average assessments. The impetus for reform has been especially strong in those provinces where the property tax is a major source of revenue.

Summary

This paper has dealt with certain changes in property assessment and taxation in Canada in recent years such as the trend toward centralized and improved administration including assessment reform. The general trend toward full market value assessment was noted as well as the use of multiple regression analysis in its calculation. Considerable space was devoted to questions of incidence and attempts to improve the equity of property tax incidence.

Other changes were largely ignored. These include a reduction in the classes of exempt property in several provinces. The use of grants-in-aid in lieu of property taxes on provincial and federal government property also remains undiscussed.

Conclusions are difficult to draw when you are halfway through a story. The research on property tax incidence is clearly unfinished, and what has been done has not yet filtered through to the policy level. Many provinces are in the middle of reforms. Market value assessment is on the verge of implementation in Ontario. In Quebec assessment reform was raised as a political issue by the recently-elected Parti-Québecois during the election campaign of 1976. The nature of such reform is still unclear. Even in those provinces where the reforms are well established, such as New Brunswick, there appears to be a trend away from the property tax, especially as a means of financing education. In reference to the property tax in Canada, this year, 1977, is not a year for drawing conclusions.

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35. D. Montgomery and J. Tait, "The Market Data Approach for Mass Appraisal: Graphical Analysis," *Aspects* 19 (April 1976):6-13.

36. Gipe, "The Application of Multiple Regression Analysis."