

Fiscal Imbalance and Winnipeg: A Century of Response

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Résumé de l'article

Le fossé grandissant entre les dépenses et les revenus municipaux se traduit fréquemment par un déséquilibre ou un épuisement fiscal. Il est bien connu que les gouvernements municipaux au Canada ne jouissent pas d'une position constitutionnelle et que leurs sources de revenu sont succinctes, de faible croissance et inadéquates. En même temps, les municipalités sont obligées de procurer de plus en plus de services à leurs citoyens, il en résulte un accroissement continu des dépenses. Cet article examine l'étendue du déséquilibre fiscal à Winnipeg depuis les cent dernières années. Il tente non seulement de décrire la réaction d'une ville spécifique face aux pressions du déséquilibre fiscal, mais aussi de relater la réponse par rapport à la doctrine économique et aux conditions de la période.

L'article débute avec une description des hypothèses principales concernant la cause de la crise fiscale urbaine et présente une structure comptable servant à l'examen des indicateurs de l'épuisement fiscal. Puis, il découpe en cinq périodes le survol de l'expérience fiscale à Winnipeg, depuis son incorporation en 1874 jusqu'à 1984. Pour finalement conclure que les réactions du gouvernement municipal face au déséquilibre fiscal sont conditionnées autant par les impératifs de la doctrine économique, ce qui constitue une action fiscalement responsable, que par des facteurs externes tels le niveau des revenus et la demande publique de services.

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A growing gap between municipal expenditures and municipal revenues is often characterized as fiscal imbalance or fiscal distress. It is well known that municipal governments in Canada have no constitutional standing and that their revenue sources are meagre, slow-growing and inadequate. At the same time, municipalities are obliged to provide their citizens more and more services, thereby resulting in continuous expenditure growth. This paper examines the extent of fiscal imbalance throughout the past century for the City of Winnipeg. It attempts not only to portray the reaction of a specific city to fiscal imbalance pressures, but also to relate the response to the economic orthodoxy and condition of its period.

The paper begins with a description of the main hypothesis concerning the cause of urban fiscal crisis and presenting an accounting framework for examining indicators of fiscal distress. A survey of the fiscal experience of Winnipeg is then presented, from incorporation in 1874 to 1984 by dividing the century into five periods. The paper concludes that the reactions of municipal government to fiscal imbalance is conditioned just as much by the reigning economic orthodoxy of what constitutes a fiscally responsible action as it does by external factors such as revenue flows and public demand for services.

INTRODUCTION

Fewer topics in Canada have received more attention recently than the government deficit. A growing imbalance between municipal expenditures and municipal revenues is

often characterized as fiscal imbalance or fiscal distress, such phrasing implying that the phenomenon is both recent and universal. Some observers go so far as to label the situation as one of "fiscal crisis."

Much discussion of public finances concerns government at the national or provincial level rather than the municipal. It is well known that municipal governments have no consti-

tutional standing and that their revenue sources are often meagre, slow-growing and inadequate. At the same time, municipalities are obliged to provide their citizens more and more services, thereby resulting in continuous expenditure growth.

There is a growing empirical literature on the dimensions of urban fiscal distress. Much of this literature is American and British. There are few studies of Canadian municipalities, either single city case studies or groups of cities. Furthermore, analyses of urban fiscal crisis, except for dramatic cases such as New York City, are often too general in tone and cover too limited a time period to provide historical perspective. This paper examines the extent of fiscal imbalance at different points in the history of the City of Winnipeg. The case study approach is rare in the economic literature on urban fiscal crisis. However, it has the advantage of allowing a portrayal of the reaction over time of a specific city to fiscal imbalance pressures, and a description of local government response to the economic orthodoxy and conditions of its period. The drawback of the case study method is that the experience of a particular city cannot be generalized. On the other hand, supplementary information is usually readily available for purposes of generalization, and the problems become less acute as more case studies are conducted.

The next section presents an overview of urban fiscal crisis; it describes the main hypotheses concerning its cause, and presents an accounting framework for examining indicators of fiscal distress and local government response. The following section then focuses on economic and political developments shaping Winnipeg's fiscal performance throughout its history. We survey the fiscal history of the City of Winnipeg from incorporation in 1874 to 1984 by dividing the century into five periods. Our discussion is analytical rather than historical; it attempts to identify various factors determining the fiscal health of Winnipeg.¹ A final section offers some concluding comments.

URBAN FISCAL CRISIS: AN OVERVIEW

A government deficit occurs whenever total government revenues (R) fall short of local expenditures (E). A continuous government deficit may be characterized as urban fiscal imbalance when the gap between revenues and expenditures ($R - E$) is viewed as permanent rather than temporary, structural rather than cyclical, and widening rather than diminishing. Typically, local governments are constrained in their attempt to develop new tax fields or to raise tax rates on existing sources because of constitutional, political, or economic reasons. Local government expenditures, however, are thought to grow quickly and inexorably. Without an increasing injection of "outside funds" from a higher order of government (intergovernmental transfers), the fiscal position of urban governments inevitably implies a drastic

curtailment of local services, or a dramatic increase in local taxation, or some combination of both.

In Canada, expenditures by provincial governments have expanded most rapidly, although there is significant provincial variation in the level of per capita expenditures.² Local government expenditures actually account for most of the final spending by the public sector since much of the spending of higher orders of government are intergovernmental fiscal transfers. By far the largest proportion of local expenditures is for education. Winnipeg ranked lowest among major Canadian cities in 1977 in terms of per capita local expenditures.

There is also wide variation among Canadian cities in the extent to which local expenditures are financed by locally collected revenues. Roughly 55% of local expenditures are financed by local revenues, with the property tax being the single most significant revenue source. In Winnipeg, the property tax accounts for about 60 per cent of all local revenues. In sum, local revenues finance only about half the amount of local expenditures. No surprise then that intergovernmental transfers have been steadily increasing in importance for local governments.³

A number of theories have been put forth explaining fiscal crisis at the local government level. Among the first was a suggestion in 1967 by Baumol that differential productivity growth between the public and the private sectors of the economy must eventually lead to fiscal imbalance.⁴ This model (dubbed Baumol's disease) argued that productivity in the public service sector (i.e., fire protection, law enforcement, hospitals, education, etc.) would typically lag behind that of the private sector (i.e., manufacturing, telecommunications, etc.) but that wages in both sectors would tend to be roughly proportional, if not equal, to each other due to competition in the labour market. Labour was assumed to be mobile between the public and private sectors. Consequently, a rising proportion of real resources would have to be absorbed by the public sector over time in order to maintain a constant level of public services. If the level of public services were indeed maintained, this would lead to ever higher tax burdens on the private sector if local tax bases grew more slowly than the demand for public services. A "crisis" would eventually result from the fiscal imbalance if there exists a limit to the amount by which taxes can be raised without inducing massive distortions to the economy or inciting "tax revolt."

The Baumol hypothesis assumes that public service activities are labour-intensive, and doubtlessly some, like education, do require large amounts of high-wage labour inputs. De Alessi has suggested — with reference to the United States — that public service activities may actually be capital-intensive in production so that capital-financing explanations (i.e., municipal borrowing patterns) rather than

public sector wages are key to understanding the urban fiscal crisis.⁵ Bird and Slack note that much of municipal capital expenditures in Canada are financed entirely by provincial governments through special capital funds while current operating costs still rely predominantly on local taxes.⁶ While the evidence relating to urban expenditure growth and labour-intensity of public services is generally mixed, the possibility of differential productivity between the private and public sectors cannot be dismissed for Canada.

In this vein, Hum and Phillips⁷ employed a variant of the differential productivity model to investigate growth and urban development patterns of staple-producing regions. Their concern was a distinction between the agricultural (staple) and non-agricultural (manufacturing) sectors rather than the public and private sectors. Western agriculture appeared to have had a generally higher level of labour productivity increase than other sectors, and the model was used to explain a number of elements of Winnipeg's evolution. Specifically, the Hum-Phillips model addressed the issue of a city dependent upon the servicing requirements of a staples region; that is, a region dependent for its growth on the export of natural resources. Hum and Phillips investigated the consequences of urban development and growth in the "maturing staple phase" — when the staple has ceased to be the leading growth mechanism. While the Hum-Phillips analysis was fundamentally theoretical, there is little doubt that Prairie cities like Winnipeg were firmly in mind. More recently, Hum⁸ explicitly focused on Winnipeg's specific circumstances. Some of the implications can be summarized as follows: For regions such as Manitoba where agriculture is the leading staple, where productivity increases are higher in agriculture than in other sectors, and where there is labour mobility, (i) the population will become increasingly urbanized over time, (ii) the overall rate of growth of the region (Manitoba) will decline as will urban growth (Winnipeg) and urban centres (Winnipeg) may face rising unemployment, falling relative wages and out-migration. In short, slower growth can be expected for Winnipeg in future compared to the past.

Economists often employ an "elasticity" measure to indicate the strength of response to a particular change. In the present context, expenditure elasticity refers to the rate of increase of expenditures that occurs with changes in the economy as measured by, say, Gross National Product (GNP). Similarly, revenue elasticity is the rate of change of local revenues with respect to growth in the tax base. Estimates of revenue elasticity to changes in GNP for the United States report a revenue elasticity for the property tax to be less than unity, indicating that revenue from the property tax increases more slowly than does income. In comparison, the revenue elasticity estimates for either the personal or corporate income tax were all in excess of unity.⁹ In short, the property tax yields the least increase in revenue for government relative to other taxes when GNP rises.

The degree to which citizens demand local services invariably depends upon the service in question and community views. However, it is generally agreed that the demand for most local government services is either inelastic or grow more quickly than income. Consequently, fiscal imbalance results from a combination of low revenue elasticity and high expenditure elasticity. This arises simply because the lower the income elasticity of a given revenue source, the smaller the automatic increase in revenues that will result, and the greater the inadequacy of the revenue to meet existing and new expenditure demands. The particular assignment of local revenue sources (e.g., property tax) and local functional responsibilities (e.g., education) to Canadian cities would therefore predict an evolutionary pattern of fiscal imbalance.

The fiscal imbalance for Winnipeg was investigated by focusing on the municipal budget constraint faced by the City, and examining data series constructed from the Annual Budget Estimates of the City of Winnipeg since incorporation. A consistent accounting framework is necessary when comparing government financial positions over lengthy periods, as accounting practices and economic views as to the appropriate fiscal stance can change dramatically over time. The municipal budget constraint is a simple accounting identity which ignores the micro foundation causes of the fiscal imbalance. The municipal budget constraint may be expressed formally as:

$$E = R + G + D = t.B + G + D \quad (1)$$

where E is local expenditures, R is total local revenues, G is intergovernmental transfers, and D is the budgetary surplus or deficit. Further, local revenues, R, is defined as the product of local tax rates, t, and local tax bases, B.

If expenditures exhibit a tendency to grow faster than revenue bases, as both Baumol's disease and the income elasticities discussed above suggest, there will be fiscal imbalance; municipalities will find it difficult to finance services demanded and will adopt measures to counter this tendency.

A municipal government may choose one of many responses to fiscal crisis. One response of a municipal government might be to do nothing. This will lead to increased borrowing and a growing debt and is not a long-run solution. A second, frequently employed response is to abandon the balanced growth path and rely on expenditure restraint to deal with fiscal crisis. This is a feasible response but not very attractive. In the long-run it could result in a world of the kind decried by Galbraith, with a private sector expanding at the expense of municipal services, even though such services might contribute greatly to general welfare. A third response is to raise tax revenues by increasing tax rates. Municipal governments in Winnipeg have used this tactic often. The property tax is the most important municipal rev-

enue source and typically the real property tax rate (usually referred to as the mill rate) is set to achieve a balanced budget. Rewriting municipal budget constraint, we have:

$$t = (1/b) [E-t] \quad (2)$$

where t is the property tax rate (the mill rate is $t \cdot 1000$), B is the property tax base, E is expenditure, and T is all other revenues and transfers. A rising t is an obvious consequence of the tendency to fiscal imbalance.¹⁰ However, this response is not without limit. There may be legal restrictions; citizens may revolt if tax rates become too high; or, tax rate increases may be limited by competition among municipalities as each attempts to attract new industry. In the post-staple-led growth phase, this will force the urban centre of a stagnating staple region to rely on nontax responses more heavily than other cities.¹¹ A municipal government might, under these circumstances, attempt to transfer some of its responsibilities to other orders of government. This response has also been employed by the City of Winnipeg. The theory of balanced growth suggests that low productivity sectors will become relatively costlier over time. Thus, other things equal, municipal governments would want to transfer responsibility for low productivity expenditure areas elsewhere whenever possible. A fifth alternative is to expand (widen and/or deepen) tax bases. The introduction of the business tax at the turn of the century is an example of this response.

Finally, the municipal government might request financial assistance from other orders of government. Intergovernmental transfers have become increasingly important as a response to fiscal crisis in Winnipeg. The accounting identity (1) allows us to conveniently list Winnipeg's various responses to imbalance pressures. For expository purposes we may categorize the major "pure" responses in terms of our accounting framework as follows:

(i) **Balanced Budget Response:** Government ensures that expenditures always equal revenue ($E = R$) so that there is never a budgetary deficit ($D = 0$);

(ii) **Unbalanced Budget Response:** Government abandons the iron-rule of balanced budgets and allows whatever deficit or surplus to occur as a result of its expenditure plans and revenue efforts (D not equal to 0);

(iii) **Deficits Financed by Transfers:** Government cannot raise sufficient local revenues to finance its expenditures. Fiscal imbalance is masked by additional receipts from intergovernmental transfers (D not equal to 0 and G grows);

(iv) **Increasing local tax revenues:** Neither transfers nor property tax bases grow sufficiently fast to keep pace with rising local expenditures. The tax rate on local bases must actually be raised, (t must rise); and new tax bases sought (B must expand).

WINNIPEG AND BAUMOL'S DISEASE

Incorporation and City-Building

The Manitoba government passed an Act to Incorporate the City of Winnipeg in November 1873. Because the British North America Act of 1867 gave only the national and provincial governments constitutional sovereignty, the Act to incorporate makes the City truly a child of the Province. While the precise details of the Act are not of concern, two features are important. First, the Act specified certain municipal revenue sources: real and personal property taxes and a variety of licencing charges. Second, the Act specified the powers of the municipal corporation to include the passage of by-laws concerning nuisances, safety, sanitation, fire, police, and markets. The Act also enabled City Council to "pass By-laws for contracting debts by borrowing money or otherwise and for payments of such debts on the ratable property of the town for any purpose within the jurisdiction of the Council."¹² Although provincial legislation governing the affairs of the City would change regularly thereafter, the two features of the original Act stressed here remained important in subsequent legislation.

Still, the Act itself does not give a broad enough picture of municipal responsibilities at incorporation. The British North America Act assigned responsibility for what we now regard as the welfare state functions (education, health and medical care, and income support, etc.) to the provinces. But the provinces, following in the English tradition, relied on local organizations (the family, the church, the school board, etc.) to deliver services. Municipalities were expected to play a role only if these organizations were unable to perform the allotted tasks. Consequently, incorporation meant that "many activities essential to the establishment of a community which had previously been ill done or neglected were attempted or projected."¹³ One of the first of these projects was a city hall. Other undertakings included the construction of a water-works system, sewers, streets, sidewalks and the purchase of fire fighting equipment.¹⁴

Growth was initially slow. By 1880 the population had just reached six thousand and the property tax base (per capita) had hardly changed. Nonetheless, City building required significant (and somewhat unusual) fiscal action during this period. For example, the Winnipeg City Council, in an effort to assure that the Canadian Pacific Railway passed through Winnipeg, paid the Railway \$200,000 and exempted "the property now owned or hereafter to be owned by the said railway company for railway purposes within the City of Winnipeg from taxation forever."¹⁵ The investment in the CPR paid off — especially for the large landholders — in the boom of the years that followed.

The population of Winnipeg rose from 6,000 in 1880 to 13,000 in 1882. Local property assessments in 1880 amounted to \$4 million. In 1882, just two years later, the assessed value of property in the City was over \$30 million.¹⁶

Fortunes were made and Winnipeg emerged as the entrepot of a developing agricultural economy.

The dramatic growth in these years led an optimistic City Council to embark on a number of new and ambitious projects. The City borrowed \$1.9 million to finance capital investments such as a new city hall, a new sewer system, a police station, a fire hall, street and bridge improvements, and a host of other items.¹⁷ However, when the boom collapsed in 1883, the City faced its first fiscal crisis.

The source of this first crisis was not “Baumol’s disease.” Rather, its origins lay in the exuberant city building stimulated by the real estate boom. As a result, Artibise notes that the solution to this crisis was the election of a slate of candidates “with proven business ability” who would “reduce expenditure to the lowest point consistent with progress and efficiency” — in short, expenditure restraint.¹⁸

Data distilled from the annual estimates of the City beginning in 1886/87 clearly indicate the extent of the problem.¹⁹ Debt charges in that year accounted for over fifty per cent of municipal expenditures, but slowly declined thereafter as City Council gained control over capital expenditures. Debt, however, was not the only problem plaguing the City between 1887 and 1896. Despite continued growth in both population and local assessments the property tax base actually declined (See Figure 1), also leading to expenditure restraint.

After debt charges, general government, the protection of persons and property, and education were the most important expenditure areas.²⁰ As a consequence, these were most affected by restraint. On the other hand, social, recreational, and health-related expenditures were almost nonexistent and were therefore not affected by the fiscal crisis.

The relatively slow development of Winnipeg from 1886 onward was, in part, a consequence of world-wide depression, and as the world economy rebounded from this period of stagnation, Winnipeg blossomed. The period from 1896 to 1914 would be one of dramatic growth. Even after 1914 the Wheat Economy would continue to spur the growth of the City. But in this period, growth would be much slower.

Staple-Related Growth: 1896-1929

The rapid growth of the Wheat Economy between 1896 and 1914 solidified the position of Winnipeg as the entrepot of an entire staple producing region. Bellan describes the expansion as follows:

[It] produced a huge increase in the demand for Winnipeg’s metropolitan services. The growing stream of new settlers and merchandise was funnelled out to the West through Winnipeg, and, flowing in the opposite direction, a swelling tide of grain and cattle converged from the

plains to the city, for onward shipment over the trunk railway lines eastward. The rapid increase in both the volume of the westward stream of people and goods, and of the eastward stream of farm produce, required a corresponding expansion of the Winnipeg facilities and institutions which directed and handled the inward and outward flows of the hinterland. The city prospered and grew.²¹

The dramatic growth of Winnipeg in the early years of this period is captured in the population data. The population grew from thirty-eight thousand in 1895 to over one hundred and fifteen thousand in 1907. Growth of the property tax base was more striking still, almost tripling between 1896 and 1914 (see Figure 1).

The growth of the real property tax base, together with introduction of a business tax, greatly strengthened the fiscal position of Winnipeg. The City Council was now dominated by a commercial elite,²² and took advantage of this favourable situation. It set up a hydro-electric plant and water power facilities and made power available at cheap rates. Mill rates were also reduced and this benefitted the property-owning commercial elite. By 1912 the City owned, controlled and operated public utilities providing light, heat, power and water supply.

The domination of City Council by the commercial elite also determined the orientation of city expenditures. Spending was concentrated on areas conducive to accumulation and profits. There was little concern for the social welfare of the community as a whole.²³ City government did little to address serious health and housing problems. Indeed, the development of an active health department was undertaken only in the wake of a severe typhoid epidemic.²⁴ Only education received substantial support; with approximately 25 per cent of city revenue going to the public school board in 1915.

With the outbreak of war in 1914, Winnipeg’s fortunes took a turn for the worse. Between 1914 and 1929 the City suffered several major setbacks. First, Vancouver, supported by the Panama Canal, emerged as a major competitor in the grain and merchandise transport trade. Second, other prairie cities had developed and undermined Winnipeg’s position as a “gateway” city.²⁵ Finally, the growth of the Wheat Economy slowed. Bellan describes Winnipeg’s malaise at the end of the twenties:

While Winnipeg prospered during the latter years of the 1920s, the pace of economic activity failed to match that recorded in other major Canadian cities. While the index of employment rose by 37% in the three prairie provinces between 1925 and 1929, the increase in Winnipeg was only 27%. Bank clearing, although greater than during the early 1920s, had increased less than elsewhere, while construction activity in Winnipeg, having regard to the city’s size, was slower during the entire decade than in practically all comparable cities in the country.²⁶

The slower growth of Winnipeg is again evident from population data. After the dramatic threefold increase between 1896 and 1907, population growth waned. Population barely doubled between 1907 and 1929. The per capita real property tax base actually declined from 1915 onward (see Figure 1).

The City responded to the declining tax base by, first, raising the mill rate (through 1921) (see Figure 5) and then, by eliminating expenditure growth. Moreover, the slight amount of capital expenditure that took place involved primarily upgrading of work originally completed in the pre-war boom.²⁷ In sum, the fiscal response was a combination of restraining expenditures and increasing tax rates.

The composition of municipal spending changed little over this period. However, two developments are worthy of mention. Social services became an area of municipal concern during this period and expenditures in this area grew as unemployed men converged on Winnipeg. Also, expenditure on the protection of persons and property rose dramatically in 1919 as a response to the General Strike.²⁸

Although expenditures on social services grew in this period, it did not grow as fast as demand. In 1920 federal and provincial governments became involved in the finance of unemployment relief (each contributing one-third of the cost).²⁹ In 1926 the provincial government began assuming part of the cost of hospitalization of indigents.³⁰ The *Old Age Security Act* of 1927 reduced municipal expenditures on the elderly.³¹ And, in 1930, the province assumed full responsibility for the Mother's Allowance.³² For its part, Winnipeg attempted to control social expenditures by tightening eligibility requirements. In 1925 relief was limited to married men with at least two dependents. In 1926 a residency requirement (one year) was also added. Expenditure restraint also affected public works as there were no major new projects in this period. The province did assume some responsibility for "main highways" in the City but this had a negligible impact.³³

Deterioration of the fiscal health of the City after the dramatic growth at the turn of the century left Winnipeg ill-prepared for the depression that followed. The City had clearly entered the post-staple-led growth period. Demands for municipal services were rising at an increasing rate and, for the first time, "Baumol's disease" begins to threaten a weak patient.

Depression and the War

World-wide depression was exacerbated by the collapse of farm prices and a series of severe droughts. Between 1930 and 1936 population actually decreased. New buildings virtually ceased and the stock of existing property was continually revalued downward. The net result was a contin-

uation of the decline in the per capita real property tax base which began in 1915 (see Figure 1).

The Depression also resulted in massive unemployment and a dramatic increase in demand for social services. The City was now experiencing its most serious fiscal crisis. Reflecting on the Depression experience, the Royal Commission on the Municipal Finances and Administration of the City of Winnipeg (1939) notes:

While the financial health of the City is considerably better than many persons have believed it to be, it must be remembered that it has been brought about only as a result of burdens cast upon its citizens, with great economy in civic administration involving substantial reductions in important civic services, coupled with great ability in the management of its finances. While the fact that the City has come through the trying years of the depression in this commendable manner warrants a considerable pride and confidence in the City on the part of its citizens, the Commission points out that the City has not yet been able to make adequate provision for the redemption of its large floating debt caused by heavy unemployment relief costs burden which the City has had to bear during his period.³⁴

In other words, Winnipeg employed almost all of the available means for coping with fiscal crisis. It ran a deficit in the early years of the depression (see Figure 3); it attempted to limit expenditures (see Figure 2); it raised the mill rate (although only slightly) (see Figure 5); it accepted transfers of responsibility for the Mother's Allowance (to the province) and for unemployed employables (to the federal government).³⁵ And it welcomed intergovernmental transfers to support relief efforts.

Despite all this, Winnipeg was forced to take further unusual fiscal action. Even with federal and provincial support, Winnipeg was unable to finance relief expenditures from current revenue, and the necessary funds were obtained by selling bonds (the total value of direct capitalized unemployment relief was \$9,346,449) to the trustees of the City's Sinking Fund. This additional debt was not recorded as a current account deficit and this should be kept in mind when examining the deficits depicted in Figure 3 (actual deficits are larger).

The economic situation in Winnipeg changed dramatically with the outbreak of war in 1930. Winnipeg became a major centre for wartime manufacturing; unemployment disappeared; incomes rose; and population began to grow again.

The decline in the per capita property tax base which began in 1915 finally bottomed out (see Figure 1). Furthermore, repayment of arrears accumulated during the thirties brought in additional revenues. Indeed, the Manitoba Provincial Municipal Committee Report notes: "such

FIG. 1- PROPERTY TAX BASE CITY OF WINNIPEG 1887-1984

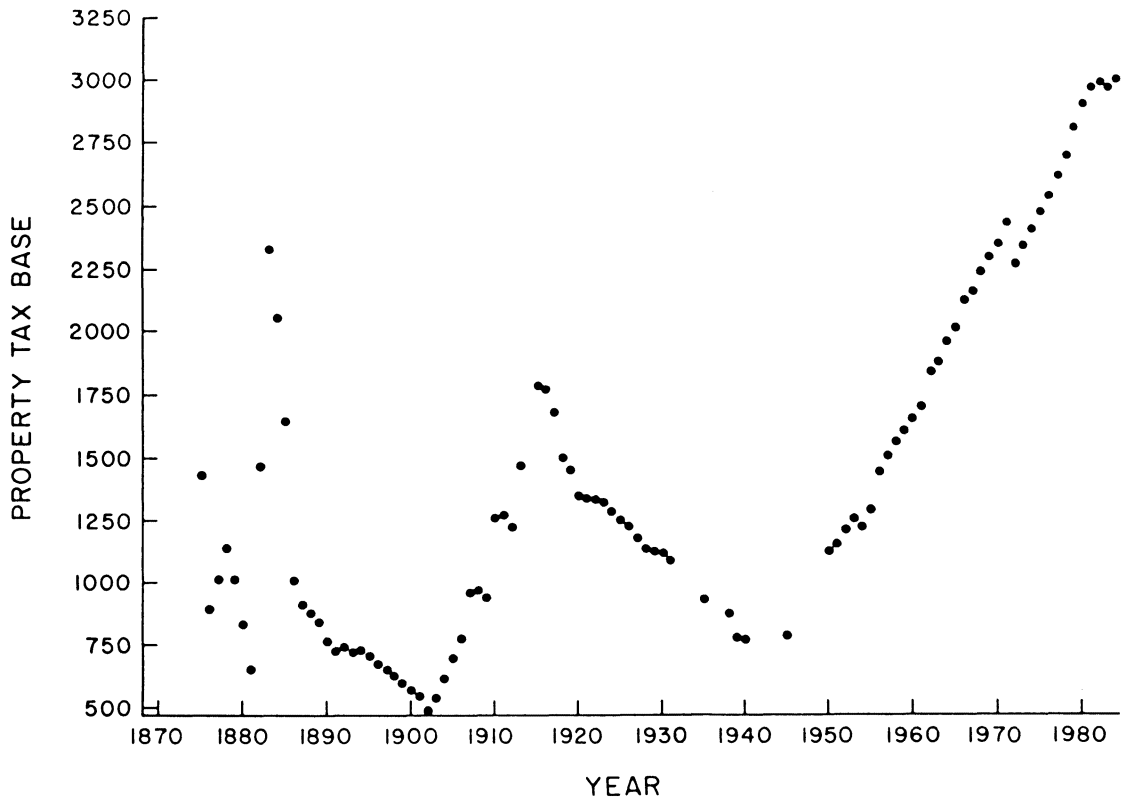
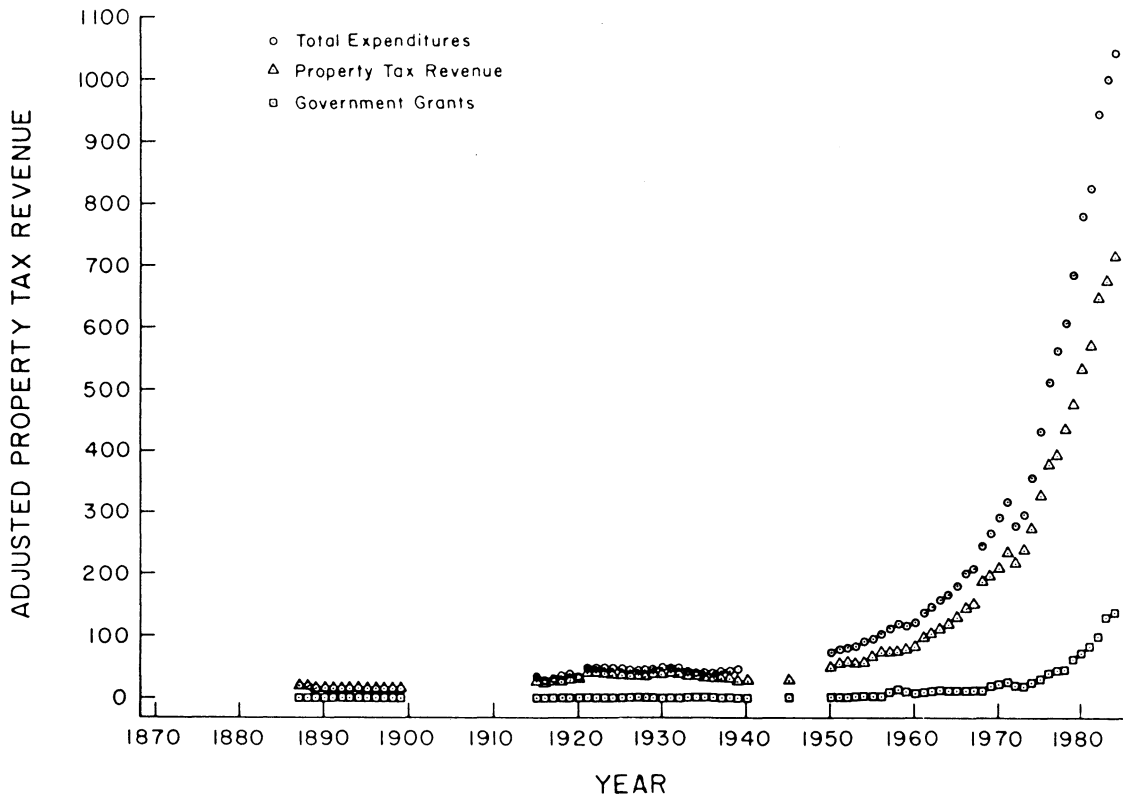


FIG. 2- EXPENDITURE AND REVENUE CITY OF WINNIPEG 1887-1984



repayments have caused municipal finances to appear extremely favourable, as taxes collected exceeded taxes imposed during the war and during the immediate post war years, providing municipalities with ample resources for current operations, for the liquidation of deficits, and for the accumulation of reserves.”

By 1950 the City was ready to enter a new era. Most of the debt acquired during the depression has been repaid. The property tax base was beginning to rise. And Keynesian economic policies were being adopted nationally to stabilize economic activity in Canada. But Baumol's disease in its pure form was also about to strike. While the fifties and sixties would be years of prosperity for citizens in general, they would also be years of continuing adjustment for City officials.

Prosperity and Adjustment: 1950-1973

Between 1950 and 1970 the property tax base of the City more than doubled (see Figure 1). Coupled with slow population growth (about 6%), this resulted in dramatic growth in the per capita base. Despite this, the fifties and sixties were also a time of threatening fiscal crisis.

Winnipeg had to face three major challenges in the period after 1950. With the maturation of the regional staple economy, Winnipeg was destined for much slower growth as the post-staple-led growth model predicted.³⁶ In the late 1960s Winnipeg was actually designated a slow growth area by the federal government and local firms became eligible for grants from the Department of Regional Economic Expansion.³⁷

The second challenge arose from expanding ownership of motor vehicles and the spread of population to the suburbs. These developments brought a need for extending street networks, and more demand for urban services by nontaxpayers.

The final challenge was how to counter “Baumol's disease.” Demand for municipal services grew as fast as (if not faster than) the demand for other goods. But since many municipal services were inherently low productivity areas the proportion of society's resources being used by the municipal sector grew faster still. Baumol's disease was not unique to Winnipeg, however. The Economic Council of Canada noted in 1967: “many municipalities [are now] caught in a squeeze, with revenues from their own sources — still largely the property tax — lagging behind expenditure requirements.”³⁸

Winnipeg responded to fiscal crisis in a variety of ways. Tax increases were frequent. The mill rate in 1950 was 41.5; by 1973 the rate had risen to 83.5 (more than double).³⁹ Transfers of legislative responsibility were also important in this period. The introduction of the federal *Hospital Insurance Act* decreased municipal responsibility for health and

indirectly led to more provincial activity in this sector. For example, the province established the Manitoba Hospital Commission to guide the overall direction of hospitals in Manitoba. Winnipeg had to finance only 20 per cent of the costs of new hospital construction and was responsible for operating deficits only in excess of amounts approved by the Hospital Commission.

The federal *Unemployment Assistance Act* also had an impact on Winnipeg. The legislation reduced costs incurred directly by Winnipeg and also stimulated the province to assume a larger role in the social service field. The *Social Allowances Act of Manitoba (1959)* relieved municipalities of responsibility for long-term social assistance cases. Consequently, the *Act* sharply reduced municipal expenditures on social services by leaving municipalities with responsibility only for the following: the family of a husband in jail for less than one year; a family deserted by the breadwinner for less than one year; unmarried mothers with one child; and the employable needy who had exhausted Unemployment Insurance benefits or who were not insured.⁴⁰ Moreover, municipalities were only partially responsible for even these cases. The province paid 80 per cent of the cost in excess of one mill of equalized assessment or 40 per cent of total costs incurred, whichever was greater. With the passage of the *Canada Assistance Plan Act* in 1966 the federal role in financing became even more important.⁴¹ “Outdoor relief” was no longer a purely municipal fiscal responsibility.

Many conditional and unconditional transfers were also introduced in this period, and by 1963 there were no less than 39 different kinds of provincial grants to municipalities. In 1948 the province began cost-sharing of expenditures on approved road and bridge construction on a 50/50 basis. In 1961 the province assumed a larger share of the costs (60/40).

Education expenditures were also increasingly financed via transfers during this period. Indeed, provincial government grants financed approximately 22 per cent of education expenditure in 1950.⁴² By 1962 this had risen to almost 41 per cent.⁴³ Conditional grants were also introduced in areas such as sport, recreation and fitness, and housing.

The province also made unconditional transfers to the City as well, beginning with the *Unconditional Grant Act* in 1957. In 1950 intergovernmental transfers accounted for just over one per cent of Winnipeg's total revenue. By 1970 this figure had risen to over 7 per cent (and would rise further still in the next decade).

Winnipeg's financial position was also affected by two other dramatic developments in response to urban sprawl: the creation of the Metropolitan Corporation of Greater Winnipeg in 1960 and Unicity in 1972. Prior to 1960 there were 16 different municipal governments in the greater Winnipeg area. The Manitoba government created the Met-

FIG. 3— SURPLUS / DEFICIT CITY OF WINNIPEG 1887—1984

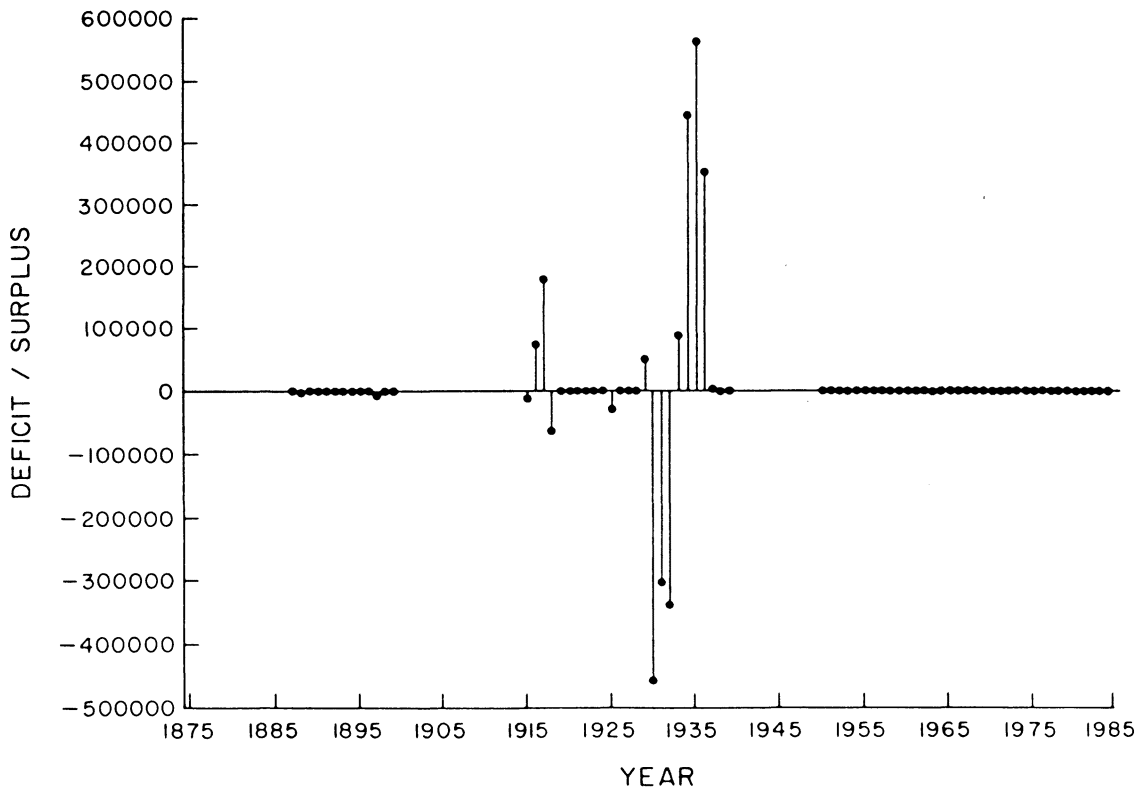


FIG. 4— ACTUAL AND ESTIMATED PROPERTY TAX REVENUES

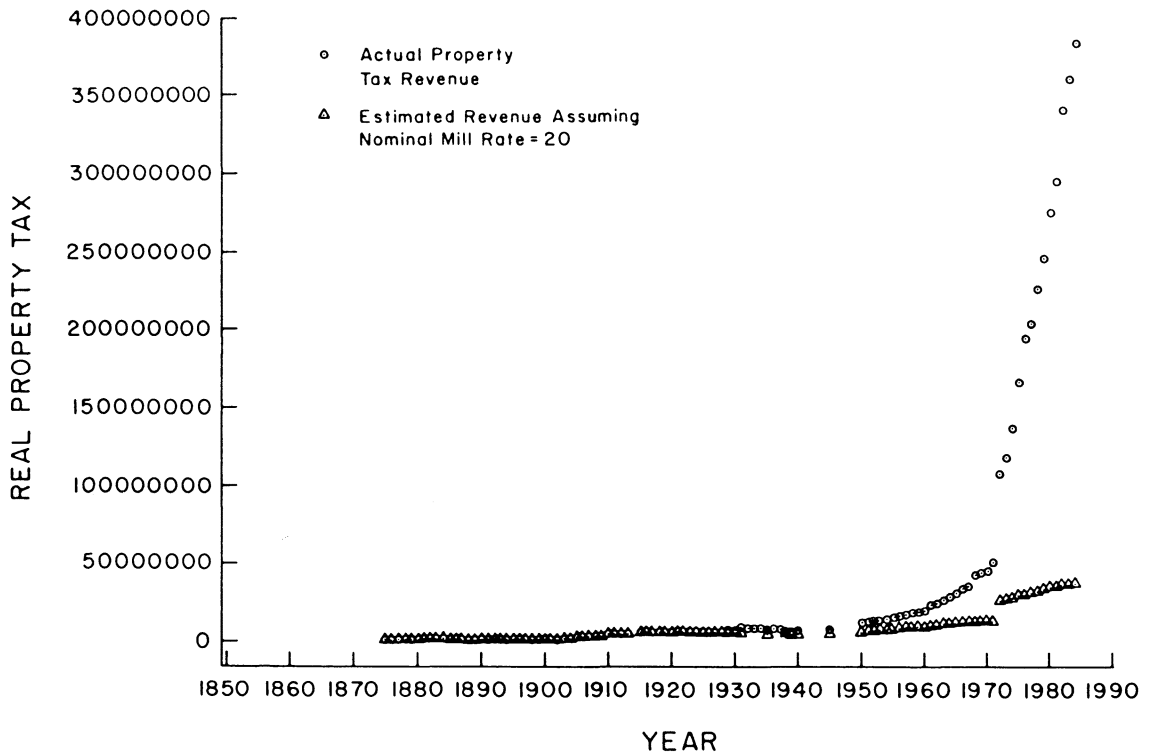
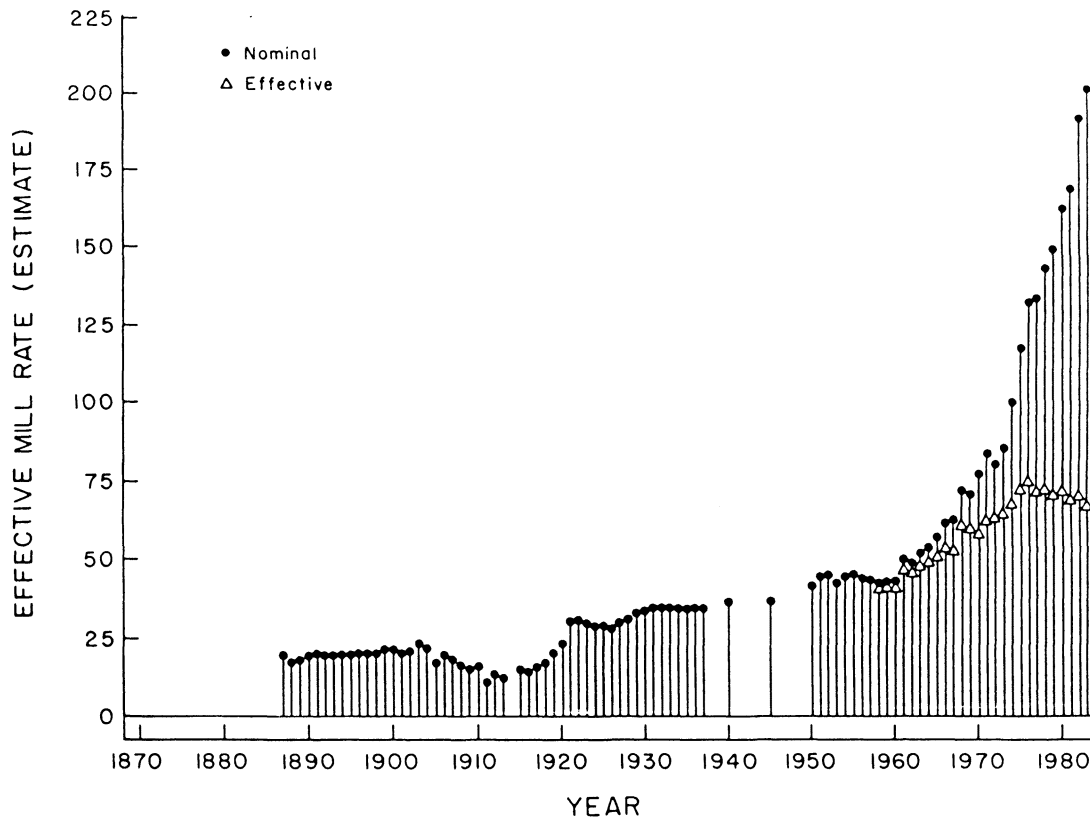


FIG. 5 - NOMINAL AND EFFECTIVE MILL RATE



ropolitan Corporation of Greater Winnipeg in 1960 and integrated property tax provisions.

The new Metro Council was charged with the preparation of a development plan for the area as a whole. In addition certain functions closely related to the plan became a direct responsibility of the corporation, namely, zoning, major streets and bridges, traffic control, transit, sewer and water, and the establishment of major parks and garbage disposal. The Council was also charged to make a uniform assessment of all property for the purposes of local taxation. . . .⁴⁴

The 16 municipalities were consolidated to 13 (including the City of Winnipeg), with each municipality retaining jurisdiction over purely local matters not described within the mandate of the Metro Corporation.⁴⁵

The Manitoba government went a step further in 1972 and legislated amalgamation of municipal governments in the greater Winnipeg area. Unicity officially came into effect on July 1, 1972, and Winnipeg (newer and larger) entered a new era.

Stagflation and Continuing Fiscal Crisis: 1972-1985

Unicity was born into a relatively inhospitable climate. While Baumol's disease threatened to become a chronic irri-

tant, economic conditions were much worse. Rising unemployment and rapid inflation, coupled with a general perception that Keynesian demand management policies were no longer working, led to cries for reduced government activity in economic affairs. Citizens, struggling to maintain real incomes, opposed tax increases. At the same time, governments faced rising costs due to wage and price inflation. The result was a struggle with Baumol's disease involving almost every imaginable remedy. The fiscal crisis appeared to have finally arrived, and with a vengeance.

From 1973 onward the City government fought to keep tax rates under control. The battle was exacerbated by inflation which, in the absence of annual reassessments, resulted in real expenditures diverging from real revenues. With inflation, nominal expenditures must rise to keep real expenditures constant. Provided the property tax base is reassessed annually the base will also rise at the same rate and increases in the mill rate will be unnecessary. However, if the property tax base is not reassessed annually, the nominal mill rate will have to rise to maintain a balanced budget. In this case the effective rate (the proportion of the value of property paid in taxes) still remains constant. Thus inflation placed extra strain on an already flawed property tax system. This struggle was described in the City estimates for 1973:

There is no relief in sight to the City from the pressures of inflation on wage costs and on the costs of other components of civic services. Coupled with this is the effect of increasing urbanization and the requirement to service new areas of development with sewer and water, recreational facilities, roads, storm drainage, parks, public transportation, and other necessities and amenities of urban existence, to say nothing of the need to improve the environment in older areas of the City.

The City is not in a financial position to deal in a constructive way with the challenges which face it. The evidence of the present budget is that to merely maintain existing levels of service requires a significant increase in the mill rate.⁴⁶

The actual increase in the mill rate was five points (two of which were required to offset a declining real base).⁴⁷ The City continued to increase the nominal mill rate throughout this period. In 1972 the nominal mill rate was approximately 80. By 1984 it had risen to almost 210. However, as indicated, the nominal mill rate can be misleading. Our estimates suggest the effective rate rose from 63 in 1972 to 74 in 1976 and then declined to 66 in 1984 (see Figure 5).

City Council appeared to have avoided dramatic increases in the effective rate by three policy responses. Expenditure growth was sharply curtailed; new fiscal arrangements were secured with the Province; and, several of its responsibilities were transferred to the Province.

The first strategem was pursued as early as 1973. Council noted in that year:

... this budget is not an expansionary one and basically contains only those increases which result from increased costs of labour and other commitments to maintain the same level of services.⁴⁸

The Board of Commissioners made a similar statement when presenting their 1976 estimates to the Executive Policy Committee:

In reviewing the estimates, the Board took the position that it should endeavor to present a budget which did no more than maintain existing levels of services. In general we believe these estimates achieve these objectives.⁴⁹

This policy of expenditure restraint continued through 1985. A variety of internal measures, including the adoption of a program-based budgeting approach, were also introduced to cut costs.

Winnipeg also attempted a revenue-sharing agreement with the Province, and was partly successful in 1973. The City wanted access to the lucrative personal and corporate income tax bases. The 1973 arrangement involved one significant change to the per capita unconditional grant introduced in 1957. These grants were to be adjusted (from

1973 onward) in proportion to the growth of personal and corporate income tax revenue. By tying the amount of the grant to growth of the income tax base, the Province was able to give the old grant a new interpretation: the grant was viewed by provincial officials as the City's share (per capita) of provincial personal and corporate income tax revenues. Winnipeg, however, did not share this interpretation and rightfully argued that the new arrangement was still basically a conditional grant.⁵⁰ Specifically, Winnipeg argued:

Although admittedly a step in the right direction such action with respect to unconditional grants did not constitute, in the City's opinion, a new overall fiscal arrangement which would alleviate the City's financial problems.⁵¹

Conditional grants were also introduced or increased by the province, particularly for the transit system, public health, road maintenance, Assinboine Park, the Convention Centre and for combatting dutch elm disease.

In 1979 the Province informed Winnipeg that it would now make one unconditional block grant in lieu of nine existing conditional grants. The conditional grants affected included: regional street maintenance grants, public health grants, the Convention Centre grant, grants made under the Assinboine Park Management Agreement, and transit system grants. Provincial reasons behind the move to block funding are similar to those behind the federal move to block fund the EPF programs in 1977; namely to remove red tape and to gain predictability and control over fiscal transfers.

The overall impact of changes in the fiscal arrangements is evident from the changing share of City revenue received from the provincial government. Provincial grants accounted for 6.97 per cent of municipal revenue in 1972, but by 1984 they comprised 13 per cent.

The growth of provincial grants is the most significant feature of this period and it is likely that such grants will grow in importance; the Core Area Initiative project alone underscores the importance of federal and provincial government grants in urban fiscal matters.

Less important in this period were transfers of responsibility. Only two occurred and total savings amounted to only about one million dollars. The Province assumed full responsibility for the Courts in Winnipeg in 1973 and full responsibility for the costs of operating the Public Safety Building in 1976.

CONCLUSION

This paper traced various responses of the City of Winnipeg to fiscal crisis. We noted the frequent use of tax increases, the transfers of responsibilities, and the growing importance of government grants. We also noted that the

City frequently relied on expenditure restraint. This last response resulted in what Baumol has called unbalanced growth and may have led to an underdeveloped municipal sector.

Expenditure restraint cannot be but a temporary response. Inevitably, demand for services must be met and restraint, at best, merely delays the task of raising new revenues. Intergovernmental transfers have come to play an increasingly important role but this tendency, while evident for Winnipeg, is also part of a national trend and may bring with it, in future, a lessening of relevance and importance for municipal governments in general. In this, Winnipeg's stance is not unlike many other municipalities in Canada. We have also seen that failure of the property tax base to grow was a critical cause of fiscal imbalance. In recognition of this problem, other Canadian cities have explored or introduced several reform measures. Winnipeg has not. For Winnipeg, this would seem to imply that newer (and fairer) assessment practices will have to be put in place quickly so that the base growth will be more in step with economic growth in general.⁵² This might require policy thinking to depart radically from present views as well as fundamental changes in institutional arrangements and vested interests. However, this should not be the least surprising after our examination of a century's response to fiscal crisis. It is particularly instructive to note the last half of that often quoted concluding paragraph of Keynes' famous *General Theory*:

... the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. Not, indeed, immediately, but after a certain interval; ... But, soon or late, it is ideas, not vested interests, which are dangerous for good or evil.⁵³

The balanced budget was conventional wisdom before Keynesian ideas, and we have seen how expenditure restraint, rather than deficit financing, represented the orthodox response. The problems of unemployment relief and social welfare were considered purely municipal responsibilities until massive unemployment and a world depression rendered such "Elizabethan Poor Law" thinking obsolete; and we have seen how federal and provincial governments assumed expanded responsibilities only when the notion of social welfare as a legitimate function of modern industrial society gained acceptance. In sum, the reactions of municipal government to fiscal crisis is conditioned just as much by the reigning economic orthodoxy of what constitutes a "fiscally responsible" action and the appropriate scope of different orders of government in a federal state as it is by

external factors such as revenue elasticities and public demand for services. Consequently, our examination of the history of Winnipeg's response to fiscal crisis is, equally, a record of changing economic ideas about public finance and the role of governments in Canada.

NOTES

This paper is dedicated to Ruben Bellan, Professor of Economics, St John's College, University of Manitoba, and a life long resident and chronicler of Winnipeg's economic fortunes. An earlier version of this paper was presented to the Canadian Urban Studies Conference, Winnipeg, 1985. We are indebted to Alan F.J. Artibise, Ruben Bellan, D. Jane Snidal and Paul Thomas for helpful comments.

1. Our investigation required extensive statistical compilation of historical data not previously available. Further, because of variations in accounting practices, reporting methods and the like, we made numerous adjustments to the public accounts data to render them comparable in economic terms. Space permits us to portray only a few of the important trends in the data in Appendix A.
2. See Richard Bird and Enid Slack, *Urban Public Finance in Canada* (Toronto: Butterworth & Co. Ltd., 1983); Harry M. Kitchen, *Local Government Finance in Canada* (Toronto: Canadian Tax Foundation, 1984).
3. Bird and Slack, *Urban Public Finance*, 57; Kitchen, *Local Government Finance*, Chapter 9.
4. W. J. Baumol, "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," *American Economic Review* 57 (1967): 415-26. For a recent empirical study see William J. Baumol, Sue Anne Batey Blackman, and Edward N. Wolfe, "Unbalanced Growth Revisited: Asymptotic Stagnancy and New Evidence," *American Economic Review* 75 (1985): 806-817. The data was found consistent with the predictions of the 1967 Baumol model.
5. L. De Alessi, "Implications of Property Rights for Government Investment Choices," *American Economic Review* 59 (1969): 13-24.
6. Bird and Slack, *Urban Public Finance*.
7. Derek Hum and Paul Phillips, "Growth, Trade, and Urban Development of Staple Regions," *Urban History Review* X (October 1981): 13-23.
8. Derek Hum, *Winnipeg's Challenge: Adjustment to Post-Staple-Led Growth*, Occasional Paper No. 11 (Winnipeg: Institute of Urban Studies, 1985).
9. R. J. Bennett, *The Geography of Public Finance* (London: Methuen & Co., 1980), 159.
10. As the Economic Council of Canada, *Fourth Annual Review: The Canadian Economy from the 1960s to the 1970s* (Ottawa: Queen Printer, 1967) notes, there are pros and cons to this budgeting practice:
The necessity of facing annual decision . . . to increase tax rates obviously has decided advantages for budget restraint and the municipal taxpayers' interests. At the same time it may create some built-in discrimination against services performed at the municipal level no matter how important.
11. The logic is relatively straightforward. Assume two cities are initially identical in all respects but then growth rates diverge. The centre with the slower growth rate will face a smaller per capita tax base at the end of the period. But if balanced growth is maintained and per capita expenditure increases by the same amount in each city, the slow-growth city is clearly at a disadvantage. The slow-growth city is unable to raise its tax rates above those in the high-growth city. It must therefore rely more heavily on other responses to "Baumol's disease."
12. "The Act to Incorporate the City of Winnipeg" (Statutes of Manitoba, 1873), Section 88. The Act was assented to on November 8, 1873.

13. Alan F.J. Artibise, *Winnipeg: A Social History of Urban Growth* (Montreal: McGill-Queen's University Press, 1975), 19.
14. Ruben Bellan, *Winnipeg First Century: An Economic History* (Winnipeg: Queenston House Publishing, 1978), 11.
15. Alan Artibise, *Winnipeg: A Social History*, 73.
16. At least part of this rise is attributable to the addition of Fort Rouge in 1882. However, the greatest proportion was simply a result of the vastly-inflated land values that accompanied the boom. See Ruben Bellan, *Winnipeg First Century*, 30.
17. Alan Artibise, *Winnipeg: A Social History*, 45.
18. *Ibid.*, 50.
19. Appendix B documents the data sources and the major adjustments. The data series themselves — detailing expenditures by each functional area, and revenues by each source on an annual basis in dollar amounts, proportion of budget, and per capita basis — are too voluminous to include but are available upon request. See also note 1, *supra*.
20. During the period 1887-1900 the annual budget estimates were organized on a standing committee basis. Our general government category corresponds to the finance committee plus expenditures on the pound and licencing minus debt payments and education. Protection of persons and property includes the expenditures of the police, fire, and market committees. Recreation expenditures equal expenditures on trees and the control of noxious weeds plus the Parks Board. Between 1887 and 1890 City education expenditures went to separate school boards. After 1890 and the passage of the Manitoba Schools Act, payments went to a public nondenominational school board. The Parks Board was established in 1893/94.
21. Ruben Bellan, *Winnipeg First Century*, 71.
22. For detailed treatment of the dominance of Winnipeg Council by the commercial elite in this period, see Alan Artibise, *Winnipeg: A Social History*.
23. Alan Artibise, *Winnipeg: A Social History*, 147, also argues that the age/sex distribution of the population was important. He notes:
 . . . it is not unrealistic to assume that a city of predominantly young men would look kindly on programs designed to create employment opportunities. Only when Winnipeg's population became older and more evenly balanced in terms of sex would programs that measured social as opposed to purely economic returns grow in popularity.
24. Alan Artibise, *Winnipeg: A Social History*, 223.
25. For a discussion of Winnipeg's transition from a "gateway" to a "central place," see T. J. Kuz, "Metropolitan Winnipeg: Inter Urban Relationships," in *Winnipeg 1874-1974: Progress and Prospects* ed. T.J. Kuz (Winnipeg Department of Industry and Commerce, 1974), 7-19.
26. Ruben Bellan, *Winnipeg First Century*, 185.
27. *Ibid.*, 184.
28. Expenditures on protection of persons and property as a proportion of total expenditures rose from 17.7 per cent in 1919 to 25 per cent in 1920.
29. Ottawa discontinued payments in 1922, claiming that its finances were strained by the heavy obligations imposed by the War. See Ruben Bellan, "Relief in Winnipeg" (Paper presented at a conference on provincial social welfare policy in Calgary, 1985), 3.
30. The provincial share in 1926 was only 5.1 per cent. This share rose to 15 per cent in the 1930s.
31. Ottawa assumed 75 per cent of the costs of the pension. The province and municipality equally shared the remaining costs.
32. Manitoba first introduced the Mother's Allowance in 1916. Between 1916 and 1930 the cost of the Allowance was shared by the municipality and the province.
33. H. C. Goldenberg, *Municipal Finances in Canada*, A Study Prepared for the Royal Commission on Dominion Provincial Relations (Ottawa: Kings Printer, 1939).
34. Manitoba, *Royal Commission on the Municipal Finances and Administration of the City of Winnipeg* (Winnipeg: Kings Printer, 1939), 532.
35. The transfer of responsibility for unemployed employables was first attempted in 1935. However, it would be 1941 before the federal government was legally able to implement an unemployment insurance program.
36. For a discussion see Hum and Phillips, "Growth Trade and Urban Development," and Hum, *Winnipeg's Challenge*.
37. Ruben Bellan, *Winnipeg First Century*, 240.
38. Economic Council of Canada, *Fourth Annual Review*, 215.
39. This refers to the nominal mill rate. The effective rate increase was smaller. The difference between the nominal and effective rates arises because the City did not reassess property values after 1957 (although there was an adjustment in 1962). Thus the nominal mill rate had to rise to capture the increase in the base (that is, to keep the effective rate constant). Figure 5 portrays our estimates of the effective rate.
40. This latter category of expenditure was eligible for federal cost-sharing (50/50) under the unemployment assistance program. See Manitoba, *Royal Commission on Local Government and Finance* (Winnipeg: Queens Printer, 1964), 23.
41. For further discussion of the history and financing of the Canada Assistance Plan Act see Derek P.J. Hum, *Federalism and the Poor: A Review of the Canada Assistance Plan* (Toronto: Ontario Economic Council, 1983).
42. These provincial grants did not go to the City. Schools are run by autonomous Public School Boards. The City acts as a tax collection agency for the School Board. Thus these grants do not appear in our data but the school-related mill rate does.
43. *Royal Commission on Local Government and Finance*, 73.
44. T. R. Weir, "Winnipeg: A City in the Making," in *Winnipeg 1874-1974: Progress and Prospects*, ed. T. J. Kuz (Winnipeg: Manitoba Department of Industry and Commerce, 1974), 49-50.
45. Data considered for the period 1960-1972 in this paper are for Winnipeg City only, although the City's contribution to the new Metro Corporation is recorded. The Metro levy is recorded as an unclassified expenditure.
46. "Budget Estimates" (City of Winnipeg, 1973), 4.
47. In the absence of reassessment data it is necessary to employ a relatively crude measure of the effective rate. See note 12 in Appendix B for an explanation of our procedures. Our measure gives only a general indication of what happened.
48. "Budget Estimates" (City of Winnipeg, 1973), 1.
49. "Budget Estimates" (City of Winnipeg, 1976), 3.
50. No end of controversy attends these views. The provincial interpretation can be distilled from the following manipulations. The provincial per capita grant was a fixed amount, \$X per person; the grants to municipalities totalled \$NX where N is the population. This is also equal to N(j)X where N(j)X is the grant to the jth municipality. If total income tax revenue is TR then NX/TR is the share of income tax revenues for municipal purposes and N(j)X/TR is the share of municipality j. When combined with the adjustment for growth, the share interpretation is plausible although, as the City argued, it can also be viewed as a semantic trick.
51. "Budget Estimates" (City of Winnipeg, 1973), 2.
52. The terms of reference for the *Review of the City of Winnipeg Act* specifically excludes the question of property tax assessment from its mandate. Nevertheless, a report prepared for the Chief Commissioner (*Study of Property Tax and Alternative Sources of Revenue*, 25 March 1985) recommended that the City of Winnipeg urge the Manitoba government to enact recommendations of the *Manitoba Assessment Review Committee*. Additionally, it suggested a transfer of responsibility for health, education and welfare functions to the Manitoba government.
53. John M. Keynes, *The General Theory of Employment, Interest, and Money* (London: MacMillan and Co. Ltd., 1936). Note also this interesting passage from the recent report of the *Royal Commission on the Economic Union and Development Prospects for Canada* (Macdonald Commission): "Keynesian theory . . . redefined the post war role of the state. . . . The point is of general application and significance. The future role of the state, the choice of particular

instruments of intervention, and the relative importance of institutions within government will partially reflect the findings of some academic scribbler puzzling over a recalcitrant theorem," Vol 1 (Canada: Minister of Supply and Services, 1985), Ch. 1, 27.

Appendix A

Space permits only the following figures portraying the data trends to be included:

- Figure 1 Property Tax Base: City of Winnipeg 1874-1984
- Figure 2 Expenditure and Revenue: City of Winnipeg 1874-1984
- Figure 3 Surplus/Deficit: City of Winnipeg 1887-1984
- Figure 4 Actual and Estimated Property Tax Revenue
- Figure 5 Nominal and Effective Mill Rates

Figures are also available indicating expenditure by area as a proportion of total municipal expenditures for the following functional categories: General Government, Protection of Persons and Property, Education, Debt Charges, Public Works, Recreation and Community Services, Social Services, and Health. Additionally, figures are also available depicting different revenue sources as a proportion of total revenue. The different categories include: Property Tax, including Payments in lieu of Taxes, Business Tax, and Government Grants. Discussion in the text is based upon these data trends. All figures, plus the data series themselves, are available from the authors at cost.

Appendix B

Notes on Data Employed and Adjustments.

1. Sources of data for the periods 1886/87-1898/99, 1919/20-1930, and 1950-1984 are from the Annual Budget Estimates of the City of Winnipeg. Data for the period 1914/15-1918/19 are from Annual Estimates of the City of Winnipeg 1919/20 and are actual, not estimated, data. Data for the period 1931-1937 are from the Royal Commission on the Municipal Finances and Administration of the City of Winnipeg and are actual, not estimated data. Assessment data for the periods 1874/75-1885/86, 1899/1900-1913/14 are from *The Gateway City* reprinted in Artibise.
2. The data is presented using standard accounting categories. This required a reworking of early estimates which were reported on a committee basis.
3. Education is not a City responsibility. The *Manitoba School Act* of 1890 empowered local residents to organize school corporations run by a board. Municipal Corporations act as tax collection agencies for the school board but have no control over how much is raised or how

it is spent. Reported education expenditure is actually that part of the property tax turned over to the school boards.

4. Beginning in 1886/87 the previous year's surplus is added to miscellaneous (the catch-all category) revenue. Deficits are added to unclassified expenditure in the next year.
5. Utility profits and provincial government grants (before 1950) are not reported separately. They are included in the miscellaneous category.
6. In 1921 there was a change in the fiscal year. Prior to 1921 the fiscal year end was April 30. After 1921 the fiscal year was the calendar year.
7. The Provincial Levy (The Municipal Commissioners Levy) is a levy made by the municipality for a sum of money required of it by the province for specific purposes (including the support of local courts, old age pensions, mothers allowances, soldiers tax relief, and cancer research). Prior to 1919/20 the Levy is included in unclassified expenditures. The levy was terminated in 1953.
8. Population data is based on the Canada Census. Yearly data interpolated based on the average annual rate of change between census dates.
9. Assessment practices change over the period. Generally land is assessed at 100 per cent of estimated market value while improvements are assessed at only 66.6 per cent of estimated market value.
10. After 1967 property is separated into two categories. Reported mill rates are actually a weighted average (weights based on assessed values).
11. With Unicity in 1972, mill rates diverge because of the large number of different school boards. The millrate in the j th district is:

$$t(j) = t^* + st(j)$$
 where t^* is the City of Winnipeg mill rate and $st(j)$ is the rate imposed by the j th school board.
 The reported mill rate (t) is a simple weighted average:

$$t = \sum v(j)t(j)$$
 where the weights, $v(j)$, are equal to $B(j)/B$ (the base in district j divided by the total base).
12. Effective tax rates are estimated using a relatively simple stock adjustment equation. The value of the base in year t is:

$$B(t) = (1+p(t))B(t-1) + B(t) - B(t-1)$$

$$= X(t) + Y(t)$$
 where $X(t)$ is the revalued stock, $p(t)$ is the rate of price increase (the change in the consumer price index), and $Y(t)$ is the flow (the new stock accumulated during the period). The effective tax rate is simply property tax revenue divided by the adjusted base. This in turn is just a weighted average of the effective rates on different categories of property.
13. The Metropolitan Corporation of Winnipeg levy is included in unclassified expenditures (1961-1971).