

7-1-2005

Capital Expenditures in Metropolitan Toronto: A Comparison of the Capital Operations and Written Literature on Capital Infrastructure for the Municipality of Metropolitan Toronto

Caspar Hall
Western University

Follow this and additional works at: <https://ir.lib.uwo.ca/lgp-mrps>

 Part of the [Public Administration Commons](#)

Recommended Citation

Hall, Caspar, "Capital Expenditures in Metropolitan Toronto: A Comparison of the Capital Operations and Written Literature on Capital Infrastructure for the Municipality of Metropolitan Toronto" (2005). *MPA Major Research Papers*. 51.
<https://ir.lib.uwo.ca/lgp-mrps/51>

This Major Research Paper is brought to you for free and open access by the Local Government Program at Scholarship@Western. It has been accepted for inclusion in MPA Major Research Papers by an authorized administrator of Scholarship@Western. For more information, please contact tadam@uwo.ca, wlsadmin@uwo.ca.

Capital Expenditures in Metropolitan Toronto:
A Comparison of the Capital Operations and Written Literature on Capital Infrastructure
for the Municipality of Metropolitan Toronto

MPA Research Report

Submitted to

**The Local Government Program
Department of Political Science
The University of Western Ontario**

July 2005

Caspar Hall

Abstract

The Municipality of Metropolitan Toronto has been praised and often critiqued throughout its history for its capital infrastructure. There have been many written accounts about the Metropolitan Toronto and some have contained assertions on the history of capital infrastructure within the municipality. Yet, there has been not much literature directly devoted to explaining the entire history of capital infrastructure within Metropolitan Toronto. This paper attempts to extract some of the assertions made by key literature on Metropolitan Toronto and assess whether these assertions can be empirically supported. In order to do this, an analysis of all the annual Capital Operations financial statements of Metropolitan Toronto was undertaken. The historical analysis of the Capital Operations did support the assertions made by the literature on capital infrastructure, but there were a few exceptions. Exceptions included the province in the late 60's and early 70's reducing, not increasing, their funding to Metro, and provincial transfers in the late 70's to the end of Metro still being the number #1 source of financing for capital expenditures, despite trying to decrease its responsibilities to the municipality.

Table of Contents

Introduction	6
Capital Infrastructure	7
Importance of Capital Infrastructure	11
Capital Financing and Expenditures	16
History and Review of Literature on Metropolitan Toronto	21
Analysis of Capital Operations of Metropolitan Toronto	28
Comparison of Literature Review and Capital Operations Analysis	58
Conclusion	62
Appendix A	65
Appendix B	67
Appendix C	68
Appendix D	69
Appendix E	70
Appendix F	71
Appendix G	77

List of Charts

Chart 1a – Absolute Ontario Grants	p.30
Chart 1b – Ontario Grants as Percentage of Total Financing	p.31
Chart 2a – Absolute Reserves & Reserve Fund	p.31
Chart 2b – Reserves & Reserve Fund as Percentage of Total Financing	p.32
Chart 3a – Absolute Current Operating Fund to Capital Transfers	p.33
Chart 3b – Current Operations Transfers as Percentage of Total Financing	p.33
Chart 4a – Absolute Long Term Debt	p.34
Chart 4b – Long Term Debt Issued as Percentage of Total Financing	p.35
Chart 5 – Other Financing as Percentage of Total Financing	p.35
Chart 6a – Total Financing Revenue for Capital Expenditures	p.36
Chart 6b – Yearly Percentage Change in Total Capital Financing	p.37
Chart 7b – General Government Percentage of Total Capital Expenditures	p.38
Chart 8a – Absolute Protection to Persons & Property Capital Expenditures	p.38
Chart 8b – Protection to People & Property as Percentage of Total Capital Expenditures	p.39
Chart 9a – Absolute Transportation Capital Expenditures	p.39
Chart 9b – Transportation Expenditures as Percentage of Total Capital Expenditures	p.40
Chart 10a- Absolute Environmental Capital Expenditures	p.40
Chart 10b – Environmental Expenditures as Percentage of Total Capital Expenditures	p.41
Chart 12a – Absolute Social & Family Capital Expenditures	p.42
Chart 12b – Social & Family as Percentage of Total Capital Expenditures	p.42
Chart 13a – Absolute Recreation & Cultural Expenditures	p.43
Chart 13b – Recreation & Cultural as Percentage of Total Capital Expenditures	p.44
Chart 15a – Absolute Total Capital Expenditures	p.44
Chart 15b – Percentage Change in Total Capital Expenditures per Year	p.45
Chart 16 – Absolute Current Operating Expenditures	p.46
Chart 16b – Capital Expenditures as a Percentage of Operating Expenditures	p.47
Chart 17a – Total Capital Expenditures per Person	p.48
Chart 17b – Percentage Change in Capital Expenditures per Person	p.49

List of Tables

Table 1a – Absolute Figures of Sources for Capital Financing per Decade	p.49
Table 1b – Ranking of Sources of Financing per Decade (Absolute Amounts)	p.50
Table 1c – External vs. Internal Sources of Financing (Absolute & Percentage)	p.51
Table 2a – Absolute Figures of Capital Expenditure Categories per Decade	p.52
Table 2b – Ranking of Capital Expenditure Categories per Decade (Absolute Amounts)	p.52
Table 2c – Physical vs. Social Capital Expenditure (Absolute & Percentage Amount)	p.53

Introduction

Much has been written on the history of the former Municipality of Metropolitan Toronto, but not specifically on the its historical trends in capital infrastructure. Metropolitan Toronto's capital infrastructure trends have for the most part, been contained in literature that did not directly deal with capital infrastructure. Within the literature, common themes of Metro Toronto have surfaced repetitively. One such theme is that physical infrastructure dominated the early years of Metro. One possible method in which these common themes could be supported or challenged would be to do an historical analysis of the Capital Operations financial statements for the Municipality of Toronto.

The objective of this paper is to analyze the history of capital operations of the Municipality of Metropolitan Toronto (1954-1997), with respect to its Capital Financing and Expenditures, and compare the analysis against the written literature of the development of Metropolitan Toronto's capital infrastructure.

First, capital infrastructure will be defined by reviewing several types of "infrastructure". Second, the importance of capital infrastructure to municipalities will be examined. Third, this paper will define some of the main terms used within municipal capital financing and expenditures. Fourth, an overview of the history of the Municipality of Metropolitan Toronto and a review of some of the key literature on the municipality in regards to capital infrastructure will be given. Fifth, Metropolitan Toronto's capital operations (1954-1997) will be analyzed. Finally, this paper will do a comparison between the reviewed written literature on Metropolitan Toronto, and the analysis of the Metropolitan Toronto's capital operations.

Capital Infrastructure

In order to understand the importance of infrastructure to a municipality, it first must be defined. However, there does not seem to be any universal term within the literature that accounts for all infrastructure within a municipality. For example, the terms public infrastructure, municipal infrastructure, hard and soft infrastructure, physical and social infrastructure, and capital infrastructure all appear to have overlapping definitions throughout the literature. Various definitions will be examined for a more thorough understanding of infrastructure which will be necessary later in the paper.

In the book, *Financing Infrastructure: Tools for the Future*, authors Feldman, Mudge, and Rubin explain that infrastructure should be considered a service and is the basis of all economic activity. More specifically, it should be termed public works infrastructure because these facilities share common characteristics. Their definition includes roads, highways, bridges, water supply, sewage disposal, solid waste, public transit, airports, and seaports. Public works infrastructures tend to have long economic lives, dominate their local markets, interact with other infrastructure projects, and provide a return on investment in the economy. A major role is played by the public sector in the financing, owning and operation of the project or facility and can coordinate these projects as a part of the larger system. The public sector is also solely responsible for safety regulations since these projects have near monopolies in their local markets (Feldman, Mudge, and Rubin, p.3-5).

The authors state that infrastructure can be viewed from two angles: physical and functional. The physical view believes that the decision makers provide infrastructure to remove existing deficiencies, meeting recurring problems, and providing the capacity for expansion. The functional view proposes that infrastructure is implemented to balance

population based needs against those required to produce goods and services (Feldman et. al, p.4).

In the Toronto Dominion Economics Special Report, *Mind the Gap: Finding the Money to Upgrade Canada's Aging Public Infrastructure*, they defined public infrastructure as not all physical structures, but only the subset that delivers collective benefits to society. This definition includes public transit and transportation facilities, wastewater and water works, educational facilities, hospitals, recreation, electric power and shelter housing. Again, they explain that there is no widely accepted definition of what constitutes "public infrastructure (TD Economics, p.2)." The report also clearly delineates that this definition of infrastructure does not include human and software capital or other non-tangible assets (TD Economics, p.2).

Expanding upon the previous definition of public infrastructure, Neil Grigg, in his book, *Infrastructure Engineering and Management*, states that public infrastructure does not only consist of the typical items such as roads, highways, bridges, water supply, sewage and waste disposal systems. It also includes airports, seaports, railways, buildings, energy production, transmission facilities, satellite, and fibre optic telecommunications which is needed for the passage of information in current times (Grigg, p.26).

Max Neutze, in his book, *Funding Urban Services*, gives a more complex definition of infrastructure and sheds light on the differences between physical and social infrastructure. Neutze describes that infrastructure was:

[first introduced in the early 1950's and was] predominantly used in developmental economics to mean 'social overhead capital,' which may be divided into economic overhead capital such as much of transport, energy and

telecommunications which provides services to industry, and social capital such as education, police and health services which provides services to people (p.17).

Physical, or sometimes known as economic infrastructure, is defined as providing services to property. These services are provided where people live and work, or provide links between where people work, live and carry out other social, economic and cultural activities. The services included in this definition entail water supply, sewerage, stormwater drainage, solid waste disposal, roads, public transport, electricity, gas and telecommunications. Social infrastructure provides services to people. Social infrastructure services are provided at particular locations to which users are expected to travel (p.18).

Hard and soft infrastructure is very similar to physical and social infrastructure in definition. The McMaster University Sustainable Communities Research Group defines both hard and soft infrastructure:

Hard infrastructure consists of the physical aspects maintained by the public sector that are needed by the populace to carry out their daily routines. Hard infrastructure includes, but is not limited to, roads, sidewalks, water lines, and sewers. Soft infrastructure consists of the services, or buildings in which they are contained, provided by the public sector. Policing, schools and hospitals are examples of soft infrastructure (McMaster University Sustainable Communities Research Group website, <http://www.eng.mcmaster.ca/civil/sustain/infill.html>).

Municipal infrastructure, as defined by the TheFreeDictionary.com;

typically includes transportation, sewer, reservoir, potable water supply systems, police stations and local jails, and other infrastructural capital (e.g. tools, clothing, shelter, boats, etc.) – the built environment – under the jurisdiction of a municipal government or other local government (TheFreeDictionary.com, <http://encyclopedia.thefreedictionary.com/municipal%20infrastructure>).

A common thread throughout these definitions is that infrastructure falls under government jurisdictions, and is created to support services. According to Len Brittain, Corporate Director of Finance for the City of Toronto, based on the provincial jurisdiction within Canada, municipal services may include;

1. Solid waste collection, disposal, and recycling;
2. Emergency services:
 - a. Policing,

- b. Fire, and
- c. Ambulance
- 3. Libraries, parks, and recreation;
- 4. City planning and development
 - a. Licensing,
 - b. By-law enforcement, and
 - c. Planning and development;
- 5. Water and sewer services;
- 6. Movements of goods and people:
 - a. Transit and
 - b. Roads;
- 7. Economic development;
- 8. Arts, culture, and heritage;
- 9. Social and health services;
 - a. Welfare,
 - b. Homes for aged,
 - c. Child care,
 - d. Hostels,
 - e. Supportive housing, and
 - f. Public health (Brittain, p.553).

Capital infrastructure plays a significant role in the provision of these municipal services.

Taking into account these definitions, for the purpose of this paper, capital infrastructure will incorporate both the definitions of social and physical infrastructure, and encompasses all the provisions of the municipal services labeled by Brittain.

Importance of Capital Infrastructure:

Now that municipal capital infrastructure has been defined, the next logical question is to ask why is it important to municipalities? It has been documented by public municipal officials and scholars that capital infrastructure may be the most critical issue facing local governments.

According to the 2000 State of America's Cities Survey, U.S. city officials identified investing in infrastructure (67%) and in public education and other supports for children, youth and families (65%), as needing the most attention and resources from the federal government. Approximately ninety percent of these officials stated that there is a moderate to significant need for major repairs, replacement, and maintenance of their road infrastructures in their municipalities over the next five years. Other infrastructure concerns for these officials included work needed on sewer infrastructures (76%), water infrastructure (69%), and transit infrastructure (62%) (National League of Cities). Brittain states that if this same survey was performed in Canada, there would be similar results (Brittain, p.554).

In fact, a similar Canadian study was conducted in 1984 by the Federation of Canadian Municipalities, who published the *Report on Municipal Infrastructure in Canada: Physical Condition and Funding Adequacy*, in January, 1985. Initially, approximately 300 surveys were sent out to the mayors of municipalities throughout Canada asking about the status of their capital infrastructure over the past 15 years. In turn, about 98 municipalities replied to the study by the time of the publishing of the report. In total, these municipalities represented roughly 8.5 million people. The results of the survey indicated that many mayors felt that their community facilities were in relatively good condition, however, their hard infrastructure had deteriorated over time

(i.e. roads, bridges, sidewalks, sewers, watermains, and public buildings). In particular, sewage collection, water transmission facilities and road facilities were in need of emergency repairs (Federation of Canadian Municipalities, p.11). For these municipalities, the number one issue was funding. A study of the unadjusted per capita budget data for these municipalities for the past 15 years showed that public works budgets have been declining over those years (p.11).

It has been suggested that there are major repercussions by not maintaining a municipality's capital infrastructure. For example, neglect or deferral of road maintenance can cause deterioration, increase the possibilities of transportation accidents, and pronounce the gridlock problem when major road arteries for the municipality are closed for construction. If bridges or buses do not receive regular maintenance necessary for their upkeep, health and safety are compromised. Additionally, if regular maintenance of buildings and vehicles is deferred, the costs of repair and maintenance will be increased. If this asset has deteriorated to the point of being non-repairable, the asset will most likely need to be replaced (Brittain, p.554).

Economist D.A.L. Auld, in his article, "Financing the Provincial-Local Public Capital Infrastructure", explains why investments in municipal capital infrastructure are important:

1. They produce consumption services;
2. They enhance private sector output;
3. They enhance labour productivity (Auld, p.195).

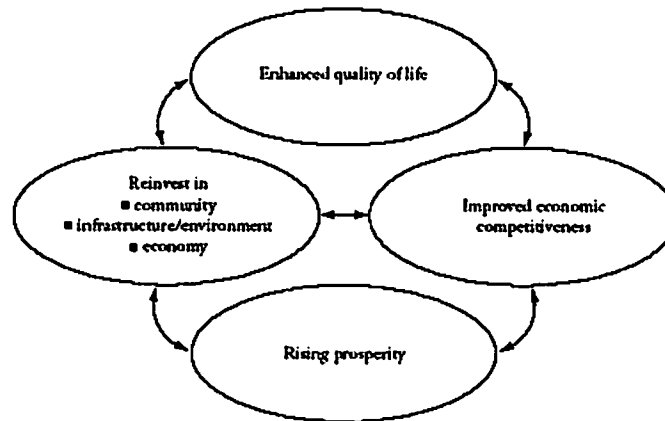
Another economist, Alicia Munnell, in her article, Policy Watch: Infrastructure Investment and Economic Growth, agrees with Auld as the following quotation illustrates;

Everyone agrees that public capital investment can expand the productive capacity of an area, both by increasing resources and by enhancing the productivity of existing resources. A well-constructed highway allows a truck driver to avoid circuitous back roads and to transport goods to market in less time. The reduction in required time means that the producer pays the driver lower wages and the truck experiences less wear and tear. Hence, public investment in a highway enables private companies to produce their products at lower total cost. ... Similar stories can be told for mass transit, water and sewer systems, and other components of public capital (Munnell, p.191).

Munnell's description of the benefits of a "well constructed highway" is a practical example of the importance of municipal capital infrastructure. As indicated by Munnell, other components of public capital could be explained as enhancing private sector output and enhancing labour productivity.

Another benefit of investment in municipal capital infrastructure is helping to improve an organization's economic competitiveness. Brittain uses the example that "a well maintained vehicle fleet can enhance the organization's image and help to promote its services or products (Brittain, p.554)." For municipalities, reinvestment in capital infrastructure in such items as roads, transit, community centres, and social housing will enhance the municipality's image, allowing it to be more economically competitive and improving the quality of life (Brittain, p.554). Figure 1 displays how the City of Toronto views the benefits of reinvesting in capital infrastructure.

Figure 1 – Reinvesting in Our Communities, Infrastructure, Environment, and Economy Improves Quality of Life



Source: City of Toronto, *Toronto at the Crossroads: Shaping Our Future* (Toronto: City of Toronto, June 2000).

An analysis of the empirical research of public investment and the rate of growth has been done by the OECD Group on Urban Affairs. It was their conclusion that there are not many rigorous attempts to establish a relationship between the two variables but did look at the research that did. The first study done by K. Mera, in his 1973 research titled "Regional Production Functions and Social Overhead Capital: An Analysis of the Japanese Case". The study attempted to find a relationship between regional productivity and the stock of public capital within Japan and the United States. He concluded that within the United States, between 1947 and 1963, the growth of public infrastructure was a major cause of more rapid growth of some regions compared to others. However, this was not the case in Japan although there were reasons given to why this was not the case (OECD Group on Urban Affairs, p.35).

Another study analyzed by the OECD Group was by D. Aschauer in his 1987 article, "Is the Public Capital Stock Too Low?" The study attempted to discover if there

was a relationship between public consumption and investment, private investment and the rate of return on private capital over the period of 1953-1984. The study concluded that the level of public capital strongly influences the net return to private capital (OECD Group, p.35).

This section has introduced the importance of capital infrastructure to a municipality. Municipal public officials, leading academic scholars and empirical evidence have discussed the importance of infrastructure to municipalities. In addition to these sources, in Canada, the importance is reflected by both the Federal and Provincial Governments who have departments devoted to the production and maintenance of infrastructure (i.e. Infrastructure Canada, and the Ontario Ministry of Public Renewal).

Capital Financing and Expenditures

In order to understand the historical analysis of the capital operations of the Municipality of Metropolitan Toronto's financial statements, many related terms need to be distinguished. Harry Kitchen's book, *Municipal Revenue and Expenditure Issues in Canada*, provides clear definitions.

First, the term "capital" in various municipalities will be different than in others. Some "capital" will display characteristics of both operating and capital expenditures and this is where the differences come from. According to Kitchen, it is generally agreed that capital expenditures can be defined to include the following;

1. Expenditure for the acquisition or construction of buildings, structures, facilities, equipment, rolling stock, or furnishings.
2. Expenditure incurred in order to bring any of the foregoing items into operation
3. Expenditure for a major rehabilitation of any of the foregoing items
4. Expenditure for the purchase or development of land
5. Expenditure for any good that normally has a useful life of more than one year (Kitchen, p.187-188).

Furthermore, Kitchen explains that capital expenditures differ from operating expenditures in two important ways;

1. Whereas operating expenditures tend to be more or less the same from one year to the next, capital expenditures tend to vary substantially and unpredictably.
2. Second, operating expenditures are financed from locally raised revenues or grants, whereas capital expenditures derive financing from these sources but also from special assessments, development charges, reserves, and borrowing (p.187).

To simplify, municipal capital expenditures can be thought of as public investment into municipal capital infrastructure. Annually, municipalities will go through a process of financing and budgeting (planning) capital expenditures. The amount of expenditures depends on whether the municipality is in a development stage (e.g.

requiring new facilities, etc.) or in a mature stage. Municipalities in a growth stage will face a high level of capital expenditures because they will be building their municipal infrastructure (e.g. roads, sidewalks, water and sewage systems, parks, recreation centres, etc.). Municipalities at a mature stage will see increasing capital expenditures due to repair, rehabilitation and replacement of the municipal capital infrastructure (Whyte, p.81).

Next we look at how capital expenditures are financed and how the decision is made of what public capital projects to invest in. In order to finance for capital expenditures, municipal governments use both internal and external sources of revenue.

Internal Revenue Sources:

Generally, municipalities in Canada have the following internal revenue sources; current operating revenues, reserves (reserve and reserve funds), a variety of special charges such as special assessments, development charges, and other exactions levied on developers, and a miscellaneous collection of other municipal generated revenues (Kitchen, p.193). Definitions for these sources can be found in Appendix A.

External Revenue Sources:

Generally, there are two external revenue sources for municipalities. These sources are grants and borrowing. Refer to Appendix B for definitions.

A major source of long term borrowing for municipalities is the public market in which the municipalities or the province-wide authority can issue two general variations of debentures; serial debt and sinking fund debentures. Serial debentures are issued for a number of years with a certain number of these debentures reaching maturity and are redeemed by the municipality each year. Serial debentures can take several forms. Annuity serials are like mortgages in that they provide for payments of interests and

principal that are typically the same throughout the lifetime of the debenture. In the early years of an annuity serial, the interest portion of the payment is larger than the principal. In the later years of this debenture, the principal payment becomes larger. Straight serials require annual principle payments of approximately equal amounts. The interest amounts decline over the term of the debenture. Irregular serials involve a “balloon maturity” date (i.e. repayment of a significant portion of the principal is postponed until the issue matures). Most provinces disallow this type of debenture, and when allowed is seldom used (Kitchen, p.206, 208).

The second general types of debenture are sinking-fund debentures. A sinking fund debenture is issued to mature at a fixed future date. Every year the municipality pays an agreed upon sum to a trustee who in turn, invests the portion that is not immediately applied toward paying the debt or discharging the obligation. In general, municipal governments rely more on serial rather than sinking fund debentures because they are less difficult to administer (Kitchen, p.208).

In Ontario, the province regulates which entities can issue long term debt. For example, regional municipalities, counties, and single tier municipalities not within an upper tier municipality can issue debentures. Additionally, most school boards (Metro Toronto school boards were an exception) have the power to issue their own debentures, but also have the right to ask the municipality in the same jurisdiction to issue debt on their behalf. Local boards such as public utilities commissions, libraries, and police departments can have the Ontario Municipal Board (OMB) issue debt on their behalf, but must seek debentures through the area or regional municipality (Whyte, p.96-97).

Additionally, the Ontario Municipal Act requires that municipalities submit an application for the issuing of debentures for annual capital expenditures. The OMB undertakes a debt capacity calculation to see that the municipality does not exceed the prescribed limits (i.e. regional municipality 25%, area municipalities 20%). This regulation is to prevent a fiscal crisis or defaults (Whyte, p.97-98). Section 147 (4) (a-e) and (5) of the Act sets out the debt and financial obligation limits for municipalities (Appendix C).

The OMB is a quasi-judicial administrative tribunal which adjudicates matters and disputes over urban and rural planning, public utilities, railways, public transit, transportation, public works and general municipal affairs. The OMB powers in regards to the approval of general municipal capital expenditures are found in The Ontario Municipal Board Act RSO 1990, Section 54 (1). Within Sections 55-70 of the same Act, the OMB's powers with regards to the issuing of debentures can be found. Section 65 (1) to (8), dictates that all municipalities must have the Boards approval for all capital undertakings requiring the issuance of debentures or future financing beyond the term of council (Appendix D).

A very important factor in long term borrowing for municipalities is the interest rate that is associated with the various types of debentures. The interest rate plays a crucial role in determining the type of financing that will be undertaken and its timing, and therefore the burden on the borrower. Due to this fact, the bond ratings of a municipality are very important. The bond ratings determine what the rate of interest a municipality will receive for its debentures. The bond rate is established by a major rating service (e.g. Moody's, Standard and Poor's, and Dominion Bond Rating Service). These organizations determine a municipality's bond rate through a detailed assessment

of a municipality's capacity to raise revenue under normal and abnormal economic circumstances. This bond issue is rated only in terms of a municipality's credit risk and not in terms of its investment merit. The highest ratings by the bond rating organizations are based on the credit quality and risk associated with the municipality's ability and willingness to repay the principal and interest in a timely manner. It is in the interest of municipalities to have the best bond rating because this will save the municipality money in repaying the debenture (Kitchen, p. 210).

The second side of capital expenditures is the decision of what public capital projects will be invested in. Typically, a municipality will create a capital budget. A capital budget is a multiyear financial plan that lays out the timing for of construction or acquisition of capital works. This capital budget only takes into account the costs associated with the acquisition and rehabilitation of capital assets (p.191-192).

Requests for capital projects usually come from politicians, citizens, special interest groups, operating departments and central agencies. Evaluation of these capital projects are undertaken by central agencies that are coordinated by the municipal government. The majority of the information for the capital budget, such as the economic base and land use studies come from the planning department and the financial data will come from the finance or treasury department (Whyte, p.83-84). Various types of analysis both quantitative (e.g. cost benefit analysis, positive net present value) and qualitative, are performed to determine whether a capital expenditure should be undertaken. These analyses are beyond the scope of this paper.

History and Review of Literature on Metropolitan Toronto

In January 1953, the Ontario Municipal Board (OMB), issued a report titled "Decisions and Recommendations of the Board", in respect to a previous application to the board by the City of Toronto and the Town of Mimico. The respondents comprised of the remaining eleven municipalities of the County of York. This application, first submitted in 1950, wanted the various municipal governments to amalgamate into one government, but only one municipality (i.e. Town of Mimico) agreed with this request. The report by the OMB rejected the City of Toronto's application. Instead, the Chairman of the OMB, Mr. Lorne Cumming, Q.C., recommended that there should be a creation of a metropolitan government in the form of a two-tier system of local government (Rose, p.20-21).

In February 1953, the Ontario provincial government introduced Bill 80, "An Act to Provide for the Federation of the Municipalities in the Metropolitan Area." Bill 80 quickly passed as the Municipality of Metropolitan Toronto Act of 1953. This act set up an interim metropolitan administration on April 15, 1953, and lost the interim name on January 1, 1954 (p.21).

Based on this act, the Municipality of Metropolitan Toronto was formed. The Metropolitan Council consisted of twelve representatives from the City of Toronto, and one Mayor or Reeve from each of the other twelve municipalities that comprised this new government. The thirteen municipalities which were encompassed by this new higher level of municipal government were; Town of Leaside, Town of Mimico, Town of New Toronto, Town of Weston, Village of Forest Hill, Village of Long Branch, Village of Swansea, Township of East York, Township of Etobicoke, Township of North York, Township of Scarborough, Township of York, and the City of Toronto. The new

government would be lead by a Chairman. The first Chairman of the Metropolitan Council was Mr. Frederick Gardiner, who was the only Metro Chairman to be appointed, by the Provincial government, to that position. As of January 1, 1955, any successors could be elected to the position of Chairman at the end of the term, either from within or external to Metro Council (p.21-22).

There was now a separation of responsibilities between Metropolitan Toronto, and its constituent municipalities as laid out by the Act. Appendix E sites Metropolitan Toronto's responsibilities after the passing of Bill 80.

Area municipalities were still responsible for: local water supply, local sewage collection, garbage collection, local streets and sidewalks, police, fire, education (above the level of metropolitan grants), some health and welfare services, housing and redevelopment, planning in conformity with metropolitan plan, creation and maintenance of local parks, and collecting revenues required to provide local services on the basis of the uniform assessment (p.26-27). In 1957, three new entities came under Metro Council control. The Municipality of Metropolitan Toronto Act was amended to amalgamate all thirteen police departments into one department under Metro. Additionally, the responsibility for licensing in all classifications throughout the municipalities was transferred to Metro, along with the Magistrates' Court from the City of Toronto (p.36-37).

The next great stage in the existence of Metropolitan Toronto came from the City of Toronto pushing for amalgamation again in 1963. Instead of going through the OMB, as it did in 1950, the Ontario government decided to establish a Royal Commission, headed by Carl Goldenberg, Q.C., to explore the strengths and weaknesses of the

metropolitan system of government (Rose, p.103). In June 1965, the Royal Commission submitted their recommendations to the Ontario government. On March 31, 1966, Bill 81, "An Act to Amend the Municipality of Toronto Act," was introduced to Queen's Park. It was formally passed on April 26, 1966 to take effect January 1, 1967. The two level form of municipal government remained, but now the thirteen municipalities had been consolidated into six municipalities (i.e. City of Toronto, Etobicoke, North York, York, East York, and Scarborough). At this time the structure of Metro Council was also changed.

For the most part, Metro stayed the same except for some changes in the structure of Metro Council. In the 1997, the Municipality of Metropolitan Toronto was consolidated into the City of Toronto, through the passage of Bill 103 (City of Toronto Act, 1997) in provincial legislature. As of January 1, 1998, the Municipality of Metropolitan Toronto existed no longer.

There has not been a great deal of literature that has strictly dealt with the history of capital infrastructure in Metropolitan Toronto from its inception to its end. Instead, discussion of capital infrastructure has been included in various written accounts of Metropolitan Toronto. Key points are drawn from literature which illustrates issues surrounding capital spending in Metropolitan Toronto.

In *Governing Metropolitan Toronto: A Social and Political Analysis, 1953-1971*, by Albert Rose, he writes that practically from the onset of Metropolitan Toronto, Metropolitan Council adopted the position that the government push forward building physical infrastructure (p.29).

The author believes that during the first decade, the lack of attention to social infrastructure was troubling, but probably inevitable. Rose explains that the combination of the various factors of population growth, urban development, and a substantial increase in housing stock, made it inevitable that the basic physical facilities would have to be greatly expanded (p.126). Rose also states that during the mid 60's, Metro Council pushed for the main focus to be on social development, but for the remainder of the decade, social spending never attained the level that they had hoped for (p.159).

Urban Infrastructure and Urban Growth in the Toronto Region, 1950's to the 1990's, by Richard White, looks at the historical relationship between the physical infrastructure and urban growth of Metropolitan Toronto and its surrounding regions.

The author confirms that significant physical growth occurred during the first two decades of Metro (White, p.18). According to White, most of the physical infrastructure created during this time Metro had to finance on their own. Metro did this by relying greatly on debenturing and was a heavy burden (p.17). During the 60's, Metro was receiving Ontario grants larger per capita than any other municipality, but these were mostly directed towards social programs and not physical infrastructure (p.16).

In the 70's, political forces turned against the physical infrastructure of the past, and redirected spending towards public transit and higher density infrastructure. The new politics of this decade however did not affect environmental infrastructure (e.g. sewer systems, waterworks) (p.54).

White distinguishes between two periods for physical infrastructure being built in Metro Toronto: the 1950's and 1960's (i.e. the golden age) vs. the 1970's onwards. The

first period is best characterized by expansive physical growth in Metro Toronto, strong population growth, little political opposition to growth, and a heavy reliance on debenturing. The second period is characterized by social and political opposition to growth, little population growth, the rise of regional governments outside of the Metro borders (p.66-67).

In the "The Toronto Story: Sober Reflections on Fifty Years of Experiments with Regional Governance", by Frances Frisken, the author notes the history of Toronto's experience with metropolitan government and potential lessons learned from those who look to senior governments to solve regional problems. Frisken examines this study by using time periods.

The first time period from the 50's to the mid 60's, was characterized by Metro by: providing new infrastructure to support urban development; Non residential assessment growing by 80% from 1954 to 1964; and Provincial government trying to introduce new grants. Metro was criticized during this period for not providing enough funding for public transit (Frisken, p.519-521).

The second time period examined by Frisken, (mid 60's to 1975), was characterized by: an increase in the budget of transportation because conditional Ontario grants for subways was nearly entirely directed to Metro; more Ontario grants for Metro in the form of unconditional grants; and Metro reached a level of physical maturity (p.525-526).

The third time period examined by Frisken, (1975 to 1995) began by the provincial government distancing themselves from municipalities. This was done partly

because of the increase of the provincial deficit and pressure from the public to curb spending. High inflation was also a contributing factor (p.527). The province also started to slowdown the policy of shifting transfers from conditional to unconditional (p.530). Complimentary to these actions, the province began to curtail the increases in grants to municipalities. The province still contributed to the capital costs of services, but for the most part these were not directed to Metro. The province had to reduce spending on municipalities further in the 90's due to the effects of the recession. International lenders and local taxpayers were putting pressure on the government to curb the increasing debt and deficit (p.530-531).

The province provided municipal government with alternative methods to finance capital expenditures. One method they created was the Development Charges Act, 1989. This allowed municipalities to expand their use of charges they placed on developers for municipal services (Friskin, p.532).

Planning and Financing of Capital Works Programming in the Municipality of Metropolitan Toronto: a Case Study, is a thesis authored by Stephen Whyte. A section of this report goes through the history of Metropolitan Toronto and characterizes the various decades in what was accomplished in municipal infrastructure.

The first decade (1953-1963), Whyte characterized as great in its progress in physical and social infrastructure (Whyte, p.119-120). The second decade (1964-1973), Whyte explained as being one in which there was a continuation of growth related infrastructure projects and a mild increase in social expenditures (p.119-120). The third decade (1974-1983), the author characterized as having slower economic growth, greater demand for social services, and increasing urban sprawl which increased the

cost of infrastructure. This decade was the end of massive infrastructure investments. There was very limited growth during this time period which was marked with stagflation and two recessions. High employment and high interest rates led to increase in social expenditures to cope with these problems (p.123-124). The final decade (1984-1993) explained by Whyte had little investment in new infrastructure, but instead focused on the maintenance and rehabilitation of its infrastructure. Social expenditures dominated the bulk of Metro's operating budget (p.124-125).

At the beginning of the final decade (1984-1993) that Whyte reviews, Metro had started to come out of a recession and was strengthening itself as the financial and economic centre of Canada. Up until late 1990, Metro had high employment growth, high immigration and a reasonable level of high density residential development. However, little investment was made in new infrastructure; instead the focus was on its maintenance and rehabilitation. Social expenditures dominated the bulk of Metro's operating budget (p.124-125).

At the end of this decade, Metro Council was trying to find additional money to fund the \$4.5 billion of capital expenditures from 1993–1997. Methods proposed to finance this infrastructure were through joint partnerships, and new types of bonds (Whyte, p.126-127).

Analysis of Capital Operations of Metropolitan Toronto

Metropolitan Toronto classifies capital expenditures in their financial statements as capital operations. In 1976, Metro Toronto implemented a Central Accounting, Budgeting and Management Reporting system to eliminate most of the independent accounting systems, previously maintained in each of the metropolitan departments and to provide a central collection focus for accounting data. At this time, they switched to the classification of capital operations from the formerly used, capital expenditures. This system was monitored by the Accounting Division of the Municipality's Treasury Department and by the Metropolitan Auditor. This analysis will cover the audited capital operations statements made in the Annual Reports by the Commissioner of Finance for the Municipality of Metropolitan Toronto from 1954 to 1997. The capital operations consist of the various sources of financing for capital expenditures and the varied categories of expenditures made on capital items. Excluded from the capital operations and the analysis for this paper are education and waterworks. Metropolitan Toronto deals with those two operations separately.

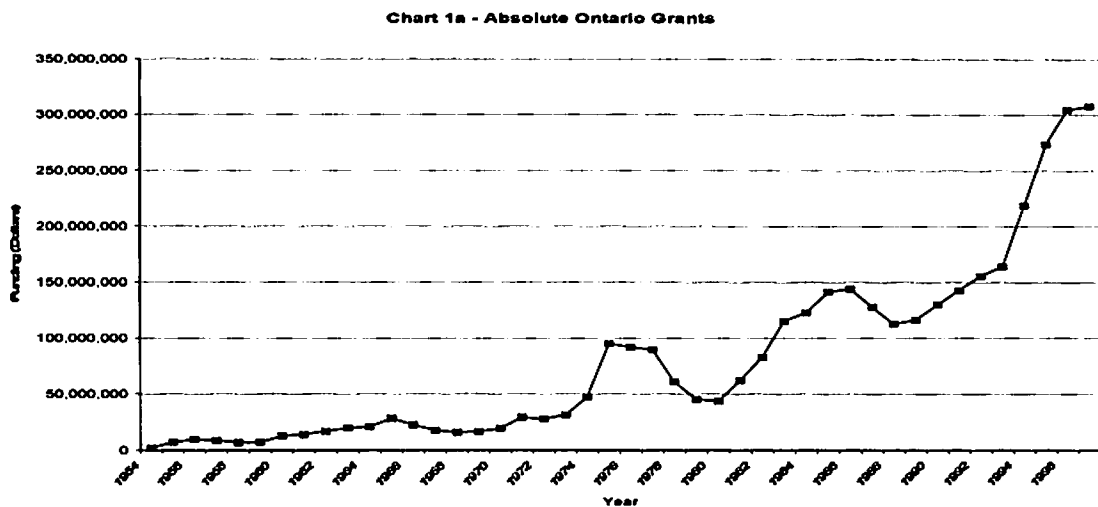
Under the various sources for financing capital expenditures, Metro Toronto used six categories: Ontario (Provincial) Grants, Canada (Federal) Grants, Reserves and Reserve Funds (Combined), Transfers from Current Operations, Long-Term Debt Issued (Debentures), and Other Financing. Before 1976, the municipality did not label these categories as such, therefore there are omissions to previous years in the categories of Reserves and Reserve Funds, and in Other Financing. For the other categories: Ontario Grants have been labeled from the inception of Metro, Canada Grants began to appear in the Capital Operations in 1994, Transfers from Current Operations started to appear in the financial statements in 1970, and Long-Term Debt before 1976 was calculated every year from subtracting the total Metropolitan Toronto Debenture Debt Issued from

the previous year with the total from the current year (this was found in the Debenture Debt section of the earlier financial statements). The figures for all of these categories from 1954-1997 can be found in Appendix F.

Under the varied categories of expenditures made on capital items, there are eight categories: General Government, Protection to Persons & Property, Transportation, Environmental, Health, Social & Family, Recreation & Cultural, and Planning & Development. Before 1976, the municipality did not use label these categories as such, therefore, the previous years had to be re-categorized in order to fit into the various categories. In the earlier years, all the capital expenditures within Metropolitan Toronto were labeled individually within the financial statements. Based on this information, items (e.g. parks) which correlated to a specific category (e.g. Recreation & Cultural) were added to that category for the year. In the end, all the items that belonged to one category would then be added together and that would be the sum of the category for the year. The basis for the re-categorization of particular items prior to 1976 was based on the Municipality of Metropolitan Toronto's Financial Information Return for the year ended December 31, 1997. Within this document, a breakdown of all of the items that comprise the various categories was given. The figures for these categories from 1954-1997 appear in Appendix F.

Additional information found in Appendix F includes the yearly Current Operating Expenses, the annual population of Metro Toronto, and the annual rate of inflation. The Current Operating Expenses and the population of Metro Toronto were located in the Annual Reports by the Commissioner of Finance for the Municipality of Metro Toronto, while the annual rates of inflation were located on the Bank of Canada website.

It is important to understand that this analysis was strictly drawn from the financial statements produced by Metropolitan Toronto, and does not include any capital budget information. This analysis was concerned with actual spending, and not planned projections. First, this analysis will go systematically throughout the various important categories in Appendix F with charts and tables, searching for any trends or peculiarities in the data. The remaining charts can be found in Appendix G. Following this, all conclusions based on the analysis will be presented.



Ontario Grants started at \$2,156,061 in 1954 and ended with \$304,377,000 in 1997. Chart 1a demonstrates that the trend for Ontario Grants has progressively increased over Metro's history. Ontario considerably stepped up their grants to capital expenditures in the mid 70's, decreased in late 70's and early 80's. During the mid 80's, they increased their funding again, but then tapered off in the late 80's. Starting in the 90's Ontario scaled up their transfers again.

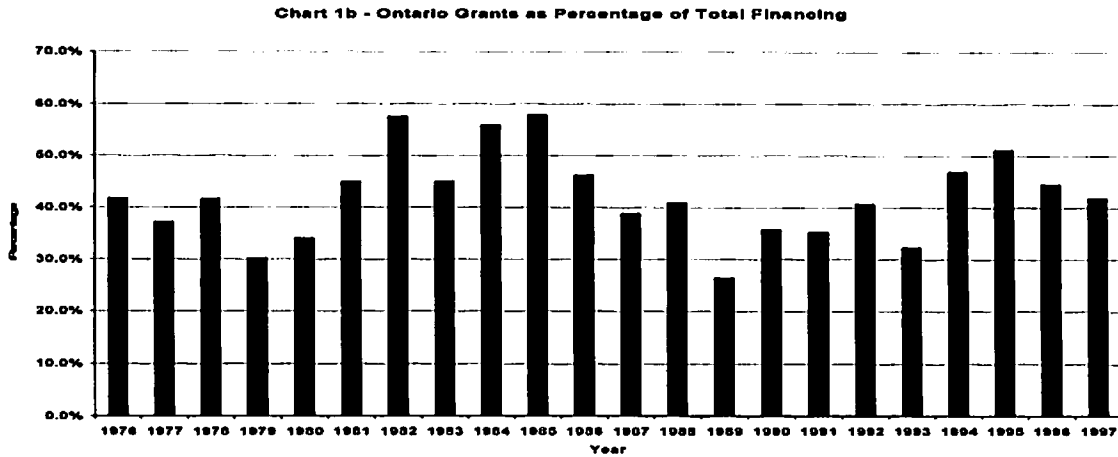
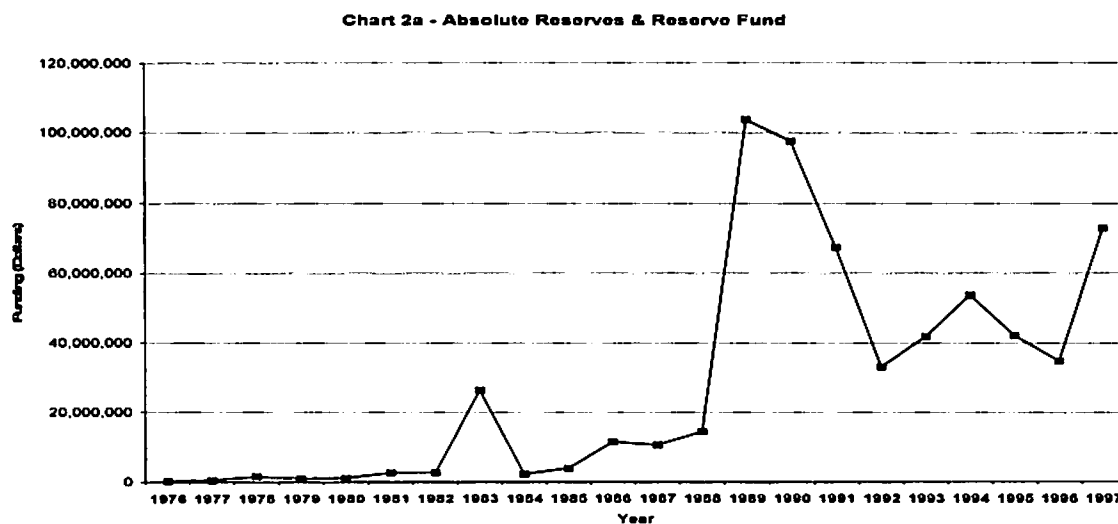
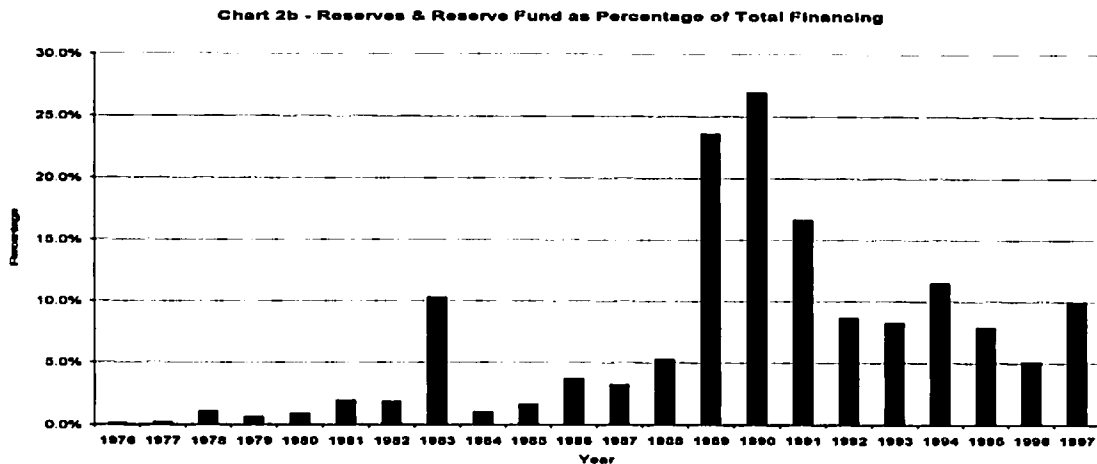


Chart 1b data shows since 1976, when Metro Toronto starts to give accurate numbers for the total amount of capital financing received, Ontario Grants has been a considerable contributor to capital financing. During these years the lowest percentage was 26.5% in 1989. The chart demonstrates that during the years of 1979-1980, and 1989-1993, the Ontario Grant percentage of total financing was lower historically than usual. In the early to mid 80's, the Ontario Grants were a significant portion of capital financing for Metro, and this recurred in the mid 90's.



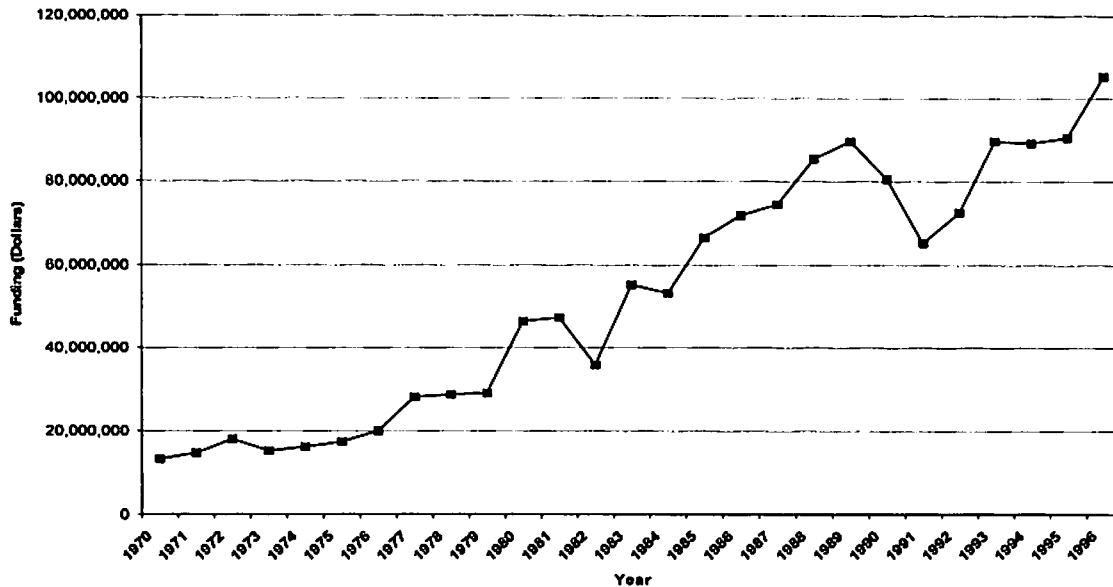
Reserves and Reserve Funds were only categorized by Metro in 1976 (Chart 2a). They increased from 1976 to 1997, but the growth in this category was not

consistent. Reserves and Reserve Funds dramatically increased in 1983, and between the years of 1989-1991. It appears that in the 1990's that this category increased significantly to the previous decades, not including the exception of 1983.



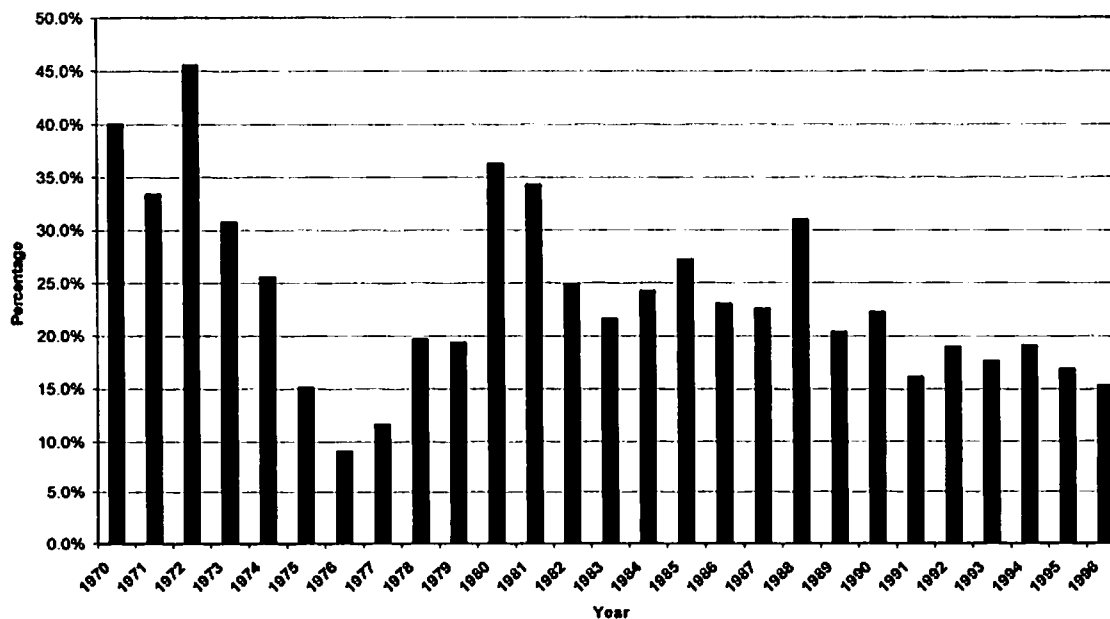
In contributing to total capital financing, Reserves and Reserve Funds according to the Chart 2b data did not have much impact throughout the 70's and moving into the early 80's. In 1983, this source jumps to 10%, but immediately tapers off to 5% or under for the next five years. Then all of a sudden, this category becomes a major source of financing for Metro in 1989, pushing over 15% plus for the next three years. After this, as a percentage of total capital financing, the category decreases but still is maintained at a higher level than the earlier years.

Chart 3a - Absolute Current Operating Fund to Capital Transfers

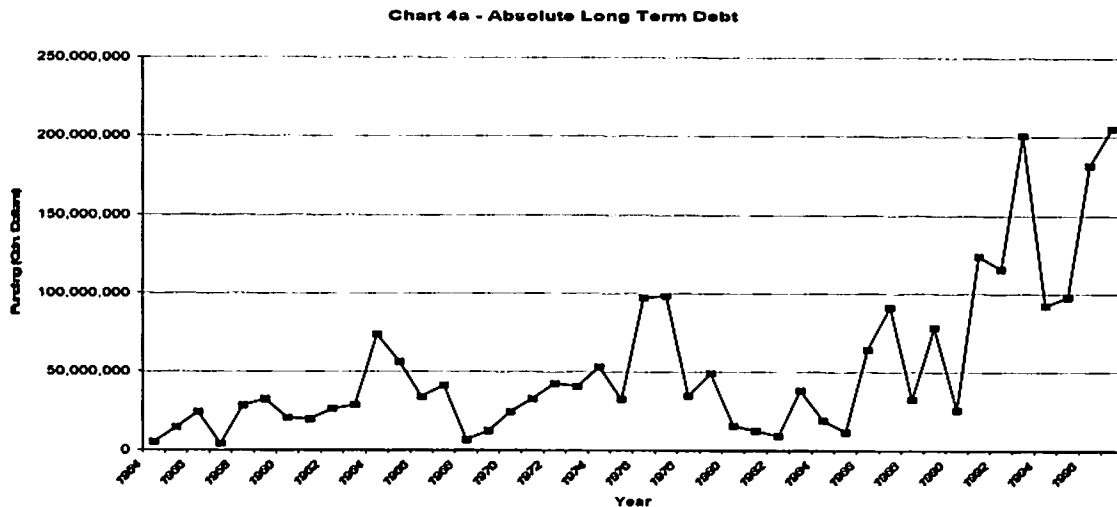


Current Operating Fund transfers were compiled from Metro's capital operations starting in 1970. In absolute terms, Transfers from the Operating Fund consistently progressed in value every year until the end of Metro. The only exceptions to this were 1982 and the early 90's.

Chart 3b - Current Operations Transfers as Percentage of Total Financing

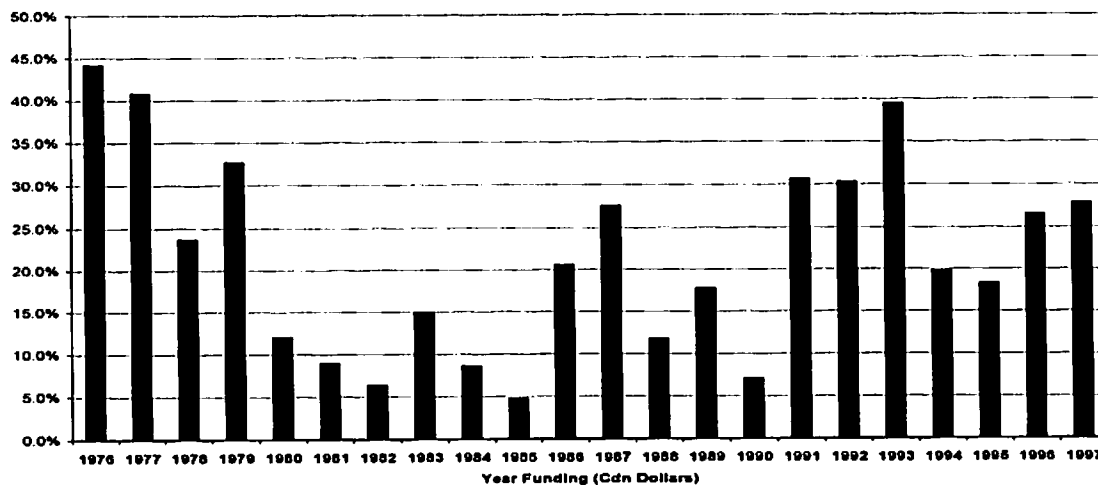


The data in Chart 3b reveals that during the early 70's, this category was a large percentage of total financing. In the late 70's this percentage dropped significantly and rose again in 1980. Throughout the 80's, the percentage hovered around 25%, but beginning in 1991, the percentage dipped under 20% and stayed there until the termination of Metro.



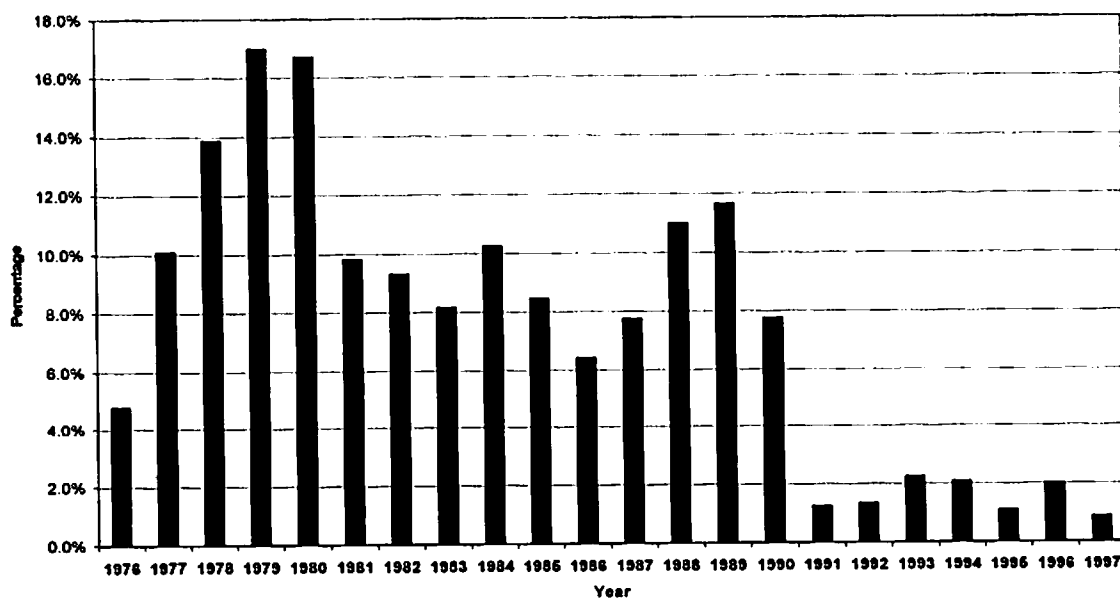
According to Chart 4a, Long Term Debt Issued became marginally larger in the 1950's and early 60's but shot up significantly in 1964 to approximately \$73 million. From that point, this category steadily trended down until its bottom in 1968. From that point, again the absolute figure of long term debt issued rose until they made significant jumps in debt issued in 1976 and 1977. After this point until the mid 80's, long-term debt issued decreased, but jumped back up again in 1986, and with a few exceptions has steadily increased until the end of Metro.

Chart 4b - Long Term Debt Issued as Percentage of Total Financing

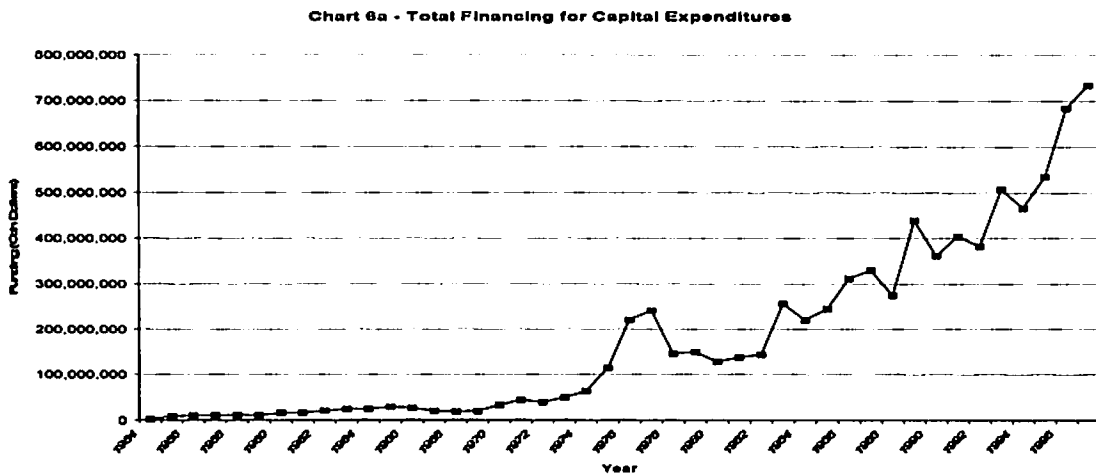


Again, this data only commences in 1976. Looking at the trend, in the mid 70's, Long Term Debt Issued accounted for over 40% of total financing. As the late 70's came around, the percentage started to decrease and in the first half of the 80's, its highest was 15%. It rose in the mid 80's and decreased again during the years of 1988-1990. During the 1990's, Metro became more reliant on this type of financing again, as the numbers soared again, but not to the level of the mid 70's.

Chart 5 - Other Financing as Percentage of Total Financing

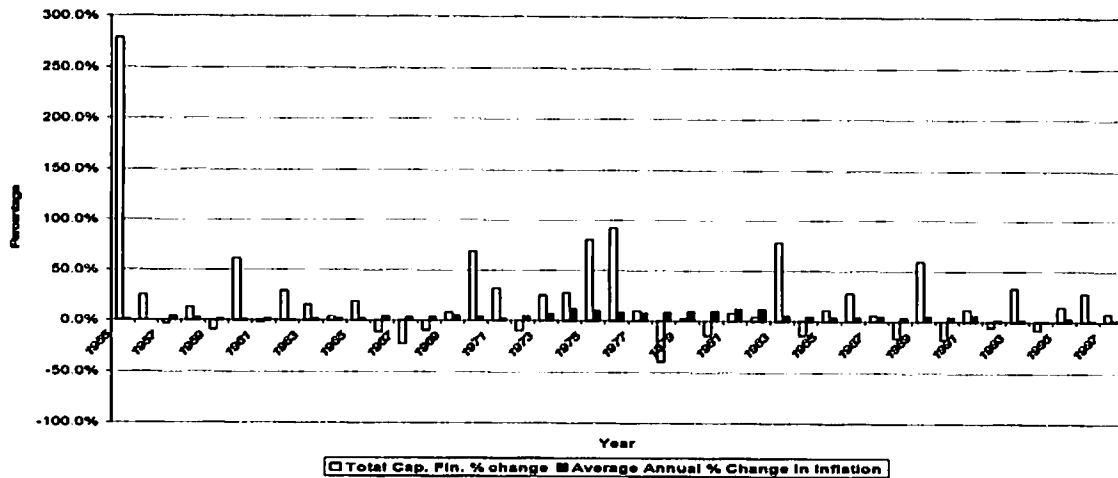


Although this category at times accounts for a large percentage of financing, particularly in the late 70's to 1990, it is difficult to conclusively assess this category (Chart 5). One question about this category is, did Metro include Canadian Grants in this category before 1994? Based on the Financial Information Return for the year ended December 31, 1997, this category includes: prepaid special charges, proceeds from the sale of land and other capital assets, investment income from own funds and other, donations, and other contributions and recoveries. In the 1990's, this source of financing was very minimal.



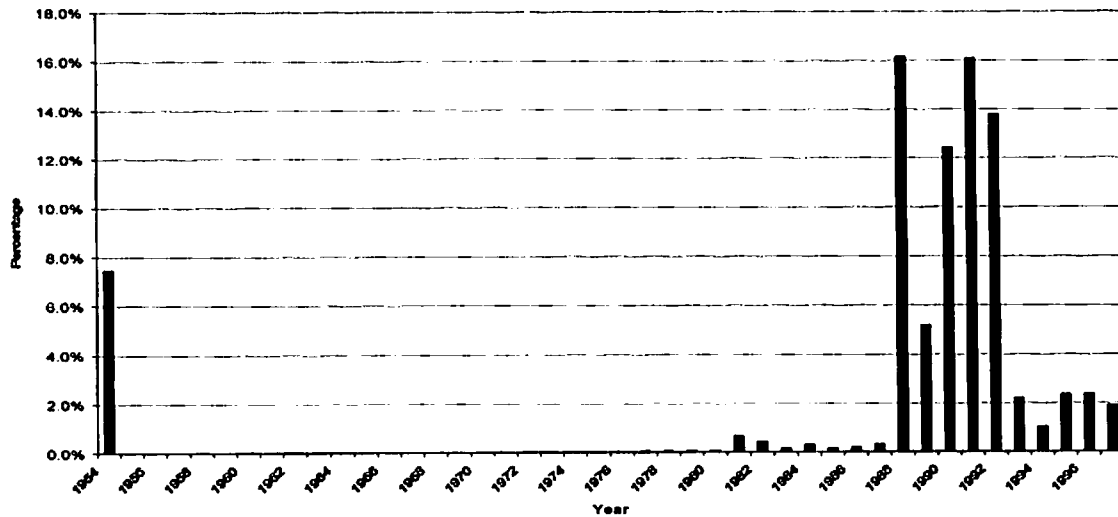
Although Chart 6a begins in 1954, the numbers may not be accurate until 1976. From 1976 until the end of Metro total financing moved up in what could be described a stair type fashion. The chart shows that this category dipped from 1978-1983, and then continuously rose with minor setbacks in 1984, 1988, 1990, 1992, and 1994. Based on the chart, it does not appear to have any significant increases in this category.

Chart 6b - Yearly Percentage Change in Total Capital Financing



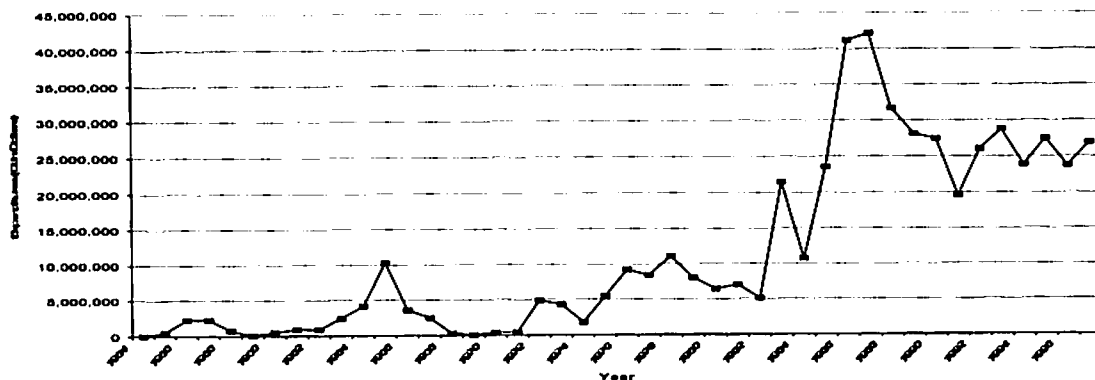
This chart demonstrates the percentage change per year of Total Capital Financing. Again, the figures from 1954 to 1975 may not be accurate, but were still included in the chart. Chart 6b uses the annual rate of inflation as a barometer against the increases in total capital financing. The yearly change in inflation was taken from the Bank of Canada's CPI calculator located on their website (http://www.bankofcanada.ca/en/rates/inflation_calc.html). Analysis of the mid 70's shows that total capital financing rose significantly greater than inflation, although inflation was more significant than any previous time in Metro's history. From the late 70's until the mid 80's, total capital financing changed very minimal and in fact, decreased in the 1978 and 1980. At the same time, inflation was increasing at a faster rate. In 1983, Metro increased their total financing and was much higher than the rate of inflation. Over the course of the mid 80's to the early 90's, there was a continual battle in which one year total capital financing would increase higher than inflation, and then vice versa. Towards the mid 90's, total capital financing stabilized, and increased greater than inflation.

Chart 7b - General Government Percentage of Total Capital Expenditures



Based on Chart 7b in 1954, General Government accounted for nearly 8% of total capital expenditures, and then for over the next three decades did not even account for 1%. In 1988, the category jumped up to 16% of total capital expenditures. For the next four years, the category stayed historically much higher as a percentage of total capital expenditures. Starting back in 1993 and until the end of Metro, the total capital expenditure percentage of this category hovered around 2%.

Chart 8a - Absolute Protection to Persons & Property Capital Expenditures



The overall trend for this capital expenditure has been progressively upward. The chart 8a illustrates that between 1954 and 1982, this expenditure stayed in a range.

In 1984, this expenditure broke out of this range and reached a peak in 1987.

Expenditures tapered off in the 90's but never sunk to the pre-1983 levels.

Chart 8b - Protection to People & Property as Percentage of Total Capital Expenditures

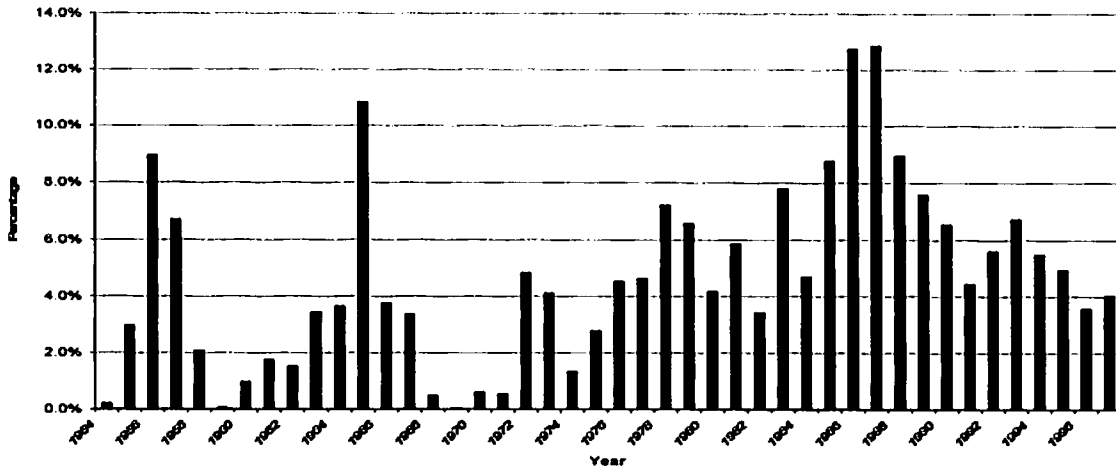


Chart 8b displays that increases in the percentage of this expenditure were clumped together three noticeable peaks. The first peak is in 1956, the second peak is in 1965, and the final peak came in 1986-1987. For the majority of Metro's history, expenditures in this category did consistently stay in the single digits for total capital expenditures.

Chart 9a - Absolute Transportation Capital Expenditures

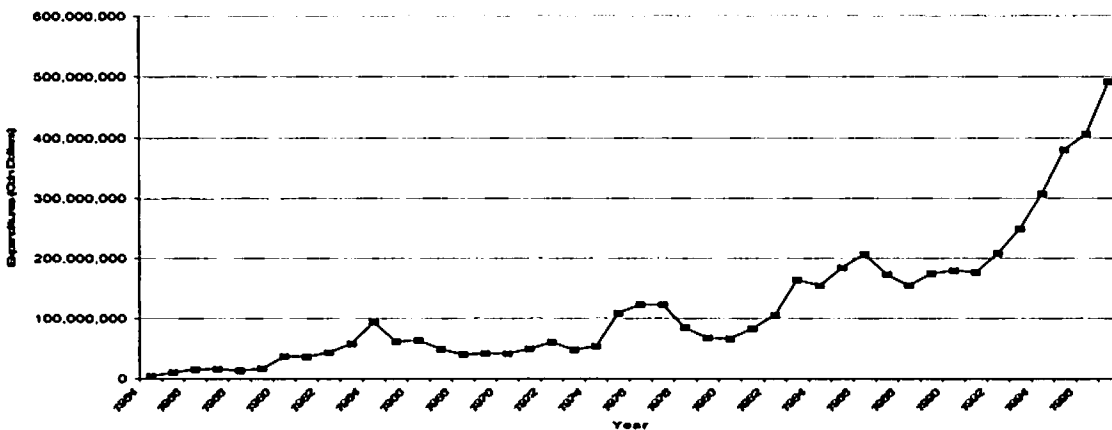
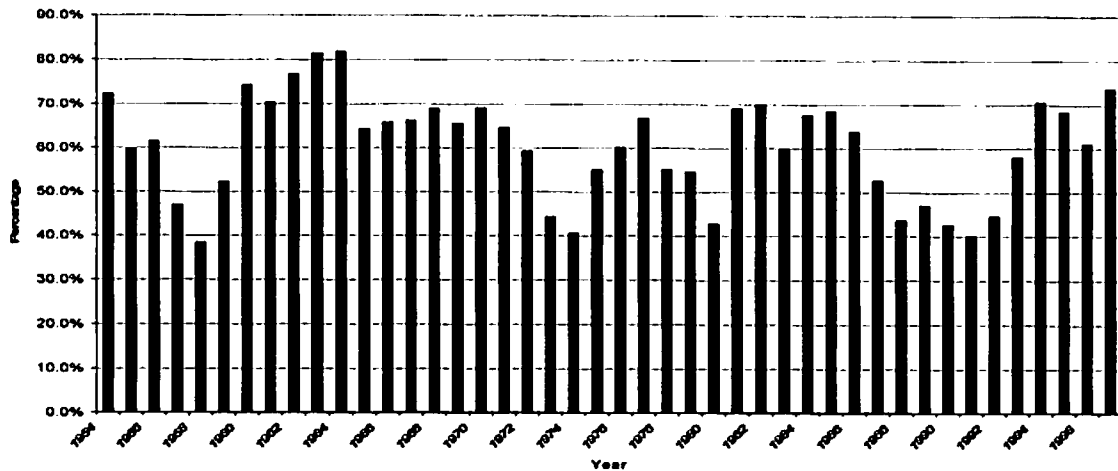


Chart 9a shows a continual rise in expenditures on transportation throughout Metro's history. Notable mild dips occurred during the mid 60's to the mid 70's, and the early 80's. Beginning in the 90's, expenditures in this category escalated tremendously.

Chart 9b - Transportation Expenditures as Percentage of Total Capital Expenditures



The first observation that stands out from Chart 9b is its significance in the make up of total capital expenditures. Its lowest percentage of total capital expenditures was roughly 38% in 1958. A notably high percentage period was the early 60's. Particular low percentage periods were the late 50's, mid 70's, and the late 80's and early 90's.

Chart 10a - Absolute Environmental Capital Expenditures

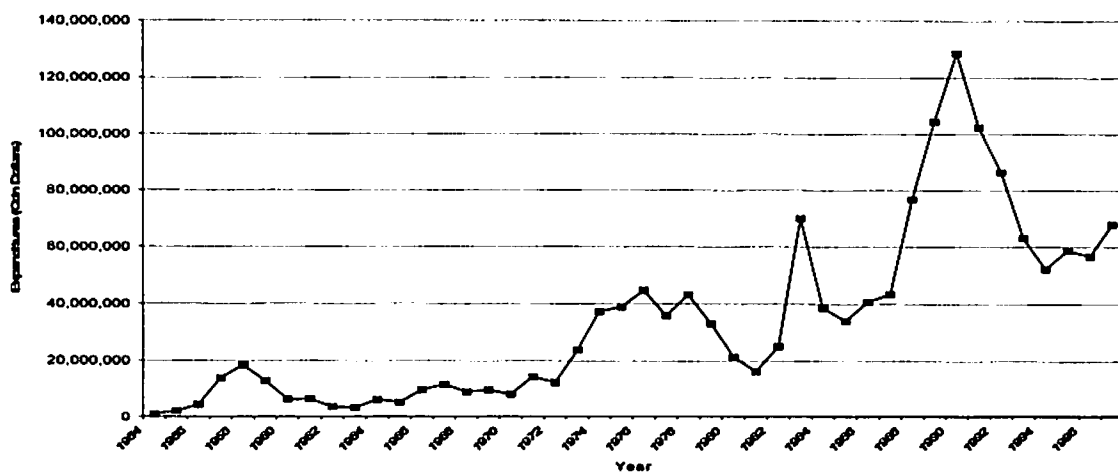
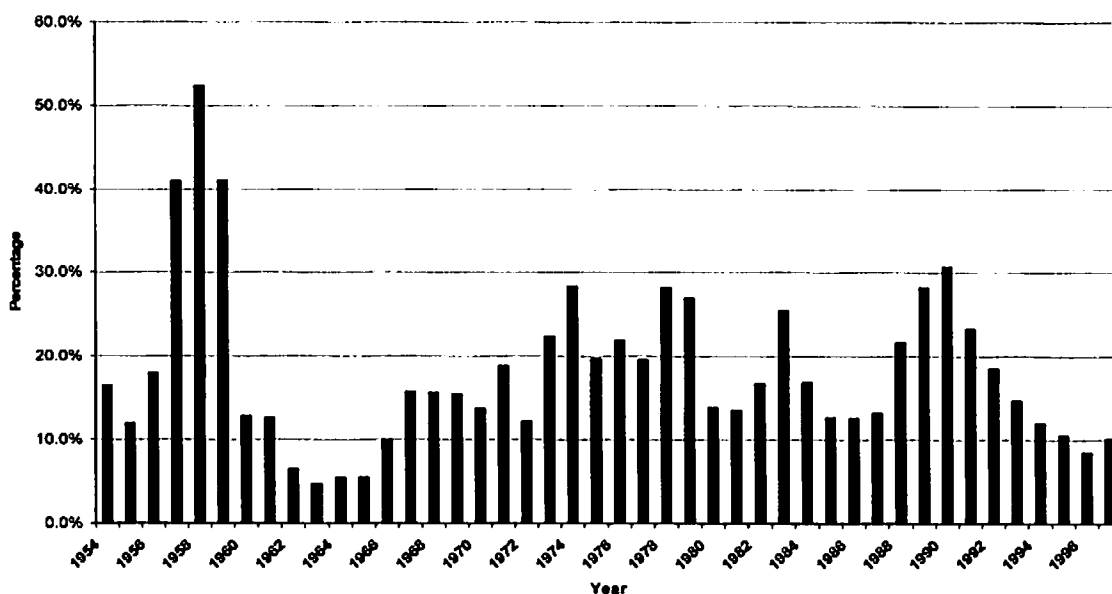


Chart 10a shows that this capital expenditure stayed in a range under \$20 million until 1973. From this point, Metro kept raising capital expenditures until the late 70's.

Beginning in the early 80's, the absolute amount of expenditures in this category decreased. In 1983, there was an extraordinary jump in this category's capital expenditures. After 1983, this category dipped down in the rest of the 80's. For the period of 1989-1991, the category's expenditures soared. Starting in 1992, this category began to decrease again, bottoming out in 1994. From this point until the end of Metro, the category expenditures of this category relatively stabilized.

Chart 10b - Environmental Expenditures as Percentage of Total Capital Expenditures



Similar to Transportation expenditures, Chart 10b shows that Environmental expenditures were a large percentage of total capital expenditures. In particular, the late 50's was a time period in which this category was a major portion of total capital expenditures. The lowest period of Environmental expenditures occurred during the mid 60's. From the mid 70's onwards, for the most part, this category hovered over 15%. Exceptions to this were the early and late 80's, and mid 90's.

Chart 12a - Absolute Social & Family Capital Expenditures

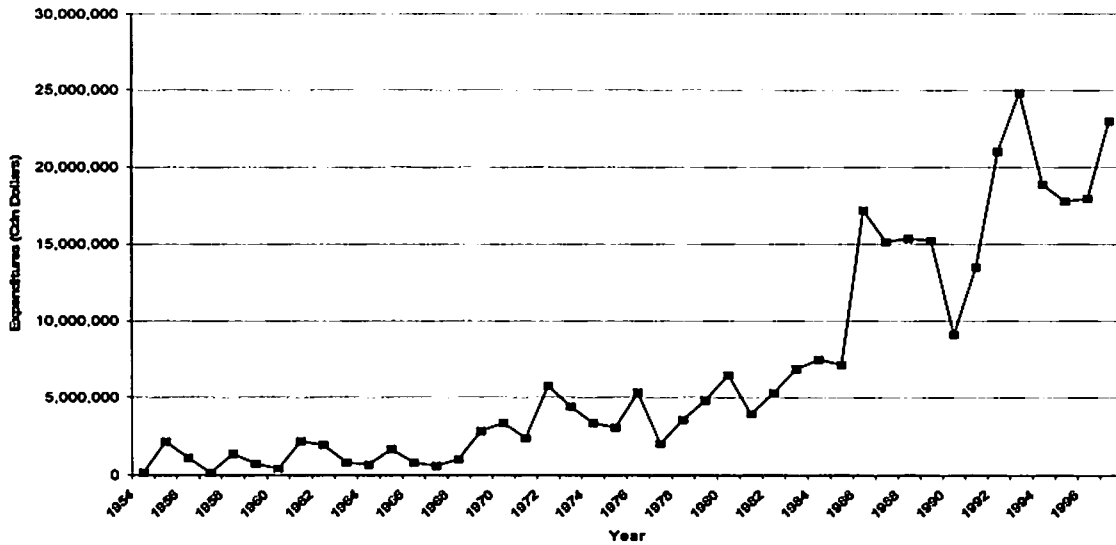


Chart 12a displays that this category stayed in a tight range, roughly under \$3.5 million, until 1972. From 1972 to 1985, another range is formed which stays under \$7.5 million. In 1987, this category then skyrockets to almost \$17million. For the next few years expenditures level off approximately around \$15 million. In 1990, the category dips down under \$10 million, but quickly rises over the next few years nearly to a peak of \$25 million in 1993. The trend over the end years of Metro descends downwards but still stays above \$17 million for the duration.

Chart 12b - Social & Family as Percentage of Total Capital Expenditures

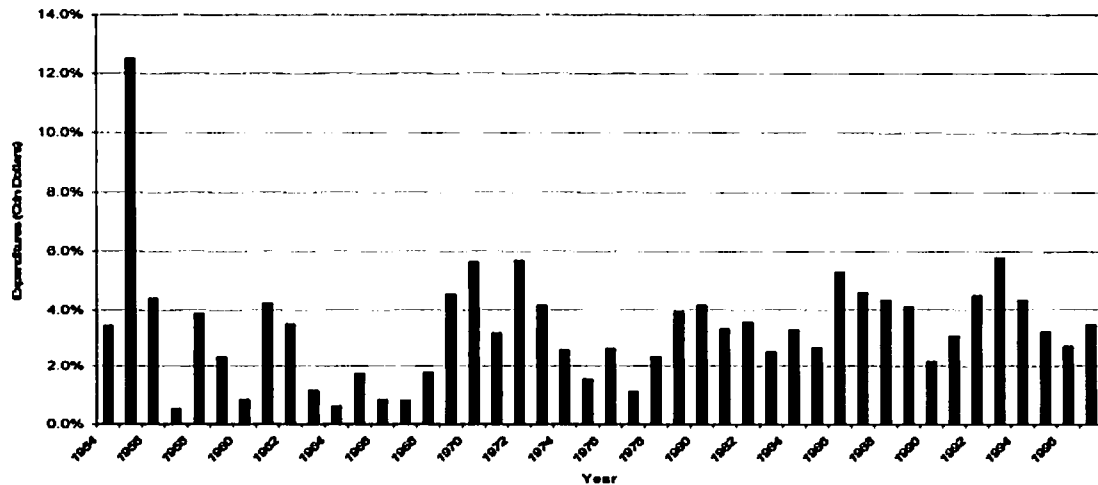


Chart 12b illustrates that this category hit its peak within the early years of Metro (i.e. 1955) at over 12% of total capital expenditures. During most of the 1960's, this category was at its lowest point as a percentage of the total capital expenditures. Another low period for this category as a percentage of total capital expenditures was the mid to late 70's. However, for the most part, this category is very stable over the lifetime of Metro Toronto staying consistently between 2% and 4% of total capital expenditures.

Chart 13a - Absolute Recreation & Cultural Expenditures

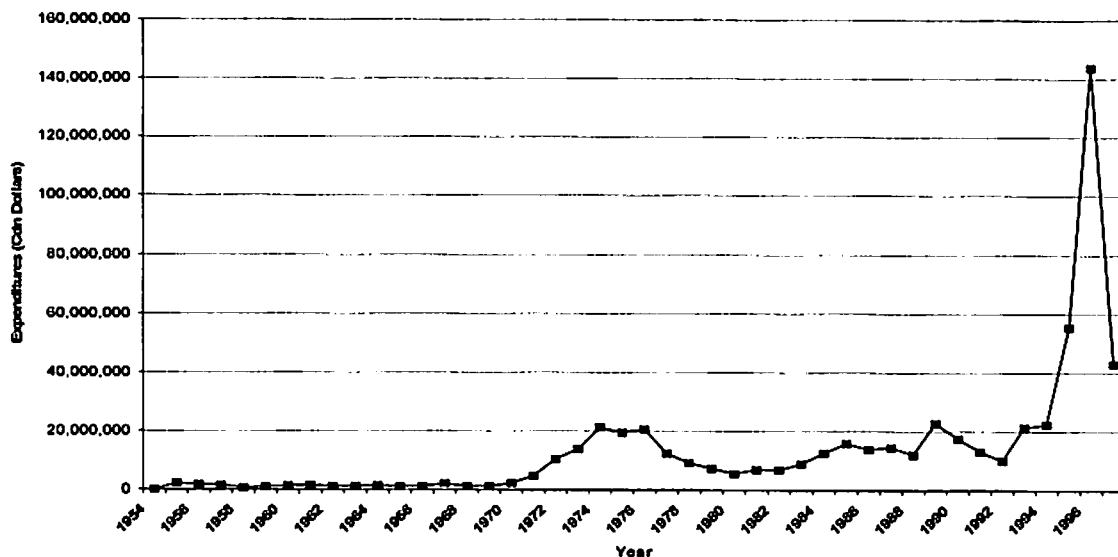
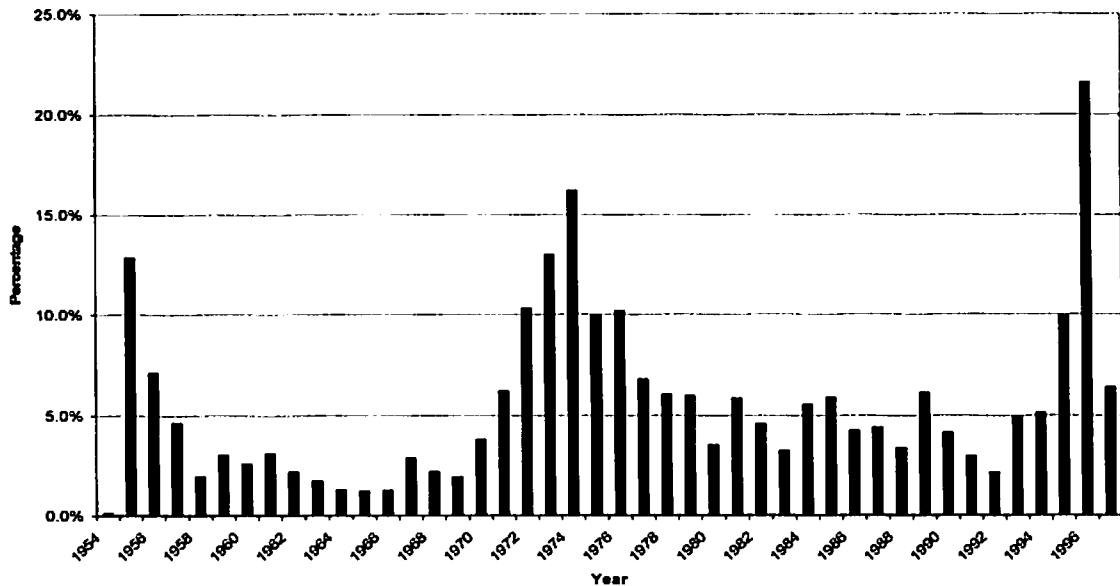


Chart 13a shows three different time periods in the history of Recreational & Cultural expenditures in Metro. The first time period existed from 1954 to 1971. The absolute amount stayed under \$5 million. The next period existed from 1972 to 1994. The absolute expenditure range for this category was \$10 million to \$22 million. From 1995 onwards, Metro significantly increased the expenditures of this category until its end.

Chart 13b - Recreation & Cultural as Percentage of Total Capital Expenditures



The pattern of Recreation & Cultural capital expenditures as a percentage of Metro's total capital expenditures resembles the shape of a "w" in Chart 13b because of the three peaks at the beginning, middle and end. The first peak over 10% occurs in 1956. Then the category tapers down to below 5% for the late 50's, 60's, and the early 70's. Then in the mid 70's, this category peaks to over 15% in 1974. For the remainder of the 70's, this category stays between 5% and 10%. Throughout the 80's and early 90's, this capital expenditure flat lines around the 5% mark. During the end years of Metro, this category surges up to its highest percentages ever at nearly 22% in 1996.

Chart 15a - Absolute Total Capital Expenditures

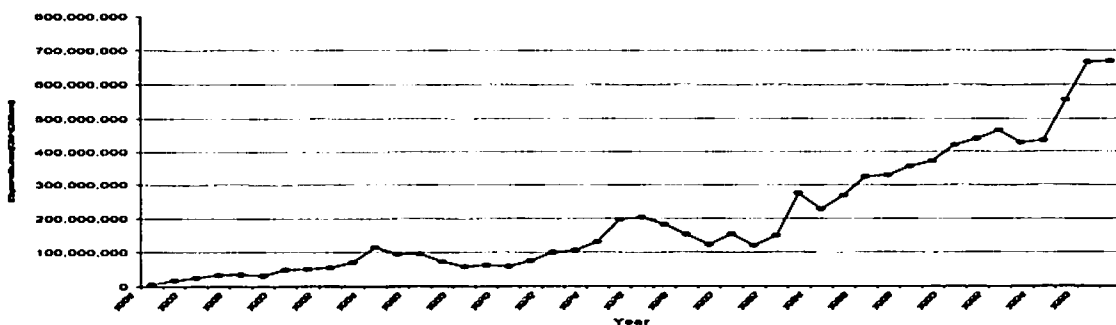


Chart 15a shows that there has been a continual progress of Total Capital Expenditures for Metro. In 1964, this category hit a peak and then retreated for the rest of the 60's and early 70's. Not until 1974 was it able to pass the peak of a decade earlier. This category rose during the mid 70's, but then retreated during the late 70's and early 80's. In 1983, this category surged upwards and basically minus a few blips there has been an increase in total capital expenditures until the end of Metro.

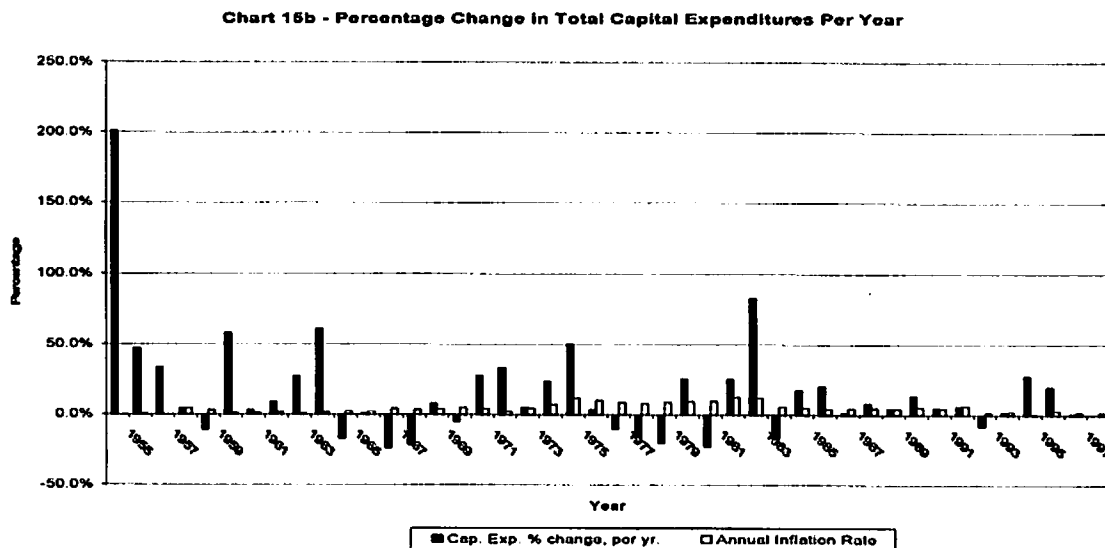
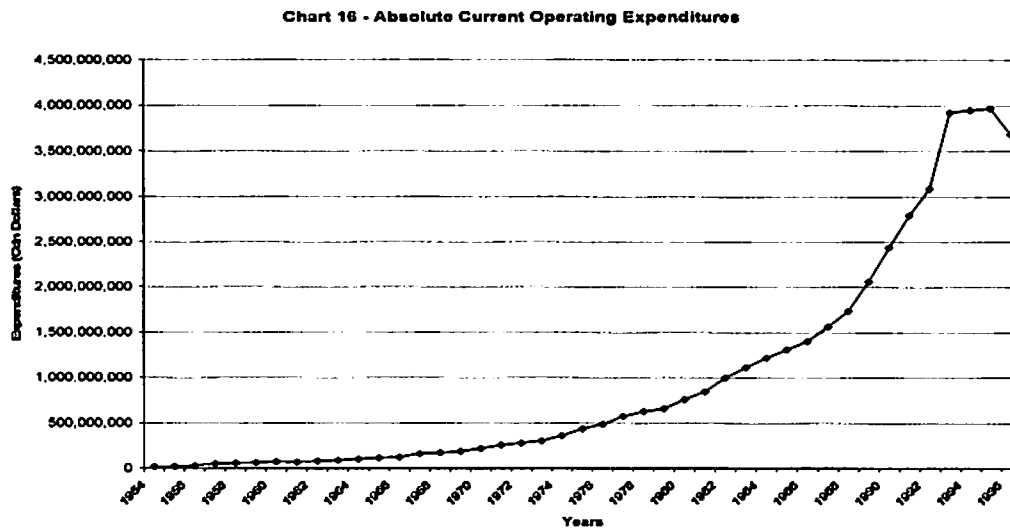


Chart 15b shows the percent change in Total Capital Expenditures from the previous year. The annual inflation rate was included in this chart to use as a barometer to see if the percent change was in fact more than the cost of living. As noticed by this chart, the 50's and the early 60's, with the exception of 1959, have significantly increased greater than the rate of inflation. Starting in the mid to late 60's, the trend reversed. During this time, the percent change per year was decreasing and rate of inflation was higher. During the early to mid 70's, again the trend shifted to percent change for this category being positive and exceeding the rate of inflation. Starting in 1977 and continuing to 1981, with the exception being 1980, the percent change of total capital expenditures were negative and did not exceed the rate of inflation. Starting in 1982, until the end of Metro Toronto, percent change in Total Capital Expenditures were

generally positive and exceeded the rate of inflation. Of particular note, Metro had five years when the percent change in Total Capital Expenditures reached 50% and over.

The majority of these years came within the first decade of Metro.



For the majority of Metro's history, Current Operating Expenditures (absolute number) increased every year according to Chart 16. As the chart displays there is a slow change yearly until the early 70's when the trend starts to become steeper. The trend starts to accelerate more in the 80's and in the 90's the trend starts to become more vertical than horizontal. In the last few years of Metro, this category starts to flatten out and actually dips in the final year (1997). At the beginning of Metro, current operating expenditures were only \$18,632,194. In 1995, this category reached approximately an astronomical \$4 billion.

Chart 16b - Capital Expenditures As A Percentage of Operating Expenditures

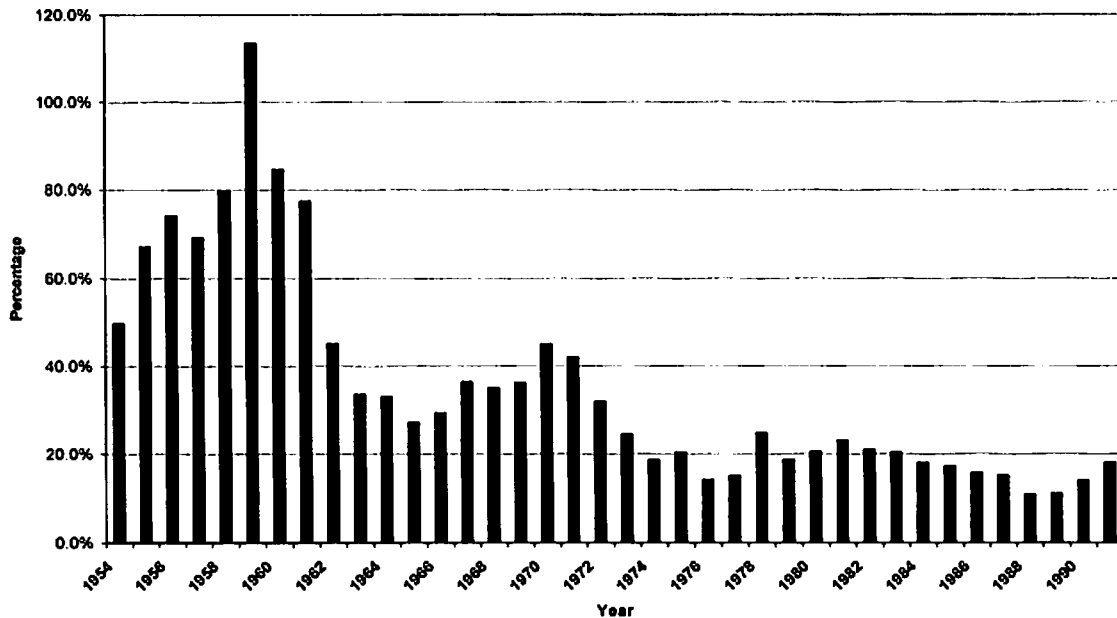


Chart 16b compares the Capital Expenditures and Operating Expenditures, historically, of Metro. The trend shows that during the early years of Metro, capital expenditures were very comparable to operating expenditures. Most interestingly, in 1959, Capital Expenditures exceeded Operating Expenditures for Metro. From that point on Metro's capital expenditures decreased in comparison to its operating expenditures. There was a slight surge in the early 70's in capital expenditures as a percentage reaching over 40%. However, since the mid 70's with a few exceptions, capital expenditures as a percentage of the operating expenditures have drifted around the 20% level.

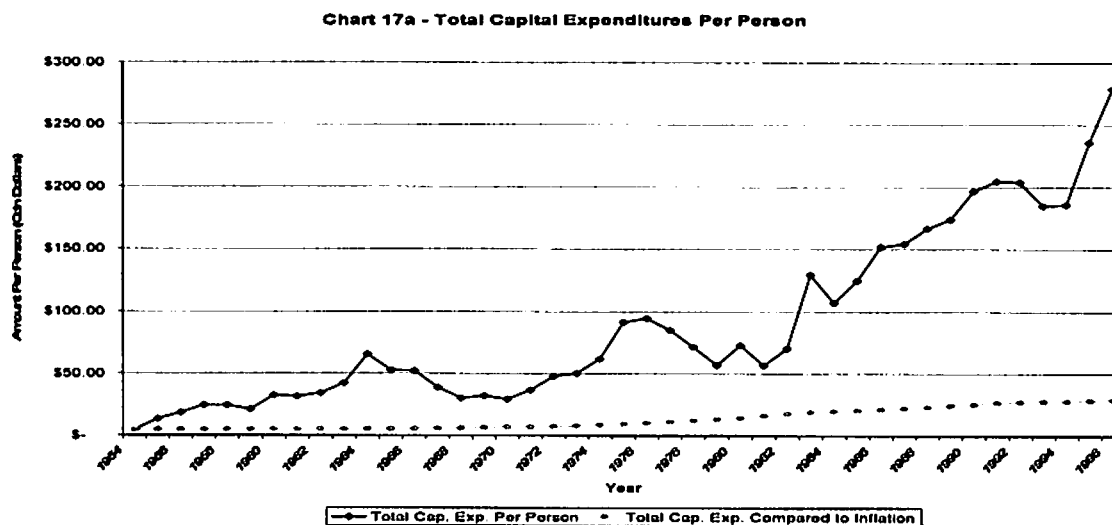


Chart 17a represents the Total Capital Expenditure per Person in Metro. This figure was calculated by taking the total capital expenditure for Metro for the particular year and then dividing that by the population of Metro for that same year according to the Annual Reports. An added comparison to the total capital expenditures per person was the total capital expenditures per person based on inflation from the baseline year of 1954. The chart demonstrates that capital expenditures, in absolute terms, rose significantly through the history of Metro. At the beginning of Metro, the sum was \$4.56 per person, and when it ended, the sum was \$279.16. According to the base standard of inflation from 1954, by starting with \$4.56 in the same year, in 1997 that figure would be \$29.47. The actual capital expenditures per person increased much greater than the rate of inflation through Metro's history.

Chart 17b - Percentage Change in Capital Expenditures Per Person

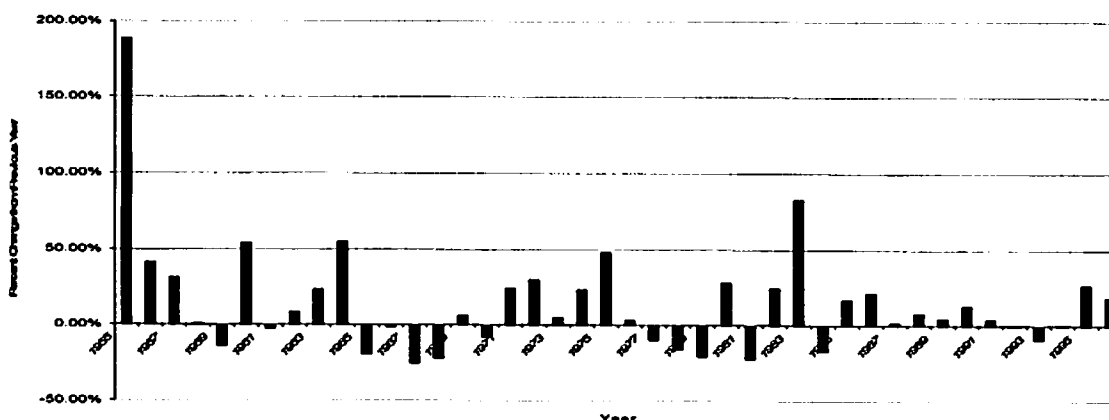


Chart 17b encapsulates the periods in which Capital Expenditures per Person either increased or decreased in comparison to the previous year. The early 50's was a time in which the percent change per person was most significant. Other periods in which there were increases in capital expenditures per person were the early 60's, mid 70's, the 80's and 90's with the exceptions of 1981, 1984, 1992, and 1993. Periods in which there was a decrease in the Capital Expenditures per Person were the late 60's to the early 70's, and the late 70's.

Table 1a – Absolute Figures of Sources for Capital Financing per Decade

Sources for Capital Financing Categories	1950's	1960's	1970's	1980's	1990's
Ontario Grants	42,621,726	186,214,851	537,883,521	1,069,428,000	1,697,461,000
Canada Grants	n/a	n/a	n/a	n/a	94,649,000
Reserves & Reserve Fund	n/a	n/a	3,238,304	179,746,000	443,373,000
Transfer from Current Operations	n/a	n/a	200,708,323	626,029,000	705,522,000
Long Term Debt Issued	108,103,257	318,064,408	504,507,357	371,429,000	1,043,082,000
Other Financing	n/a	n/a	80,494,253	239,582,000	85,426,000
Total	150,724,983	504,279,259	1,326,831,758	2,486,214,000	4,069,513,000

Table 1b – Ranking of Sources of Financing per Decade (Absolute Amounts)

Sources for Capital Financing Categories	1950's	1960's	1970's	1980's	1990's
Ontario Grants	2	2	1	1	1
Canada Grants	n/a	n/a	n/a	n/a	5
Reserves & Reserve Fund	n/a	n/a	5	5	4
Transfer from Current Operations	n/a	n/a	3	2	3
Long Term Debt Issued	1	1	2	3	2
Other Financing	n/a	n/a	4	4	6

Table 1a (i.e. the absolute figures) and 1b (i.e. ranking of absolute figures in comparison to the other categories) examine the various sources of capital financing for Metro by the decade. Of note, the data for the various categories is not conclusively correct before 1976. Through examination of both Table 1a and 1b, starting with the 70's, it is observed that Ontario Grants was the most significant source of financing for Metro. The next great source of financing was Long Term Debt Issued. Following these two sources of financing, the other categories were Transfers from Current Operations, Other Financing, and Reserves and Reserve Funds, respectively. In the 80's, the rankings stayed relatively the same, except that long term debt issued and transfers from current operations switched places. However by observing at the absolute numbers for the sources of financing, in this decade, Ontario Grants, and Reserve and Reserve Funds increased significantly (taking into account that the 70's was an abbreviated decade for some sources of financing). In contrast, long term debt issued decreased over 25%. In the 90's, the rankings were shifted somewhat because of the addition of Canada Grants to the sources of financing. Ontario Grants still remained as

the largest provider of financing capital expenditures in Metro. Long term financing returned to being the second largest source of financing in Metro. Additionally, the category nearly tripled in absolute figures from the previous decade. Transfers from current operations stayed relatively stable from the previous decade. Reserves and Reserve Funds ranked #4, but again, there was a substantial increase in the absolute amount the category provided to Metro. Canada Grants were the next largest source of financing for Metro. The last category for a source of financing for Metro, Other Financing, ranked last at #6, down from the previous decade. Most notably, this category decreased drastically from the previous decade, and nearly to the absolute levels of the 70's.

Table 1c – External vs. Internal Sources of Financing (Absolute & Percentage)

Financing Type	1976-1979	1980's	1990's
External	566,442,693	1,440,857,000	2,740,543,000
Internal	189,535,092	1,045,357,000	1,328,970,000
Total	755,977,785	2,486,214,000	4,069,513,000
External %	74.9%	58%	67.3%
Internal %	25.1%	42%	32.7%

Table 1c examines the difference between Metro's external and internal sources of financing per decade in absolute and percentage totals. In the late 70's, external sources were three times the size of internal sources. Moving into the 80's, it seems that Metro made an effort to try to balance the number between external and internal sources. External financing was only 16% higher than internal financing. In the 90's, it appears as if Metro reverted to depend more on external financing that it had done in the 80's. The separation between external and internal financing increased to 34%.

Table 2a – Absolute Figures of Capital Expenditure Categories per Decade

Capital Expenditure Categories	1950's	1960's	1970's	1980's	1990's
General Government	426,275	0	347,761	133,616,000	243,269,000
Protection to Persons & Property	5,800,922	25,545,083	54,062,756	217,490,000	203,796,000
Transportation	75,689,008	521,387,790	755,328,837	1,464,103,000	2,398,205,000
Environmental	52,747,193	71,311,173	291,422,627	470,781,000	616,448,000
Health	714,540	6,487,669	6,061,000	41,068,000	41,847,000
Social & Family	5,730,510	12,992,029	38,043,065	100,086,000	146,072,000
Recreation & Cultural	7,232,364	13,879,062	121,877,179	119,777,000	326,514,000
Planning & Development	156,911	1,557,707	1,375,096	643,000	4,234,000
Total	148,497,723	653,160,513	1,268,518,321	2,547,564,000	3,980,385,000

Table 2b – Ranking of Capital Expenditure Categories per Decade (Absolute Amounts)

Capital Expenditure Categories	1950's	1960's	1970's	1980's	1990's
General Government	7	8	8	4	4
Protection to Persons & Property	4	3	4	3	5
Transportation	1	1	1	1	1
Environmental	2	2	2	2	2
Health	6	6	6	7	7
Social & Family	5	5	5	6	6
Recreation & Cultural	3	4	3	5	3
Planning & Development	8	7	7	8	8

Through examination of Table 2a and 2b, a few trends are noticeable. First, glaringly noticeable is that Transportation and Environmental categories were dominant in Metro's capital expenditures through the decades, ranked #1 and #2 respectively throughout. The General Government category was non-existent for much of the early

history of Metro. However, beginning in the 80's, expenditures increased dramatically for the duration of Metro and propelled it to rank #4 in both the 80's and 90's. The Protection to Persons & Property category historically ranked in the middle of the categories. This category's expenditures increased notably during the 80's. Health expenditures have been very minimal over Metro's duration. Historically, in absolute expenditures, Health received major increases in the 60's and 80's, but has remained in the lower ranking of expenditure categories. The Social & Family capital expenditure category in absolute figures made significant gains every decade. However, its ranking out of all capital expenditure categories remained in the lower tier. The Recreation & Cultural category has historically ranked in the middle. In observing the absolute figures there are some trends of particular interest. In the 70's and 90's, Metro stepped up the expenditures of this category. However, in the 80's, expenditures in this category decreased. This is peculiar due to the fact that all the other major categories increased expenditures dramatically in comparison to the previous decade. The final category Planning & Development was perennially at or near the bottom category of capital expenditures and in absolute terms there is not much to say other than it was a very minimal amount.

Table 2c – Physical vs. Social Capital Expenditure (Absolute & Percentage Amount)

Expenditure Type	1950's	1960's	1970's	1980's	1990's
Physical	128,436,201	592,698,963	1,046,751,464	1,934,884,000	2,454,582,000
Social	19,478,341	58,903,843	220,044,000	478,421,000	622,990,000
Total	147,914,542	651,602,806	1,266,795,464	2,413,305,000	3,077,572,000
Physical %	86.8	91.0	82.6	80.2	79.8
Social %	13.2	9.0	17.4	19.8	20.2

Table 2c displays the absolute and percentage amounts by decade for physical and social capital expenditures in Metro. Physical capital expenditures included the following categories: Transportation and Environmental. Social capital expenditures

included the following categories: Protection to Persons & Property, Health, Social & Family, and Recreation & Cultural. The categories of General Government and Planning & Development were excluded from this analysis due to the fact that it was not clear as which expenditure type they were.

Throughout the decades, the physical capital expenditures have dominated capital expenditures in Metro. The largest disparity between the two types of expenditures was during the 60's where social capital expenditures did not even equal double digits (9%). It appears that Metro made an effort in the 70's to increase social capital expenditures and kept roughly the same percentage in social and physical expenditures for the duration of Metro.

This paper will now discuss the conclusions that have been made from the analysis of the capital operations. Total capital financing for Metro has steadily decreased since the mid 70's. Metro placed less value on capital expenditures in the latter years of Metro in comparison to the early years.

Metro has relied heavily on external sources of financing for its capital expenditures. Potentially, due to the high inflation rates of the 70's, Metro tried to move away from relying on external sources of financing in the 80's. However, in the 90's, Metro again increased its reliance on external sources for financing capital expenditures.

In the first two decades of Metro, long term debt issued was the primary source of financing for Metro. In both decades, this source of financing was more than double the amount of financing that Ontario Grants. Metro relied heavily on debenturing within its early existence. In the 70's, Metro went through a shift in policy towards debentures.

Relatively speaking, Metro debentures became slightly less than Ontario Grants. This indicates that, Metro possibly during this decade became more conscience of debt. As mentioned previously, the high levels of inflation and presumably, the high interest rates, created a deterrent against using debentures as the primary source of financing for capital expenditures. Additionally, this decrease in debenturing could have been mandated by the provincial government. Within the 80's, Metro's direction on long term debt issued was entrenched as it now dropped to the third largest source of financing. Even without taking inflation into account, its absolute sum was over \$100 million less than the previous decade. However, in the 90's Metro shifted direction again in relation to debenturing. Metro increased long term debt issued tremendously during this decade. Potential reasons for this may include that transfers from operating revenues, senior governments, and other financing were not keeping pace with the needs for capital expenditures.

After the first two decades, transfers from senior governments, particularly Ontario Grants, was the primary source of financing for the municipality. The provincial government has stepped up its funding every decade to finance Metro, but dramatically did this during the 60's and 70's. Funding in those decades more than doubled the previous decade. It appears that during the 80's and 90's, the provincial government slowed down transfer payments to the municipality because the increases in funding were much smaller than the previous decades. In particular, the Ontario government did this in the 90's to a larger extent. Even when stating this, the provincial government did not scale back funding lower than previous levels. It would be unfair to characterize the Ontario government as scaling back their transfers to Metro. Based on the data, the provincial government may not have increased funding much in the 80's and 90's, when

taking inflation into account, but they definitely did not decrease the real amount of grants.

Starting in the 80's, based on the data, Metro Council made a decision to increase its internal sources of financing. The most notable increase in internal sources resided in Reserves and Reserve Funds. However, ultimately this category does derive from Metro's Operating Revenue. This increase in Reserves and Reserve Funds could also be a result of being mandated by the provincial government to accumulate a set amount of funds into this category. The shift to gaining more revenue from internal sources demonstrates that Metro Council was probably concerned about its historical dependence on external sources of financing and wanted it curtailed.

Another issue that Metro faced from the mid 70's is that unexpended capital financing was on a downtrend to the end of Metro. At one point, Metro was in a yearly surplus in capital financing, but by the mid 80's, Metro found itself perpetually in the negative. Potentially, Metro might have lost some of their credit standing because of this negative downturn and the new found bad habit of increasing the expended capital financing.

Capital expenditures have been important in the existence of Metro. At the beginning of Metro, capital expenditures were above 60% of the total of Metro's operating expenditures. As Metro progressed, capital expenditures became significantly less important and this ratio leveled off to approximately one-fifth. However, total capital expenditures per person in Metro increased. Metro increased spending per person, even when taking inflation into account. However, this trend slowed down in the mid 80's. Additionally, percentage change in total capital expenditures continually slowed

down from the early years. This further lends evidence that capital expenditures did not remain as important to the municipality as it did in its early years.

Metro capital expenditures have been predominantly on physical infrastructure. In fact, in the early years in which the physical capital expenditures dominated, the 60's was more heavily directed towards physical capital expenditures than the 50's. In the 70's and onwards, it appears as if Metro Council moved towards a policy of incorporating more social capital expenditures into the municipality. Still yet, physical capital expenditures still lingered around 80% of the total of capital expenditures.

Comparison of Literature Review and Capital Operations Analysis

In most cases, the Metropolitan Toronto capital operations data collected and analyzed in the charts and tables supports the written literature on the municipality that this paper covered in respect to capital infrastructure.

The literature speaks greatly to the emphasis on physical infrastructure in the early two decades of Metro Toronto, which is supported by the financial statements. Interestingly enough, it was during the 60's in which physical infrastructure was the highest percentage of capital operations, and not the 50's, the decade in which Chairman Gardiner, a strong advocate of the implementation of physical infrastructure, led Metro Council.

The literature also illustrates that social infrastructure was neglected during first two decades. The literature puts forth that there was a push to increase social development in the 60's, but it never reached the level projected. Again, the analysis supports the literature. Social infrastructure was a small percentage of total capital expenditures during the 50's and 60's. An interesting point that was brought out by White in his research was that in the 60's, Ontario increased grants to Metro directed towards social programs. If this was the case, not much of this funding trickled from the operating expenditures to the capital expenditures for social development during this period.

It was noted that during that between 1954 and 1964, non-residential assessment increased by 80%. However, in examining the capital operations of Metro during these years, there was little mention of much funding coming from the Current Operating Fund or Reserves or Reserves Funds. The only mention internal sources of

financing from Metro Toronto were its annual Special Levy for Capital Works and to relieve debenturing that was equivalent to 2 mills. This was allocated from Metro's Current Tax Levy. It appears that this increase in assessment did not provide significant aid to Metro to finance capital expenditures.

Following from this is the literature highlighting Metro's dependence on Long Term Debt Issued. The analysis bears this to be true. The absolute figures of debenturing during the 50's and 60's, absolutely dwarfs Ontario Grants, the only other financing source analyzed during this period. Beginning in the 70's and onwards, the dependence on debenturing never returns to the same levels of the 50's and 60's.

Stated in the literature, during the mid 60's to mid 70's, Metro Toronto received the majority of the available funding from the Provincial government for subway development. However, the analysis of the capital operations does not indicate that the transportation expenditures became a greater percentage of total capital expenditures. In fact, it appears to have declined slightly from the early 60's. Potential explanations for this could be that the increase in provincial transfers was still insignificant in comparison to the total transportation expenditures, or Metro decided to decrease the amount of debenturing they did for subway development because of the transfers from the provincial government.

Also mentioned in the literature was that during this same time period, Ontario started to send more grants in the form of unconditional transfers. The analysis of the capital operations does not bear these transfers becoming sources of financing for Metro's capital expenditures. There was an increase in the absolute figure of Ontario Grants in the mid 60's but this figure declined and did not rise again until the mid 70's.

Another point brought out by the literature was that environmental expenditures (e.g. sewer systems), was not affected by the new political battles that began in the 70's. The analysis provides evidence that that assessment is correct. As a matter of fact, environmental expenditures rose during the 70's as a percentage of total capital expenditures.

The time period from the mid 70's to mid 80's was characterized by slower economic growth, greater demand for social development, and the end of massive infrastructure investments. The analysis supports the slower economic growth of the Metro, which translated into slowing down its total capital expenditures. The data shows that during this time period, the percent change in total capital expenditures per year was for the most part negative and was lower than the yearly inflation rate. The analysis also supports the greater demand for social development, as the percentage of social capital expenditures increased in the 70's and 80's. The type of analysis completed in this paper was not able to discern whether the 70's brought about the end of massive infrastructure investments. However, an assumption can be made that 15 to 20 years after these projects have been implemented in Metro Toronto, they may have started to deteriorate. If this was the case, capital expenditures would have to be devoted to maintaining and rehabilitating the capital infrastructure. This assumption would explain the data from the analysis that although there was a decrease in the absolute figures of total capital expenditures, it was not spectacular enough a reduction to deem capital expenditures were severely cut.

Also mentioned in the literature was that the provincial government started to distance themselves from its municipal governments. They did this by curtailing

increases in grants and finding new methods for municipalities to obtain funding for capital expenditures. For the most part, the analysis agrees with this assessment of the provincial government. Definitely, in the 80's and more so with the 90's, Ontario curtailed increases in the transfers to Metro. However, Ontario Grants remained the greatest contributor to capital financing for Metro through the 70's, 80's, and 80's. Additionally, internal financing increased during the 80's and 90's. A potential explanation for this could be that the new methods the province provided Metro to find additional sources of revenue, could be an explanation for the increase in Transfers from Current Operations and from Reserves and Reserve Funds in the 80's and 90's.

A final point put out by the literature was that social expenditures were increased in the early 80's and early 90's because of the symptoms of a recession (e.g. high unemployment, high interest rates). In the social capital expenditure categories of Protection to People & Property, Social & Family, and Health, this assessment appeared to be correct. The social expenditures of the current operating fund were able to trickle down to the capital expenditures for these categories. For the social category of Recreation & Cultural, capital expenditures decreased within these time periods.

Conclusion

This paper has attempted to review several secondary sources of literature on the Municipality of Metropolitan Toronto. These literatures focus on the history, in respect to capital infrastructure, of Metro Toronto. A comparison was performed between the literature and the capital operations of the municipality from 1954-1997. Through analysis of the actual financial figures produced by Metro Toronto throughout its history, the paper was then able to assess whether the assertions made from the various publications supported by these financial statements. It has been concluded that the analysis conducted in this paper supports most of the assertions made by the literature. Areas in which the analysis did not entirely support the literature included Ontario Grants actually decreasing in absolute values during the late 60's and early 70's, and although the provincial government may have started to distance itself from the municipal governments starting in the mid 70's, Ontario Grants still accounted for the majority of revenue for Metro in the 70's, 80's, and 90's.

References

- Auld, D. (1989). Financing the Provincial-Local Public Capital Infrastructure. *Provincial Public Finances: Plaudits, Problems and Prospects*, v.2. Edited by Melville McMillian. Toronto: Canadian Tax Foundation.
- Brittain, Len. (2002). *Financing Capital Expenditures*. City of Toronto. Article retrieved May 14, 2005 from http://www.ctf.ca/pdf/ctjpdf/2002ctj2_brittain.pdf
- Federation of Canadian Municipalities. (1985). Municipal Infrastructure in Canada: Physical Condition and Adequacy. *Municipal Dimensions*, v.4, no.1. Ottawa: FCM.
- Feldman, R., Mudge, R., and Rubin, K. (1988). *Financing Infrastructure: Tools for the Future*. Washington: Executive Enterprise Publishing Inc.
- Friskin, Frances. (2001). The Toronto Story: Sober Reflections on Fifty Years of Experiments with Regional Governance. *Journal of Urban Affairs*, v.23, no.5, p.513-541.
- Grigg, Neil. (1988). *Infrastructure Engineering and Management*. New York: John Wiley and Sons
- Kitchen, Harry. (2002). *Municipal Revenue and Expenditure Issues in Canada*. Toronto: Canadian Tax Foundation.
- Municipality of Metropolitan Toronto. (1954-1997). *Annual Reports from the Office of the Commissioner of Finance, 1954-1997*. Toronto: Municipality of Metropolitan Toronto.
- Munnell, Alicia. (1992). Policy Watch: Infrastructure Investment and Economic Growth. *The Journal of Economic Perspectives*, v.6, no.4, Autumn 1992, p.189-198.
- National League of Cities. (2001). *The State of America's Cities: 17th Annual Opinion Survey of Municipal Elected Officials*. Washington, D.C.: National League of Cities, January, 2001.
- Neutze, Max. (1997). *Funding Urban Services: Options for Physical Infrastructure*. Australia: Allen & Unwin.
- Organization For Economic Co-Operation and Development. (1991). *Urban Infrastructure: Finance and Management*. Paris: OECD.
- Rose, Albert. (1972). *Governing Metropolitan Toronto: A Social and Political Analysis, 1953-1971*. Berkeley: University of California Press.
- TD Economics Special Report (2004, May 20). *Mind the Gap: Finding the Money to Upgrade Canada's Aging Public Infrastructure*. Article retrieved June 9, 2005 from http://www.td.com/economics/economics/special/infra04_exec.pdf

White, Richard. (2003). *Urban Infrastructure and Urban Growth in the Toronto Region, 1950's to 1990's*. Neptis Foundation: Toronto.

Whyte, Stephen. (1993). *Planning and Financing of Capital Works Programming in the Municipality of Metropolitan Toronto: a Case Study*. Unpublished Undergraduate Thesis, Ryerson Polytechnical University, Toronto, Ontario, Canada.

Appendix A

Current Operating Revenues – This is simply transferring funds from the Current Operating Revenues to the Capital Operations of a particular municipality. Municipalities often use this revenue for capital assets with a short life expectancy (i.e. police cars or fire engines), or for recurrent expenditures (i.e. maintenance or upgrading of sidewalks, roads, parks, etc.). Frequently the decision to use operating revenues depends on the level of capital assistance in the form of grants from senior governments (i.e. federal and provincial). If the senior government grants account for a large percentage of the capital expenditures, then the net cost of the expenditure may be low enough to allow it to finance the rest with the current operating revenues. Municipalities may use a capital levy to generate revenue for their capital projects. It involves the assignment of revenue generated from a few percentage points of the property tax rate (generally 2, 3, or 4 points/mills) to a capital fund (Kitchen, 193-194).

Reserves and Reserve Funds – Municipalities are able to finance capital projects through use of reserves (i.e. funds that are set aside in a separate fund but that the municipality may spend as it chooses) and reserve funds (i.e. funds that are set aside in separate funds and must be spent on specific projects). Instead of borrowing to finance capital expenditures, the municipality annually sets aside a portion of the current revenue in an interest bearing account, from which it eventually supplies some or all of the funding for a specific capital project. Reserves funds may be obligatory or discretionary. The disadvantage of reserve funds is that they violate the principle of intergenerational equity, in that the current taxpayers have to pay for future generations will use (Kitchen, 194-195).

Special Charges – There are three categories of special charges; 1) special assessments and local development charges, 2) Development charges or lot levies, and 3) other exactions such as density bonusing schemes, linkage fees, and parkland dedication schemes.

1. A special assessment is a specific charge or levy that is added to the existing property tax on residential or non-residential properties in order to pay for additional or improved capital facilities that border on those properties. The size of the charge is based on a specific capital expenditure in a particular year, but the costs may be spread over a number of years. These charges do not generally contribute significant sums of revenue to local budgets, but are still important way of financing local improvement projects. A local improvement charge is one in which a municipality assigns a charge according to the assessed values of properties that abut on a local improvement project (Kitchen, p.195-196).
2. Development charges is a specific dollar value per lot or per acre/hectare that a municipality imposes on a developer to finance the offsite capital costs of a new development. This charge typically only applies to the capital costs of facilities necessitated by new development, but in special circumstances it can also apply to additional capital costs needed to service redevelopment. Generally, they have been used in the past to finance hard services (i.e. water supply systems, sewage treatment plants, truck mains, and roads) (Kitchen, p.196-197).

3. Other Exactions

- a. Density bonusing is when a municipality grants developers increase density allocations or density transfers in return for creating subsidizing housing, establishing day-care centres, restoring historic buildings, or other services (Kitchen, p.200).
- b. Parkland dedication may occur in some municipalities in which a Provincial Act requires developers to set aside land within the development, or elsewhere, for parks. However, the developer and the municipality may instead agree to a cash payment equal to the market value of the stipulated amount of land, and then the municipality may spend these funds in any fashion it so chooses (Kitchen, p.201).

Other internally generated revenues for a municipality may include revenue held over previous periods, proceeds from the sale of fixed assets, investment income, private donations for specific capital projects, and various smaller items. The sum of these revenues is typically very small (Kitchen, 202).

Appendix B

Grants – These come from the senior governments. Over time they have become less important as a source of funding for municipal capital projects. Provincial grants are generally intended to fund environmental projects and to a lesser extent, transportation projects (Kitchen, p.202). As well, these grants also fund education and communications capital projects as well (Whyte, p.90).

Borrowing – Borrowing can come in the form of short-term, and to a greater extent, long-term. It plays a major role in municipal capital financing but their access to the capital markets is often provincially controlled. However, this is not the case in Ontario. Regional governments (e.g. Metropolitan Toronto) are able to borrow on behalf of the municipalities that encompass it (Kitchen, p.202-203). Yet there are still controls on how much these regional governments can borrow according to Provincial statutes.

The decision to borrow is generally favoured when current revenues (property taxes and user fees) are insufficient to fund large expenditures on a “pay as you go” basis (Kitchen, p.205). “Pay as you go” is a technique where part of the capital program is funded out of current revenue. It is used to reduce the amount of debt issued and avoid a future increase of debt charges (Whyte, p.85). Capital expenditures tend to be lumpy. A municipality may find it needs millions of dollars to finance an infrastructure project in one year and then nothing for several years. Borrowing allows a municipality to smooth the payment from taxpayers over time (Kitchen p.205).

1. **Short-term borrowing** – A municipality might use short-term borrowing either to finance capital expenditures or to cover an unexpected deficit in its operating budget (in which case, the deficit must be eliminated by budgeting for sufficient revenue in the ensuing year) (Kitchen, p.202). This type of borrowing can be done in various forms, including bank loans, the issuance of bills, certificates, or notes that are sold to banks or other investors. Short-term borrowing is sometimes used to finance capital projects with relatively short life expectancies. However, its most frequent use is for the purpose of financing a small series of small projects until the municipality can consolidate the projects and refinance them through longer term debt (Kitchen, p.204).
2. **Long-term borrowing** – For municipalities this is completely restricted to financing capital expenditures alone (Kitchen, p.202). Municipalities borrow directly from private lenders, from other governments, from provincial or federal departments, agencies, or corporations that provide funds for specific projects (Kitchen, p.204). Long term financing in Ontario is considered to be quite complicated. Regional municipalities have been given the responsibility of borrowing for the lower tier municipalities within its jurisdiction. Smaller municipalities (i.e. not within a regional government) have also been given the power to issue their own debt. However, these municipalities outside the region generally have lower credit ratings than the larger sized municipalities and therefore the cost of servicing debt is higher for these municipalities. The effect has been that many of these smaller municipalities outside the regions simply do not have the capacity to borrow at all (Kitchen, p.204).

Appendix C**Section 147 (4) (a-e) and (5)**

- (4) Regulations – The Lieutenant Governor in Council may make regulations prescribing debt and financial obligations limit for municipalities, including;
- a. prescribing the amount to which the debts, financial obligations and liabilities to which the limit applies and prescribing the matters to be taken in account in calculating the limit;
 - b. prescribing the amount to which the debts, financial obligations and liabilities to which the limit applies and prescribing the matters to be taken in account in calculating the limit;
 - c. requiring a municipality to apply for approval of the Municipal Board for each specific work, the amount of debt for which when added to the total amount of any outstanding debt, financial obligations or liability under clause (a), causes the limit under clause (b) to be exceeded;
 - d. prescribing rules, procedures and fees for the determination of the debt, financial obligation and liability limit of the municipality;
 - e. establishing conditions that must be met by any municipality or class of municipalities before undertaking any debt, financial obligation or liability of class thereof.
- (5) O.M.B. approval not required – Section 65 and 66 of the Ontario Municipal Board does not apply to any debt, financial obligation or liability defined under clause (4) (a) if it does not cause the municipality to exceed the limit prescribed under clause (4) (b) 1992, c 15, s 8 (2).

Appendix D

The Ontario Municipal Board Act, RSO 1990

Section 65(1) (a-e) and (3) ©: OMB Approval and Debt Capacity Limits

65. – (1) Despite the provisions of any general and special Act, a municipality may not,
- a. authorize; or
 - b. exercise any of its powers to proceed with; or
 - c. provide any money for, any undertaking, work, project, scheme, act, matter or thing, the cost or any portion of the cost of which is to be,
 - d. raised in a subsequent year or years; or
 - e. provided by the issue of debentures, until the approval of the Board has first been obtained.
- (3) c. to incurring a liability a debt, financial obligation or liability referred to in clause 147(4)(a) of the Municipal Act which does not cause the municipality to exceed the limit referred to in clause 147(4)(b) of that Act. RSO. 1990, c O.28, s.65 (3); 1992, c.15 s.90

Appendix E

1. **Water Supply** – Construction and maintenance of pumping stations, treatment plants, trunk mains, and reservoirs for the wholesale distribution of water to all the municipalities.
2. **Sewage Disposal** – Construction and maintenance of trunk sewer mains and sewage treatment plants to provide a metropolitan sewage disposal system capable of accepting sewage on a wholesale basis from the area municipalities.
3. **Roads** – The designation of highways as metropolitan roads, and the establishment of an arterial system of highways. Financing to be evenly split with the province.
4. **Transportation** – The former Toronto Transportation Commission became the Toronto Transit Commission, with responsibility for public transportation throughout the metropolitan area.
5. **Education** – The Metropolitan School Board was given responsibility for coordinating educational facilities in the metropolitan area, and charged with paying a grant to each of the 13 local school boards.
6. **Health and Welfare** – The Metropolitan Council was given responsibility for the provision of homes for the aged, the maintenance of wards of Children's Aid Societies, post-sanatorium care for tuberculosis patients, and hospitalization of indigent patients.
7. **Justice** – The Metropolitan Council must provide and maintain a courthouse and jail.
8. **Housing** – The Metropolitan Council was given all of the powers of a municipality in the fields of housing and redevelopment.
9. **Planning** – The Metropolitan Planning Board was created, with authority extended beyond the metropolitan area, encompassing all adjoining townships. It was charged with preparing an official plan for this larger metropolitan planning area.
10. **Parks** – The Metropolitan Council was empowered to establish metropolitan parks.
11. **Finance and Taxation** – The Metropolitan Council was made responsible for the uniform assessment of all lands and buildings in the 13 municipalities. On the basis of the total assessment, the requirements of the metropolitan government are levied against each Area Municipality at a uniform mill rate. The local government then collects the metropolitan tax requirement, as well as its own requirement, from its taxpayers. All responsibility for debenture financing was given to Metro to exercise both for itself and on behalf of any local government in the area. Moreover, the Metropolitan Corporation was required to assume the school debenture debts of each municipality, and acquired all assets of the local municipalities needed for metropolitan services (Rose, p.25-26).

Appendix F

Year	Current Operating Expenditures	Capital	Financing	Sources	(Categories)	Reserves %	Current Operations %
Year	Ont Grants	Ont Grants % of N4	Total Financing	Can Grants	Reserves	Total Financing	Current Operations
Year	1854	1855	1856	1857	1858	1859	1860
1854	18,632,184	2,156,081					
1855	21,845,131	7,472,266					
1856	28,782,975	9,919,478					
1857	52,110,620	8,763,525					6,366,248
1858	57,060,880	7,032,750					
1859	63,153,555	7,277,648					
1860	73,899,886	12,708,462					
1861	69,087,681	14,035,196					
1862	80,640,833	16,866,983					
1863	89,188,532	19,970,383					
1864	100,933,789	20,951,480					
1865	112,558,422	28,447,637					
1866	124,211,666	22,735,288					
1867	162,410,077	17,704,747					
1868	171,968,248	15,986,541					
1869	188,180,635	16,808,124					
1870	218,303,991	19,555,849					
1871	257,423,283	29,220,215					
1872	277,175,820	27,792,356					
1873	303,084,158	31,510,430					
1874	361,883,870	47,265,504					
1875	437,885,189	95,041,105					
1876	468,445,314	91,851,731	41.8%	230,838	0.1%	19,887,148	9.1%
1877	571,700,107	89,697,331	37.2%	476,134	0.2%	28,122,448	11.7%
1878	627,270,572	60,732,000	41.6%	1,574,332	1.1%	28,707,938	19.7%
1879	669,292,000	45,217,000	30.3%	957,000	0.6%	29,005,000	19.4%
1880	758,245,000	43,600,000	34.1%	1,140,000	0.9%	48,420,000	38.3%
1881	843,425,000	62,047,000	45.0%	2,690,000	2.0%	47,332,000	34.3%
1882	999,419,000	82,746,000	57.6%	2,690,000	1.9%	35,790,000	24.9%
1883	1,112,253,000	115,126,000	45.0%	26,289,000	10.3%	55,309,000	21.6%
1884	1,219,647,000	122,869,000	55.9%	2,278,000	1.0%	53,247,000	24.2%
1885	1,310,864,000	141,394,000	57.9%	4,023,000	1.6%	66,551,000	27.2%
1886	1,402,540,000	144,138,000	48.2%	11,585,000	3.7%	71,887,000	23.0%
1887	1,560,083,000	128,235,000	38.8%	10,718,000	3.2%	74,479,000	22.6%
1888	1,737,898,000	112,798,000	41.0%	14,564,000	5.3%	85,366,000	31.0%
1889	2,058,342,000	116,475,000	26.5%	103,765,000	23.6%	89,628,000	20.4%
1890	2,435,323,000	129,859,000	35.9%	97,550,000	27.0%	80,628,000	22.3%
1891	2,787,839,000	142,889,000	35.3%	67,342,000	16.6%	65,354,000	16.2%
1892	3,088,054,000	155,669,000	40.7%	33,092,000	8.7%	72,558,000	19.0%
1893	3,923,228,000	164,243,000	32.3%	41,857,000	8.2%	89,721,000	17.7%
1894	3,948,923,000	218,953,000	46.9%	2,891,000	11.5%	89,230,000	19.1%
1895	3,967,265,000	273,872,000	51.1%	25,001,000	7.9%	90,556,000	16.9%
1896	3,686,147,000	304,377,000	44.5%	44,114,000	5.1%	105,334,000	15.4%
1897	3,370,116,000	307,819,000	41.9%	22,643,000	8.8%	112,140,000	15.3%

Year	Capital Financing Sources (Categories)				Total Financing Amt.	% change from Previous Year
	LTD % of Total Financing	Other Financing	Other Financing % Total Financing	Total Financing		
1954					2,156,061	0.0%
1955					8,170,705	279.0%
1956					10,247,173	25.4%
1957					9,926,371	-3.1%
1958					11,177,261	12.6%
1959					10,184,182	-8.9%
1960					16,447,100	61.5%
1961					16,114,237	-2.0%
1962					20,834,116	29.3%
1963					23,996,369	15.2%
1964					24,850,627	3.6%
1965					29,524,881	18.8%
1966					26,210,125	-11.2%
1967					20,216,911	-22.9%
1968					18,322,896	-9.4%
1969					19,775,416	7.9%
1970					33,298,107	68.4%
1971					43,941,387	32.0%
1972					39,645,633	-9.8%
1973					49,588,629	25.1%
1974					63,276,316	27.8%
1975					114,192,228	80.5%
1976	0.0%	10,537,872	4.8%		219,720,591	92.4%
1977	0.0%	24,320,210	10.1%		240,948,753	9.7%
1978	0.0%	20,233,171	13.9%		145,838,846	-39.5%
1979	0.0%	25,403,000	17.0%		149,469,000	2.5%
1980	0.0%	21,387,000	16.7%		127,960,000	-14.4%
1981	0.0%	13,559,000	9.8%		137,996,000	7.8%
1982	0.0%	13,395,000	9.3%		143,753,000	4.2%
1983	0.0%	20,879,000	8.2%		255,763,000	77.9%
1984	0.0%	22,549,000	10.3%		219,842,000	-14.0%
1985	0.0%	20,649,000	8.5%		244,262,000	11.1%
1986	0.0%	20,063,000	6.4%		311,916,000	27.7%
1987	0.0%	25,607,000	7.8%		330,087,000	5.8%
1988	0.0%	30,252,000	11.0%		275,296,000	-16.6%
1989	0.0%	51,242,000	11.7%		439,236,000	59.6%
1990	0.0%	28,114,000	7.8%		361,750,000	-17.6%
1991	0.0%	5,044,000	1.2%		404,622,000	11.9%
1992	0.0%	5,120,000	1.3%		382,327,000	-5.5%
1993	0.0%	11,368,000	2.2%		507,809,000	32.8%
1994	0.0%	9,771,000	2.1%		466,813,000	-8.1%
1995	0.0%	5,908,000	1.1%		535,074,000	14.6%
1996	0.0%	13,735,000	2.0%		684,195,000	27.9%
1997	0.0%	6,386,000	0.9%		734,615,000	7.4%

Year	Capital Expenditures (Categories)							
	Gen. Gov't	Gen. Gov't %	Protection to Persons & Property PPP %	Transportation	Transport %	Environmental	Env. %	
1954	426,275	7.5%	12,500	0.2%	4,120,164	72.2%	841,701	16.5%
1955	0	0.0%	507,815	3.0%	10,231,814	59.5%	2,080,392	12.0%
1956	0	0.0%	2,264,064	8.9%	15,567,954	61.5%	4,554,953	18.0%
1957	0	0.0%	2,264,010	6.7%	15,888,326	47.0%	13,853,720	41.0%
1958	0	0.0%	733,393	2.1%	13,491,954	38.4%	18,431,643	52.4%
1959	0	0.0%	19,140	0.1%	16,388,796	52.2%	12,904,784	41.1%
1960	0	0.0%	477,341	1.0%	36,917,241	74.3%	6,394,594	12.9%
1961	0	0.0%	899,541	1.8%	36,032,071	70.3%	6,493,297	12.7%
1962	0	0.0%	850,287	1.5%	42,876,109	78.8%	3,828,921	6.5%
1963	0	0.0%	2,445,378	3.4%	57,977,367	81.5%	3,355,209	4.7%
1964	0	0.0%	4,178,071	3.6%	93,849,063	81.9%	6,288,736	5.5%
1965	0	0.0%	10,318,011	10.6%	61,245,128	64.3%	5,268,700	5.5%
1966	0	0.0%	3,609,782	3.8%	63,330,456	65.8%	9,611,540	10.0%
1967	0	0.0%	2,482,030	3.4%	48,591,033	68.2%	11,593,158	15.8%
1968	0	0.0%	280,693	0.5%	39,772,888	68.9%	9,042,466	15.7%
1969	0	0.0%	22,969	0.0%	40,796,454	65.6%	9,636,552	15.5%
1970	0	0.0%	359,420	0.6%	40,933,292	69.1%	8,147,883	13.8%
1971	0	0.0%	410,970	0.5%	48,938,020	64.7%	14,292,776	18.9%
1972	30,438	0.0%	4,874,805	4.8%	59,882,610	59.3%	12,337,931	12.2%
1973	47,325	0.0%	4,344,893	4.1%	47,088,854	44.3%	23,729,889	22.3%
1974	0	0.0%	1,776,139	1.4%	53,256,419	40.6%	37,186,989	28.3%
1975	0	0.0%	5,467,929	2.8%	108,519,642	55.1%	38,864,578	19.7%
1976	54,000	0.0%	9,207,000	4.5%	122,682,000	60.2%	44,735,000	21.9%
1977	81,000	0.0%	8,485,000	4.6%	122,404,000	66.9%	35,867,000	19.6%
1978	59,000	0.0%	11,083,000	7.2%	84,530,000	55.1%	43,188,000	28.2%
1979	76,000	0.1%	8,074,000	6.6%	67,068,000	54.6%	33,075,000	26.9%
1980	131,000	0.1%	6,428,000	4.2%	65,992,000	42.8%	21,445,000	13.9%
1981	801,000	0.7%	7,022,000	5.9%	82,684,000	69.1%	18,197,000	13.5%
1982	658,000	0.4%	5,140,000	3.4%	104,968,000	70.0%	25,089,000	16.7%
1983	432,000	0.2%	21,457,000	7.8%	164,255,000	59.8%	70,036,000	25.5%
1984	717,000	0.3%	10,719,000	4.7%	154,277,000	67.6%	38,552,000	16.9%
1985	455,000	0.2%	23,550,000	8.8%	183,924,000	68.5%	34,042,000	12.7%
1986	637,000	0.2%	41,184,000	12.7%	206,320,000	63.8%	40,684,000	12.6%
1987	1,095,000	0.3%	42,148,000	12.9%	172,906,000	52.7%	43,458,000	13.3%
1988	57,217,000	16.2%	31,693,000	8.9%	154,472,000	43.6%	76,808,000	21.7%
1989	19,236,000	5.2%	28,149,000	7.6%	174,305,000	47.0%	104,472,000	28.2%
1990	52,237,000	12.4%	27,487,000	6.5%	179,306,000	42.7%	128,685,000	30.8%
1991	70,681,000	16.1%	19,542,000	4.4%	176,380,000	40.1%	102,497,000	23.3%
1992	64,294,000	13.8%	26,039,000	5.6%	207,905,000	44.6%	86,452,000	18.6%
1993	9,497,000	2.2%	28,758,000	6.7%	248,711,000	58.1%	63,090,000	14.7%
1994	4,522,000	1.0%	23,866,000	5.5%	307,058,000	70.5%	52,292,000	12.0%
1995	13,139,000	2.4%	27,465,000	4.9%	380,257,000	68.3%	58,802,000	10.6%
1996	15,938,000	2.4%	23,733,000	3.6%	406,404,000	61.0%	56,743,000	8.5%
1997	12,783,000	1.9%	26,926,000	4.0%	492,184,000	73.7%	67,887,000	10.2%

Year	Capital Expenditures (Categories)								Total Cap Exp.
	Health	Health %	Social & Family	S&F %	Rec. & Cultural	Rec & Cul %	Planning & Development	P&D	
1954	0	0.0%	195,996	3.4%	6,727	0.1%	0	0.0%	5,707,059
1955	0	0.0%	2,150,980	12.5%	2,213,564	12.9%	0	0.0%	17,185,232
1956	0	0.0%	1,112,607	4.4%	1,799,110	7.1%	0	0.0%	25,298,688
1957	35,275	0.1%	176,136	0.5%	1,561,980	4.6%	0	0.0%	33,779,441
1958	444,685	1.3%	1,364,209	3.9%	688,746	2.0%	0	0.0%	35,154,630
1959	234,580	0.7%	730,582	2.3%	962,242	3.1%	156,911	0.5%	31,397,035
1960	225,682	0.5%	415,284	0.8%	1,300,457	2.8%	104,442	0.2%	49,671,535
1961	2,272,884	4.4%	2,176,095	4.2%	1,597,318	3.1%	0	0.0%	51,246,166
1962	2,984,632	5.3%	1,946,881	3.5%	1,238,316	2.2%	0	0.0%	55,852,263
1963	874,022	1.2%	821,145	1.2%	1,244,476	1.7%	0	0.0%	71,138,486
1964	76,733	0.1%	700,840	0.6%	1,497,803	1.3%	1,200	0.0%	114,646,019
1965	2,201	0.0%	1,671,750	1.8%	1,167,672	1.2%	22,284	0.0%	95,226,150
1966	51,505	0.1%	805,479	0.8%	1,217,349	1.3%	1,633,215	1.7%	96,234,747
1967	0	0.0%	602,773	0.8%	2,123,693	2.9%	-364,763	-0.5%	73,370,563
1968	0	0.0%	1,023,884	1.8%	1,276,075	2.2%	53,023	0.1%	57,702,107
1969	0	0.0%	2,826,118	4.5%	1,215,903	2.0%	108,306	0.2%	62,197,319
1970	0	0.0%	3,344,996	5.6%	2,264,996	3.8%	130,563	0.2%	59,209,996
1971	0	0.0%	2,384,931	3.2%	4,712,466	6.2%	43,192	0.1%	75,644,093
1972	0	0.0%	5,747,266	5.7%	10,421,508	10.3%	65,777	0.1%	100,976,417
1973	0	0.0%	4,418,203	4.2%	13,793,464	13.0%	22,566	0.0%	106,206,327
1974	0	0.0%	3,355,837	2.6%	21,280,810	16.2%	34,237	0.0%	131,241,263
1975	0	0.0%	3,052,832	1.5%	19,611,935	10.0%	353,761	0.2%	197,074,188
1976	1,030,000	0.5%	5,325,000	2.6%	20,731,000	10.2%	85,000	0.0%	203,848,808
1977	1,120,000	0.6%	2,031,000	1.1%	12,445,000	6.8%	624,000	0.3%	183,036,166
1978	1,563,000	1.0%	3,569,000	2.3%	9,276,000	6.1%	11,000	0.0%	153,277,569
1979	2,348,000	1.9%	4,814,000	3.9%	7,340,000	6.0%	5,000	0.0%	122,830,000
1980	5,237,000	3.4%	6,449,000	4.2%	5,468,000	3.5%	55,000	0.0%	154,341,000
1981	1,996,000	1.7%	3,944,000	3.3%	7,002,000	5.9%	9,000	0.0%	119,656,000
1982	1,840,000	1.2%	5,302,000	3.5%	6,893,000	4.6%	25,000	0.0%	149,915,000
1983	2,822,000	1.0%	6,845,000	2.5%	8,904,000	3.2%	20,000	0.0%	274,771,000
1984	3,942,000	1.7%	7,473,000	3.3%	12,614,000	5.5%	32,000	0.0%	228,326,000
1985	3,494,000	1.3%	7,115,000	2.7%	15,840,000	5.9%	46,000	0.0%	268,466,000
1986	3,401,000	1.1%	17,198,000	5.3%	13,786,000	4.3%	75,000	0.0%	323,285,000
1987	5,624,000	1.7%	15,141,000	4.6%	14,492,000	4.4%	39,000	0.0%	327,846,000
1988	6,414,000	1.8%	15,378,000	4.3%	11,989,000	3.4%	199,000	0.1%	354,170,000
1989	6,298,000	1.7%	15,241,000	4.1%	22,789,000	6.1%	143,000	0.0%	370,833,000
1990	5,897,000	1.4%	9,088,000	2.2%	17,554,000	4.2%	237,000	0.1%	420,271,000
1991	6,152,000	1.4%	13,501,000	3.1%	13,209,000	3.0%	1,061,000	0.2%	440,383,000
1992	4,262,000	0.9%	21,005,000	4.5%	10,063,000	2.2%	185,000	0.0%	465,793,000
1993	12,969,000	3.0%	24,821,000	5.8%	21,230,000	5.0%	1,806,000	0.4%	427,882,000
1994	6,265,000	1.4%	18,894,000	4.3%	22,347,000	5.1%	35,000	0.0%	435,279,000
1995	3,441,000	0.6%	17,775,000	3.2%	55,350,000	9.9%	142,000	0.0%	556,371,000
1996	673,000	0.1%	17,983,000	2.7%	143,841,000	21.6%	666,000	0.1%	665,979,000
1997	2,388,000	0.4%	23,005,000	3.4%	42,920,000	6.4%	102,000	0.0%	668,195,000

Year	Current Operating Expenditures	% change		(Un)expended Cap. Financing	% Capital Exp. is of Operating Exp.	Avg. Annual Rate of Inflation (%)	Population	Metro Chairman
		Total Cap. Exp.	from Pre.Yr.					
1954	16,632,194	5,707,059			30.6%	0%	1,251,840	Frederick Gardiner
1955	21,845,131	17,185,232	201.1%		78.7%	0.60%	1,304,363	Frederick Gardiner
1956	26,792,975	25,298,688	47.2%		87.9%	0%	1,358,028	Frederick Gardiner
1957	52,110,820	33,779,441	33.5%		64.8%	4.20%	1,380,775	Frederick Gardiner
1958	57,060,860	35,154,630	4.1%		61.6%	2.88%	1,429,207	Frederick Gardiner
1959	63,153,555	31,397,035	-10.7%		49.7%	1.11%	1,487,348	Frederick Gardiner
1960	73,899,686	49,671,535	58.2%		67.2%	1.10%	1,527,105	Frederick Gardiner
1961	69,087,861	51,248,166	3.2%		74.2%	1.63%	1,618,787	Frederick Gardiner
1962	80,640,833	55,852,263	9.0%		69.3%	0.53%	1,625,405	William Allen
1963	89,198,532	71,138,486	27.4%		79.8%	1.60%	1,677,708	William Allen
1964	100,933,769	114,646,019	61.2%		113.6%	2.09%	1,744,331	William Allen
1965	112,558,422	95,226,150	-16.9%		84.6%	2.05%	1,802,006	William Allen
1966	124,211,668	96,234,747	1.1%		77.5%	4.02%	1,845,904	William Allen
1967	162,410,077	73,370,563	-23.8%		45.2%	3.38%	1,887,798	William Allen
1968	171,966,249	57,702,107	-21.4%		33.6%	3.74%	1,906,041	William Allen
1969	188,190,635	62,197,319	7.8%		33.1%	4.95%	1,935,145	Albert Campbell
1970	218,303,991	59,209,996	-4.8%		27.1%	3.86%	2,003,679	Albert Campbell
1971	257,423,283	75,844,093	27.8%		29.4%	2.07%	2,058,563	Albert Campbell
1972	277,175,820	100,976,417	33.5%		36.4%	4.45%	2,115,318	Albert Campbell
1973	303,094,158	106,206,327	5.2%		35.0%	6.98%	2,118,821	Paul Godfrey
1974	361,883,870	131,241,263	23.8%		36.3%	11.59%	2,124,095	Paul Godfrey
1975	437,865,189	197,074,188	50.2%		45.0%	10.06%	2,153,381	Paul Godfrey
1976	486,445,314	203,848,808	3.4%	46,478,188	41.9%	8.55%	2,156,262	Paul Godfrey
1977	571,700,107	183,036,166	-10.2%	-11,434,399	32.0%	7.88%	2,150,151	Paul Godfrey
1978	627,270,572	153,277,569	-16.3%	3,995,676	24.4%	8.82%	2,137,867	Paul Godfrey
1979	659,292,000	122,830,000	-19.9%	30,635,000	18.6%	9.26%	2,155,724	Paul Godfrey
1980	758,245,000	154,341,000	25.7%	47,390,000	20.4%	9.53%	2,113,552	Paul Godfrey
1981	843,425,000	119,856,000	-22.5%	65,730,000	14.2%	12.19%	2,110,973	Paul Godfrey
1982	999,419,000	149,915,000	25.3%	34,268,000	15.0%	11.90%	2,122,369	Paul Godfrey
1983	1,112,253,000	274,771,000	83.3%	15,259,000	24.7%	5.55%	2,124,085	Paul Godfrey
1984	1,219,647,000	228,326,000	-16.9%	6,775,000	18.7%	4.67%	2,131,942	Paul Godfrey
1985	1,310,864,000	268,466,000	17.8%	-17,429,000	20.5%	4.04%	2,145,900	C. Dennis Flynn
1986	1,402,540,000	323,285,000	20.4%	-28,798,000	23.0%	4.16%	2,130,938	C. Dennis Flynn
1987	1,560,063,000	327,846,000	1.4%	6,388,000	21.0%	4.63%	2,125,520	C. Dennis Flynn
1988	1,737,896,000	354,170,000	8.0%	-72,486,000	20.4%	3.94%	2,128,270	Alan Tonks
1989	2,058,342,000	370,633,000	4.6%	-3,883,000	18.0%	5.09%	2,130,855	Alan Tonks
1990	2,435,323,000	420,271,000	13.4%	-62,404,000	17.3%	4.39%	2,137,204	Alan Tonks
1991	2,797,639,000	440,383,000	4.8%	-60,985,000	15.7%	6.15%	2,151,430	Alan Tonks
1992	3,088,054,000	465,793,000	5.8%	-98,863,000	15.1%	1.42%	2,283,406	Alan Tonks
1993	3,923,228,000	427,882,000	-8.1%	-126,152,000	10.9%	1.80%	2,312,300	Alan Tonks
1994	3,948,923,000	435,279,000	1.7%	-94,618,000	11.0%	0.20%	2,340,900	Alan Tonks
1995	3,987,265,000	558,371,000	27.8%	-115,915,000	14.0%	2.96%	2,359,900	Alan Tonks
1996	3,688,147,000	665,979,000	19.7%	-97,699,000	18.1%	1.44%	2,385,406	Alan Tonks
1997	3,370,116,000	668,195,000	0.3%	-141,183,000	19.8%	1.51%	2,402,200	Alan Tonks

Year	Total Cap. Exp.	Debt (Issued)	Population	Avg. Annual Rate of Inflation (%)	Total Capital Exp. Per Person	% Change Total Cap. Exp. Compared to Inflation
1954	5,070,059	5,037,545	1,251,840	0%	\$4.56	N/A
1955	17,185,232	14,449,058	1,304,363	0.60%	\$13.18	189.00%
1956	25,298,686	24,167,447	1,358,026	0%	\$18.63	41.39%
1957	33,779,441	3,806,204	1,380,775	4.20%	\$24.46	31.32%
1958	35,154,630	28,217,498	1,429,207	2.66%	\$24.60	0.54%
1959	31,997,035	32,425,504	1,487,348	1.11%	\$21.11	-14.18%
1960	49,671,535	20,346,923	1,527,105	1.10%	\$32.53	54.09%
1961	51,248,166	19,614,912	1,618,787	1.63%	\$31.66	-2.67%
1962	65,652,263	26,181,285	1,625,405	0.53%	\$34.36	8.54%
1963	71,138,486	28,692,854	1,677,708	1.60%	\$42.40	23.40%
1964	114,646,019	73,232,808	1,744,331	2.09%	\$65.72	55.00%
1965	95,226,150	56,136,048	1,802,006	2.05%	\$52.84	-19.60%
1966	96,234,747	33,928,976	1,845,904	4.02%	\$52.13	-1.34%
1967	73,370,563	41,269,157	1,887,798	3.39%	\$38.87	-25.45%
1968	57,702,107	6,528,323	1,906,041	3.74%	\$30.27	-22.11%
1969	62,197,319	12,233,120	1,935,145	4.95%	\$32.14	6.17%
1970	59,209,996	24,456,624	2,003,679	3.86%	\$29.55	-8.06%
1971	75,644,093	32,738,048	2,058,563	2.07%	\$36.75	24.35%
1972	100,876,417	42,327,881	2,115,318	4.45%	\$47.74	29.91%
1973	106,206,327	40,561,357	2,118,821	6.98%	\$50.13	5.01%
1974	131,241,263	53,108,816	2,124,095	11.59%	\$61.79	23.27%
1975	197,074,189	32,370,000	2,153,381	10.06%	\$91.52	48.12%
1976	203,848,808	97,133,001	2,158,262	8.55%	\$94.54	3.30%
1977	183,036,166	98,332,630	2,150,151	7.88%	\$85.13	-9.85%
1978	153,277,569	34,592,000	2,137,867	8.82%	\$71.70	-15.78%
1979	122,830,000	48,887,000	2,155,724	9.26%	\$56.88	-20.53%
1980	154,341,000	15,413,000	2,113,552	9.53%	\$73.02	28.16%
1981	119,656,000	12,362,000	2,110,973	12.12%	\$56.68	-22.38%
1982	149,915,000	9,131,000	2,122,369	11.90%	\$70.64	24.62%
1983	274,771,000	38,160,000	2,124,085	5.55%	\$129.36	83.14%
1984	228,326,000	18,901,000	2,131,942	4.67%	\$107.10	-17.21%
1985	268,466,000	11,645,000	2,145,900	4.04%	\$125.11	16.82%
1986	323,285,000	64,243,000	2,130,938	4.16%	\$151.71	21.26%
1987	327,848,000	91,048,000	2,125,520	4.63%	\$154.24	1.67%
1988	354,170,000	32,400,000	2,128,270	3.94%	\$166.41	7.89%
1989	370,633,000	78,126,000	2,130,855	5.09%	\$173.94	4.52%
1990	420,271,000	25,599,000	2,137,204	4.39%	\$196.65	13.06%
1991	440,383,000	124,013,000	2,151,430	6.15%	\$204.69	4.09%
1992	465,783,000	115,887,000	2,283,400	1.42%	\$203.99	-0.34%
1993	427,882,000	200,620,000	2,312,300	1.80%	\$185.05	-9.29%
1994	435,279,000	82,337,000	2,340,900	0.20%	\$185.95	0.49%
1995	556,371,000	97,834,000	2,358,900	2.96%	\$235.76	26.79%
1996	665,979,000	181,792,000	2,385,400	1.44%	\$279.19	18.42%
1997	668,195,000	205,000,000	2,402,200	1.51%	\$278.16	-0.37%

Appendix G

Chart 7a - Absolute General Government Capital Expenditures

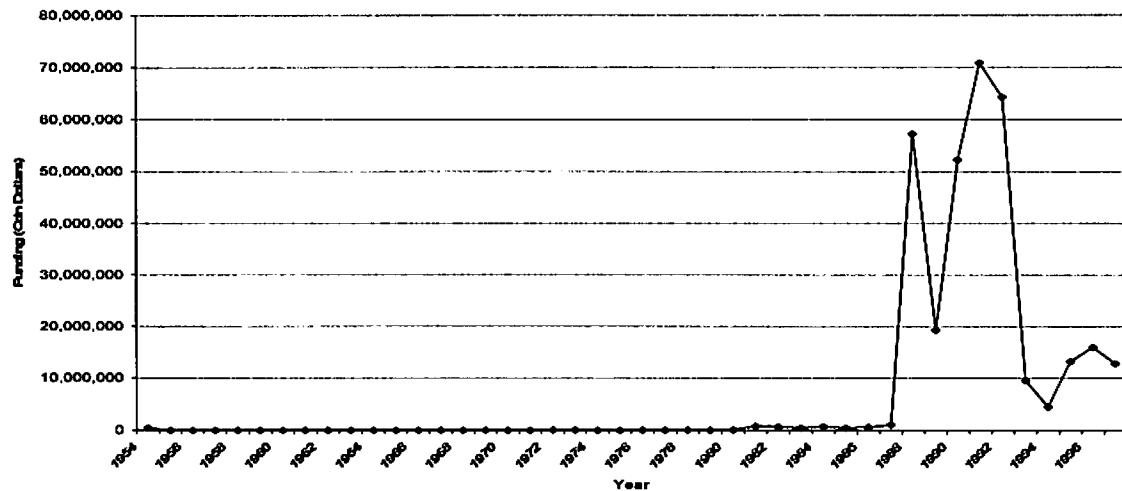


Chart 7a shows that this category starts as a blip in 1954, and really does not have much activity until the early 80's. For the record, this category was not classified until 1976, therefore in the re-categorization that was done with capital expenditures before 1976, some capital items possibly might not have been placed appropriately into this category. However, great lengths were taken to make sure that capital items were placed in the correct category. The guideline for the re-categorization was with the breakdown of Metropolitan Toronto's financial statements in 1997. As noted previously, activity in this category starts to increase during the 1980's and then in 1988 significantly increases. After 1988, capital expenditures in this category remain relatively high, but then decreases in the mid 90's.

Chart 11a - Absolute Health Capital Expenditures

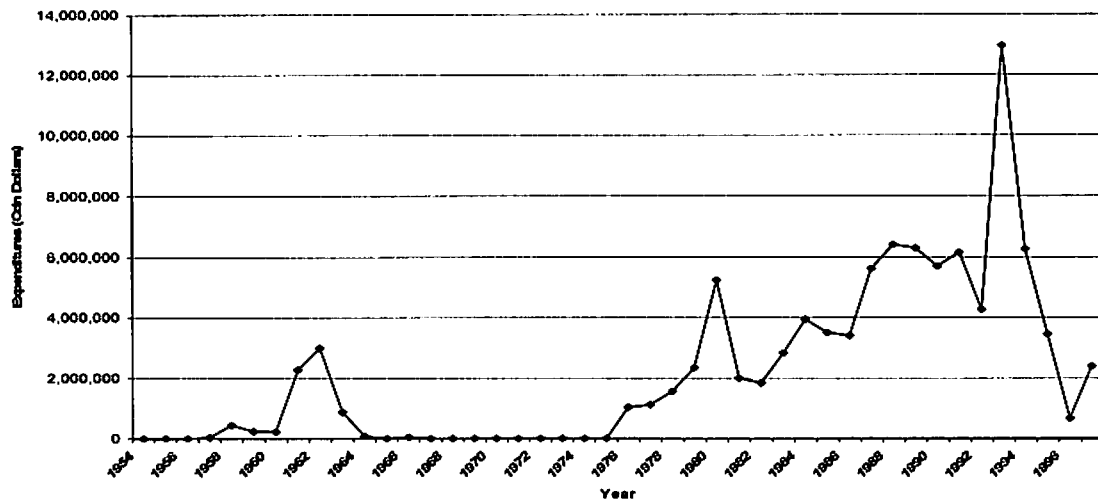


Chart 11a illustrates that in the early 60's there was some spending in health. From the mid 60's to the mid 70's there was practically no expenditures in this category. Starting in 1976, expenditures in this category rose to over \$1 million. After 1979, expenditures in this category relatively stayed above \$2 million, but achieved new peaks in 1980, 1987, 1988, and 1993. Interestingly in the mid 90's, expenditures in this category decreased dramatically to absolute levels below what was being spent in the late 70's.

Chart 11b - Health Expenditures as Percentage of Total Capital Expenditures

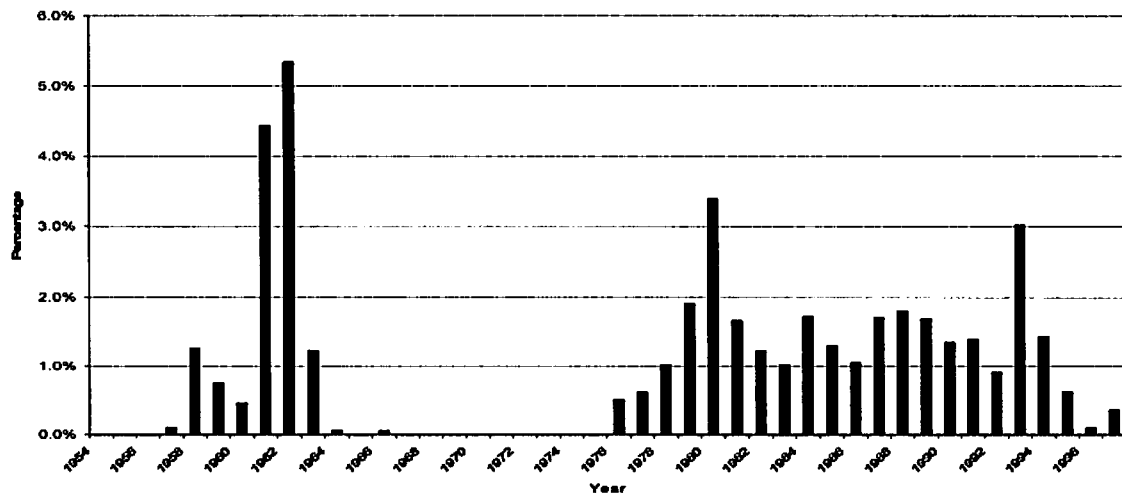


Chart 11b points out two major clusters in which health capital expenditures made an impact on Metro's total capital expenditures. Notably, the greatest impact that this category ever had on the total capital expenditures of Metro was in the early 60's. When money started to be spent again on health capital expenditures in the mid 70's, only twice did this category ever reach 3% of total capital expenditures. This occurred in 1980 and 1993. This category did not have a significant impact on total capital expenditures, but maintained a consistency of approximately 1% of total capital expenditures starting in the mid 70's until the end of Metro.

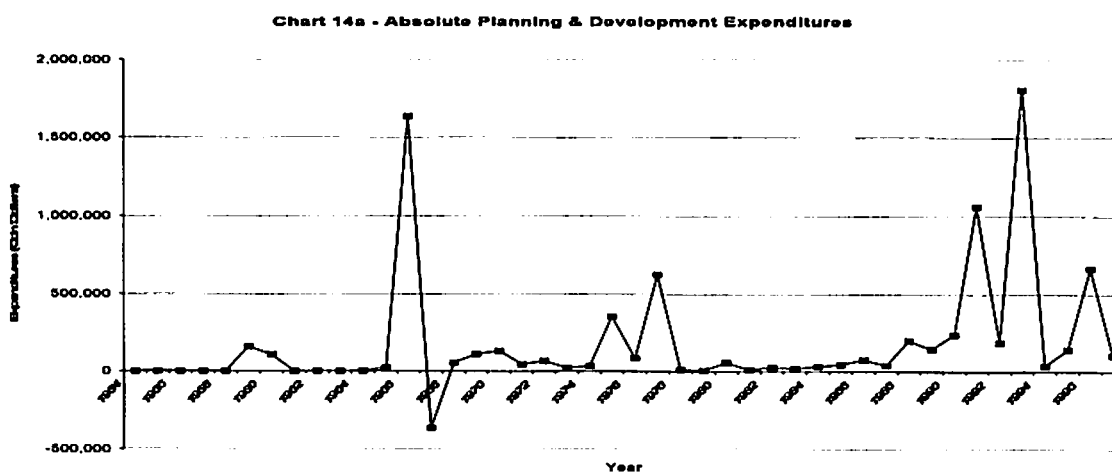


Chart 14a does not show very discernable trends other than there are pockets of significant activity during the late 60's, late 70's, and the 90's. Only three years (1966, 1991, and 1993) has the capital expenditures of this category ever been over \$1 million. Interestingly enough, in 1967, a year after significant expenditure in this category, there was a deficit in its capital expenditure by \$364,763. This is exception is probably due to the perceived excessive spending for the capital category from the previous year.

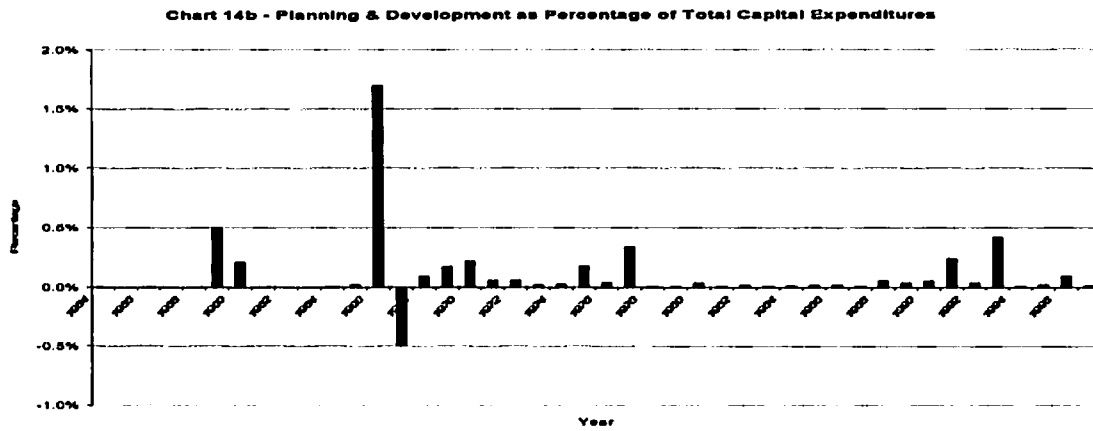


Chart 14b shows periods in which this category actually made a blip in total capital expenditures. However, as evidenced by the chart, only in 1966 did this category even make-up over 1% of total capital expenditures for Metro. The category has been quite insignificant in the make-up of Metro capital expenditures.