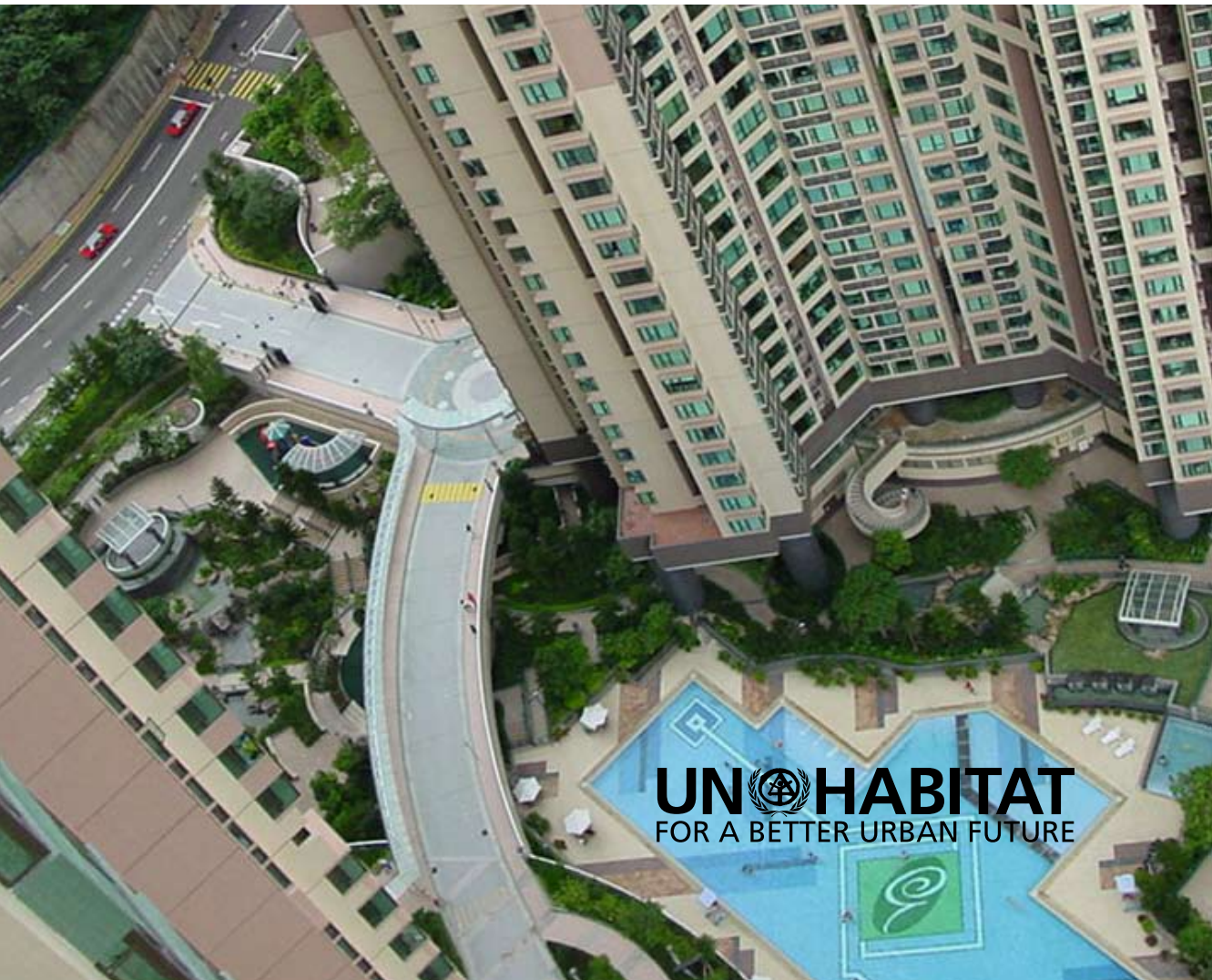
GUIDE TO MUNICIPAL FINANCE



GUIDE TO **MUNICIPAL FINANCE**

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The Human Settlements Financing Tools and Best Practices Series

Guide to Municipal Finance

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ABBREVIATIONS AND ACRONYMS

CBD	Central Business District
ERPS	Electronic Road Pricing System
GDP	Gross Domestic Product
IMF	International Monetary Fund
IPSAS	International Public Sector Accounting Standards
IU	In-vehicle unit
GAAPs	Generally Accepted Accounting Principles
MDGs	Millennium Development Goals
OECD	Organisation for Economic Co-operation and Development
PAYG	Pay-as-you-go
P3s	Public-Private Partnerships
TIF	Tax Increment Financing
VAT	Value added tax

FOREWORD

The global housing crisis, especially in the developing world, is getting worse by the day making the right to adequate shelter a quest that is becoming more and more difficult to meet, despite the targets set by the Millennium Development Goals.

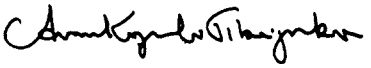
Such is the rate of urbanization – the influx of people into towns and cities, and their natural growth – that the world has now reached a point where for the first time now, half the global population lives in towns and cities.

By the year 2050, six billion people – two-thirds of humanity – will be living in towns and cities. And as urban centres grow, the locus of global poverty is moving into towns and cities, especially into the burgeoning informal settlements and slums, of the developing world. In the developing world, this is happening so fast that slums are mushrooming in what is termed the urbanization of poverty.

This makes it imperative that we use every means at our disposal to ensure that we at UN-HABITAT, and our partners, keep applying ourselves to Target 11 of the Goals – to achieve significant improvement in the lives of at least 100 million slum dwellers, by 2020.

And for this, we need innovative governance, and local thinking and reporting if we are to bring hope to the urban poor. Equally importantly, we need to support our towns and cities, indeed our countries, to adopt pro-poor policies and strategies that will obviate the need for further slum creation.

It is against this background, that the Human Settlements Financing Tools and Best Practices series focuses on the development of know-how, knowledge and tools in human settlements financing, from which Member States can learn in delivering affordable housing to the poor.



Anna Tibaijuka,
Executive Director, UN-HABITAT
Under-Secretary-General of
the United Nations,

CHAPTER 1

DEFINITION OF MUNICIPAL FINANCE AND OBJECTIVES OF THE GUIDE

Interest in cities around the world is on the rise, in large part, because more and more people are living in cities in both developed and less developed countries. The rapid increase in the urban population has put pressure on local governments to provide a range of services from water and sewer infrastructure to social services and housing. To meet the rising demands of urbanization, municipalities need adequate revenue tools to pay for services and infrastructure.

DEFINITION OF MUNICIPAL FINANCE

Municipal finance is about the revenue and expenditure decisions of municipal governments. It covers the sources of revenue that are used by municipal governments – taxes (property, income, sales, excise taxes), user fees, and intergovernmental transfers. It includes ways of financing infrastructure through the use of operating revenues and borrowing as well as charges on developers and public-private partnerships. Municipal finance also addresses issues around expenditures at the local level and the accountability for expenditure and revenue decisions, including the municipal budgetary process and financial management.

OBJECTIVES OF THE GUIDE

The objective of this Guide to Municipal Finance is to introduce government officials, policy makers, professional practitioners, civil society, and academics in UN member states to the current issues in municipal finance in countries around the world. The Guide emphasizes the important role that municipal finance plays in local service delivery, particularly in the context of globalization, decentralization, and a focus on sustainable development. It highlights some of the new trends in financing services that are being used in different countries around the world such as increased reliance on the private sector to invest in infrastructure and services. Finally, an important objective of the Guide is to provide policy makers with some basic economic tools and a framework for analyzing public finance issues and evaluating different ways of financing both operating and capital expenditures at the local level.

Given the length of the Guide, it is not possible to delve into all topics in depth and some topics, such as the governance of cities and metropolitan areas, are not included at all. It is also only possible to provide examples of municipal finance techniques from a few selected countries. For this reason, references are provided throughout the Guide for those who seek more information on specific topics or specific countries.

OUTLINE OF THE GUIDE

The Guide has eight chapters. Chapter 1 gives a definition of municipal finance and sets out the objectives of the Guide. Chapter 2 provides some background on the state of municipal finance with reference to expenditures and revenues at the local level in a number of countries around the world. Although it is difficult to find global statistics on local government revenues and expenditures, some information from the IMF *Government Finance Statistics* gives an indication of the wide variation in local government expenditures and revenues around the world. The chapter also sets out the issues and challenges that cities face and some of the recent trends that are emerging in municipal finance.

Chapter 3 provides the theoretical framework for discussing issues in municipal finance by starting with a description of the role of local government in the economy and the benefit model of public finance. The benefit model states that, as much as possible, local government services should be paid for on the basis of the benefits received from those services. The last part of the chapter sets out a series of public finance principles to design municipal finance tools.

Chapters 4 and 5 turn to ways local governments pay for services – Chapter 4 is concerned with financing operating expenditures; Chapter 5 deals with financing capital investment. Chapter 4 provides an extensive discussion of taxes – property, income, payroll, consumption, and excise taxes. The focus of this part of the chapter is on the property tax because of its widespread use around the world and its appropriateness as a local government tax. From an efficiency point of view, user fees are an important source of revenue for local governments and are discussed in Chapter 4.

Finally, because local governments in many countries, particularly transition and developing economies, rely heavily on intergovernmental transfers, Chapter 4 devotes a fair bit of time to issues around the rationale and design of transfers. Overall, the chapter stresses the importance of local governments raising their own revenues as much as possible to ensure efficient service delivery and accountability to citizens.

Chapter 5 looks at financing capital expenditures. Local governments often use operating revenues for capital purposes and, in some countries, borrow to meet capital requirements. More recent trends show some local governments turning to the private sector for funds through charges on developers, public-private partnerships, and land value capture taxes such as tax increment financing in the United States and land value increment taxes in parts of Latin America.

Chapter 6 turns to the expenditure side of the budget and looks at municipal budgeting. It emphasizes the importance of the municipal budgetary process for accountability and highlights the participatory budgeting process used in many Latin American countries.

Chapter 7 focuses on municipal borrowing and access to the capital market. It stresses the important role that borrowing can play in financing capital expenditures at the local level while noting that municipal borrowing is restricted in many countries. It describes different borrowing instruments and stresses the importance of credit ratings for local government borrowing.

Finally, chapter 8 provides a brief summary of the issues of municipal finance and how they have been addressed around the world. It also provides some concluding comments on the important principles to follow in municipal finance.

CHAPTER 2

MUNICIPAL FINANCE ISSUES, CHALLENGES, AND TRENDS

Local governments make expenditures on a variety of services including transportation, policing, fire protection, water and sewers, garbage collection and disposal, housing, health, recreation and culture, education, and social expenditures. They fund these services and the infrastructure associated with them from a variety of sources. This chapter looks at the state of municipal finances in selected countries and identifies issues, challenges, and trends.

STATE OF MUNICIPAL FINANCES

Comparative statistics on local government expenditures and revenues around the world are difficult to find. Tables 1 to 4 provide some information for selected countries from the IMF *Government Finance Statistics,* which is the only source that provides a breakdown of local government finance information for both developed and less developed countries. The countries in these tables were chosen from the countries in the IMF statistics because they were the only ones for which information was available on a disaggregated basis for local government expenditures and revenues. For most of the countries in these tables, the data are for 2006 but for some countries, the information is for earlier years. The years other than 2006 are listed in the notes to the tables.

It is difficult to draw conclusions from the information on expenditures in Tables 1 and 2. There appears to be wide variation in the expenditure responsibilities of local governments around the world. For example, education expenditures represent a large proportion of expenditures at the local level in most central and eastern European countries in the tables but the proportion varies among OECD countries. Expenditures on social protection account for a large proportion of expenditures in Nordic countries but appear to be less important in the other countries in the tables. Housing expenditures as a proportion of total local government expenditures are, on average, larger in central and eastern European countries than in other countries in the tables.

TABLE 1: **DISTRIBUTION OF MUNICIPAL EXPENDITURES, SELECTED OECD COUNTRIES, 2006 (%)**

	General Public Services		Public Order, Safety, Defense	Economic Affairs	Total	Environmental Protection	Housing & community amenities	Health	Recreation, culture and religion	Education	Social protection	Total expenditures.
	Public debt transactions	Total		Transport								
Australia	1.6	24.4	2.6	21.5	26.7	9.5	13.7	1.2	15.7	0.4	5.8	100
Austria	0.5	16.9	2.1	n.a.	14.2	2.6	2.8	16.3	7.1	16.7	21.3	100
Canada	2.7	8.7	9.2	11.6	13.2	5.9	7.8	1.5	6.9	41.2	5.5	100
Czech Republic	0.7	14.5	1.8	18.9	21.4	7.3	9.1	2.2	7.5	27.5	8.7	100
Denmark	0.5	6.1	0.3	2.8	4.7	0.9	0.4	20.4	2.7	12.9	51.5	100
Finland	0.6	14	2.1	4.1	6.1	0.7	0.4	28.4	4.6	20.5	23.3	100
France	1.4	19.2	2.8	n.a.	13.1	6.9	15.2	0.6	10.2	16.2	15.8	100
Germany	3.2	17.4	5.4	n.a.	13.5	6.8	7.7	2.3	n.a.	7.2	39.7	100
Hungary	0.5	19.3	1.2	n.a.	5.7	3.9	6.9	15.4	4.8	29.9	12.8	100
Iceland	3.1	10	0.9	11	11.7	2.4	4.5	0.8	17.3	37.2	15	100
Ireland	0.9	11.4	3.2	n.a.	23.8	8.7	22.7	0	4.1	20.7	5.4	100
Italy	1.6	14.6	1.5	n.a.	14.8	4.6	4.7	43.9	3	8.3	4.5	100
Luxembourg	1.3	20.9	1.7	n.a.	15.9	12.1	7.6	0.3	13.1	24.6	3.9	100
New Zealand	2.9	18.3	0.5	29.7	35	21.3	7.3	0	12.1	0	5.5	100
Norway	2.7	10.7	1	4.9	6.5	3.6	4.2	15.2	4.8	28.4	25.6	100
Poland	0.8	9.4	1.8	13	14.8	4	5.6	15.3	5.2	29.6	14.2	100
Slovak Republic	0.7	17.5	1	11.3	15.9	6.2	9.9	0.3	7.1	35.4	6.6	100
Spain	1.3	33.4	7.8	9.8	14.5	10	9.6	1.2	10.9	4.5	8.1	100
Switzerland	3.3	14.3	5.2	7.3	8.7	5.3	2.5	20.5	5.6	21.7	16.2	100

Notes: *Sub-categories of general public services include public debt transactions and general transfers between levels of government. Sub-categories of economic affairs include agriculture, forestry, fishing, and hunting; fuel and energy; mining, manufacturing and construction; transport; and communications. Sub-categories of health include outpatient services, hospital services, and public health services. Public debt transactions include interest payments and outlays for underwriting and floating government loans. Sub-categories of education include pre-primary and primary education; secondary education; and tertiary education.*

Information for Canada, Czech Republic, Denmark, New Zealand, Norway, and Slovak Republic are preliminary estimates for 2006. Information for France, Hungary, Ireland, Italy, and Switzerland are for 2005. Information for Finland and Spain are preliminary estimates for 2005.

Source: International Monetary Fund, Government Finance Statistics, Yearbook, 2007, Table 7 and IMF Statistics Department, Government Finance Statistics Manual, 2001.

TABLE 2: **DISTRIBUTION OF MUNICIPAL EXPENDITURES, SELECTED COUNTRIES IN CENTRAL AND EASTERN EUROPE, ASIA, AFRICA, AND LATIN AMERICA, 2006 (%)**

	General Public Services		Public Order, Safety, Defense	Economic Affairs		Environmental Protection	Housing & community amenities	Health	Recreation, culture and religion	Education	Social protection	Total expenditures.
	Public debt transactions	Total		Transport	Total							
Central and Eastern Europe:												
Belarus	0.2	7.1	2	5.2	13.3	0	16.8	21.3	5.1	28.5	5.9	100
Bulgaria	0.3	11.5	3.1	9.5	12.1	-6.7	26.3	4.7	5.3	35.7	8	100
Croatia	0.5	16.8	2.6	9.8	13.4	3.5	18.6	4.6	13.2	20.1	7.2	100
Georgia	0.6	9.2	2.1	0.1	-0.3	0	59.7	2.7	8.9	8.7	9	100
Kazakhstan	0.1	16.6	3.9	7.7	12.9	0.4	13.5	18.6	4.4	26	3.8	100
Kyrgyz Republic	0	13.3	1.9	0.6	1.7	0	10.6	5.2	4.3	58.4	4.7	100
Latvia	0.8	13.5	1.4	7.5	8.1	n.a.	14.6	2.8	7.8	44.1	7.8	100
Lithuania	0.2	5	0.7	1.8	7.1	2.3	5.9	21.9	5.4	40.5	11.2	100
Moldova	0.5	12.7	3.1	2.8	9.6	0	17.7	1.7	5.1	45.9	4.1	100
Romania	0.4	10.7	1	14.6	16.7	2.8	18.9	0.7	5.6	30.9	12.8	100
Russian Fed.	0.4	10.7	1.7	2.7	3.4	0.2	19	14.1	4.2	38	8.7	100
Slovenia	0.1	9.5	1.4	8.4	13.2	4.5	5.1	11.8	8	42.5	4	100
Ukraine	0.4	9.9	0.2	4	10.6	0.6	10.3	20.9	4	28.7	14.9	100
Asia, Africa and Latin America:												
China, PR	0.1	21.3	6.0	1.3	39.7	4.4	0.4	3.4	1.6	12.4	10.8	100
Kenya	0.2	32.7	0.0	9.4	45.6	0.0	6.3	6.6	0.0	6.7	2.1	100
Mauritius	0.2	30.9	0	22.4	30.2	0	17.7	1.7	5.1	45.9	10.2	100
South Africa	0	4.9	0.7	4.5	7.1	0.5	3.1	20.8	0.9	34.9	27	100
Uganda	0	24.4	0.8	n.a.	10.8	0.4	3.2	14.1	0.3	44.6	1.3	100
Bolivia	2.1	12.9	1	14.5	21.5	7.3	20.4	11.5	6.9	16.3	2.1	100

Notes and Sources: See Table 1. Also, information for Uganda is preliminary for 2006. Information for Romania, China, and Kenya is for 2005. Information for South Africa is for 2004.

TABLE 3: **DISTRIBUTION OF MUNICIPAL REVENUES, SELECTED OECD COUNTRIES, 2006 (%)**

	Taxes								Social contributions	Grants	Other revenue	Total revenues
	Individual income	Corporate income	Payroll	Property	Goods and services	Excise	Other	Total taxes				
Australia	0	0	0	38.6	0	0	0	38.6	0	13.5	47.9	100
Austria	14.6	3.7	10.3	5.5	12.1	4.4	4.8	55.3	4.6	13.9	26.2	100
Canada	0	0	0	37.8	0	0	2.1	39.9	0	41.8	18.3	100
Czech Republic	13.2	13.5	0	1.4	18.8	0	1.3	48.2	0	39.9	11.9	100
Denmark	46.4	1.1	0	3.4	0	0	0	50.9	1.6	39.1	8.4	100
Finland	40.8	3.8	0	2.4	0	0	0	47.1	0.1	28.6	24.2	100
France	0	0	3.1	33.7	0	3.7	4.1	44.6	0.2	29.1	26.1	100
Germany	15.8	0.2	0	5.4	1.8	0	18.8	42	1.3	33.8	23	100
Hungary	15.8	0	0	4.5	13.1	0	2	35.5	0.2	48.4	15.9	100
Iceland	53.1	0	0	10.5	0	0	9.4	72.9	0	8.8	18.3	100
Ireland	0	0	0	9.4	0	0	0	9.4	3.5	59.6	27.6	100
Italy	7.9	0.7	0	5.7	2.2	2.7	25.3	44.5	0.6	43.4	11.5	100
Luxembourg	0	28.6	0	2.2	0	0	0.7	31.4	0.2	46.6	21.7	100
New Zealand	0	0	0	54.5	0	0.5	0	55	0	11.2	33.8	100
Norway	40.1	0	0	4.1	0	0	0.9	45.1	0	36.1	18.8	100
Poland	14.7	4.3	0	9.4	0	0	3.9	32.5	0	50.6	16.9	100
Slovak Republic	38.5	0	0	6.4	0	0	6.8	51.8	0.6	35.1	12.6	100
Spain	7.5	2.3	0	16	13.3	3.1	10	52.2	0.5	34.5	12.8	100
Switzerland	33.8	5.2	0	7.1	0	0	0.1	46.3	0	16.3	37.4	100

Notes: *Social contributions are actual or imputed receipts from either employers on behalf of their employees or from employees, self-employed, or non-employed persons on their own behalf that secure entitlement to social benefits for the contributors, their dependents, or their survivors. The contributions may be compulsory or voluntary. Grants are noncompulsory transfers received by government units from other government units or international organizations. Grants may be classified as capital or current and can be received in cash or in kind.*
Information for Canada, Czech Republic, Denmark, Finland, Ireland, New Zealand, Norway, and Slovak Republic are preliminary for 2006. Information for Spain is for 2004 and for Switzerland 2005.
Source: International Monetary Fund, Government Finance Statistics, Yearbook, 2007, Table 1 and IMF Statistics Department, Government Finance Statistics Manual, 2001.

TABLE 4: **DISTRIBUTION OF MUNICIPAL REVENUES, SELECTED COUNTRIES IN CENTRAL AND EASTERN EUROPE, ASIA, AFRICA, AND LATIN AMERICA, 2006 (%)**

	Taxes								Social contributions	Grants	Other revenue	Total revenues
	Individual income	Corporate income	Payroll	Property	Goods and services	Excise	Other	Total taxes				
Central and Eastern Europe:												
Belarus	17.9	10.5	0	9.2	21.4	1.1	7.2	67.3	0	30.2	2.5	100
Bulgaria	0	0	0	20.1	0	0	0.1	20.3	0	69.9	9.9	100
Croatia	39.5	15.5	0	3.5	0.4	0	2.3	61.2	0	12.3	26.5	100
Georgia	50	2.1	0	11.1	0	0	3.7	66.9	0	28	5	100
Kazakhstan	17.2	0	24.6	5.9	0	3.3	5.3	56.3	0	43	0.6	100
Kyrgyz Republic	9.2	7.5	0	7.8	11.1	2.4	1.7	39.8	0	45.8	14.4	100
Latvia	48.4	0	0	6.5	0	0	0.8	55.6	0	31.3	13.1	100
Lithuania	30.2	0	0	4.1	0	0	0.9	35.3	0	57.9	6.8	100
Moldova	23.4	13.8	0	4.9	0.8	0.1	4.9	47.9	0	45.2	6.9	100
Romania	38.6	0.2	0	7.8	31.4	0	3.7	81.7	0	8.4	10	100
Russian Federation	19.2	4.2	0	3.6	0	0	3.7	30.7	0	58.2	11.1	100
Slovenia	24	0	0	7.2	0	0	2.8	34.1	0	47.5	18.5	100
Ukraine	32.9	1.4	0.2	2.3	0	0.1	5	41.8	0	47.9	10.3	100
Asia, Africa and Latin America:												
China, PR	2	5	0	2.4	18.4	0	2.2	30	13.3	28.9	27.9	100
Kenya	0	0	0	15.6	0	0	5.9	21.4	0	32.8	45.8	100
Mauritius	0	0	0	11.9	0	0	13.9	25.8	0	67.1	7.2	100
South Africa	0	0	0	16.8	0	0	2.8	19.7	0	24.9	55.4	100
Uganda	1.2	0	0	2.8	0	0	0.9	4.9	0	91.3	3.8	100
Bolivia	0	8.2	0	18.6	18	24.5	3.1	72.3	0	17.6	10	100

Notes and Sources: See Table 3. Information for South Africa and Uganda are preliminary for 2006. Information for China and Kenya is for 2005. Information for Romania is for 2004.

Tables 3 and 4 provide a breakdown of local government revenues in selected countries. As with expenditures, the dependence on various revenue sources is different from country to country. Property taxes, for example, are levied by local governments in all of the countries in the tables but only provide a significant source of local revenue in Australia, Canada, New Zealand, and France. Property taxes are also an important source of revenue in the United Kingdom which is not included in these tables. Income taxes are more important at the local government level in Nordic countries where social expenditures are also significant at the local level. For all local taxes, the extent to which local governments have the autonomy to set their own taxes is not clear from these tables but, in many countries, local tax rate setting does not exist or is limited.

Dependence on intergovernmental transfers by local governments is widespread but the extent of that dependence varies in the different countries. For example, government transfers are still the most significant revenue source for local governments in many countries but they have been decreasing in many North American and European jurisdictions. Finally, the components of the "other revenues" category are not set out but likely include user fees, fines, and other miscellaneous local revenues. These revenues appear to be less significant in central and eastern Europe than in other countries.

One of the reasons for differences in expenditures and revenues at the local level around the world is that the importance of local government overall varies. Table 5 shows local government expenditures both as a percentage of Gross Domestic Product (GDP) and as a percentage of total government expenditures (including all levels of government) for most of the countries in Tables 1 to 4. Table 5 shows that local government expenditures account for a significant portion of GDP and of total government expenditures in the Nordic countries (especially in Denmark and Finland and to a somewhat lesser extent in Norway and Iceland). Local governments are also significant in some central European countries (such as Kazakhstan and Ukraine) and in China. Local governments account for a very small portion of GDP and total expenditures in Australia where the state governments perform many local functions. It is also very small in Kenya.

TABLE 5: **LOCAL GOVERNMENT EXPENDITURES AS A PERCENTAGE OF GDP AND TOTAL GOVERNMENT EXPENDITURES**

	Local government expenditures as % of GDP	Local government expenditures as % of total government expenditures
Selected OECD Countries:		
Australia	2.4	6.7
Austria	7.9	15.9
Canada	7.3	18.5
Czech Republic	11.9	27
Denmark	32.9	62
Finland	19.7	39.3
France	11	20.4
Germany	7.3	15.6
Hungary	12.8	25.7
Iceland	13.2	30
Ireland	6.7	19.8
Italy	15.4	32
Luxembourg	5.4	12.5
New Zealand	4.1	10.8
Norway	13.1	30.7
Poland	13.2	30.4
Slovak Republic	6.8	18.2
Spain	5.9	15.5
Switzerland	9.9	25.9
Central and Eastern Europe:		
Belarus	n.a.	n.a.
Bulgaria	5.9	15
Croatia	n.a.	n.a.
Georgia	6.3	28
Kazakhstan	10.6	40.4
Kyrgyz Republic	n.a.	n.a.
Latvia	9.5	26.3
Lithuania	8.3	24.2
Moldova	n.a.	n.a.
Romania	7.1	21
Russian Federation	6.3	19.8
Slovenia	9	19
Ukraine	12.6	37.8
Asia, Africa and Latin America:		
China, PR	13.7	74.6
Kenya	0.06	1.3
Mauritius	n.a.	n.a.
South Africa	5.1	16.9
Uganda	n.a.	n.a.
Bolivia	11.3	26.6

Source: United Cities and Local Governments, Local Governments in the World, Basic Facts on 82 Selected Countries, 2007 Edition prepared CGLU and DEXIA.

TABLE 6: **URBAN POPULATION BY MAJOR AREA, SELECTED PERIODS, 1950-2050**

	Urban Population (millions)					Annual average rate of change (%)			
	1950	1975	2007	2025	2050	1950-975	1975-2007	2007-2025	2025-2050
Africa	33	107	373	658	1,234	4.76	3.9	3.15	2.52
Asia	237	574	1,645	2,440	3,486	3.54	3.29	2.19	1.43
Europe	281	444	528	545	557	1.84	0.54	0.18	0.08
Latin America & the Caribbean	69	198	448	575	683	4.21	2.55	1.38	0.69
North America	110	180	275	337	401	1.98	1.33	1.11	0.7
Oceania	8	15	24	30	37	2.6	1.44	1.17	0.89
World	738	1,518	3.293	4,585	6,398	2.89	2.42	1.84	1.33

Source: United Nations, Department of Economic and Social Affairs, Population Division (2008) World Urbanization Prospects: The 2007 Revision, Executive Summary, New York: United Nations, p. 3 and 5.

ISSUES AND CHALLENGES

The challenge for local governments is to keep cities economically viable by delivering a high level of services and, at the same time, keeping taxes sufficiently low so as not to discourage individuals and businesses from locating in their jurisdiction. Over the past two decades, local governments have faced a number of issues and challenges that have put stress on their ability to meet this objective.

RAPID URBANIZATION

The urban population has been increasing rapidly and is expected to continue to do so over the next 40 years. The urban population in the more developed regions of the world is projected to reach 1.07 billion (or 86 percent of the total population) in 2050; the urban population in less developed regions is projected to increase to 5.3 billion people (or 67 percent of the total population) in 2050 (United Nations, 2008a). Overall, the urban population is expected to be 70 percent of the world population in 2050.

Table 6 shows the urban population by major area for selected years from 1950 and the average annual rate of change. Table 7 shows the percentage urban population by major areas for selected periods from 1950 to 2050 and the rate of urbanization. These tables show that, historically, the process of rapid urbanization occurred in the more developed countries. Over the next 40 years, however, the level of urbanization is expected to increase in all major areas of the developing world. In particular, the urban population is expected to triple in Africa and double in Asia.

TABLE 7: **PERCENTAGE URBAN BY MAJOR AREA, SELECTED PERIODS, 1950-2050**

	Percentage urban					Rate of urbanization (%)			
	1950	1975	2007	2025	2050	1950-1975	1975-2007	2007-2025	2025-2050
Africa	14.5	25.7	38.7	47.2	61.8	2.28	1.28	1.1	1.08
Asia	16.8	24	40.8	51.1	66.2	1.42	1.66	1.24	1.04
Europe	51.2	65.7	72.2	76.2	83.8	1	0.29	0.3	0.38
Latin America & the Caribbean	41.4	61.1	78.3	83.5	88.7	1.56	0.78	0.36	0.24
North America	63.9	73.8	81.3	85.7	90.2	0.58	0.3	0.29	0.2
Oceania	62	71.5	70.5	71.9	76.4	0.57	-0.05	0.11	0.24
World	29.1	37.3	49.4	57.2	69.6	0.99	0.88	0.82	0.59

Source: United Nations, Department of Economic and Social Affairs, Population Division (2008) World Urbanization Prospects: The 2007 Revision, Executive Summary, New York: United Nations, pp. 4 and 5.

The growth of the urban population has created and will continue to create serious challenges for municipal governments in both developed and less developed countries in terms of air and water pollution, transportation gridlock, shortage of affordable housing, inadequate waste collection, deteriorating infrastructure, mounting violence and crime, and income polarization. Local governments are required to provide transportation and communications networks, water and sewers, fire and police protection, parks, recreational facilities, cultural institutions, social services, social housing, and public health. These services and infrastructure are, in many cases, already over-stretched and rapid population growth, combined with limited funding for infrastructure, has put further strain on local governments to maintain existing services and meet future demands. The result is an infrastructure deficit that is large and growing.

CHALLENGES FOR LARGE METROPOLITAN AREAS

Not only is the world experiencing rapid urbanization but the number of mega-cities (cities with more than 10 million people) is also on the rise. Whereas in 1950, there were only two mega-cities (New York and Tokyo), there were 20 mega-cities in 2005 and the number is projected to increase to 22 by 2015. Developing countries will have 17 of the 22 mega-cities in 2015 (United Nations, 2008a).

Large cities and metropolitan areas are different than smaller urban or rural municipalities, in large part, because of the size of their population, the high degree of concentration of population, and the presence of a heterogeneous population in terms of social and economic circumstances (Freire, 2001). In many countries, large cities also serve as regional hubs for people from neighbouring communities who come to shop or to use public services that are not available in their own communities (Slack, 2007a). For example, Rio de Janeiro is surrounded by heavily populated municipalities that house most of the low income families in the metropolitan area.

The population outside of the city uses services in the city that are not available in the periphery with resulting impacts on water pollution, traffic, crowding of hospitals and public schools, and crime rates (Rezende, 1998).

From a municipal finance perspective, the unique characteristics of large cities and metropolitan areas are reflected in the magnitude and complexity of the expenditures that local governments in those areas are required to make on municipal services. These characteristics are also reflected in their ability to pay for services. Generally, large cities and metropolitan areas have greater fiscal capacity than smaller municipalities and rural areas, both in terms of greater responsibility for local services and greater ability to levy their own taxes and collect their own revenues.

Rarely are large cities treated differently, however, in terms of their taxing authority or the intergovernmental transfers they receive. One possible exception is the German structure, which distinguishes among governments of different sizes giving broader responsibilities to "city-states" (Berlin, Bremen, and Hamburg) and allowing other large municipalities to assume responsibilities of counties.

GLOBALIZATION

Globalization is another challenge facing municipalities. To be globally competitive, cities need to provide the supportive infrastructure to attract business and they need to provide a wide range of services: transportation, water, sewers, garbage collection and disposal, police and fire protection, parks, recreation and culture, affordable housing, and social assistance. Cities must also provide services to attract and retain highly trained human capital.

The "knowledge workers" who increasingly hold the key to economic success are attracted by such quality of life factors as diversity, tolerance, a lively arts scene, recreational opportunities, high quality public schools, strong neighbourhoods, and safety from crime (Florida, 2002).

Globalization also affects the ability of local governments to raise revenues. The taxation of non-residential properties, for example, is affected by the mobility of industries in a globalized environment. Businesses are more mobile in this context and respond to differential property taxes in different locations (Kitchen and Slack, 1993). Local governments have to be aware of the impact of their tax policies on businesses. Cities also have to manage their finances responsibly to attract private investors and to access capital markets (Serageldin et al., 2008).

MILLENNIUM DEVELOPMENT GOALS

In 2000, leaders from 189 countries set out a vision in the UN Millennium Declaration to eradicate poverty and increase the welfare of the world's poorest by 2015. To provide a framework to measure progress towards this vision, they established eight goals, 18 targets, and 48 indicators. The UN Millennium Development Goals (MDGs) include: eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria, and other diseases; ensure environmental sustainability; and develop a global partnership for development (United Nations, 2008).

The challenge of achieving these goals is placing an increased burden on local governments, in particular, because they are the level of government that is responsible for delivering basic services such as water and sanitation, housing, primary health care, and education. In order to deliver these services, local governments need adequate resources, local autonomy, and increased capacity (Dirie, 2005: 4).

COSTS OF URBAN SPRAWL

Along with rapid urbanization, many municipalities face the mounting costs of urban sprawl which is generally characterized by relatively low density, development that "expands in an unlimited and non-contiguous (leapfrog) way outward from a solidly built-up core of a metropolitan area" (TCRP, 1998: 6). Sprawl consumes exurban agricultural lands as well as environmentally sensitive areas. Uncontrolled growth (or urban sprawl) threatens the sustainability of both local economies and the environment.

Sprawl is the result of land use policies and financing decisions that have provided incentives for low-density developments outside the urban core, such as over-investment in highways and road transport in North American cities and the lack of urban facilities in the peripheral areas in many Latin American countries, for example (Stren, 2001). Urban sprawl significantly increases the cost of services, in particular the cost of infrastructure: "when neighbourhoods are spread out at low density, they require more water, sewer pipes, power lines, and roads" (O'Meara, 2001: 346).

The financing tools used to pay for growth (for example, property taxes, user fees, and development charges) can provide incentives for sprawl. If these financing tools charge the same amount for services in all developments regardless of the costs incurred, there is no incentive to locate near existing services where the costs would be lower (Slack, 2002).

INADEQUATE REVENUES TO MEET EXPENDITURE NEEDS

The amount of funding available to local governments is an important determinant of the quantity and quality of services that they will be able to provide. Where locally raised revenues are limited, urban government expenditures suffer (Bahl and Linn, 1992). Over the last twenty years, a number of countries have increased the powers and responsibilities of local governments but they have not matched those responsibilities with revenues at the local level: "few countries permit local governments to levy taxes capable of yielding sufficient revenue to meet expanding local needs" (Bird, 2000: 114).

In short, revenues at the municipal level have not kept pace with the increased expenditure requirements (Montgomery et al., 2003; OECD, 2006). Not only do local governments depend heavily on intergovernmental transfers, their own revenue sources are inadequate. In most countries, municipal own-source revenues are generally based on property taxes and user fees and not the more lucrative taxes such as income, sales, and fuel taxes. In many countries, intergovernmental transfers are not reliable.

Local governments in less developed countries face even greater challenges when it comes to raising revenues (Dirie, 2005). First, the local government revenue base is often weak, especially when compared to the revenue base of the central government. Second, they have few own-source revenues, lack incentives to generate their own revenues, and do not use the existing revenue potential from these sources. For example, property taxes are difficult to administer and collect (Bird and Slack, 2004). Third, they often have little or no control over the tax rates they can levy. Fourth, central government transfers are not stable and predictable and the design of transfers is often not transparent.

Fifth, most municipalities in developing countries are either not permitted to borrow or their borrowing is restricted by senior levels of government. Each of these issues is discussed further in the remainder of this Guide.

RECENT TRENDS IN MUNICIPAL FINANCE

Recent trends in municipal finance result, in part, from the need to find ways to pay for the expenditures which local governments have to make to meet local demands for services and infrastructure. In many cases, these trends relate to the financing of capital expenditures. There are also some new trends in financial management to address the demands for accountability and transparency at the local level.

FISCAL DECENTRALIZATION

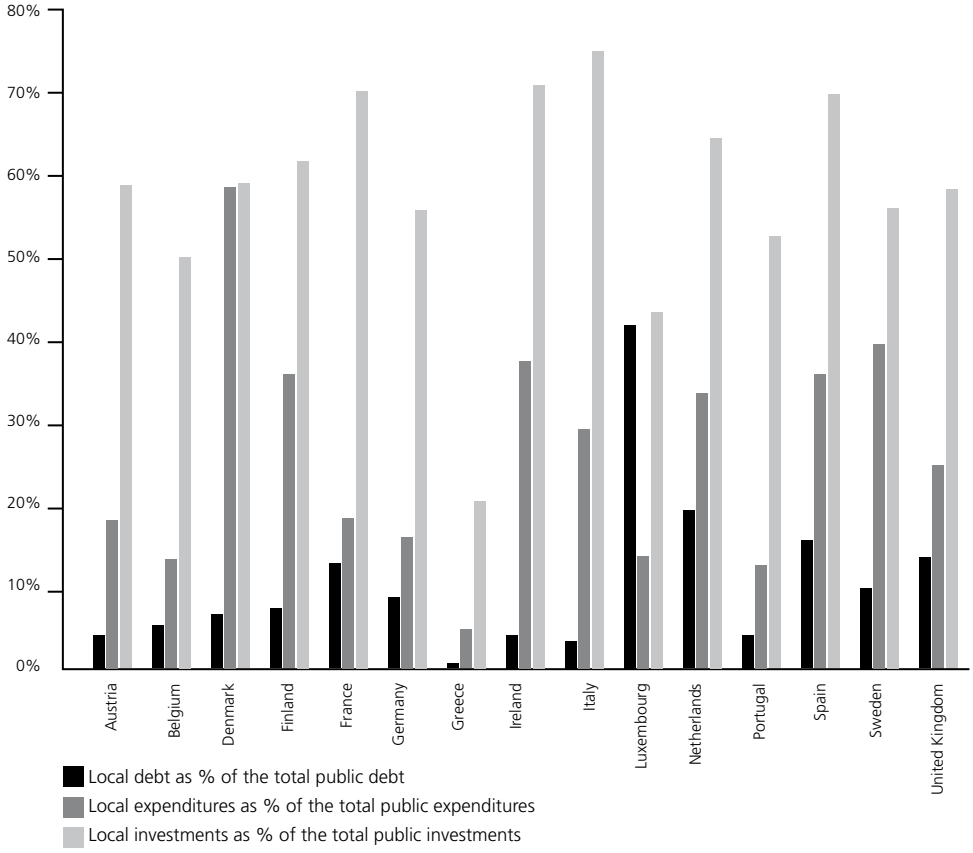
An important trend in municipal finance is fiscal decentralization which has meant the transfer of financial responsibility from central governments to local governments forcing local governments to deliver and fund an increasing number of services. Although many industrialized countries have a long history of decentralization, it is much newer in less developed countries. Since the 1980s, as many as 75 countries have implemented decentralization policies as a means of ensuring more efficient public service delivery and addressing poverty issues (Ingram and Hong, 2007).

Figure 1 shows the role of local government in public debt, spending, and investments for 15 Western European countries in 2000. Local expenditures as a percent of total government expenditures range from less than 5 percent in Greece to almost 60 percent in Denmark. Local investments as a percent of total public investments range from approximately 20 percent in Greece to over 70 percent in Italy. Local debt, on the other hand, is a much smaller percentage of total debt in most countries when compared to expenditures and investment.

In many countries, decentralization has meant that national and provincial/state governments have downloaded responsibilities onto local governments. In some cases, the downloading is part of an overall fiscal decentralization whereby the central or provincial/state government passes budgetary authority to local governments to make taxing and spending decisions. The intention is to provide services in a more efficient and effective manner but often the taxing authority is not part of the decentralization process. In other cases, devolution has been a way for senior levels of government to shift their debt burden onto municipalities by reducing their transfers and directing responsibilities downward (Ebel and Vaillancourt, 2001).

The downloading of expenditure responsibilities to local governments without adequate revenue sources (sometimes referred to as "unfunded mandates") compromises the ability of local governments to provide services and puts pressure on municipal finances. Regardless of the reasons for decentralization or how much is decentralized to local governments, the revenues under their direct control rarely match their expenditures (Bird, 2001b). The exceptions are a few countries in which local governments have few expenditure responsibilities or in a few countries (such as the Nordic countries) where local governments have substantial access to large and elastic tax bases such as the income tax (Bird and Vaillancourt, 1998).

FIGURE 1: **PUBLIC DEBT, SPENDING AND INVESTMENTS – THE ROLE OF LOCAL GOVERNMENTS (2000)**



Source: Dexia (2000) Local Finance in Eleven Countries of Central, Eastern and Baltic Europe (Paris) as reproduced in Swianiewicz, P. (ed.) (2004) Local Government Borrowing Risks and Reward, A Report on Central and Eastern Europe, Budapest: Open Society Institute, p. 17.

EMPHASIS ON LAND AND PROPERTY TAXATION

As already noted in the discussion of revenue sources in Tables 3 and 4, almost all countries around the world rely, at least to some extent, on property taxes. Recently, many developing and transition countries have become more interested in land and property taxes (Bird and Slack, 2007). China, for example, has been considering the role of land and property taxation in its rapidly growing urban areas (Bird, 2005).

Property tax is regarded as an important tool for raising revenue at the local level. The tax is also often used to shape urban development patterns and to foster rural land reform. Some countries, for example, are turning to land value capture taxes to pay for infrastructure (such as tax increment financing in U.S. jurisdictions and valorization contributions in Latin American countries) and to capture revenues from increased land values arising from government actions that change land uses (for example, plusvalia or land value increment taxes in Colombia).

Land and property taxes thus have a role in providing revenues and a role in affecting land use (Slack, 2002). Property taxes are discussed more fully in Chapter 4; land value capture taxes are described in Chapter 5.

PUBLIC-PRIVATE PARTNERSHIPS

In many countries, municipalities have turned to the private sector to deliver and fund public sector services through explicit public-private partnerships. The rationale for private involvement in the delivery of local public services is to improve the efficiency and effectiveness of delivery. Municipalities also turn to the private sector, in some cases, because they are not permitted to borrow on the capital market or are not willing to borrow. An enhanced role for the private sector has been most evident in areas such as transportation, water supply, and solid waste management.

A principal advantage of public-private partnerships is that they relieve municipalities of the financial responsibility for up-front capital costs (Tassonyi, 1997) and allow them to build facilities without incurring municipal debt. The operation of facilities and programs by private operators reduces municipal operating expenditures and may enable additional revenue to be collected. Moreover, such operations permit the public sector to draw on private sector expertise. There are risks associated with public-private partnerships, however, and these are discussed further in Chapter 5. The details of how such arrangements are structured and how the risks are shared will determine whether or not they will be successful from a public policy perspective.

ACCOUNTABILITY IN BUDGETING

Democratic local governance has resulted in increased demands for accountability and transparency at the local level. In some cases, increased accountability has meant that municipalities are making the effort to include the public in important decisions on how revenues are raised and how funds are spent. One example is participatory budgeting, which began in Porto Alegre in 1989 and has spread to other municipalities in Brazil and around the world. Bringing the public into budgetary decisions ensures that residents are represented in the decision-making process and that municipal officials are held to account for budget decisions (both in the previous year and in the coming year). It also increases transparency in the budgetary process. Participatory budgeting is discussed in Chapter 6.

IMPROVED FINANCIAL MANAGEMENT

Increased participation on the part of the public, combined with limited resources at the local level, has increased pressure on local governments for better municipal financial management. The imbalance between expenditures and revenues at the local level makes it critically important that cities spend the resources they have as efficiently and effectively as possible (Bird, 2001b).

Reforms to existing management practices and the introduction of new financial reporting techniques have resulted in improved accounting methods and budgeting processes. One example is the use of performance-based budgeting to evaluate how well resources are being used and the extent to which the municipality is meeting its objectives. Performance indicators give some indication of the outputs of local government services (for example, how satisfied is the public). Performance-based budgeting is discussed more fully in Chapter 6 and Appendix 1.

CHAPTER 3

PRINCIPLES OF MUNICIPAL FINANCE

This chapter provides the theoretical framework that will be used to evaluate municipal financial tools in subsequent chapters. It begins with the appropriate role for local government in the economy, then describes the benefit model of local government finance, and sets out some principles of municipal finance.

ROLE OF LOCAL GOVERNMENT IN THE ECONOMY

In terms of economic theory, the major role assigned to local governments is to provide goods and services within a particular geographic area to residents who are willing to pay for them. Local governments should not do stabilization policy because they do not have access to monetary policy tools and because capital and labour flow freely across local jurisdictions. They should also not engage in redistribution because local efforts to address income disparities will likely result in the movement of high-income groups to low-tax areas and low-income groups to high-tax areas (Kneebone and McKenzie, 2003). Although local governments do engage in some redistribution through the act of taxing and spending, redistribution should not be the primary focus of what they do (Bird and Slack, 1993).

According to the "subsidiarity principle" (Barnett, 1997), the efficient provision of services requires that decision-making be carried out by the level of government that is closest to the individual citizen. As long as there are local differences in tastes and costs, there are clear efficiency gains from delivering services at the local level. This principle goes on to say that expenditure responsibilities should only be assigned to a higher level of government if it can be demonstrated that it can carry out the function more efficiently than the lower level. With few exceptions (such as national defence and services that involve income redistribution), almost all public services should be provided at the local or regional level with local policy-makers making decisions about what services to provide, how much to provide, and who should pay for them.

MAJOR FUNCTIONS OF MUNICIPAL GOVERNMENTS

The functions of municipal governments differ among countries around the world but generally include transportation services (including roads and transit), environmental services (including water, sewerage, and solid waste collection and disposal), protection (including policing and fire protection), recreation and culture, planning and development, economic development, social services, housing, and health. Municipal governments in some countries also deliver primary and secondary education; in some countries, education is delivered by school boards or by the province/state level of government.

THE BENEFIT MODEL OF LOCAL GOVERNMENT FINANCE

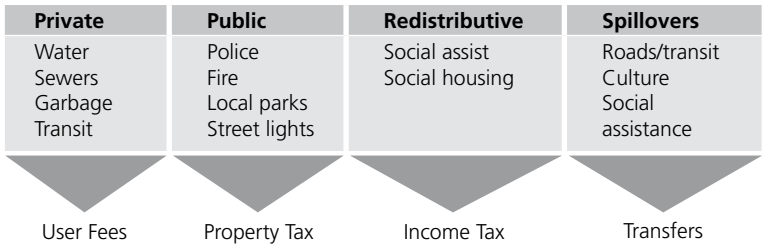
Given this role of local government to provide goods and services, the benefits-received principle is the appropriate starting point for municipal finance (Bird, 1994). According to the benefit model of local government finance, local government services, wherever possible, should be paid for on the basis of the benefits received from those services (Bird, 2001a).

The extent to which municipalities will be able to apply the benefits-received principle, however, depends on the nature and characteristics of the services they provide. Figure 2 and the discussion which follows look at different types of municipal services and the appropriate financing tools.

SERVICES WITH PRIVATE GOOD CHARACTERISTICS

For services with private good characteristics (such as water, sewers, garbage collection and disposal, transit, and recreation), user fees are appropriate to fund at least some portion of the costs. In general, user fees are appropriate where there is a clear relationship between the fees charged and the benefits received, the taxpayer has the choice about the extent to which he or she uses the service, it is possible to collect the charge at a reasonable cost, and equity concerns can be addressed (for example by lowering or waiving fees for low-income users). User fees can play an important role in municipal finance by ensuring that governments do what people want and are willing to pay for.

FIGURE 2: **DIFFERENT FINANCING TOOLS FOR DIFFERENT SERVICES**



SERVICES WITH PUBLIC GOOD CHARACTERISTICS

Services with public good characteristics (for example, police and fire protection, neighbourhood parks, local streets, and street lighting) have collective benefits that are enjoyed by local residents but which cannot easily be assigned to individual beneficiaries. These services are more difficult to charge for and require some form of local benefit-based taxation such as the property tax. The property tax allows individuals to express their demand for services where benefits are consumed collectively. In this respect, the property tax can be considered to be a generalized, or non-specific, user charge (Kneebone and McKenzie, 2003).

SERVICES WITH SPILLOVERS

There are other services where the benefits (or costs) spill over municipal boundaries but where local provision is still desirable. Positive spillovers (externalities) occur if residents of neighbouring jurisdictions receive a service for free or at less than the cost of providing the service. For example, major roads constructed in one jurisdiction may be used by residents of another jurisdiction without any charge to them. The result will be an under-allocation of resources to that service because the municipality providing the service would base its expenditure decisions only on the benefits captured within its jurisdiction. It would not take account of the benefits to those outside the jurisdiction. One way to provide an incentive to the municipality to allocate more resources to the service generating the externality is a transfer from the provincial government.

SERVICES THAT REDISTRIBUTE INCOME

Services that redistribute income should be paid for by senior levels of government because they have a wider range of taxes than local governments and they generally have taxes that are more closely related to ability to pay, such as income taxes. Although the primary role of local governments is to provide goods and services and not to redistribute income, however, many local governments do deliver services that are redistributive in nature (such as welfare assistance, health, and social housing). User fees and benefit-based taxes such as the property tax are not appropriate to fund these services. User fees defeat the purpose of redistribution and property taxes are more regressive than income taxes and thus are not appropriate for financing redistributive services. For these reasons, services that have a redistributive component should be funded from local income taxes or from central and state/provincial revenues (which include income taxes).

PUBLIC FINANCE PRINCIPLES

Following from the benefit model of local government finance, there are a number of economics principles that can be used to design or evaluate municipal finance tools. These principles are set out in Box 1. Achieving all these principles at the same time is difficult. For example, a tax system that is designed to be equitable may not be simple to administer. Local governments thus have to make choices on which principles to apply based on their priorities.

BOX 1: PUBLIC FINANCE PRINCIPLES

Economic efficiency is concerned with the allocation of resources to the production of goods and services where society gets the largest possible bundle of goods and services. Economic efficiency is achieved when the user fee or tax per unit of output of the service received equals the extra cost of the last unit consumed (the marginal cost). The tax or fee indicates what consumers are willing to pay for the service and the marginal cost measures the cost of resources used up in producing that service.

Fairness (equity) based on benefits-received is achieved when those who consume public services pay for them, just as someone who benefits from a private good pays for it. Fairness based on ability to pay suggests that those with similar ability should pay similar amounts in taxes and user charges (horizontal equity) and those with different ability should pay different amounts (vertical equity).

Accountability means that taxes (charges) and expenditures should be designed in ways that are clear to taxpayers so that policymakers can be made accountable to the taxpayers for the services they deliver and the costs they incur. The more direct the relationship between the beneficiaries of a government service and payment for that service and the less the complexity of the revenue system, the greater is the degree of accountability.

Adequacy and Stability requires that revenues provide governments with sufficient funds to finance services on a regular and continuing basis. Revenues should be stable and predictable so that municipalities can budget and plan for future expenditures.

Autonomy means that municipal governments have autonomy and flexibility to set their own priorities. To do this, they should minimize their dependence on revenues from other levels of government.

Ease and cost of administration means that the time and resources devoted to assess, collect, and account for revenues should be minimized. Moreover, costs of compliance on the part of taxpayers should be minimized.

CHAPTER 4

MUNICIPAL REVENUES

This chapter sets out the characteristics of a good local tax and then discusses a number of taxes and user fees that have been or could be used by local governments. Because the property tax is levied by local governments in many countries, there is an extensive description and analysis of this tax. The chapter also devotes considerable time to intergovernmental transfers because many local governments rely to a great extent on these transfers.

SOURCES OF MUNICIPAL REVENUE

The sources of revenue for municipal governments vary across countries but generally include taxes, user fees, and intergovernmental transfers. Other revenues may include investment income, property sales, and licenses and permits, for example. In terms of taxes, the property tax is levied by local governments in many countries. Other local taxes can include income taxes, general sales taxes, and selective sales taxes (for example, taxes on fuel, liquor, tobacco, hotel occupancy, vehicle registration), and land transfer taxes (or stamp duties). To meet capital expenditure requirements, some municipalities charge developers for growth-related capital costs. In some countries, particularly in South America, a land value capture tax is sometimes levied to pay for infrastructure.

Table 8 illustrates the sources of municipal revenue for four cities – Cape Town (South Africa), Toronto (Canada), Madrid (Spain), and Mumbai (India). As noted above, cities generally rely on local taxes, intergovernmental transfers, and user fees for local services but the dependence on each varies across cities. All four cities in Table 8 levy a property tax; in Cape Town and Toronto, the property tax is the only local tax.[1] Mumbai levies an octroi (a tax on the entry of goods into a local area for consumption, use, or sale). Madrid levies a variety of local taxes (including a tax on land value, vehicles, construction, and business). User charges (or service fees) are levied by all four municipalities but are most significant in Cape Town where they are levied for electricity, water, sewerage, and cleansing. Dependence on government grants also varies among municipalities.

1 Starting in 2008, Toronto also levies a vehicle registration tax and a land transfer tax.

TABLE 8: **SOURCES OF MUNICIPAL OPERATING REVENUES FOR SELECTED CITIES**

	Cape Town 2007-08	Toronto 2007	Madrid 2003	Mumbai 2007-08
	%	%	%	%
Property Taxes	25.4	41.5	12	19
Other Taxes			19	46
Services Charges	40.9	21.8	16	23
Government Grants and Contributions	25.2	20.9	39	4
Other	8.5	15.8	14	8
Total	**100**	**100**	**100**	**100**

Notes: Madrid is the Municipality of Madrid and not the Community of Madrid. Other taxes in Madrid include taxes on vehicles, land value, construction, and business. Other taxes in Mumbai include the octroi (a tax on the entry of goods into a local area for consumption, use, or sale that has been abolished in most parts of India).
Source: Cape Town Budget: (http://www.capetown.gov.za/en/Budget/Documents/Draft_Budget-March_2008/Budget%202008%202009.pdf); Toronto: Ontario Ministry of Municipal Affairs and Housing, Municipal Financial Returns; Madrid: OECD Territorial Reviews: Madrid, Spain, 2007; Mumbai Budget (http://www.mcgm.gov.in/irj/portalapps/com.mcgm.aaboutus_budgets/docs/E13.pdf)

CHARACTERISTICS OF A GOOD LOCAL TAX

The characteristics of a good local tax, as set out by Bird (2001a) are listed in Box 2.

To achieve the full range of desirable characteristics set out above would require that municipalities have access to a mix of taxes. Moreover, a mix of taxes would give municipalities more flexibility to respond to local conditions such as changes in the economy, evolving demographics and expenditure needs, changes in the political climate, and other factors. For example, property taxes can provide a stable and predictable source of revenue but do not increase automatically with economic growth in the same way that income and sales taxes do.

BOX 2: CHARACTERISTICS OF A GOOD LOCAL TAX

1. The tax base should be relatively immobile so that local governments can vary the tax rates without losing a significant portion of the tax base.
2. The tax yield should be adequate to meet local needs, increase over time as expenditures increase, and be relatively stable and predictable.
3. The tax should not be one that is easy to export to non-residents.
4. The tax base should be visible to ensure accountability.
5. Taxpayers should perceive the tax to be reasonably fair.
6. The tax should be relatively easy to administer.

Source: Bird (2001a)

Whatever tax or taxes are chosen at the local level, local governments need to be able to set their own tax rates. International experience tells us that the most responsible and accountable local governments are those who raise their own revenues and set their own tax rates (Bird, 2001a: 3). Unless local governments can alter the tax rates, they will not achieve local autonomy or accountability. Moreover, local tax rate setting provides predictability for municipal governments and gives them the flexibility to change rates in response to different circumstances.

TAXES

This section reviews property taxes, personal income taxes, corporate income taxes, payroll taxes, general consumption taxes, and excise taxes.

PROPERTY TAXES

As was evident in Tables 3 and 4, almost all local governments worldwide rely, at least to some extent, on property taxation. The property tax is historically associated with local government, in part because real property is immovable, that is, it is unable to shift location in response to the tax. Although a change in property tax may be capitalized into property values in a particular community (see Box 3 for an explanation of how tax capitalization works), and in the long run may affect where people locate, these effects are of a smaller magnitude than those that would occur with income and sales taxes at the local level.

BOX 3: HOW PROPERTY TAX CAPITALIZATION WORKS

Property taxes are capitalized into the value of a property if, other things being equal, a higher property tax results in a lower property value. Because property owners pay property taxes each year, estimating the present value of the property tax payments is necessary.

The present value of a future flow is the amount that someone would pay today in exchange for receiving that flow in the future. The present value of US$1 to be received next year is $1/(1+i)$, where i is the discount rate (the return on an investment other than housing). The present value of a dollar received in two years is $1/(1+i)^2$ and so on. The present value of avoiding property taxes every year from now until the expected lifetime of the house is $\sum 1/(1+i)^n$, which is closely approximated by $1/i$.

As an example, consider two houses, A and B, identical except for the property taxes. The annual property taxes on house A are $1,000 higher than on house B. Suppose that the discount rate is 5 percent. The present value of the stream of future property taxes would thus be US$20,000 (1,000/.05) higher on house A than on house B. Property taxes would be fully capitalized if the market value of house A were US$20,000 less than house B. Anything less than US$20,000 would mean that the property taxes were only partially capitalized.

Another reason why property taxes are appropriate as a source of revenue for local governments relates to the connection between the types of services funded at the local level and the benefit to property values. Fischel (2000), for example, has argued that the property tax in the United States is like a benefit tax because taxes approximate the benefits received from local services. Under these circumstances, the property tax promotes efficient public decisions because taxpayers will support those measures for which the benefits exceed the taxes. Both the benefits derived from local services (for example, good schools, access to roads and transit, and so on) and the taxes are capitalized into property values. Because taxpayers are willing to pay more for better services and lower tax rates, this translates into higher property values.

Of course, this analysis is based on a number of assumptions such as that local property taxes do finance services that benefit property values, that the incidence of such taxes is on local residents, that both tax rates and service levels are decided by local residents, that those who wish to 'buy' other combinations of services and tax rates are free to move to other jurisdictions, that – impelled by their sensitivity to property values – people will act rationally in response to such signals, and that local governments do what voters want them to do. The strength and validity of many of these links is obviously suspect in the context of many developing countries (Bird and Slack, 2004). Moreover, this argument becomes particularly tenuous when it comes to explaining the commonly found phenomenon of higher taxation on non-residential property (the over-taxation of non-residential property is discussed further below).

A competing view sees the property tax as a tax on capital. For example, Zodrow (2000) argues that the property tax in the United States results in distortions in the housing market and in local fiscal decisions. According to this view, the property tax (based on market value) discourages building and results in the underutilization of land. The amount of capital per unit of land is less than what is economically efficient.

Both of these approaches have some validity. The property tax is not purely a benefits tax, because homeowners who improve their houses will face higher taxes and will therefore be discouraged from doing so. At the same time, the benefits and costs of local programs are reflected in local property values.

UNIQUE CHARACTERISTICS OF THE PROPERTY TAX

There are at least four characteristics of the property tax that differentiate it from other taxes. First, the property tax is a highly visible tax. Unlike the income tax, for example, the property tax is not withheld at source. Rather, taxpayers generally have to pay it directly in periodic lump-sum payments. This means that taxpayers tend to be much more aware of the property taxes they pay. The exception is where mortgage institutions include property tax payments with monthly mortgage payments. The property tax also finances services that are highly visible, such as roads, garbage collection, and neighborhood parks. Visibility enhances accountability but it restricts the ability of local governments to raise or reform than tax.

Second, the base of the property tax does not increase automatically over time, because property values respond more slowly to annual changes in economic activity than incomes. It is said to be an inelastic tax. Furthermore, very few jurisdictions update property values for taxation purposes on an annual basis. This means that to maintain property tax revenues in real terms or to raise property tax revenues, jurisdictions have to increase the rate of the tax. As with visibility, inelasticity leads to greater accountability (taxing authorities have to increase the tax rate to increase tax revenues), but it also leads to greater taxpayer resistance.

Third, the property tax can be an important instrument of local autonomy to the extent that it is only levied by local governments. To ensure local autonomy, however, tax rates must be set locally and not by a senior level of government.

Fourth, the property tax commonly favors single-family, owner-occupied, residential properties over apartments and commercial and industrial properties in most jurisdictions around the world (Bird and Slack, 2004). In most transition economies, enterprises tend to pay higher property taxes than individuals (Malme and Youngman, 2000). Favorable treatment of single-family residential properties is achieved by deliberately under-assessing single-family residential property compared to apartments and commercial and industrial property of comparable value; by legislating lower tax rates on single-family residential property; and by providing property tax relief measures to residential property owners in the form of tax credits, homeowner grants, or tax deferrals. These measures are not generally available to non-residential properties.

At the same time, this differential treatment does not necessarily reflect the differential use of services by different property types. Indeed, some observers have suggested that non-residential properties use fewer services than residential properties, but pay more in taxes. For example, users of nonresidential property often provide their own garbage collection, security, and fire protection (Kitchen and Slack, 1993). Moreover, since businesses tend to be more mobile than homeowners (in other words, they are more responsive to tax changes), efficiency arguments lead to the conclusion that non-residential property should be taxed more lightly than residential property. For these reasons, some authors have suggested that the non-residential property tax is not a good tax for local government and have recommended that it be replaced by a business value tax (Bird, 2001a).

MECHANICS OF THE PROPERTY TAX

The property tax is levied on residential, commercial, and industrial properties. Several steps are involved in the process of taxing real property: identifying the properties being taxed, preparing an assessment roll that contains a description of the property and the amount of assessment, setting the tax rate or series of rates, issuing tax bills, responding to assessment appeals, collecting taxes, and addressing arrears. This section of the chapter focuses on property identification, assessment, tax rates, and tax collection. For information on the other steps in the process, see Dillinger (1992) and Bird and Slack (2004).

PROPERTY IDENTIFICATION

The first step in levying a property tax is to identify ownership and assemble a complete list of properties. A fiscal cadastre requires information on each property: a description, a definition of its boundaries (using cadastral maps), a notation of ownership, and the value of land and improvements. Establishing a complete inventory of all properties and assigning a unique property identification number to each parcel is necessary to permit the tracking of all parcels. Property identifiers also allow for the linking of assessment, billing, and property transfer records. Jurisdictions must report the information collected in a consistent way and establish a process for updating it on an annual basis (Slack, LaFaver, and Shpak 1998).

The process of property identification is often more difficult in developing countries and transition economies. Examples of some of the types of problems that have occurred include the nonexistence of base maps for property identification, the absence of data on property ownership because of disputed ownership, the incomplete information on improvements, and the poor sharing of information on building permits (Dillinger, 1992, Malme and Youngman, 2000, and Bird and Slack, 2004). Further problems include land and building records being maintained separately by different agencies and not linked, tax records being identified by taxpayer and not by property, records being kept secret, and official prices not being true indicators of market value.

ASSESSMENT BASE

The base of the tax is the assessed value of real property. Some properties in all countries are exempt from the property tax base. Exemptions may be based on ownership, such as government-owned property; on the use of the property, such as properties used for charitable purposes; or on the basis of the characteristics of the owner or occupier; such as age or disability (Youngman and Malme, 1994). Exemptions erode the tax base and are difficult to remove.

Two general assessment methodologies are used for property taxation: area-based assessment and value-based assessment. Under an area-based assessment system, the tax jurisdiction levies a charge per square meter of land area, per square meter of building, or some combination of the two. Where both measures of area are included, the assessment of the property is the sum of an assessment rate per square metre multiplied by the size of the land parcel and an assessment rate per square metre multiplied by the size of the building. A strict per unit assessment results in a tax liability that is directly related to the area of the land and buildings. With unit value assessment, the assessment rate per square foot is adjusted to reflect location, quality of the structure, or other factors. Market value has an indirect influence on the assessment base through the application of adjustment factors. For example, the assessment rate per square metre might be adjusted to reflect the location of the property within a particular zone in the city. Even though the specific location of the property within the zone is not taken into account, properties in different zones will have different values.

Value-based assessments use market value (including site value assessment), rental value, and self-assessment. Market value is defined as the price that would be struck between a willing buyer and a willing seller in an arm's-length transaction. Market value assessment estimates the value that the market places on individual properties. Site value taxation is a special case of market value taxation where only the land portion of the property is taxed; the assessment base excludes any improvements to the land.

Under the rental value (or annual value) approach, property is assessed according to an estimate of rental value or net rent. One rationale for using rental value is that taxes are paid from income (a flow) rather than from wealth (a stock), and thus taxing the net rental value of real property is appropriate. In theory, however, no difference should exist between a tax on market value and a tax on rental value - when a property is put to its highest and best use and this is expected to continue, rental value will bear a predictable relationship to market value: the discounted net stream of net rental payments is approximately equal to market value.

Self-assessments require property owners to place an assessed value on their own property. In some countries, the taxing authority has the right to buy the property at the assessed value. A system where the taxing authority can buy the property will only be credible if it can and will buy property, but this right has rarely been exercised, partly because of the political impossibility of large-scale purchases of residences.

Table 9 summarizes the different bases and provides examples of countries where they are used.

TABLE 9: **BASE FOR PROPERTY TAXES**

Tax base	Definition	Measure used	Examples of countries where used
Market value	Price that would be struck between a willing buyer and seller in an arm's-length transaction	Comparable sales, depreciated cost, or income method	Australia, Canada, Indonesia, Japan, United States, South Africa
Site value	Price that would be struck between a willing buyer and seller in an arm's-length transaction	Comparable sales subtracting improvements value from total property value	Jamaica, Kenya, New Zealand
Rental value	Value in current use	Net rental income	France, Morocco, parts of India
Unit value	Size of property adjusted to reflect location, quality, or other factors	Square meters of land and building area, adjusted	Armenia, Czech Republic, Israel, Poland, Russia, Slovakia
Self-assessment	Sales price	Determined by owner of property	Peru, Turkey
Transitional or mixed systems	Combination of area and market value	Market-priced zones for land or land and buildings	Estonia, Latvia

Source: Slack (2006a: 206) and updated

Where it is possible to use market value, it is generally regarded as a better tax base (Slack, 2006a). First, the benefits from services are more closely reflected in property values than in the size of the property. For example, properties close to transit systems or parks enjoy higher property values. Second, market value has the advantage of capturing the amenities of the neighbourhood, amenities that have often been created by government expenditures and policies. Under area-based assessment (particularly unit assessment), on the other hand, two properties of identical size and age but in different locations would pay the same tax even if one is located next to a park and the other is adjacent to a factory. Third, area-based assessment results in a relatively greater burden on low-income taxpayers than high-income taxpayers when compared to value-based assessment because average household incomes in high-value neighbourhoods are higher than in low-value neighbourhoods. A tax on area taxes all properties that are the same size the same amount, whether they are in high-income or low-income neighbourhoods. Similarly, older houses in a bad state of repair but with a large floor area will pay relatively high taxes. Furthermore, if a relatively poor neighbourhood becomes richer, there would be no tax change. A tax system that fails to take account of changes in relative values over time will result in inequities.

Many transition countries employ some variant of area-based assessment. Unit value assessment is easier to understand and cheaper to administer than value-based assessments particularly where the real estate market is not well developed. To some extent, this choice no doubt reflects the nature of the available information on the physical area of building and land recorded in the old central planning records. Over time, however, as zones become more narrowly defined, it seems both likely and desirable that these systems will evolve into something closer to a market value system (Slack, LaFaver, and Shpak, 1998).

TAX RATES

To determine the tax liability, the assessed value is multiplied by the tax rate. In most North American jurisdictions, local governments first determine their expenditure requirements and then subtract non-property tax revenues available to them (for example, intergovernmental transfers, user fees, and other revenues) from their expenditure requirements to determine how much they need to raise from property tax revenues. The resulting property tax requirements are divided by the taxable assessment to determine the property tax rate. By contrast, in many transition and developing economies, the national government sets the rates for property taxes.

Local governments may vary tax rates according to the services received. For example, in some jurisdictions a general tax rate applies across the city and a special area rate or additional surcharge applies in those parts of the city that receive services provided only to them, for example, garbage collection, street lighting, or transit. Special area rates, which are earmarked for services in those locations, approximate a benefit charge.

Local governments may also vary tax rates by class of property, for example, residential, commercial, and industrial. Variable tax rates by class of property may be justified on a number of grounds. On the basis of fairness with respect to benefits received, the benefits from local public services may be different for different property classes. For example, as noted earlier, non-residential properties may use fewer services than residential properties.

On efficiency grounds, some have argued that property taxes should be heavier on those components of the tax base that are least elastic in supply. Because business capital tends to be more mobile than residential capital, efficiency arguments lead to the conclusion that business property should be taxed more lightly than residential property.

In reality, however, tax jurisdictions generally apply lower rates to residential properties. On the basis that higher property taxes on buildings tend to slow development and that lower taxes speed up development, a municipal policy to develop some neighborhoods instead of others would call for differential taxes in different locations as well as for different property classes. In this case variable tax rates are used to deliberately distort decisions to achieve certain land use objectives.

TAX COLLECTION

Tax collection involves sending out tax bills, collecting the taxes, and ensuring payment. Since the primary purpose of the property tax is revenue generation, tax collection and enforcement are the most important components of the property tax system (Kelly, 2000).

If the property tax is not paid within a specified time period after the due date, interest and a late fee are generally charged. In cases of long-term delinquency, other enforcement measures are usually taken eventually leading to the sale of the property to satisfy the tax obligation. Such sales are rare in most countries, however. Often, a more effective enforcement mechanism (at least for properties transferred within the formal legal system) is that property transfers are not permitted unless property taxes are paid (Bird and Slack 2004).

Tax arrears reduce the revenues generated from the property tax. Although tax arrears as a proportion of taxes collectible are low in most developed countries (for example, 3 to 4 per cent in Japan and the U.K), they can be very large in some less developed countries (for example, 50 per cent in parts of Kenya and the Philippines). Tax arrears obviously tend to be highest in countries that do not have sufficient resources, expertise, or will to administer the property tax and where enforcement is weak.

Low collection rates can be attributed to lack of political will, lack of transparent collection and enforcement mechanisms, and lack of taxpayer confidence or understanding of how the tax is levied, collected, enforced, and used (Kelly, 2000). To improve compliance and collection, political will is needed and administrative systems have to be improved. Local officials also have to be willing to use legal enforcement provisions. Local residents and businesses need to be convinced to pay their taxes and this process can be facilitated by improved service levels and the perception that taxes are being administered fairly. In short, people are more willing to pay taxes if they feel they are getting something for them. Community involvement in local decisions through mechanisms such as participatory budgeting (see section 6 below), for example, may also improve revenue collection.

SHORTCOMINGS OF THE PROPERTY TAX

Although the property tax is generally regarded as a good tax for local governments, there are some problems in relying too heavily on this one tax. First, property taxes are costly and difficult to administer well and these problems increase with the size of the tax burden (Bird, 2001a). Lack of training, particularly in less developed countries, exacerbates these problems. Second, as noted earlier, there is a general tendency in most countries to over-tax non-residential properties which results in tax exporting to residents of other jurisdictions who are consumers of the products or services produced in those properties. Tax exporting reduces accountability because those bearing the burden of the tax are not the same as those enjoying the benefits. There is thus an incentive on the part of local residents to demand greater expenditures because some of the cost is borne by others. Third, the property tax cannot finance major social expenditures (such as social assistance, health, and education) in most communities. The result is that cities either have to restrict themselves to delivering services such as garbage collection and street cleaning or they have to rely on intergovernmental transfers.

Although the property tax is an appropriate tax for local governments, it has been under-used particularly in developing countries where it accounts for only 0.6 percent of GDP on average compared to more than 2 percent in industrialized countries (Bahl and Martinez-Vazquez, 2008). The main reasons are inadequate administration and lack of enforcement. If decentralization continues in developing countries and central governments insist on local revenue mobilization, however, interest in local property taxes may increase significantly in the future (Bahl and Bird, 2008).

PERSONAL INCOME TAXES

Although income taxes are used to some extent at the local level, they are not as prevalent as property taxes. There are two quite different types of income tax. The first, which is most commonly used in Europe, is to levy a local income tax which is simply a proportion of the central or state/provincial income tax or is at least calculated on the same tax base. The second type is a separate, locally administered income tax. The second type is less common because it is more difficult to implement and very expensive to administer.

Local governments in Nordic countries, which have large expenditure roles especially for social services and health, are permitted to impose an income tax and to choose the rate of tax. Local governments set a flat tax that is applied to the personal taxable income assessed for national income tax purposes. The local flat rate is added to the national progressive rates. There is a risk that local authorities will use the income tax for excessive local tax increases (Lotz, 2008). Although this is not a concern in Sweden, this risk has led to a formalised system of negotiations in Denmark. In Norway, a maximum for the local tax rate was established many years ago with the result that all Norwegian municipalities apply the capped rate.

The situation is somewhat similar in Iceland. The local income tax is a big revenue raiser in Nordic countries yielding revenues of up to 15 per cent of GDP.

Local income taxes have been levied only occasionally in developing countries (Bahl and Linn, 1992) but subnational governments have been assigned significant shares of income tax revenues in transitional economies (Bird, 2001a). Local governments do not set the tax rates themselves, however. The result is revenue sharing whereby local governments receive an intergovernmental transfer, the amount of which is based on locally- collected central government income tax revenues.

Unlike the property tax, the incidence of the income tax is generally progressive though it may not be clearly related to the benefits received municipal services. Moreover, income tax revenues are more elastic than property tax revenues in that they increase automatically as the economy expands. Of course, revenue elasticity can be a problem when there is an economic downturn.

One drawback of local income taxes is that the current practice in many countries is to lower reliance on income taxation and increase reliance on consumption-based taxes. This move, it is argued, creates fewer distortions and reduces the deadweight costs associated with taxation (Boadway and Kitchen, 1999). Increasing local income taxes would counteract current policy in those countries.

Nevertheless, income taxes can be justified at the local level on the grounds that local governments are increasingly being called upon to address issues of poverty, crime, regional transportation, and other region-wide needs. To the extent that local governments are required to provide social services, an income tax is probably more appropriate than a property tax because the former is more closely related to ability to pay.

CORPORATE INCOME TAXES

Corporate income taxes are levied on the income of corporations. Although the tax is often popular with residents, in part because the tax can be exported to non-residents, there are few advantages to levying a corporate income tax at the local level. Corporate taxes are generally imposed on a mobile tax base. As such, they are not a good candidate for local taxation. Corporate income tax revenues are volatile. Business taxes in general deter economic development and spur competition between local governments trying to attract business. Property taxes on the commercial/industrial sector already overtax business and thus there is no reason for an additional tax burden that bears no relationship to the cost of municipal services consumed. Corporate income taxes are difficult to administer because taxpayers have to determine how much of the income is attributable to the local jurisdiction imposing the tax. Because many corporations conduct business in a number of jurisdictions, both taxpayers and tax collectors have trouble determining how much income is taxable in any particular jurisdiction.

PAYROLL TAXES

Payroll taxes are an income tax on payrolls. One advantage of a payroll tax is that it is easy to administer and relatively productive at low tax rates. It taxes commuters thereby permitting a municipality to tax those individuals who use city services but would not otherwise pay for them under the property tax (Chernick and Tkacheva, 2002). Some U.S. cities tax commuters through a payroll tax. The disadvantage is that the tax acts as a barrier to employment and introduces distortions in the factor mix decision.

GENERAL CONSUMPTION TAXES

General consumption taxes include value added taxes (VAT) and retail sales taxes. In most countries, the general sales tax that is levied is a value added tax (VAT) at the central government level, although there is some experience with state/provincial VATs as well (Bird and Gendron, 1998). Many U.S. states (and some municipalities) levy a retail sales tax.

The advantages of sales taxes are that they provide an elastic source of revenue – one that grows with the economy. The rationale for a municipal sales tax as a supplement to the local property tax is similar to the rationale for a municipal income tax. As long as municipal services are funded only from property taxes imposed on local residents, some users might escape paying taxes for services consumed. Broadening the local tax base to include sales would help to address some of the externalities in municipal services (where some beneficiaries of services, such as commuters and visitors, do not pay for them), would give municipalities greater flexibility and breadth in determining their own tax structure, and would allow municipalities to benefit from growth in the economy. A sales tax is also preferred to an income tax by economists because, unlike the income tax, it does not tax savings.

Nevertheless, evasion problems can sometimes be serious as well as economically distorting. Large rate differentials between neighbouring jurisdictions are unlikely to be sustainable over long periods of time. Piggybacking onto the central or provincial/state tax system with an additional city "piggyback" sales tax of 1 or 2 percent, however, would avoid many of the problems associated with a local sales tax, including high administrative and compliance costs.

EXCISE TAXES

Two types of excise taxes that are sometimes levied at the municipal level are vehicle taxes (including fuel taxes and vehicle registration fees) and hotel occupancy taxes.

VEHICLE TAXES

Fuel taxes can be viewed as benefit-based taxes to the extent that those who use the road system pay a tax. Different cities could impose taxes at different rates but they would probably not be able to differ much from the rates imposed by their neighbours, given the mobility of the tax base. To the extent that a fuel tax is intended to price either the use of publicly provided roads or externalities (pollution and congestion, for example), it is a crude instrument. Congestion charges (tolls), on the other hand, would function better because they can vary by time of day and by location. Vehicle registration fees would also be better because they can vary by vehicle age and engine size, vehicle axle weight, and location of vehicle. These factors affect the amount of pollution, congestion, and road damage more so than would fuel consumption.

Fuel tax revenues are generally earmarked for local roads and public transit. Earmarking municipal fuel tax revenues offers a number of potential advantages (Bird, 1997). First, if the funds are used to pay for roads and transit infrastructure, earmarking links the cost of transportation to the users. Second, earmarking is likely to improve the motivation and efficiency of local decision makers. If funds are not earmarked, for instance, surplus revenues from the sale of goods and services may be used to lower local tax rates. This may discourage managerial efforts to improve efficiency and to reduce costs because excess revenues go elsewhere. It may also discourage the introduction of innovative techniques and future investment that could lead to cost savings and efficiencies. Third, there is no solid economic reason why local taxpayers should be subsidized from revenues generated by selling a specific good or service or the users of a specific good or service subsidized by local tax¬payers. Such cross subsidization from user supported services or vice-versa may lead to unde¬sirable distortions and a departure from efficient and accountable pricing and investment practices.

There may be problems with earmarking, however. It can shield expenditure programs from the critical assessment that might otherwise be received from budgetary authorities. There is no guarantee that it will generate the amount of revenue required on an annual basis as local circumstances change nor that it will be evaluated relative to the other priorities of local governments. In short, it may reduce municipal flexibility.

HOTEL OCCUPANCY TAX

An occupancy or room tax is an additional levy imposed on the existing central or state/provincial sales tax rate on hotels and motels. Many local jurisdictions in the U.S. and some of the larger local jurisdictions in Canada levy a hotel and motel occupancy tax. This tax is justified on the grounds that it compensates local governments for expanded services provided for tourists or visitors (for example, the additional police and fire protection, and highway and public transit capacity needed to meet weekend or peak convention and tourist demands).

Although income and sales taxes fall on both residents and non-residents, a hotel and motel occupancy tax falls mainly on visitors. As with local income or sales taxes, there are two methods of administration. Local governments could simply piggyback onto the existing sales tax on hotel and motel rooms through the addition of a few percentage points. Alternatively, local governments could set up their own administrative structure to administer and collect the tax.

As with other possible tax sources, the piggyback scheme is administratively less expensive even though local governments would have less flexibility and no potential for altering the tax base.

The levying of a hotel and motel room occupancy tax in selected municipalities and not in competing communities provides an incentive for individuals to stay in hotels and motels in those municipalities without the tax. The extent to which the differences in price created by those differential tax rates would actually deter visitors from renting rooms is uncertain, however. If the demand for hotel and motel rooms is sensitive to price, then noticeable losses may occur.

USER FEES

A user fee is a charge per unit of output. User fees can take at least three forms – service fees, public prices, and specific benefit charges (Bird and Slack, 1993).

SERVICE FEES

Service fees include license fees (marriage, business, dog, vehicle registration) and various small charges levied by local governments for performing specific services such as registering a vehicle or providing a copy of a marriage license. In a sense, these fees represent the reimbursement of costs from the private sector to the public sector. There is seldom much revenue in recovering these costs, however.

PUBLIC PRICES

Public prices, on the other hand, include the revenues received by local governments from the sale of private goods and services (other than the cost of reimbursement). All sales of locally provided services to identifiable private beneficiaries –whether they are public utility charges or entrance fees to recreation facilities – are included under the category of public prices. In principle, such prices should be set at the competitive private level with no special tax or subsidy element. Tolls on highways, used throughout Europe, the United States, and some parts of Asia are an example of public prices that are used to pay for roads but also to discourage road use (see Box 4).

BENEFIT TAXES

The final category of user charges encompasses specific benefit taxes. These taxes are different from service fees and public prices because they do not arise from the provision or sale of a specific good or service to an identifiable private individual. Taxes are compulsory contributions to local revenues. These taxes are, nevertheless, related in some way to the benefits received by the taxpayer. In contrast to general-benefit taxes such as fuel taxes levied on all road users or local taxes in general viewed as a price paid for local collective goods, specific benefit taxes relate to the specific benefits received by specific taxpayers. Examples include front footage levies or special assessments on the property tax to pay for sidewalks or street lighting on a specific street.

BOX 4: ROAD PRICING IN SINGAPORE

Road pricing began in Singapore in 1975 and is an important part of its overall transportation strategy. The current scheme, the Electronic Road Pricing System (ERPS), was implemented in 1998. The user is required to insert a smart card into the in-vehicle unit (IU) which has been installed in the vehicle. When the vehicle passes through an ERP gantry, the appropriate charge is deducted from the smart card. If there is no in-vehicle unit or insufficient funds left in the smart card, the vehicle license is photographed and a bill sent to the vehicle owner.

Publicity was an important aspect of the program and was launched well before the IU fitting program and lasted more than a year. Vehicle owners were sent brochures and advertisements were placed in the print media and on television.

Traffic volume into the central business district (CBD) was reduced by about 10 to 15 percent during the ERP operation hours, compared to the earlier scheme. Although the charge was lower under the ERP scheme than the earlier program, the ERP charge is applied to each passing, whereas the earlier charge allowed for multiple entries per day. The result was that many multiple trip-makers reduced the number of their trips by using public transit to go to mid-day meetings or lunches, for example.

Source: Keong (2002)

EFFICIENCY OF USER FEES

Charges lead to efficiency in two ways (Bird and Tsiopoulos, 1997): first, they provide information to the public sector about how much users are willing to pay for the particular service. Second, they ensure that citizens value what the public sector supplies at least at its marginal cost (the cost to an additional user). Under-pricing a service (by not charging for it) can result in over-consumption of that service. When users of the service do not have to pay for it and are unaware of the cost of providing it, they will demand more of the service than if

they had to pay for it. The resulting crowding may be taken as a signal that government should provide even more of the under-priced service. For example, user fees for water that are based on the marginal cost encourage water conservation, discourage water consumption in low-value uses, and postpone the time when new investment is needed (Dewees, 2002). User fees for garbage collection give consumers a financial incentive to reduce waste collection by reducing, re-using, or recycling garbage. User fees also ration the use of existing facilities and they give appropriate capital investment signals. In other words, they can reduce the demand for infrastructure. In short, "whenever possible, local public services should be charged for – of course, at prices that are properly set – rather than given away" (Bird, 2001a: 7).

There are cases where charging full user fees may not be appropriate, however. Where a good or service exhibits externalities, pricing at the marginal cost may not be appropriate. Externalities are benefits or costs of services that are not priced and may therefore not be taken into account by the user. Recreation programs for at risk youth, for example, have significant external benefits in terms of success in school, lower crime rates, etc. When society puts a high value on these positive externalities, then below-cost provision or subsidies are warranted.

PROBLEMS WITH PRICING

The most important general public concern with user fees is that they have an adverse impact on equity: low-income families cannot afford to pay user fees and will either not use the services or will have to reduce their consumption of other services. Many studies have shown that it is untrue in large urban areas, however, that those who benefit most from under-pricing services make the most use of them, and the poor are not well-represented in this group (Bird and Miller, 1989). Relatively simple pricing systems, such as low initial "life-line" charges for the first block of service use, can deal better with any remaining perceived inequity by introducing more adequate pricing systems. These schemes are used for water, for example, and for basic recreation programs, such as swimming programs for children and youth.

Some further problems with user fees include the cost of pricing. For example, charging the marginal cost of water requires the metering of water and the installation of meters has a cost attached to it. There are also costs associated with the cost of information that municipalities need to price services correctly. For example they need to know long-term capital costs, infrastructure investments, etc. Many municipalities lack the necessary expertise to price correctly.

Finally, users often regard public sector pricing as a revenue grab on the part of local governments. Not only is it difficult to implement pricing under these circumstances but it is difficult to increase public sector prices. Unlike prices in the private sector, once prices are set in the public sector, users believe that they should not increase. Local governments have not done a good job of explaining to the public the important role that user fees play (Bird and Tsiopoulos, 1997).

INTERGOVERNMENTAL TRANSFERS

Transfers from senior levels of government are an important source of revenue for municipalities around the world. These transfers can take different forms, as shown in Table 10.

TYPES OF TRANSFERS

Transfers can be broadly categorized as unconditional (general purpose) or conditional (specific purpose). Unconditional transfers have no conditions attached to their use; funds can be spent on any local service or they can be used to reduce local taxes. In some cases, unconditional transfers are given on a per capita basis; in other cases, the amount of the transfer depends on a formula which might take account of the expenditure needs of the municipality, the size of its tax base, or other factors.

Conditional transfers have to be spent on specific expenditures, for example, roads, parks, or some other local service. Conditional grants are "fungible," however, in the sense that, even though they come with strings attached, there is no guarantee that the recipient will spend the funds on what the donor government intended. For example, municipalities that are already spending considerable funds in the area specified by the donor government will be able to divert grant funds to other purposes and still meet donor requirements.

Within the category of conditional transfers, there are matching transfers and lump sum transfers. Matching transfers require that the municipality match donor funds. For example, the donor may offer a transfer that covers 60 percent of the cost of road construction. Municipalities, under this type of transfer, would have to raise their own funds to cover the remaining 40 percent of the cost. Lump sum conditional transfers (also known as block grants) do not require the municipality to provide matching funds.

TABLE 10: **TYPES OF INTERGOVERNMENTAL FISCAL TRANSFERS**

Type of Transfer	Characteristics
Unconditional	No conditions attached to use; lump sum
Unconditional (equalization)	No conditions attached to use; lump sum; based on fiscal capacity and sometimes expenditure need
Conditional Non-Matching	Has to be spent on specified functions; lump sum
Conditional Matching	Has to be spent on specified functions; municipality is required to match provincial funds

RATIONALE FOR TRANSFERS

There are four justifications for intergovernmental transfers: vertical fiscal imbalance (fiscal gap), horizontal fiscal imbalance, externalities, and political rationales such as the desire on the part of the donor government for local governments to achieve minimum standards in service provision (Slack, 2007a). The type of transfer that is appropriate depends on the underlying rationale.

VERTICAL FISCAL IMBALANCE (FISCAL GAP)

When municipalities have inadequate own-source revenues (such as local taxes and user fees) to meet their expenditure responsibilities, there is said to be a fiscal imbalance or fiscal gap. The resulting gap can be closed by an unconditional (lump sum or block) transfer that allows the municipality to spend the funds in whatever areas it deems appropriate. The total amount of the transfers allocated for this purpose can be determined in one of three ways: as a fixed proportion of the revenues of the donor government (known as revenue sharing); on the basis of a formula (for example, as a percentage of specific local government expenditures or some other characteristics of the local governments such as population); or on an ad hoc basis.

Under revenue sharing, the donor government allocates a portion of one or more of its tax revenues to local governments. For example, the donor government may agree to share a percentage of its personal income tax revenues with municipalities. Once the total amount of funds available for grants is determined, funds can be allocated to municipalities on a derivation basis (on the basis of where they were collected) or on the basis of a formula (for example, on a per capita basis). Revenue sharing on a derivation basis favours richer areas where revenue collections are the largest. Revenue sharing distributed on a per capita basis has an implicit equalization component because richer areas give up tax revenues to poorer areas.

The advantage of revenue sharing over ad hoc grants is that the transfer to municipalities automatically increases as the yield from that revenue source increases. To be a stable source of revenue to municipalities, however, the percentage share going to municipalities has to be maintained over time. Revenue sharing does not enhance local autonomy, accountability, or efficiency because local governments do not set the tax rates or the tax base.

Fiscal gaps can be closed in other ways. For example, senior levels of government can give additional revenue-raising powers to local governments or they can reduce the expenditure responsibilities that local governments are required to undertake. Moreover, municipalities themselves could reduce their expenditures or raise their taxes to close the fiscal gap.

HORIZONTAL FISCAL IMBALANCE

Horizontal fiscal imbalance refers to the differences in resources among governments at the same level. Some municipalities are unable to provide an adequate level of service at reasonable tax rates compared to other municipalities for three reasons. First, tax bases differ from one municipality to another and thus, to collect the same amount of revenue, a municipality with a small tax base will have to levy a higher tax rate than a municipality with a larger tax base. Second, the costs of providing public services may be higher in one municipality than another so that more tax revenues are required to provide the same level of service. Third, the need for particular public services may be greater in one municipality than another, thereby necessitating higher expenditures (and higher tax revenues).

Under these circumstances, an equalization grant is appropriate (Bird and Smart, 2002). These grants are usually unconditional but can be used for specific expenditure categories (e.g. education).

Equalization grants, based on expenditure needs and the ability of local governments to levy taxes, can ensure that those municipalities with relatively small tax bases and relatively high costs and needs will be able to levy tax rates that are comparable to other jurisdictions.

EXTERNALITIES (SPILLOVERS)

Grants are also appropriate where services spill over municipal boundaries. If the municipality responsible for the service bases its expenditure decisions only on the benefits captured within its jurisdiction, it will likely under-allocate resources to this service.

One way to provide an incentive to allocate more resources to the service generating the externality is a transfer from a senior level of government. The type of transfer that is appropriate for addressing externalities is a conditional, matching grant. The grant should be conditional in that it has to be spent on the service which generates the externality. It should be matching to reflect the extent of the externality. For example, if 50 percent of the benefits of highway expenditures spill over existing municipal boundaries, the matching rate should be 50 percent. For services that spill over municipal boundaries, a provincial/state transfer is appropriate. For services that spill over provincial/state boundaries, a national transfer is justified.

Matching grants require that the municipalities contribute a portion of the funds to deliver the service. A uniform matching rate tends to favour richer municipalities because they are more able to match funds than poorer municipalities, unless there is an equalization component to the grant. Moreover, a matching grant will only stimulate spending if the municipality has the power over expenditures and the ability to increase taxes.

Another way to address spillovers and, more generally, to coordinate service delivery across municipal boundaries within a metropolitan area, is to change municipal boundaries so that the government jurisdiction coincides with the service delivery region. The drawing of municipal boundaries in this way is rarely done, however, with the possible exception of South African metropolitan municipalities where the Municipal Demarcation Board sets the boundaries (for a discussion of different models for governing large metropolitan areas, see Slack, 2006b, Slack, 2007b, and Bird and Slack, 2008).

POLITICAL RATIONALES

In addition to the economic rationales for intergovernmental transfers set out above, there are political rationales. For example, transfers are often introduced in response to a public outcry over deteriorating services or infrastructure. Upper levels of government may also use grants to encourage local governments to provide at least a minimum standard of service in areas such as road safety, policing, or water and waste water treatment. Intergovernmental transfers are often used to provide incentives for local governments to act as agents of the donor government. In this way, the donor government benefits from local management in providing a service. Conditional grants are sometimes given to acquaint local governments with services they would not have provided on their own with the expectation that they will eventually take over the funding for them and the senior governments can withdraw. To meet these political objectives, conditional, lump sum grants are usually used.

DESIGN OF TRANSFERS

The design of fiscal transfers has important implications both for local service provision and for the overall fiscal health of municipalities. Ten public finance principles that can be helpful in designing fiscal transfers are set out in Box 5. As with any list of criteria, it is not possible to design one transfer that simultaneously meets all of these objectives. Different types of transfers can be designed to meet different objectives.

PROBLEMS WITH TRANSFERS

Although there are solid economic and political justifications for intergovernmental transfers, grant funding is not always the best way to address municipal fiscal problems: "these systems of grants, although serving legitimate purposes, can, under certain circumstances, be a source of serious fiscal mischief" (Oates, 2008: 330).

Transfers can distort local decision-making. Conditional transfers require municipalities to spend the funds they receive according to provincial/state (or national) guidelines and often require matching funds on the part of the municipality. A matching transfer, by lowering the price of some services, encourages municipalities to spend more on those services. In the presence of externalities, this change in behaviour may be appropriate. Where there are no externalities, however, or where the amount of the grant exceeds the amount of the externality, the resulting distortion in municipal behaviour is inappropriate.

Funding from senior governments can also lead to inefficient local revenue decisions. In particular, there is no incentive to use proper pricing when grants cover a large proportion of operating and capital costs. Large grants for water treatment plants, for example, can reduce the incentive to use volumetric pricing to reduce the demand for water or to engage in asset management. As noted earlier, charging wherever possible and getting the prices right is important for local governments to ensure efficient service delivery. Intergovernmental transfers should not be working against that objective. Transfers can undermine the incentives for sound fiscal behavior (Oates, 2008).

BOX 5: PUBLIC FINANCE PRINCIPLES FOR DESIGNING FISCAL TRANSFERS

Efficiency: Efficiency is achieved if the grant is neutral with respect to local government decisions on the allocation of resources to different activities. The exception is where the grant corrects existing distortions in expenditure practices. For example, municipalities do not have the incentive to provide the correct level of services where the benefits extend to residents of other jurisdictions. A grant provides the incentive to increase expenditures to the optimal level.

Fairness (equity): Equity dictates that all municipalities should be able to provide an adequate level of service without resorting to unduly high tax rates. To achieve this objective, the transfer to municipalities should vary directly with the fiscal need and inversely with the fiscal capacity of the municipality (capacity to raise own-source revenues).

Clear Objectives: Grant objectives should be clearly specified.

Accountability: The donor government should be accountable for the design and operation of the grant program. The recipient government should be accountable to citizens and the donor government for the use of the funds.

Transparency: This principle is an extension of the accountability principle. Transparency is enhanced when the recipient government and citizens/taxpayers have access to information about the grant formula and the allocation of funds.

Stability and predictability: Revenues should be stable and predictable so that municipalities can budget and plan for future expenditures.

Revenue adequacy: Municipal governments should have adequate revenues to discharge their expenditure responsibilities.

Autonomy: Municipal governments should have autonomy and flexibility to set their priorities and not be constrained by grant funding.

Responsiveness: The grant formula should be flexible enough to allow municipalities to respond to changing economic circumstances.

Simplicity: The grant formula should be based on objective factors over which local governments have limited control. The formula should be easy to understand.

Source: Based on Shah (2007)

Transfers can reduce accountability. When two or more levels of government are funding the same service, accountability problems can arise. When users or taxpayers want to complain about the service, they are not sure which level of government is responsible for the problem. Moreover, when the level of government making the spending decisions (municipalities) is not the same as the level of government that is raising the revenues to pay for them (provincial/state or national governments), accountability is blurred. There is no incentive to be efficient when someone else is responsible for funding.

Local governments are more likely to carry out their expenditure responsibilities in a responsible manner if they are also raising the revenues to pay for them.

Transfers are rarely a stable and predictable source of revenue. The amount of money local governments receive varies from year to year, in part depending on the fiscal state of the donor governments. Lack of predictability makes it difficult for municipalities to plan expenditures. When grants decline, municipalities have to make up the lost revenue by increasing property or other taxes, user fees, or other revenues or by reducing expenditures.

One way to get around the problem of unstable and unpredictable revenues is to set the transfer amount as a percentage of national or provincial/state government tax revenues or as a percentage of Gross Domestic Product (GDP). In this way, municipalities know that their grants will increase each year with the growth in the economy.

IMPLEMENTATION AND MANAGEMENT OF MUNICIPAL REVENUES

According to the theory of fiscal federalism, the only good taxes for local governments are those that are easy to administer locally, are imposed mainly on local residents, and do not raise problems of harmonization or competition between local or regional governments or between local/regional governments and national governments (Bird, 2006). The only major revenue sources that pass these tests are property taxes and possibly taxes on vehicle and user fees.

Property taxes, however, are often costly and difficult to administer and these problems increase with the size of the tax burden. Even though the property tax is a good tax for local government, it rarely provides sufficient revenues to meet expenditure needs. Revenues are insufficient at least in part because of ineffective administration -- inadequate land registration systems, inefficient assessment practices, and deficient tax collection and enforcement. Moreover, property taxes are never politically popular because of their visibility and the inherent arbitrariness in assigning values to individual properties.

User fees are appropriate for financing many local services but most countries make much less use of charging than is desirable and, where user fees are charged, they are generally poorly designed from an efficiency point of view. Designing and implementing user charges can be difficult and costly because the municipality has to distinguish among services for which charges can be levied, calculate the marginal cost of the service, and find ways to exclude people who do not pay for the service. Even if properly designed, however, user fees are not very popular with citizens, administrators, or politicians.

Vehicle taxes such as vehicle registration fees, especially if they are piggybacked onto central or state/provincial taxes, are not that difficult to implement. Other taxes (such as income, sales, and hotel) can be very expensive to administer at the local level. Piggybacking onto regional or national taxes, however, allows municipalities to set local surcharges on these taxes and minimize administrative and compliance costs.

Finally, transfers may appear, in some ways, to be the easiest source of revenue for municipalities because they do not have to raise the funds themselves. The donor governments, however, may demand that a lot of conditions be met to receive grant funds and they may require documentation on how the money has been spent. Grants are not a stable and predictable source of revenue for local governments and, as noted earlier, they reduce accountability because the government spending the funds is not the same as the government raising the funds.

CHAPTER 5

FINANCING CAPITAL EXPENDITURES[2]

Municipal infrastructure is essential to the economic, social, and environmental health of cities. Cities not only have to provide roads, transit, water, sewers, and other "hard" services, they also have to provide "soft" services that enhance the quality of life in their communities such as parks, libraries, social housing, and recreational facilities. Cities need adequate revenues to make the needed infrastructure investments.

The appropriate financing tool depends not only on the type of infrastructure (for example, roads, sewers, libraries, etc.) but also on the nature of the infrastructure investment (Slack, 2005a). For example, there may be a need to invest in new developments (provide infrastructure for greenfield developments or intensification within urban areas), to provide new services in existing developments (where communities are not fully serviced or where the service has not been provided), to maintain and replace old services (where existing capacity has been exceeded because of increased density in urban areas), or to invest in mega-projects (for example, a transit system or a water treatment plant that affects more than one jurisdiction).

The remainder of this chapter describes the different ways the local governments finance different types of infrastructure.

FUNDS FROM OPERATING REVENUES[3]

The use of current operating revenues to finance capital spending is desirable to the extent that the benefits of the spending accrue to current users. Municipalities often use current operating revenues for assets with a short life expectancy (such as police cars or computers) or recurrent expenditures (such as the maintenance and upgrading of sidewalks and roads). Since operating expenditures (especially wages and salaries and supplies and services) are often seen as the most urgent expenditures, however, maintenance of existing assets is often deferred (Serageldin et al., 2008).

2 Capital expenditures generally refer to expenditures on goods that have a useful life of more than one year. These expenditures include, for example, the acquisition or construction of buildings, structures, facilities, equipment, rolling stock or furnishings; expenditures on rehabilitation; and the purchase of land (Kitchen, 2003).

3 Operating revenues are revenues that the municipality collects on a regular basis to meet current expenditures (for example, wages, salaries, rents, and materials). Some municipalities set aside a portion of their total annual operating budget each year for capital expenditures.

The use of borrowing or reserves is more appropriate for non-recurrent expenditures (such as expenditures on large fixed assets) or assets with long life expectancy (such as sewers). Reserves are created when a portion of current user fee revenue or taxes is set aside in a special account that accumulates (with interest) until it is withdrawn to be used for capital investments. Reserves are the opposite of borrowing (see below). Instead of borrowing to finance capital expenditures now with debt repayment in the future, reserves reverse that timetable. This timing creates inter-generational inequities because users today are paying for infrastructure that will benefit future users. Since many municipalities around the world are unable or unwilling to borrow, however, the use of current operating revenues and reserves is not uncommon.

INTERGOVERNMENTAL TRANSFERS

Another source of financing for infrastructure is intergovernmental transfers, especially in less developed countries that have limited resources and restricted access to capital markets. Although there are justifications for intergovernmental transfers to finance infrastructure, as set out in Chapter 4, there are also problems associated with the use of transfers for capital investments. These problems were also set out in Chapter 4. In particular, the use of grants to pay for infrastructure significantly reduces the incentive to use proper pricing. A further problem with transfers for capital purposes is that once the capital projects are built, it is often difficult for local governments to maintain them. Although it is assumed by the donor government that local governments will operate the facility and keep it in good running order, local governments often do not have the financial resources or the fiscal capacity to do so (Bird, 2001b).

MOBILIZING PRIVATE CAPITAL

Major infrastructure requires cities to make significant capital expenditures. Revenues from current sources (taxes, user fees, and intergovernmental transfers) are unlikely to be sufficient to meet the infrastructure needs of municipalities. For this reason, cities may also want to access private capital. Long term borrowing (discussed further below) is appropriate where the infrastructure (such as roads, water, sewers) will provide benefits for a long period of time. Other ways to access private capital are through public-private partnerships (discussed below). Direct charges on developers can also provide needed funds to pay for infrastructure (development charges are discussed below).

For cities in most of the less developed countries, the sources of municipal debt have been limited to governments or government financial institutions. Since the 1990s, however, larger cities in some countries (for example, Mexico, South Africa, and India) have accessed capital markets on the basis of credit ratings through issuing debt instruments on a non-guarantee basis (Cities Alliance, 2005). Cities in parts of Mexico and India have pooled financing needs to make the financing demands more credible.

Overall, the experience with mobilizing private capital has been disappointing in less developed countries (Annez 2006) in large part because of the risks involved for both the public and private sectors. From the lenders' perspective, constraints include the lack of a transparent accounting system at the municipal level, the absence of collateral, and project revenue streams that rarely match commercial debt costs (Cities Alliance, 2005).

The use of private capital is limited in scope to infrastructure that has a revenue stream. As Annez (2006) notes, even for infrastructure such as water where it is possible to have a revenue stream from user fees, full cost recovery is rarely achieved. Although it is possible to attract private investment for commercial activities (for example, water and toll roads), however, even these services tend to involve considerable subsidies. Significant subsidies on current operations significantly reduce the attractiveness of the investment to the private sector.

MUNICIPAL BORROWING

Borrowing to make capital expenditures permits municipalities to synchronize the costs and benefits of infrastructure over time. A project built today will result in benefits over the next, say, 25 years. If funds are borrowed, the project is paid for over the next 25 years through repayment of the principal and interest. This means that those who benefit from the facility (the users over the next 25 years) also pay the costs through taxes and user fees. Borrowing is more equitable and efficient when those paying for services are enjoying the benefits.

Borrowing allows a municipality to enjoy the immediate benefit from the capital improvement, which is not always possible when relying on current revenues. Current revenues (taxes and user fees) are usually not sufficient to fund large expenditures on a "pay-as-you-go basis" (PAYG). The pattern of capital expenditures is lumpy and this means that a municipality may find it needs substantial funds to finance an infrastructure project for one year and then the need declines for a few years. Borrowing allows municipalities to avoid large year-to-year fluctuations in tax rates.

Long-term borrowing is generally restricted to financing capital expenditures. For infrastructure whose benefits accrue to future residents, fairness, efficiency, and accountability are enhanced if these projects are financed by borrowing with annual interest charges and repayment of the borrowed funds coming from local tax revenues (for capital assets that benefit the municipality in general but for which specific beneficiaries cannot be identified) and user fees (for capital assets that benefit specific users) imposed on future beneficiaries (Bird and Wilson, 2003: 24). Examples of capital expenditures for which borrowing is appropriate include fire and police infrastructure, recreational facilities, libraries, roads and streets, public transit, solid waste facilities, and water and sewer systems.

Long-term borrowing offers additional benefits. It spreads the impact on the operating budget over a number of years. It allows projects to be constructed simultaneously during a period of rapid growth and assessment. It may reduce the real cost of projects during periods of increasing cost inflation (this occurs when the cost of labour and materials increases without any improvement in technology or quality of inputs). And it is a useful tool for handling emergency situations such as sudden declines in other capital funding sources (such as grants) or sudden increases in capital needs.

The main disadvantage of borrowing from a municipal perspective is that potential revenues are dedicated to debt repayment and are thus not available for other uses. When the costs are spread over time, a significant portion of local budgets becomes a fixed obligation and debt charges can constrain local fiscal flexibility. A municipality with low debt also has more flexibility to respond to unanticipated future events.

Local governments in many countries are restricted from borrowing. In some countries, such as China, local governments have found a way around these restrictions. They have created independent, wholly-owned companies whose activities are "extra-budgetary" (Wong and Bird, 2008). These companies are used to provide funding for development projects and, in particular, infrastructure. These special purpose bodies are permitted to borrow on the capital market and are backed by the assets transferred to them by the municipality or the revenue stream from their projects. Because of their extra-budgetary status, however, they do not use standardized accounting and reporting systems and do not face the same level of public scrutiny.

PUBLIC-PRIVATE PARTNERSHIPS

Public-private partnerships (known as P3s) are partnerships between a government body and a private sector party whereby the private sector provides infrastructure or services that have traditionally been delivered by the public sector. P3s are widely used in the U.S. and Europe, prompted by an interest in improving the efficiency and effectiveness of local public service delivery.

P3s can take many different forms, as shown in Box 6. In each of the cases in the Box, there is a partnership between government and the private sector. None of these cases involves full privatization; the government body retains ownership of the assets and sets the policies and level of service.

BOX 6: TYPES OF PUBLIC-PRIVATE PARTNERSHIPS

- *Operate:* The private sector operates the facility for a fee. The public sector retains responsibility for capital costs.
- *Lease/Purchase and Operate:* The private firm leases/purchases the facility from the public sector, operates the facility, and charges user fees.
- *Lease/Purchase, Build and Operate:* This arrangement is similar to lease/purchase and operate except that the private sector firm would be required to build or develop a new facility, or enlarge or renovate an existing facility and then operate it for a number of years.
- *Build:* This is a turnkey partnership in which the private sector is paid a fixed fee to build a facility according to government specifications and turns the facility over to the public sector when it is completed.
- *BOT (Build, Operate, Transfer):* The private sector develops and builds the required infrastructure, operates the facility for some specified period of time, and then transfers it back to the government.
- *Build and Operate:* The private sector builds and operates the facility and is responsible for capital financing. The operation is regulated and controlled by the public sector.
- *Build and Transfer:* The private sector builds the infrastructure and then transfers ownership to the public sector.

One of the main advantages of partnerships is that, by relieving municipalities of the financial responsibility for up-front capital costs, they enable infrastructure to be built at times when government funding is constrained (Tassonyi, 1997). Since many municipalities do not like to borrow or are unable to borrow, P3s are one way to get facilities built without the municipality incurring debt. Even where local governments can borrow, the private sector often has access to a wider range of borrowing instruments. The operation of facilities and programs by private operators also reduces municipal operating expenditures and may enable additional sources of revenue to be collected. Ancillary uses such as retail can be accommodated within facilities to provide another source of revenue. Finally, the public sector can draw on private sector experience and skill.

There are, nevertheless, potential risks associated with public-private partnerships (Tassonyi, 1997: 195). For the private sector, there are risks that the regulatory framework could change and cause delays in the project. For the public sector, there is the risk that the nature of the public services provided will not be what the public wants. The success of a partnership depends on how the contractual arrangements are structured and how the risks are shared. Municipalities need to ensure that municipal objectives are being met. For example, in the case of a recreation facility, the municipality may want to ensure that some programs are provided for specific users (such as youth) at specific time periods.

P3s are appropriate for roads, highways, bridges, recreational facilities, and water and wastewater facilities. These types of infrastructure are large in scale, have an identifiable revenue stream (user fees), and measurable results. These factors raise the commercial viability and make it relatively easy to assess the potential risks and rewards.

DEVELOPMENT CHARGES

Many growing municipalities in North America levy charges on developers (known as development charges, lot levies, and exactions) to finance the growth-related capital costs associated with new development or, in some cases, redevelopment. These charges are levied for works constructed by the municipality and the funds collected have to be used to pay for the infrastructure made necessary by the development (Slack, 2002). Development charges are appropriate to finance infrastructure in areas experiencing new growth. They are less applicable to finance new services in existing developments or maintenance and replacement of old services.

Other levies on developers include land dedications that require the developer to set aside land for roadways, other public works, school sites, or for environmental reasons; parkland dedications that require a portion of the land used for development to be set aside for parkland or that a cash payment in lieu of parkland be made; density bonusing whereby developers are granted higher densities (than permitted in planning documents) in return for meeting conditions such as providing day care or preserving an historic building; connection fees to permit developers to buy into existing capacity of water and sewer facilities; and over-sizing provisions (sometimes called front-end financing) that require developers to provide more infrastructure than is required for their development. The municipality, in some cases, agrees to recover part of the costs on behalf of the developer from future benefitting owners.

The rationale for charging developers for off-site growth related costs is that "growth should pay for itself" and not be a burden on existing taxpayers. A number of studies investigated the issue of who ultimately pays the development charge (see Slack, 2002 for a review of these studies). These studies conclude that who bears the burden of development charges – the new homebuyer, developers, or pre-development

landowners – depends to a large extent on the demand and supply conditions in the market for new housing. Most studies conclude that, over the long term, development charges are borne by the new homebuyer. In some cases, the predevelopment landowner, or some combination of the homebuyer, predevelopment landowner, and the developer, may bear the cost. To the extent that the new homebuyer bears the cost, then those who receive the benefits from infrastructure are paying for them.

If properly implemented, development charges can lead to efficient development patterns (i.e., discourage urban sprawl). To be efficient, the charges have to be differentiated by location to reflect the different infrastructure costs. For example, costs tend to be higher for developments located further away from major facilities and for low-density developments. To be efficient, development charges would have to be higher in these locations.

One of the differences between levying development charges and property taxes to pay for capital costs concerns who borrows the funds for the infrastructure. In the case of the property tax, the municipality borrows funds; in the case of the development charge, developers and new homebuyers borrow funds. In developed countries, it is probably the case that municipalities can borrow funds more cheaply than new homebuyers and probably more cheaply than developers. Development charges may thus be less efficient than municipal borrowing in those countries. In countries where municipalities are unable to borrow, however, development charges may provide a good alternative.

Box 7 sets out a methodology for calculating a development charge in eight steps. It also describes the data that need to be collected to estimate the charge and identifies some of the policy decisions that need to be made in calculating the charge.

Table 11 provides some examples of development charges for municipalities in the Greater Toronto Area for 2007 for different types of residential and non-residential properties. In each municipality, developers are required to pay the development charge at the local level as well as at the regional level. In Georgina Township in York Region, for example, the residential development charge on single and semi-detached housing would be under $20,000; in King Township, it would be almost $26,000. The development charge on multiple units is generally lower per unit than on single and semi-detached housing, with the exception of Peel Region and its constituent municipalities where the charge is the same as on single and semi-detached housing. Apartments are charged less than multiple unit dwellings with apartments with two or more bedrooms paying more per unit than apartments with less than two bedrooms. On the non-residential side, retail is generally charged more than industrial on the basis of gross floor area, although in some cases the charge is the same. In a few cases, the city has chosen not to charge industrial properties any development charge in an effort to promote industrial development.

BOX 7: CALCULATING DEVELOPMENT CHARGES

The following sets out a methodology for calculating development charges in eight steps:

Step 1: **Estimate growth**

The first step is to provide a forecast of housing units (for the residential charge) and square metres of non-residential building space (for the non-residential charge). Information is needed on the anticipated population growth rate, the housing stock composition, and occupancy rates (number of persons per unit) for different types of housing. The accuracy of the population projections is key to the development charge calculation because the projections determine the need for services and the levels of service are generally calculated on a per capita basis.

To project the number of square metres for non-residential building space, employment forecasts are used to estimate floor space per worker which is then converted into gross floor area for new development.

Step 2: **Determine the services that will be covered by the charge**

In theory, any capital costs that are needed because of growth should be included in the charge. In reality, however, some costs are easier to assign to growth than others. For example, it is not difficult to determine the proportion of costs that are growth-related for hard services such as water, sewers and roads. There are some "grey areas," however, with respect to what is growth-related. For example, the expansion of a municipally-owned museum is unlikely to be fully attributable to growth and determining the proportion that is attributable to growth may be difficult. One can think in terms of a continuum of services ranging from those that are relatively easy to determine the growth-related portion to those that are fairly difficult (and will be harder to justify). At the easy end would be water and sewers. The next group would include roads, transit, recreational facilities, police, fire, public works, libraries, parks and waste management. At the most difficult end would be museums, city halls, art galleries, convention centres, and tourist facilities.

Step 3: **Estimate the total capital costs to service growth**

For each service for which a charge is going to be levied, capital costs have to be forecast over a period of say 10 years. The estimates of capital costs need to be quite detailed, noting when in the planning period they will be required based on estimates of the future growth. Where possible, capital costs should be identified by specific areas of the municipality and by specific project (e.g. roads, traffic signs, etc.). The magnitude of the costs needs to be reasonable and defensible. Where land costs are involved, for example, land prices need to be realistic given current trends.

The next step is to determine what proportion of the estimated total capital cost is growth-related. In most cases, the proportion is determined as the percentage of new population to the total population (existing and new) and/or by the percentage of new employment to total employment (existing and new).

Step 4: **Determine service standards**

To determine what portion of the growth-related capital costs is eligible for the charge for each service, it is necessary to determine service standards. Municipalities need to establish realistic service standards and they need to show that they are not trying to fund levels of service that are in excess of what they are currently providing.

Examples of service standards include the average standard over the past 10 (or 5) years, the highest standard achieved in the last 10 (or 5) years, or the standard in the current year. There are problems with using the highest level of service in the last 10 years, however. For many services, the highest level occurred in a year in which there was a major capital expansion. To the extent that facilities were built to accommodate future growth, the levels of service in that year contains a significant amount of excess capacity.

BOX 7 (CONTINUED): CALCULATING DEVELOPMENT CHARGES

Step 5: **Estimate net capital costs by service**

Charges are generally only imposed on the net capital costs. To determine net capital costs on a service by service basis, an estimate of future grants, subsidies, and fees needs to be deducted from total capital costs.

Step 6: **Apportion costs to residential and non-residential properties**

Net capital costs have to be apportioned to various land uses such as residential, institutional, commercial, or industrial. To apportion growth-related costs between residential and non-residential developments, for example, a number of methods are used. In some cases, all costs are attributed to residential properties (e.g. shelters and housing). In other cases, 95 percent of costs are allocated to residential properties on the grounds that there is limited non-residential use (e.g. recreational facilities, libraries). Sometimes the apportionment to residential development is based on the growth in population as a proportion of the combined growth in population and employment. Another method is to apportion costs on the basis of residential versus non-residential assessment for property tax purposes.

Within each land use, such as the residential land use, charges can be calculated for different types of residential development (for example, single houses, townhouses, small apartments, large apartments) based on occupancy rates and the total per capita cost.

Step 7: **Choose area-wide or uniform charges**

A uniform charge is one that averages all of the costs, within a broad class, over all development. All developments are charged the same amount. When specific projects have higher costs that are unique to those projects, it is possible to have separate areas for charging purposes. Under area-wide charges, each development pays the costs imposed by that development rather than averaging the costs over the municipality.

Step 8: **Determine what portion of costs to recover through charges**

The municipality can decide to recover less than 100 percent of the eligible growth-related capital costs. It can also decide to exempt some parts of the municipality from the charge (e.g. the downtown core) or some property types (e.g. industrial properties) to encourage certain kinds of developments or developments in particular locations.

TABLE 11: **DEVELOPMENT CHARGES, GREATER TORONTO AREA, 2007**

	Residential ($CDN per lot)				Non-Residential ($CDN per square foot of gross floor area)	
			Apartments		Industrial	Retail
	Single and semi-detached	Multiple unit dwellings	2 or more bedrooms	Less than 2 bedrooms		
Toronto	10,415	8,288	6,755	4,198	-	7.77
York Region*	16,249	13,846	10,157	6,460	3.97	7.88
Aurora	10,173	8,081	5,985	4,490	2.32	2.32
East Gwillimbury*	5,462	4,528	3,414	2,350	1.48	1.48
Georgina	3,590	3,472	2,471	1,704	1.28	1.28
King*	9,598	8,310	5,813	4,002	4.05	4.05
Markham*	8,586	6,745	5,748	3,653	1.04	1.04
Newmarket	7,516	6,043	4,765	3,032	0.97	0.97
Richmond Hill*	8,859	7,341	4,809	4,809	0.97	2.35
Vaughan	9,568	8,202	5,332	5,332	1.54	1.54
Whitchurch-Stouffville*	7,488	5,154	4,255	3,806	4.36	4.36
Durham Region	13,332	11,198	7,758	4,921	-	5.02
Ajax	9,189	7,704	4,784	3,399	1.89	2.86
Brock	9,389	7,446	5,504	5,504	3.76	3.76
Clarington	9,383	8,229	6,353	4,043	2	3.64
Oshawa	7,094	6,300	4,244	3,358	3.14	3.14
Pickering	9,207	7,476	5,230	3,428	2.5	2.5
Scugog*	10,388	8,239	6,089	6,089	5.1	5.1
Uxbridge	9,413	8,560	5,704	5,704	-	3.61
Whitby	9,110	7,592	5,497	3,534	1.56	3.12
Peel Region	8,302	8,302	5,930	3,084	3.1	4.29
Brampton	16,214	16,214	11,922	6,199	3.4	5.23
Caledon	13,624	12,393	9,071	5,243	1.71	2.61
Mississauga	8,488	8,488	6,063	3,153	2.84	3.49
Halton Region non-HUSP	12,078	8,128	6,929	4,653	5.93	9.15
Halton Region HUSP	20,092	13,982	11,687	7,862	9.83	9.83
Burlington*	7,682	4,191	4,090	2,791	2.69	2.69
Halton Hills	7,851	6,253	4,400	3,011	2.62	2.62
Milton	9,158	6,944	5,221	3,450	3.01	3.01
Oakville*	10,911	8,587	6,940	4,000	5.08	5.08

** Area specific charges may apply.*
*** HUSP is the Halton Urban Structure Plan for Water and Sewer Servicing to Halton Hills.*
Source: York Region 2007 DC By-Law Review Background Study

TAX INCREMENT FINANCING

Tax Increment Financing (TIF) is a financing mechanism used by cities in most states in the U.S. to revitalize blighted urban areas, generally in the downtown core (see Wassmer, 1994 and Anderson, 1990 for a more detailed discussion of how they work). Cities designate a TIF area for capital improvements and then earmark any future growth in property taxes to pay for investments in infrastructure and other economic development initiatives. The rationale behind TIF districts is that revitalization can have a positive impact on urban quality of life and future tax revenue. TIF districts are often the beneficiaries of federal and state grants and tax incentives. These additional sources of funds help to achieve the revitalization objective.

TIFs are applied differently in each jurisdiction in the U.S. but they generally follow a similar approach as set out in Box 8. Within a TIF district, developers may benefit from obtaining more appropriate or more affordable sites but they are taxed at the same rate as other landowners in the city.

TIFs are not the same as tax abatements. Under a TIF, the development is financed from increases in tax revenue that it generates, not from a subsidy. There is no transfer of funds from the municipality to businesses nor is there a transfer from one business to another. Taxes from the increased assessment base are used to finance public improvements in the district. If used to stimulate downtown development, TIFs could encourage compact development and discourage urban sprawl.

BOX 8: IMPLEMENTATION OF TAX INCREMENT FINANCING

- A TIF district is proposed, based on planning criteria and what is permitted in the enabling legislation. The geographic boundaries reflect the area that is in need of redevelopment. Public consultation is held and a redevelopment plan is developed.
- Once the area has been given official status, the annual property tax revenue accruing to all taxing authorities within the district (the municipality, the county, school boards, etc.) is frozen at pre-revitalization levels. These are known as the base level property taxes. For a period of time, generally between 15 and 35 years, all or some portion of the incremental tax generated (above the base level) accrues to the redevelopment agency (or the municipality) to be used for the redevelopment. In some cases, state legislation limits the amount of property tax revenues that can be diverted into a TIF.
- In order to spur the redevelopment, infrastructure investments (for example, roads, buildings construction, sewage expansion) and/or land acquisition is undertaken. In some states, TIFs are used to offset private development expenses such as site preparation and construction. The source of financing for these front-end and periodic costs is usually borrowing or bonds issued against expected incremental tax increases. In this way - lending on the basis of a district plan's expected tax increment -- the plan is financed through a public offering.
- After the TIF period expires, tax revenues from the expanded assessment base again flow through the taxing authorities.

The widespread use of TIFs is, in part, because they offer a way for municipalities to get around borrowing limits; tax increment bonds are not subject to municipal debt limits or public referendum requirements in most states. This financing method results in more capital for infrastructure than would be available with traditional general obligation bonds (different types of borrowing tools are described more fully in Chapter 7).

There are some potential problems associated with TIFs, however. TIFs may not be able to generate the predicted tax revenues and the resulting lack of funds could threaten efforts to revitalize the designated area. Other taxing authorities (such as school districts) resent that their property taxes are frozen at a time that they are experiencing growth in demand as a result of the revitalization. TIFs may merely accelerate development that would have occurred anyway. TIFs target funds to a designated area and this targeting may be at the expense of areas on the periphery of the TIF district or at the expense of overall municipal growth. Financing TIFs is expensive because the default risk is transferred to bond holders instead of the municipality. Debt repayment depends on future increments in property tax revenues and the municipality has no obligation to pay bond holders if sufficient increment taxes are not generated.

The calculation of the tax increment requires a comparison of expected property tax revenues in the absence of any new development with the expected property tax revenues once the development has occurred. The first part of this calculation involves an estimate of the base level property taxes on all properties in the TIF district now and in the future. The second part involves the calculation of the estimated property tax revenues for the development. This latter estimate is based on a determination of the ultimate use, built form, and density for all of the land that will be redeveloped as well as the timing and location of the development. The detailed methodology used to determine the viability of a tax increment is set out in Box 9.

BOX 9: STEPS FOR TAX INCREMENT FINANCING

Step 1: **Calculate base level property taxes**

Base level property taxes are what the property taxes are today and what they would be in the future if there is no redevelopment. Two approaches can be used to estimate base level property taxes (see Figure 3). Under the first approach, the base level represents the actual property taxes prior to the development. These taxes are flat lined over the period of the TIF. Any increment above the base level taxes goes toward the redevelopment. Under the second approach, property taxes are increased from the base year over the period of the TIF by the amount of natural growth. Natural growth in property taxes reflects that the assessments will increase over the length of the TIF period even if there is no redevelopment, although the increase is likely to be small. Property taxes are also expected to increase over the TIF period because taxes generally increase from year to year. The argument behind using natural growth as the base case is that the rest of the municipality should at least continue to receive what they would have received in property tax revenues if there were no redevelopment.

To calculate base level property taxes with natural growth, it is necessary to project what the assessed values would be on the properties in the TIF district in the absence of redevelopment and also what the tax rates would be.

Step 2: **Calculate the tax increment**

The increment in property taxes arising from the development will result from an increase in property assessment on the redeveloped properties. There may also be an additional "lift" resulting from the use of TIF funds to finance some capital improvements in the district. One obvious example of "lift" is transit improvements where capital expenditures have been supported, in part, by financing from the TIF district.

To estimate the assessed values and ultimately the property tax increment to be generated from the redeveloped properties, it is necessary to determine the ultimate use, built form, and density for all of the land to be redeveloped within the boundaries of the TIF district. The challenge in this analysis is to determine the final built form. This analysis often requires input from existing land owners/developers to ascertain what plans they have for development and then to compare these to the existing planning regulations for the land.

With this information, the next step is to have the assessment authority estimate the expected assessment on the developed properties.

Once the assessments are received for all of the properties in the development area for the base year, the next task is to project the flow of increased assessments and property tax revenues as the implementation of the development takes place over the period of the project. This step require two additional inputs: the first is the anticipated phasing of the development in the project. The second is the rate of increase in the assessment between the base year and the year the new buildings (redevelopment) will be completed and enter the assessment roll.

To estimate the flow of increased tax revenue generated from the TIF application over the life of the TIF, it is necessary to determine the time frame for the implementation of the development. This estimate requires an understanding of how the development will unfold in terms of timing and location.

Step 3: **Determine expenditure requirements**

The next step is to provide estimates of the infrastructure costs needed to develop the TIF district on a year-by-year basis. It is also necessary to determine what portion of these expenditures can be funded from TIF revenues. In the U.S., TIFs are generally used to cover the cost of studies, surveys, and plans; professional service costs such as architectural, legal, engineering, etc.; property assembly costs, including land acquisition, demolition, land clearing, etc.; costs of rehabilitation, reconstruction, repair or remodelling existing buildings and fixtures; costs of construction of public works or improvements; financing costs; capital costs resulting from the redevelopment project; and relocation costs.

BOX 9 (CONTINUED): STEPS FOR TAX INCREMENT FINANCING

Generally, TIFs are not allowed to be used to pay for general government operations including, for example, police and fire protection, road maintenance or similar operating costs or for the construction or financing of government buildings. Some examples of projects that have been funded by TIFs in U.S. cities include: a university expansion, theatre renovations, schools, transit stations, malls, library renovations, convention centre expansion, arenas, museums, and retail and entertainment complexes.

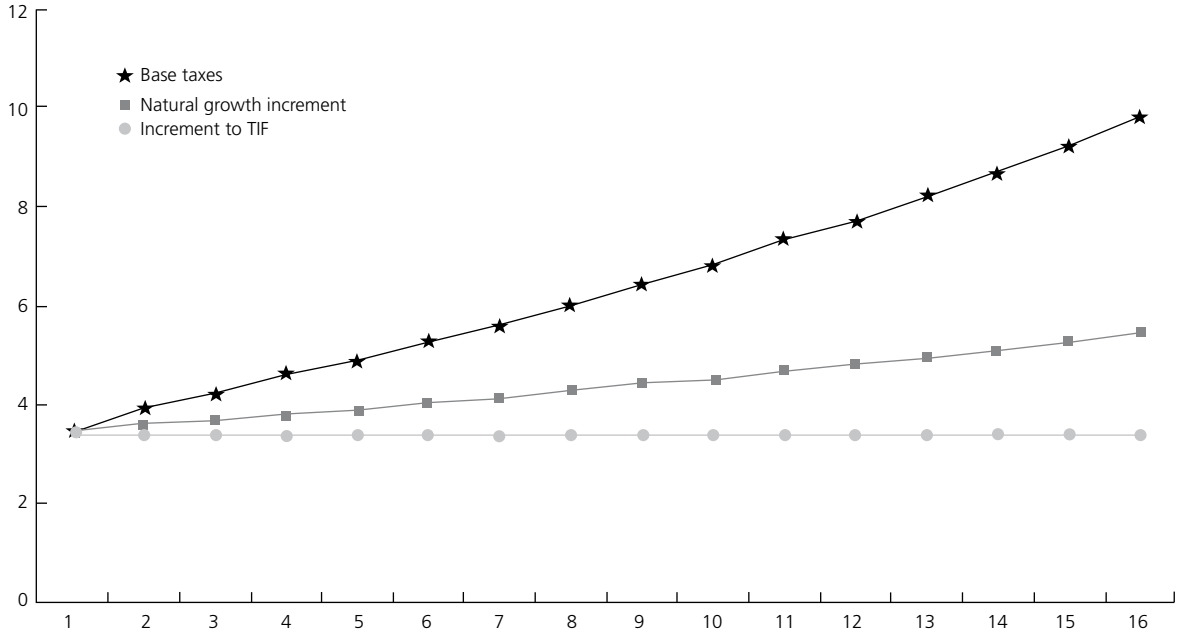
Although much has been written in the U.S. on the types of expenditures that are financed out of TIF revenues in different jurisdictions, no comprehensive criteria have been set out to assess how those expenditures should be determined. There appear to be two criteria that are generally applied, however. The first criterion is that TIFs can only be used for expenditures that meet the "but for" test. This test is to ensure that the development would not have taken place "but for" these expenditures. Typically, the expenditures that meet this test are those that put infrastructure in place for the development or reduce the risk to developers so that they are willing to undertake the development. The second criterion found in U.S. statutes specifies that TIFs can fund only those capital costs that are not part of any impact fee (development charge).

Step 4: **Estimate the timing of the TIF**

The final step involves estimating the time it would take to pay back the borrowed funds used to make the capital expenditures. The estimate of expenditures also needs to include borrowing costs because it is anticipated that the flow of revenues and expenditures will not match over the TIF period. When there is a shortfall of revenues, funds need to be borrowed to cover it.

In terms of project financing, the optimal timing for a TIF would be just long enough for the projected increase in TIF revenues to pay the total project costs. There may also be a need to allow for a reasonable increment to compensate for the uncertainty of the projections. Moreover, the time period should also take into account the impact on the ability of the municipality to deliver public services out of general revenues when the tax increment is unavailable to them.

FIGURE 3: **CALCULATING THE TAX INCREMENT**



LAND VALUE CAPTURE TAXES

Land value capture taxes are levied to capture the increment in land value attributable to public investment. These taxes are also known as land value increment taxes, betterment levies, special assessments, and valorization taxes.

Land value capture taxation has generally been proposed in situations where the public sector is contemplating a major infrastructure investment that increases the value of adjacent land (such as a new subway, highway exchange, school, park, or other public infrastructure). An investment of this nature requires a large capital outlay immediately but the benefits will not be enjoyed for several years in the future. The tax is designed so that the costs incurred in the current period are shared among future beneficiaries (Slack, 2005b).

The decision of the public sector to construct major infrastructure results in a windfall gain to owners of property nearby. For example, a subway increases demand for housing and offices on properties located near it. Given normal demand and supply conditions, an increase in demand will result in higher prices being charged for these properties. Moreover, zoning changes often accompany investment in infrastructure: increased densities permitted along the subway line, for example, will result in increased land values. A land value capture tax is a way for the public sector to tax some or all of the windfall gain that it has created.

TIFs, which were described in the section above, are a form of land value capture tax. Although TIFs are largely used only in U.S. jurisdictions, there is experience in other countries with similar taxes that capture the increase in land values associated with an infrastructure investment or change in land use. Some Latin American jurisdictions, for example, finance street improvements, water supply, and other local public services through a system of taxation known as "valorization" whereby the cost of public works is allocated to property owners in proportion to the benefits conferred by the works (Bird, 2001b).

The valorization charge is a lump sum levy, although it can be paid in instalments. The cost of the project is calculated and divided among benefitting property owners. The first step is to calculate the cost of the project -- the maximum that can be charged for a project is the total cost of the public works (including the cost incurred to allocate the tax among benefitting properties and collection costs). If the property owners who benefit from the tax are unable to pay it, the amount may be smaller.

The second step is to determine the zone of the project's influence. In other words, it is necessary to determine the geographic area in which it is assumed that property values will be affected by the construction of the project (Bird, 1984). The third step is to distribute the tax within the zone. Generally, the formula that is used depends on the characteristics of the project. Some of the factors that are taken into account include the size of the property to be taxed, its distance from the project, the socio-economic characteristics of the affected district, and other factors. The distribution of valorization charges thus involves a considerable amount of administrative discretion (Bird, 1984).

Once the valorization charges have been assigned to individual properties, they are generally collected before the construction work begins. The total amount collected is often less than the full cost of the project because costs may have been under-estimated or the project delayed.

In addition to valorization contributions, Colombia has levied a plusvalia or land value increment tax since 1997. This tax is designed to recoup the benefits that are a consequence of "urban actions." These urban actions include government changes in the classification of land from rural to urban

or suburban use, changes in the use of the property by changing the use of all property located in a certain zone of the city, increases in the level of exploitation by increasing the proportion of land on which construction is allowed or the relation between the area of construction and the area of land or both, and the construction of public improvements that are not financed by valorization contributions (Bird, 2004: 277).

The owners or occupiers are liable for the land value increment tax. The tax base is the amount of the appreciation of land value which is calculated as the difference in the value of the property before and after the "urban actions." Municipal councils set the tax rate which has to be between 30 and 50 percent of the appreciation of the property.

The land value increment tax is levied in addition to other taxes on property values such as the valorization contributions. When a valorization contribution has been imposed, however, the factors in its determination cannot be considered in calculating the appreciation in property values for the land value increment tax. For example, if the municipality imposes a valorization to capture the cost of a new road, the impact of the new road on property values cannot be included in the calculation of the land value increment tax.

Colombia has had considerable success in recouping some of the benefits to adjacent property owners from certain public investments using this tax (Bird and Slack, 2007). It is neither easy nor costless to implement such a tax under conditions found in most developing countries, however. Perhaps this is why few developing countries have managed to do much with this potentially useful fiscal instrument.

CHAPTER 6

MUNICIPAL BUDGET, FINANCIAL REPORTING AND AUDITING

Fiscal decentralization, coupled with a growing demand for accountability and transparency at the local level, has resulted in greater public participation in the municipal budgetary process and more rigorous financial management techniques by local governments in many countries. Financial accountability is about promoting and reporting publicly on performance and it requires transparent rules-based expenditure and financial management systems that ensure that resources are allocated in accordance with citizens' preferences (Yilmaz and Beris, 2008). This chapter focuses on various aspects of municipal financial management including budgeting, financial reporting, auditing, and performance-based measurement.

EXPENDITURES AT THE LOCAL LEVEL

Local government expenditures typically comprise everything that is necessary for the day-to-day operations of the local government and the delivery of services. Expenditures include salaries and wages of municipal employees and any associated benefits; operating costs of municipal offices, including equipment and supplies; purchase of short-life equipment; repairs and maintenance; service delivery (including services such as fire and police protection, provision of drinking water, sewage treatment, roads maintenance, public transportation systems, garbage removal, recreational and cultural activities and facilities); servicing of long-term debt (principal and interest payments); and capital expenditures (for new infrastructure and long-life equipment).

The extent of municipal expenditures differs around the world, as noted in Tables 1 and 2. Although most municipalities provide solid waste collection and disposal, roads, lighting, parks and recreation, there is nevertheless wide variation in the extent to which they provide water, sewerage, social services, education, and hospitals, police protection, housing, and land use regulation.

MUNICIPAL BUDGETING

A municipal budget is a document that sets out the local government's plan for revenue and expenditure for an annual or multi-year period. The municipal budget serves two primary purposes. The first is to set out a program of expenditures of the municipality during the coming year and to forecast the revenues that will be used to finance those expenditures. The second is to provide a method to control expenditure so that municipal expenditures do not exceed municipal revenues (Wrenshall,

1937). The budget is a very important document because, if properly prepared, it will eliminate unnecessary expenditures, increase efficiency in the methods of collecting revenues, and preserve the credit rating of the municipality (Tassonyi, 2002).

Budgeting has always been important as a means of controlling expenditures and identifying revenues. In recent years, however, the importance of budgets has grown significantly as cities face increasingly difficult expenditure and revenue decisions in an environment of increased demands for services and infrastructure. Not only do budgets serve as a necessary management and planning tool, they also contribute to the accountability and transparency of the overall financial system of local governments and reduce the possibility of corruption and misappropriation of funds.

OPERATING AND CAPITAL BUDGETS

Municipalities generally prepare two budgets: (1) an annual operating or current budget that consists of projected revenues and expenditures plus relevant capital asset transactions for the upcoming fiscal year and (2) a capital budget that lays out future capital expenditure projects and anticipated revenues for funding these projects.

Municipalities face expenditure obligations on a recurring basis to provide the day-to-day operation of services. Operating budget expenditures include wages and salaries, pension contributions, the purchase of short-life equipment, the purchase of services from other agencies, materials and supplies, and expenditures on repair and maintenance. They may also include recurring financial transactions such as servicing the long-term debt (annual interest cost and principal repayment) and contributions to reserve funds established for specific purposes. Current funds may also be transferred to the capital budget to provide a portion of costs of capital projects.

Operating budgets may take different forms and each form provides a different type of information for fiscal decision-making (Schaeffer, 2000). A line-item budget relates revenues and expenditures to commodities with the underlying purpose of control of the municipal budget. A performance budget relates revenues and expenditures to workload with the underlying purpose to achieve management efficiency. A program budget relates revenues and expenditures to public goals with the objective of meeting planning goals.

The capital budget sets out the local government's long term plan which is to be carried out over a number of years, usually a period of at least five years. Capital budgeting sets out a plan to acquire or rehabilitate long term assets such as roads, water and sewer lines and treatment plants, public buildings, and sanitary landfills. At the same time, this plan indicates how all capital expenditures are to be financed (own source revenues, borrowing, grants, or other revenues).

The capital budget is an important management tool because it allows the municipality and the public to be informed on the need for capital expenditures (short term and long term) and it allows them to make more informed recommendations with respect to future capital spending. Schaeffer (2000) describes five steps in the development of the capital budget; these stages are set out in Table 12.

TABLE 12: **THE STEPS IN THE CAPITAL BUDGET**

Stages of Capital Budget	Description
Inventory of capital assets	The first step is to provide an inventory and an assessment of the current condition of all infrastructure facilities. This information is important because it will help to determine the need for renewal, replacement, expansion, and retirement of current inventory.
Developing a capital investment plan	The second step requires the establishment of goals for the level and quantity of service in terms of measurable indicators. These service goals help the municipality to determine if they need to replace or upgrade infrastructure or undertake a new investment. The development of a multi-year investment plan compares the inventory of assets and current level of service with the desired service goals. The output of this stage is a list of capital investment projects to meet the service goals and a priority list of when the projects should be started and completed.
Developing a multi-year capital investment plan	The multi-year capital investment plan sets out the time schedule and costs for all capital investment projects being considered. The total additional costs to complete these projects beyond the 5-year recommended period should be included in the plan.
Developing the financial plan	The most critical stage of the capital investment program is the financial analysis of the municipality's capacity and ability to undertake the investment program. The number of improvements that the municipality can finance depends on the level of recurring operating expenditures, the cost recovery elements for individual projects and the potential for revenue generation, the availability of funding from other levels of government or the private sector, and the debt carrying capacity of the municipality.
Implementing the capital budget	At the final stage of the process, the completed capital budget should have the full cost implications for all projects, the annual capital costs, and the current budget implications of each project.

Source: Schaeffer (2000)

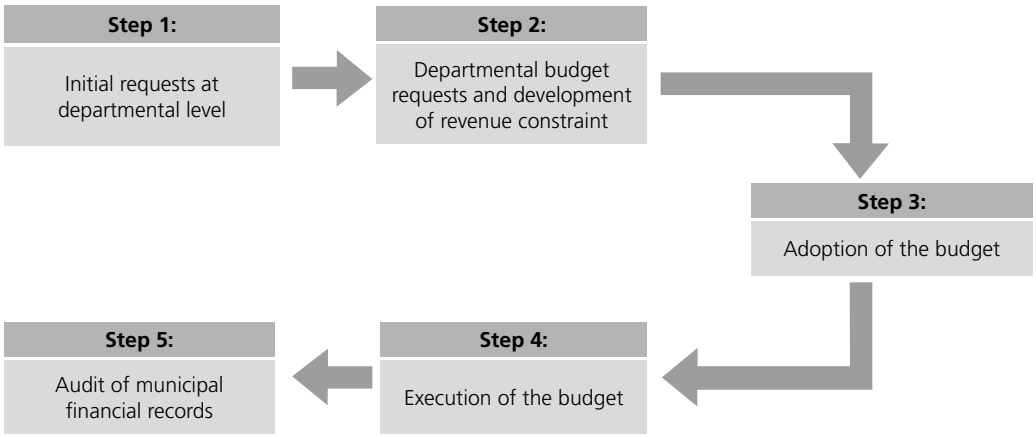
BUDGETARY PROCESS

Budget preparation is undertaken in a series of stages before it is formally delivered to the elected officials for discussion, debate, and approval. Throughout the budgetary process, there are a number of participants, each per¬forming different roles.

STAGES OF THE BUDGETARY PROCESS

The process begins with policy direction or guidance from the local council. For example, the council may decide to focus on transportation or housing in a particular year or it may decide that it wants a budget that brings in a zero tax increase. The budgetary process then continues in five stages (Kitchen, 2003) as set out in Figure 4.

FIGURE 4: **STEPS IN THE BUDGETARY PROCESS**



The first stage of the budgetary cycle is the preparation of initial requests for funds on the part of each department (for example, transportation, water, recreation). The second stage of the budget cycle involves the various departments sub¬mitting their budgetary requests to the chief administrative or financial officer. This officer compiles, combines, and coordinates all requests for funds. The chief financial officer and his/her staff are also responsible for estimating the anticipated revenue yields for the year and acceptable tax increases. Given the revenue constraint, priorities are set among the competing demands for expenditures. Inevitably, conflicts arise and need to be resolved (Kitchen, 2003). Departmental requests may be denied or the financial constraint may be expanded. Ultimately, the chief financial officer arrives at a budget that is presented to the budget committee of the municipal council.

The third stage is the adoption of the budget by the council. In some municipalities in all countries, the public (taxpayers) is invited to comment at public meetings on the proposed budget prior to council approval. Public participation (described further below) is designed to add transparency and accountability to the budgetary process. The fourth stage of the budget cycle involves the implementation and monitoring of the budget throughout the fiscal year by the chief financial officer. The fifth stage is the audit of municipal financial records by an independent auditor after the completion of the fiscal year. The audit ensures that the municipality has adhered to legal requirements regarding local expenditures and that local officials have not misappropriated local funds intentionally or unintentionally (auditing is discussed further below).

As with any fiscal process, there are practices and pressures that can adversely affect the budgetary process (Tassonyi, 2002). Extra-budgetary funds (commonly used in municipalities in China, as noted in Chapter 5) are funds that are outside of municipal budgets and therefore independent of the scrutiny of the formal budget process. Earmarked funds (funds that are mandated by local governments to be spent on specific services) are tied up in reserve funds and provide the municipality with no flexibility to use them for any other purpose. Unpredictability (for example, when the amount or conditions attached to intergovernmental transfers change) makes it difficult for local governments to plan for the future. Finally, unreliable information hampers the ability of local governments to make sound financial decisions.

CITIZEN INVOLVEMENT

Participatory budgeting refers to the practice of including citizens in formulating the budget. Anyone interested in participating can do so individually or as part of an organization (such as a residents' association). There are four main features of participatory budgeting (Serageldin et al., 2008: 28): The first is the representation of residents in each sub-area of the municipality in the decision-making process. The second is that municipal officials are held to account for the previous year's budget and for estimates of expenditures and revenues for the current year in order to determine the budget allocations. The third is transparency which is achieved through direct popular participation and an open voting system. The fourth is objectivity through the use of quantitative criteria to prioritize funding requests and the allocation of resources.

Participatory budgeting improves communication and dialogue between city hall and citizens. It fosters social inclusion by allowing the poorest citizens to have a voice in budgeting decisions and it empowers neighbourhood associations and small organizations. Nevertheless, it can take a long time to implement budgetary decisions, in part because it is necessary to teach citizens the details of how the process works. Moreover, the number of people from the community that participate is often very small and they are not always representative of the youngest or the poorest in the population.

One of the first municipalities in the world to undertake participatory budgeting is Porto Alegre, Brazil. Box 10 briefly describes the mechanics of participatory budgeting in that city.

BOX 10: CITIZEN INVOLVEMENT: PARTICIPATORY BUDGETING IN PORTO ALEGRE

The first city to engage in participatory budgeting is Porto Alegre, Brazil which introduced the practice in 1989. It is now used by 180 municipalities in Brazil and many countries in Latin America and elsewhere. Participatory budgeting was introduced, in part, as a way to address severe inequalities in services (especially water and sanitation) and quality of life around the city.

Participatory budgeting gives residents some control over the annual allocation of capital expenditures. Residents can decide on local matters, such as the location of street improvements or a park, as well as citywide issues such as programs for helping the homeless population.

Regular decision-making forums of elected representatives have been created at a number of levels: sixteen regional forums bring people together from different parts of the city; five thematic forums (such as health, education, housing, sanitation) bring together people from throughout the city; and a municipal budget council comprises representatives of the regional and thematic forums.

The process covers all capital expenditures which range from 5 to 15 percent of the total budget of Brazilian municipalities. In Porto Alegre, the number of participants in the budgeting process is now more than 14,000 people per year.

Source: Abers, 2001, Goldsmith and Vainer, 2002 and Serageldin et al., 2008

FINANCIAL REPORTING AND AUDITING

The way in which cities manage their affairs and monitor their activities plays an important role in their ability to improve service delivery and minimize wasted resources: "transparent and prudent local financial management has come to be recognized as critical to the integrity of the local public sector and for gaining and retaining the trust of local residents" (Shah, 2007:1). Financial reporting and auditing are an important part of financial management.

Municipal financial management is designed to ensure that the municipality has sufficient revenues to carry out its expenditure responsibilities, to provide information that shows the state of municipal government finances, and to account for the sources and allocation of revenues. To achieve these objectives, municipalities must have in place systems for accounting and auditing.

Accounting is the "systematic gathering of financial transactions and the compiling and reporting of these transactions in a meaningful and consistent manner so that government decision-makers can measure progress towards goals established in the budget; estimate resources required to accomplish these objectives; and effectively allocate resources across competing goals and objectives" (Schaeffer, 2008: 147).

Municipal accounting differs from private sector accounting because the emphasis of municipal accounting is on cash flow, transparency, and accountability to the local electorate whereas private sector accounting emphasizes the reporting of profits and losses. Accounting and financial reporting standards are often established by independent standard setting authorities.

Municipal accounting systems and practices are central to the budgetary process. For example, past accounting records provide important information on revenue and expenditure forecasts used to construct the budget. Accounting records provide information on debt and debt service costs and determine if the municipality can increase its debt load (Kitchen, 2003). Accounting reports provide information on whether budget plans are on target, when capital funds are diverted to meet operating expenditures, when expenditures are greater than revenues, and when the municipality is incurring financial obligations beyond its ability to meet them (Holder, 1996).

ACCOUNTING STANDARDS

Public sector accounting standards, based on International Public Sector Accounting Standards (IPSAS) or Generally Accepted Accounting Principles (GAAP), provide information that is reliable, understandable, timely, relevant, and comparable across governments (Schaeffer, 2008; Kitchen, 2003). They provide an accounting of the full nature and extent of the financial affairs and resources for which the municipal government is responsible. Accounting standards demonstrate the accountability of the municipal government for the financial affairs and resources entrusted to it and account for the sources, allocation, and uses of financial resources in the period (Kitchen, 2003). Finally, they provide information that shows the state of the municipal government's finances.

Accounting systems record revenues and expenditures in a consistent way to permit comparisons between budgets and actual figures. Financial audits determine whether the municipality's financial statements provide an accurate and reasonable picture of the municipality's financial position and detect deficiencies in the system of internal financial control or failures to comply with accounting principles and standards.

ACCOUNTING CONCEPTS

Municipal accounting systems use a fund-accounting approach whereby the municipality establishes a separate fund for each area of municipal activity, for example, libraries, water and sewer operations, policing, etc. Fund accounting uses self-balancing double entry accounts from which the municipality can prepare a balance sheet and a statement of operations. The fund basis of accounting recognizes that most municipal assets are not available for purposes other than those for which they have been budgeted and that data on budgetary compliance is an important part of the stewardship responsibility of government (Kitchen, 2003). Accounting for distinct funds is necessary to ensure that resources are devoted to their designated use. Most municipalities maintain funds for general purposes, revenue funds for special activities, funds for utility operations (for example, water, sewers, and electricity), sinking funds, capital funds, reserve funds, trusts, and agency funds.

Municipalities can use cash accounting, accrual accounting, or modified accrual accounting. Cash accounting records expenditures and revenues when funds are actually disbursed or received. Although cash accounting is relatively easy to implement, it can give a misleading picture of municipal accounts (Schaeffer, 2008). For example, cash received as a loan is recorded as revenue on the operating statement but not as a liability on the balance sheet. As a result, the available balance is over-stated. Another example is when the full cost of an item is charged against the budget in the first year of its use when there are multi-year benefits. This way of reporting the cost may over-state the expense in the first year but under-state it in subsequent years.

Cash accounting omits information about fixed asset values and changes in the value of long-term debt. As a result it does not permit the preparation of a balance sheet showing the assets and liabilities of the municipality. The inability to prepare a balance sheet with assets and liabilities means that the net worth of the municipality cannot be presented (Schaeffer, 2008). Inventories, receivables, and payables do not typically appear in cash accounting balance sheets because they are not accrued.

Accrual accounting records revenues and expenditures when they occur regardless of when the expenditures are made or the revenues received. For example, if taxes are legally due on June 30 of a given year, they are recorded on June 30 whether or not they are received that day. If they are not received for an extended period of time, they will appear as tax arrears or receivables. Similarly, if a payment to a supplier is due on a particular date, this expenditure is recorded as a payment on that date. If the supplier is not paid on time, the due payment becomes expense arrears or payables (Vaillancourt, 2006). The main difference between cash accounting and accrual accounting is the treatment of arrears (Vaillancourt, 2006). Cash accounting provides no information about the amount of arrears whereas accrual accounting identifies arrears under items that are payable or receivable.

Modified accrual accounting differs from full accrual accounting in that is does not include depreciation and returns on capital assets as costs (Kitchen, 2003). Rather, principal repayment and interest costs are recovered directly through user fees and local taxes in the year in which they are due. Since principal repayments are recovered each year as a chargeable expense, municipalities using this system are less likely to face cash flow problems than those using full accrual accounting. The treatment of operating expenditures is the same under full accrual and modified accrual accounting.

Many countries have implemented some form of modified accrual accounting in the past 10 years. However, only four OECD countries (Australia, Finland, Iceland, and New Zealand) have implemented full accrual accounting and others, such as Canada and the U.K., are rapidly moving in that direction (Schaeffer, 2008). One of the reasons for lack of widespread use of accrual accounting is the difficulty and cost of implementation. For example, governments may not know the full amount of tax revenue they are likely to receive at any given time (Schaeffer, 2008). Moreover, it can be costly to develop new computer systems to support accrual accounting.

AUDITING

Financial audits are designed to detect problems in the system of internal financial control, failures to comply with accounting principles and standards or with reporting requirements set out by the central or provincial/state government, and misappropriations of funds. To maintain the integrity of the audit, the auditor must be independent of government, have a legal mandate to undertake the audit, and report the findings to the legislature (or council in the case of a local government) (Schaeffer, 2008: 161). It is critical that the audit information be released to the public for general review and inspection.

Local government audits should do three things (Schaeffer, 2008: 163): first, they should analyze the financial position of the local government, including trends, quality of revenues, and expenditures. Second, they should evaluate the performance of the government on various financial management and accounting issues. Third, they should include audit observations on non-observance of rules and regulations, wasteful expenditures, delays, and non-achievement of budget objectives.

Financial audits often focus on financial statements and thus do not address the efficient use of resources or the achievement of performance standards. Value-for-money audits or performance audits (which are discussed below) examine areas of waste and mismanagement to suggest how a municipality can improve the efficiency of its operations (Schaeffer, 2008).

Some of the problems with local government audits, particularly in developing countries, are summarized in Schaeffer (2008) along with some suggestions for improvement: local governments need to build staff capacity, establish uniform and transparent accounting and auditing procedures, and standardize local government financial information.

PERFORMANCE-BASED MEASUREMENT

Performance measurement has been used at the local level for some time in Australia and New Zealand and was introduced more recently in some Canadian jurisdictions. Performance measures are designed to assess the efficiency and effectiveness of municipal services. Efficiency refers to the amount of resources used to produce a given amount of service; effectiveness refers to the extent to which a service is achieving its intended results (Burke, 2006). A performance measure, if correctly determined, records the output rather than the input of municipal spending on specific programs or services.

Performance measurement (sometimes called benchmarking) enhances accountability by permitting municipal elected officials, administrators, and taxpayers to monitor and evaluate municipal expenditures over time and in comparison to other municipalities. In this way, municipalities operate in a more competitive environment and have an incentive to provide services in a cost efficient way (Kitchen, 2003).

Performance measures reinforce managerial accountability and provide an incentive to stimulate staff creativity and productivity. Finally, performance measures help municipalities develop budgets based on realistic costs and benefits rather than on historical patterns.

Performance measures require accurate and complete information on input costs and measures of outputs. Input costs measure the total cost of an activity. Measures of output are relatively straightforward for services such as sewage disposal, garbage collection, and water provision - services for which the unit of out¬put is subject to quality standards can be measured. Output measures, however, are considerably more dif¬ficult to measure for education, social services, crime prevention, and fire protection where the unit of output is not clearly defined. For example, is the unit of output for education the number of students taught annually, the number of students who passed, or the test scores on standardized tests? Similarly, the output measures for police protection, fire protection, and social services are difficult to measure. Notwithstanding these measurement problems, attempts should be made to establish proxies for output measures.

In terms of effectiveness, performance measurement is used to measure the extent to which an activity contributes to the achievement of the stated goals, objectives, or targets. For example, building a road may be very efficient in terms of cost per kilometre, but its effectiveness will depend on the usefulness of the road in providing convenience, safety, and economy for vehicle transporta¬tion. If it is not possible to determine the benefits from local services, the demand for services subject to quality standards might be measured through citizen surveys, studies of local economic conditions, reports on the number of applications, requests or complaints received, and expert evaluations of specific needs (Kitchen, 2003).

Appendix 1 sets out a number of municipal services and the performance measures that have been used in one province in Canada. Over 50 performance measures have been constructed for 12 municipal services (general government, fire protection, police protection, roads, transit, wastewater, storm water, drinking water, solid waste, parks and recreation, libraries, and land use planning). The provincial government requires that municipalities report the results of these measures to taxpayers annually.

CHAPTER 7

MUNICIPAL BORROWING AND ACCESS TO THE CAPITAL MARKET

Municipalities in some countries are permitted to borrow to make capital expenditures. This chapter looks at the role of municipal borrowing and borrowing instruments. It also sets out the factors that are used by bond rating agencies to determine the credit rating of a municipality.

ROLE OF MUNICIPAL BORROWING

Borrowing at the municipal level is quite different from borrowing by senior levels of government. Unlike central and state/provincial governments, who can and do borrow to meet operating requirements (such as to pay wages and salaries, purchase materials, etc.), municipalities can generally only borrow to make capital expenditures. In most countries, municipalities are not allowed to run a deficit in their operating budgets. The advantages of borrowing at the municipal level were discussed in Chapter 5.

When the benefits of a capital investment, such as the construction of a water treatment plant, are enjoyed over a long period, it is both justifiable and efficient to fund the project partially through borrowing so that benefit and cost streams are balanced as the debt is paid.

Nevertheless, local access to capital markets is often heavily restricted in developing countries (Rodden et al., 2003). Smaller municipalities, even in countries with well-developed capital markets, may be able to borrow only through a financing authority or state/provincial body, partially to reduce borrowing costs by pooling the requirements of different municipalities.

In principle, provided there is no central subsidization of such borrowing (e.g. through guarantees, explicit or implicit), this method of financing capital investment is a good idea. In practice, many developing countries have experienced substantial difficulties that have resulted in tighter restrictions being imposed on subnational borrowing (Rodden et al.,2003). In most countries, some form of limitation is placed on the amount of funds that can be borrowed by local governments. For example, the central government may limit long-term borrowing to capital projects. It may limit the aggregate amount of long-term debt to a fixed share of the local tax base. Others place limits on debt charges such as debt charges (principal repayment plus interest) cannot exceed a specified percentage of expenditures or own-source revenues.

Municipalities need to be concerned about maintaining a sustainable level of borrowing or optimal level of debt relative to future operating budgets and anticipated population and economic growth. Each municipality has its own level of tolerance for debt. In doing so, they take account of the statutory limits set out by the senior levels of government, competition with other municipalities in accessing capital markets, and maintenance of a good credit rating.

CAPITAL MARKETS

The capital market consists of the "set of institutions by which the savings of savers are made available to borrowers and investors who, in exchange, agree to remunerate savings with some payment such as an interest payment or dividend payment" (Vaillancourt, 2006: 43). The nature of capital markets is different in different countries depending on the legal framework and degree of economic progress. For example, some countries may not have a subnational capital market and thus subnational governments are prohibited from borrowing. In countries with limited capital markets, access to capital is predominantly through the central government through a development bank or a housing bank, for example. Local governments can also rely on their own savings to make capital expenditures. In China, subnational governments obtain credit on favorable terms through their state-owned enterprises in a process that involves the central bank, line ministries, and lending institutions (Rodden et al., 2003: 19). Under these circumstances, lenders may lend to subnational governments that have poor economic and fiscal performance because they believe that the central government will bail them out. In other countries, the existence of subnational government banks means that local governments are permitted to borrow.

If the capital market mechanism works, local fiscal conditions are disciplined by the competition for credit. Poor fiscal performance will lead to restricted access to the credit market or higher borrowing costs. Credit ratings also provide important signals to voters about the performance of the government (Rodden et al., 2003: 18). As will be noted below, the function of the credit market depends on good information including accounting principles and auditing.

POOLING MUNICIPAL DEBT

The cost of borrowing may be particularly high for smaller municipalities. Pooling of municipal debt is one way to lower the costs of borrowing. When municipal debt is pooled, local governments issue bonds that are purchased by a bond bank which is usually an independent authority established by central or provincial/state statute. The bank can pool the issues and sell the larger, combined issue on the national bond market at a lower cost than can some individual municipalities.

Financing authorities can then gain greater access to national and international capital markets and benefit from higher credit ratings. The credit risk of all municipalities combined is almost always less than that for each individual municipality. Municipal finance authorities generally issue bonds on a regular basis; some only for municipal units but others also issue bonds for schools, hospitals, utilities, and other municipal bodies.

The main advantage of financing authorities is lower borrowing costs as a result of pooling local government debt issues. The lower borrowing cost reflects mainly the reduced cost of capital but also lower administration costs to issue debt. A municipal finance authority substitutes one contract with an underwriter for separate contracts between each borrower and debt issuer. It should be able to economize on transactions costs

because it issues debentures more frequently than most individual municipal borrowers and it operates in a volatile capital market that is subject to a large amount of uncertainty. It can exercise a greater degree of flexibility over issue terms and costs to municipal clients. Box 11 shows an example of a municipal finance authority that pools debt for municipalities in Ghana.

BOX 11: MUNICIPAL FINANCE AND MANAGEMENT INITIATIVE IN GHANA

A major new urban development initiative has been launched by the Government of Ghana. As part of this initiative, it has introduced legislation to help local authorities to access long-term financing for infrastructure and service delivery. The government has established the Municipal Finance Authority which will borrow from domestic and international markets and then on-lend to local authorities including metropolitan, municipal and district assemblies.

Source: Cities Alliance without Slums: http://www.citiesalliance.org/mfmi/overview.html.

BORROWING INSTRUMENTS

A bond is a document that indicates the issuer's obligation to repay a specified principal amount plus interest on a specified date. A bond represents a promise by the issuer (the local government) to pay back the bondholder (individuals or institutions) the principal and interest at given intervals (for example, quarterly or annually).

In the case of general obligation bonds, the government uses its general revenues to support the debt service payments. These bonds would be used for activities that do not produce revenues such as public education, health, and welfare expenditures. Revenue bonds, unlike general obligation bonds, are legally secured by a specific revenue source. For example, a revenue bond issued by a water and sewer utility would be backed by the specific revenues of that utility (generally user fees) rather than the general revenues of the municipality. The advantage of revenue bonds is that they promote full-cost pricing of services and shift the risk to the investors. The disadvantage is that they are often charged higher borrowing rates because they are not backed by the government's overall revenues and are therefore considered to be riskier.

Tax-exempt bonds enable municipalities to issue bonds at a lower interest rate because the interest is tax-free. The interest income is not taxable by the personal or corporate income tax. Box 12 illustrates how a tax-free bond works.

BOX 12: ILLUSTRATION OF A TAX-FREE BOND

Suppose the interest rate on bonds is 5 percent. A $1,000 bond would thus yield $50 in interest. If the taxpayer's marginal tax rate is 40 percent, then the taxes would be $20 and the after-tax interest would be $30. The effective interest rate is thus 3 percent. If the municipality can issue a tax-exempt bond, then it could pay 3 percent interest and provide the same after-tax return to the investor.

Municipalities in the U.S. have used tax-free bonds for a long time. In 2001, bonds issued by local governments in India were exempted from income taxes (Serageldin et al., 2008). Tax-exempt bonds provide a direct advantage to the bondholder. For a municipality, issuing a tax-exempt bond means that they can borrow funds at a lower interest rate than regular bonds because investors would be willing to receive a lower interest rate if it is not taxable. Tax-exempt bonds tend to work best in municipalities that have access to capital markets but their application to other municipalities has been limited.

The main criticism of tax-exempt bonds is that they are regressive because people with higher incomes benefit more than people with lower incomes from this tax incentive (TD Economics, 2002: 13). High-income taxpayers are more likely to benefit because they have the funds to invest in bonds. Moreover, for a given amount invested, the benefits are larger for taxpayers with a higher marginal tax rate.

Tax-exempt bonds have also been criticized because they require other levels of government (central and/or state/provincial governments) to forego income tax revenue. In other words, municipalities (particularly large urban regions where infrastructure expenditures are likely to be highest) benefit at the expense of the general population who pay higher income taxes than otherwise to make up for the shortfall in income tax revenues. Another problem with tax-exempt bonds is that the amount of revenues foregone exceeds the amount saved by local governments in lower interest payments because of transactions fees paid to brokers and bond traders.

CREDIT RATINGS

A credit rating assesses the ability of the issuer of the debt to pay back the funds owed to investors who buy the bonds on time and in full. It is important to obtain a good credit rating because many investors refuse to buy bonds that are unrated and, in some countries, the central government will not permit subnational governments to sell unrated bonds. Moreover, the rating serves as a key determinant of the interest rate that the bond issuer will have to pay. If the bond rating agency feels that there is a risk that the local government will not be able to make debt service payments, it will issue a lower credit rating and the interest rate will be higher.

Bond rating agencies use a number of factors to evaluate the creditworthiness of municipalities. These factors can be divided into four main areas: economy, debt, finances, politics, management, and institutional framework (Lipnick, Rattner and Ebrahim, 1999 and Moody's Investors Services, 2005).

Economy: The state of the economy (and future trends) determines the extent to which a municipality is able to generate revenues needed to support its debt and, at the same time, pay for services. This aspect of credit rating is not something that the municipality can control, however. Bond rating agencies look at measures such as: credit quality and market position of the region's largest employers; the strength and diversity of its largest taxpayers; demographics; diversity of the economic base (the extent to which the economic base is concentrated in a single industry); unemployment rates; labour market performance; the regulatory environment; retail sales; building permits; employment data; overall wealth of community (measured by the size of the taxable assessment base per capita); and median family incomes.

Debt: The debt position of the municipality is another factor that goes into its credit rating. Some factors relate to the size of the debt; others relate to debt service costs. In terms of the size of the debt, one variable that is used is total debt relative to market value of taxable property. This measure reflects the use of property taxes to pay for debt service charges. Typically, a growing municipality with new development has a greater need for infrastructure and therefore it will incur higher costs. At the same time, it will have an increasing tax base to finance the debt through property taxes. A second measure is debt per capita. This indicator reflects the ability and/or willingness of residents to pay debt service costs and allows the municipality to compare its per capita debt with other municipalities and to determine how debt is changing over time. It does not take into account fiscal capacity, however, because the tax base (the assessment base in the case of property taxes, for example) could be growing faster than population. A third measure is the debt to income (GDP) ratio. This measure relates the amount of debt to economic activity and reflects the potential debt servicing capacity of the municipality.

The factors that relate to debt service costs include debt service costs per capita. This measure reflects the willingness and/or ability of residents to pay debt service costs. This indicator will be conservative if the tax base (for example, property assessment) is growing faster than population. A fast growing assessment base reflects the greater capacity of the municipality to pay the debt service costs. A second factor is debt service costs as a percentage of operating expenditures. This measure shows the proportion of the operating budget that is devoted to debt service and the direct impact of its indebtedness on the budget. It also reflects the amount of budget flexibility a municipality will have. If debt service costs represent a large percentage of expenditures, there will be fewer funds available for other functions. A third factor is debt service costs as a percentage of revenue. This indicator shows the portion of municipal revenues used to pay debt service costs. It reflects the debt burden in relation to recurrent annual resources potentially available to cover debt service. A high debt ratio may mean that the municipality has taken too much debt but it could also mean that it is aggressively paying down debt to avoid interest costs. Similarly, a low debt ratio could indicate that the municipality is financially strong but it could also mean that it has deferred capital projects and allowed infrastructure to deteriorate. Finally a fourth factor is debt service costs as a percentage of the municipal levy. This measure shows the portion of the property tax that is used for debt service. It is possible that a high-growth municipality could manage a higher debt service cost ratio since its property tax revenues are likely increasing with assessment growth more so than for other municipalities.

Finances: The bond rating agencies look at the trend in financial performance and control including budgetary planning, daily spending control, spending growth, use of surpluses, and shortfall contingency plans. Agencies also look at the general fund balance relative to revenues, a measure of the financial reserves potentially available to fund unforeseen contingencies. They want to ensure that general fund balances are sufficient to address normal contingencies. Other factors include: revenues and expenditures; control over setting taxes and other own-source revenues; types of taxes available to municipal governments; reliance on inter-governmental transfers, their stability, and restrictions on use; annual growth or volatility in expenditures and revenues; inter-fund transfers; composition of assets and liabilities; cash position; and financial performance relative to budget.

Politics, Management, and Institutional Framework: Elements of management strength that are reviewed include: division of responsibilities, professional qualifications; sufficiency of power to perform functions; management strategies; debt practices; and economic development policies. Political considerations include political dynamics and social climate. The institutional framework includes constitutional powers and responsibilities, borrowing authority, and intergovernmental relations.

The bond rating agencies have recognized a number of concerns and challenges in rating emerging market subnational debt. These include (Vaillancourt, 2006: 55): unpredictable legal and regulatory frameworks, risky debt profile, unaudited financial data, burdens imposed by publicly-owned companies, changing intergovernmental political and fiscal relationships, incomplete demographic data, inflation effects, enormous infrastructure needs, and uncollected taxes and user fees. If local governments are given permission to borrow in these countries, they will need to address these issues.

CHAPTER 8

CONCLUDING COMMENTS

Interest in cities is increasing around the world, in part, because more people are living in cities than ever before and, in part, because recent trends towards fiscal decentralization and globalization have highlighted the importance of cities. Fiscal decentralization has resulted in the devolution of powers and responsibilities from central and state/provincial governments to the local level making local governments responsible for a wide range of services and infrastructure. Globalization has meant that it is cities that are competing on the international stage. They not only have to provide the services and infrastructure needed to attract businesses and skilled workers but they have to maintain relatively low taxes on businesses so that they do not adversely affect their competitive position. In short, cities are critical to the success of the new economy.

A solid financial structure is essential to the success of cities in meeting the challenges of urbanization, decentralization, and globalization. The financial structure affects the quantity and quality of services, the efficiency with which those services are provided, whether the costs are shared across the city in a fair and efficient way, and both citizen access to government and local government accountability to citizens.

The choice of revenue tools will also have an impact on the ability of local governments to deliver services and attract business. The benefit model of local government finance starts with the premise that the main role for local government is to deliver goods and services to local residents. Wherever possible, local government services should be paid for on the basis of the benefits received. Where the beneficiaries can be identified and where the services are not primarily redistributive in nature, user fees are recommended. Some services that are financed, at least in part in some countries, by user fees include water, sewers, recreation, and transit. There may, however, be scope for greater use of user fees for these and other services. Local governments need to make citizens understand that user fees are not a tax grab but rather an important way to gauge the quantity of services that people want and are willing to pay for.

Where services provide benefits of a collective nature to the local community, a case can be made for property taxes or other local taxes borne by local residents. Examples include local roads, policing, and fire protection. To be truly local taxes, municipalities have to set their own tax rates (although it is often administratively easier for senior levels of government to administer and collect the taxes on their behalf). Unless municipalities are given the freedom to set their own tax rates, even if it means making mistakes, truly accountable and responsive municipal government will never be a reality.

There is also a role for intergovernmental transfers in this model of local finance. Where there are spillovers in the provision of local services but where local provision is still desirable, for example, conditional transfers may be used. Equalization transfers may also be required to ensure at least a minimum level of service is provided by those cities with relatively little fiscal capacity. Where intergovernmental transfers are used, however, they should not be designed to discourage municipalities from charging the right price for services.

Finally, it is important to remember that "one size does not fit all" when it comes to the finance of services and infrastructure by local governments. Not all of revenue tools described in this Guide will be appropriate for all local governments under all circumstances. It may be necessary to treat different municipalities in different ways. For example, experience tells us that large metropolitan areas can and should have greater fiscal autonomy than other urban or rural areas. Autonomy means both greater responsibility for delivering local services and greater ability to levy their own taxes. All local governments, however, need to be responsible, accountable, and efficient. To do so, they need to raise their own revenues as much possible, adhere to an open and visible municipal budgetary process, and engage in transparent and prudent financial management.

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APPENDIX 1: EXAMPLES OF PERFORMANCE BASED MEASURES – MUNICIPALITIES IN ONTARIO, CANADA

Service Area	Measure
General Government	Operating costs for governance and corporate management as a percentage of total municipal operating costs
Fire protection	Operating costs for fire services per $1,000 of assessment
Police protection	Operating costs for police services per person
	Violent crime rate per 1,000 persons
	Property crime rate per 1,000 persons
	Total crime rate per 1,000 persons
	Youth crime rate per 1,000 youths
Roads	Operating costs for paved (hard top) roads per lane kilometre
	Operating costs for unpaved (loose top) roads per lane kilometre
	Operating costs for winter maintenance of roadways per lane kilometre maintained in winter
	Percentage of paved lane kilometres where the condition is rated as good to very good
	Percentage of winter events where the response met or exceeded locally determined municipal service levels for road maintenance
Transit	Operating costs for conventional transit per regular service passenger trip
	Number of conventional transit passenger trips per person in the service area in a year
Wastewater	Operating costs for the collection of wastewater per kilometre of wastewater main
	Operating costs for the treatment and disposal of wastewater per megalitre
	Operating costs for the collection, treatment, and disposal of wastewater per megalitre (Integrated System)
	Number of wastewater main backups per 100 kilometres of wastewater main in a year
	Percentage of wastewater estimated to have by-passed treatment
Storm water	Operating costs for urban storm water management (collection, treatment, disposal) per kilometre of drainage system
	Operating costs for rural storm water management (collection, treatment, disposal) per kilometre of drainage system

Service Area	Measure
Drinking water	Operating costs for the treatment of drinking water per megalitre
	Operating costs for the distribution of drinking water per kilometre of water distribution pipe
	Operating costs for the treatment and distribution of drinking water per megalitre (Integrated System)
	Weighted number of days when a boil water advisory issued by the Medical Officer of Health, applicable to a municipal water supply, was in effect
	Number of water main breaks per 100 kilometres of water distribution pipe in a year
Solid waste	Operating costs for garbage collection per tonne or per household
	Operating costs for garbage disposal per tonne or per household
	Operating costs for solid waste diversion per tonne or per household
	Average operating costs for solid waste management (collection, disposal and diversion) per tonne or per household
	Number of complaints received in a year concerning the collection of garbage and recycled materials per 1,000 households
	Total number of solid waste management facilities owned by the municipality with a Ministry of Environment Certificate of Approval
	Number of days per year when a Ministry of Environment compliance order for remediation concerning an air or groundwater standard was in effect for a municipally owned solid waste management facility, by facility
	Percentage of residential solid waste diverted for recycling
	Percentage of residential solid waste diverted for recycling (based on combined residential and ICI tonnage)
Parks and recreation	Operating costs for parks per person
	Operating costs for recreation programs per person
	Operating costs for recreation facilities per person
	Operating costs for recreation programs and recreation facilities per person (Subtotal)
	Total kilometres of trails and total kilometres of trails per 1,000 persons
	Hectares of open space and hectares of open space per 1,000 persons (municipally owned)
	Total participant hours for recreation programs per 1,000 persons
	Square metres of indoor recreation facilities and square metres of indoor recreation facilities per 1,000 persons (municipally owned)
	Square metres of outdoor recreation facility space and square metres of outdoor recreation facility space per 1,000 persons (municipally owned)

Service Area	Measure
Libraries	Operating costs for library services per person
	Operating costs for library services per use
	Library uses per person
	Electronic library uses as a percentage of total library uses
	Non-electronic library uses as a percentage of total library uses
Land use planning	Percentage of new residential units located within settlement areas
	Percentage of land designated for agricultural purposes which was not re-designated for other uses during the reporting year
	Percentage of land designated for agricultural purposes which was not re-designated for other uses relative to the base year of 2000
	Number of hectares of land originally designated for agricultural purposes which was re-designated for other uses during the reporting year
	Number of hectares of land originally designated for agricultural purposes which was re-designated for other uses since January 1, 2000

Source: Ontario Ministry of Municipal Affairs and Housing.
Municipal Performance Measurement Program, 2007

Interest in cities is increasing around the world, in part, because of rapid urbanization in developed and less developed countries but also because of recent trends towards fiscal decentralization and globalization. These trends have put pressure on cities to provide a wide range of services (for example, water, sewers, police and fire protection, solid waste collection and disposal, roads, transit, social services, health, and housing) and to maintain and expand infrastructure to meet the growing demands of the urban population. Although local governments in many countries have experienced an increase in powers and responsibilities in recent years, however, few countries have allowed local governments to levy the taxes they need to match their expanding local needs.

This Guide to Municipal Finance describes the current issues in municipal finance and the ways in which local governments finance services and infrastructure. It sets out a basic economic framework that is used to evaluate the different aspects of municipal finance and that can be used by readers to evaluate other options. The Guide emphasizes that responsible, accountable, and efficient local governments need to raise their own revenues as much possible, adhere to an open and visible municipal budgetary process, and engage in transparent and prudent financial management.

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