U.S. Department of
Transportation

Financial Review: Member Jurisdictions of the Washington Metropolitan Area Transit Authority

February 1987

UMTA Technical Assistance Program

Financial Review: Member Jurisdictions of the Washington Metropolitan Area Transit Authority

Final Report
February 1987

Prepared by
Urban Mass Transportation Administration
400 Seventh Street SW
Washington, D.C. 20590

Consultants
Shearson Lehman Brothers, Inc.
Comsis Corporation

Distributed in Cooperation with
Technology Sharing Program
Office of the Secretary of Transportation

DOT-I-87-23

TABLE OF CONTENTS

INTRODUCTION

This Financial Review was commissioned by the Urban Mass Transportation Administration ("UMTA") and contains pertinent credit information for the jurisdictions who contribute funds to the Washington Metropolitan Area Transit Authority ("WMATA") for the purpose of constructing, maintaining and operating the Metrobus and Metrorail transit systems. Jurisdictions currently contributing funds to WMATA for this purpose are: Washington, D.C., the State of Maryland (through the Washington Suburban Transit Commission), Montgomery County, Prince George's County, the Commonwealth of Virginia (through the Northern Virginia Transportation Commission), Alexandria, Arlington County, Fairfax County, Fairfax City and Falls Church. The purpose of this Review is to provide a snapshot of the current financial condition of the member jurisdictions.

This Financial Review was initiated by UMTA at the behest of Senator Mark Andrews of North Dakota, former Chairman of the Senate Appropriations Subcommittee on Transportation and Related Agencies, subsequent to other similar Congressional requests. In a letter dated June 3, 1986, Senator Andrews asked that UMTA "undertake a study of the capability of the Washington region's local jurisdictions to finance completion of the Metrorail system beyond the Stark-Harris authorization in the context of the operating, maintenance and rehabilitation costs identified by the Federal City Council" which produced, for the first time, "an agreed upon set of basic financial planning parameters for the Washington area's transit system." The Federal City Council work referred to in Senator Andrew's letter was completed in February 1986 and presented in a study entitled "Transit in the Nation's Capital: What Lies Ahead?".

Recognizing that a financing plan could not be developed without some notion of the financial environment within which it would be implemented, local and state transportation and budget/finance officials were interviewed and publicly available "credit" data reflective of the relevant local and state financial condition (e.g. budgets, capital improvement programs, financial reports, etc.) was collected and put into a common format. This format was designed to facilitate the analysis of trends in individual jurisdiction's financial position and to identify inter-jurisdictional differences. In so doing, a financial snapshot of the region's current financial condition is presented and near-term capital needs are identified.

The combination of the information in this report and the cost data provided by the Federal City Council constitutes a data base for local and state officials responsible for preparing a rail construction financing plan. This plan would provide a strategy for constructing a metrorail system after the exhaustion of funds available under PL 96-184 (the Stark-Harris Legislation). It will also be useful to the Congress and the Department when they review future financing plans.

For those who are seeking conclusions or recommendations in this Review, they will find none. It is understood and recognized that a jurisdiction's decision regarding its resource allocation involves a host of complex judgments about balancing competing needs. The objective of this Review is to synthesize and distill pertinent information into an accurate database available for all to see and assess as part of their respective financial planning efforts.

Background

Since 1970 the major political subdivisions in the Washington, D.C. metropolitan area have contracted with WMATA to construct and finance a 103-mile subway and surface rail transit system known as Metrorail.

Funding for the construction of the originally estimated $2.555 billion Metrorail system was predicated upon: a direct Congressional appropriation of $1.147 billion; net proceeds from WMATA revenue bonds (which are additionally secured by a Federal guarantee) of $835 million; and direct local contributions of $573 million.

Subsequent to the execution of the original 1970 capital contributions agreement and satisfaction of original commitments by the local jurisdictions, the cost of the Metrorail system has been re-estimated at successively higher levels. Major factors contributing to the increased costs of the system have included: greater than expected labor and material inflation rates; unanticipated schedule delays due to environmental, legal and engineering issues and federal funding; inaccurate base estimates; system additions; route realignments; and other changes in system scope.

In response to the increasing costs of constructing the system, four interim capital contributions agreements between WMATA and the participating political subdivisions have been executed to date. The Federal funding mechanism underpinning the first two interim agreements revolved around the substitution of moneys previously earmarked for incomplete sections of the Interstate Highway system in the region. The basic purpose of these aggreements was to establish how construction costs would be shared among WMATA's member jurisdictions and to establish how available funds would be spent.

Partial funding for the remainder of the system is predicated on PL 96-184, the National Capital Transportation Act Amendments of 1979, which was signed into law by President Carter on January 3, 1980. PL 96-184 provides for the funding of the Metrorail system construction and its operation, as follows:

(1) authorizes Federal funding of $1.7 billion "to complete" the full system subject to appropriations;

(2) incorporates into law the terms and provisions of an agreement between the U.S. Secretary of Transportation and WMATA providing for the orderly retirement of $997 million of outstanding revenue bonds issued by WMATA; and

(3) requires the participating political subdivisions to provide stable sources of revenue for both operating deficits and the net local contribution toward the payment of WMATA's revenue bond debt service.

The Third Interim Capital Contributions Agreement was executed on October 6, 1981 and envisioned a construction program for fiscal years 1982, 1983, 1984 and 1985. This agreement was periodically amended to more accurately reflect Federal funding levels and the availability of Interstate Highway funds.

In response to a request from UMTA, the Fourth Interim Capital Contributions Agreement (ICCA-IV) was executed on December 7, 1984, and envisioned the completion of the Metrorail system by 1997. However, additional Federal authorizations would be required to complete the program as outlined in this agreement.

Though UMTA had no specific problem with the segments identified to be built, it did object to the schedule contained in ICCA-IV. UMTA required that the remaining sections be constructed as "operable segments"; that is, in a sequence that would permit each succeeding piece to be opened and placed into service upon completion of construction. In addition, UMTA would not approve a segment unless its construction could be completed and the section placed into service without committing any Federal funds beyond those already appropriated by Congress.

The WMATA Board of Directors addressed UMTA's concerns by i) negotiating a modified construction schedule and ii) executing a "full funding agreement" between WMATA and UMTA which defines the conditions for future Federal funding under the PL 96-184 authorization. In addition, to define local funding arrangements in support of that agreement, the member jurisdictions executed a "supplemental memorandum of understanding" to the ICCA-IV in May, 1986. Together, these two agreements define the conditions to complete construction of 89.5 miles of Metrorail out of a total plan of 103 miles.

Through FY 1987, a total of approximately $5.15 billion in Federal funds has been appropriated for the Metrorail system from various sources, including $630 million for interest on the original WMATA revenue bonds. It has been estimated that when the 89.5 mile system covered under the full funding contract has been completed and the original revenue bonds retired (in 2015), a total of about $7.6 billion in Federal funds will have been expended for Metrorail, of which $2.6 billion will have been paid for bond interest and principal. During the same time period, local (and State) governments will have contributed $2.8 billion, making the total cost of the 89.5 miles of Metrorail approximately $10.4 billion. WMATA has estimated that an additional $2.5 to $2.7 billion will be required to complete the entire 103 mile plan.

The Federal City Council Study

In February of 1986, the Federal City Council completed a study whose goal was to achieve a regional concensus regarding the region's total transit costs and revenues through the year 2000 (the "FCC Study"). According to UMTA officials, one of the factors inhibiting the development of a comprehensive financing plan for the completion of the 103 mile Metrorail system has been the absence of an agreed-upon set of operating and maintenance, rehabilitation and construction cost estimates that could be used as the "need" basis for the plan. Recognizing this problem and given its unique position in the Washington community, the FCC undertook the requisite study beginning in the spring of 1985.

The FCC Study provides estimates of the net WMATA financial "burden" per member jurisdiction, after taking into account state assistance, under two Federal funding scenarios: (i) Scenario A, whereby Federal operating support is assumed to remain level in year-of-expenditure dollars (the Federal Government is assumed to pay 80% of rail construction costs through the exhaustion of the PL 96-184 authorization and 75% of the rail construction costs thereafter and the Federal Government is assumed to pay 75% of rehabilitation and replacement costs); and (ii) Scenario B, whereby Federal operating support is discontinued in 1987, Federal capital support is maintained at 80% through the end of the PL 96-184 authorization but discontinued beyond that time and the only Federal contributions are the two-thirds payment of debt service on the outstanding WMATA Revenue Bonds and the funds available under the proposed block grant program.

After assessing the cost of the WMATA system since 1980 as a percentage of personal income, earnings, property values and total operating expenditures within each jurisdiction, the FCC Study concluded that the burden has not been as heavy as the increases in transit costs would suggest. Projections also were developed regarding the annual operating revenues and costs of each of the jurisdictions through the year 2000, including assumptions about their bonded indebtedness. The projected WMATA burden, net of rail construction costs, was measured as a percentage of property value and operating expenses of each jurisdiction. The results indicated that Federal participation would be a significant factor in the jurisdictions' ability to pay. In addition, rehabilitation and replacement costs become larger as the system ages. No specific funding sources have been established for these costs in all of the jurisdictions but a capital replacement and rehabilitation reserve account has recently been established by WMATA. It should be noted that the FCC Study did not include rail capital costs in the assessment of "ability to pay" due to various uncertainties such as whether these costs would be paid out of current revenues or through bonding.

This Study

In this Financial Review, the burden associated with WMATA payments on the member jurisdictions was assessed from a different vantage point than the FCC study: that of the investment and capital markets communities. As part of data collection, heavy reliance was placed upon the experts of credit analysis in the financial community: the rating agencies. A municipal bond rating reflects a host of judgments about a jurisdiction's ability to pay the lender of funds, in most cases a bondholder, the money that is owed on a timely basis. In order to make this assessment, the rating analyst relies on historic data regarding tax collections, economic developments and financial management in light of whatever future plans the jurisdiction has developed.

This Financial Review contains a financial report on each of the member jurisdictions which presents objective outside data available through publicized sources. Each financial report presents recent data on the jurisdiction's funding sources, debt capacity, tax base, economic climate and intended capital improvements programs, and describes their respective financial commitments to WMATA. These reports present a snapshot of the financial condition of each of the member jurisdictions on an historic and current basis.

In speaking to the member jurisdictions, it was learned that the exact demands placed on their financial resources are not known with certainty now nor could they be. To speculate about the priority of WMATA transit finance relative to other projects competing for the same source of funds would be neither a useful nor a productive exercise. However, it is possible to collect base data which can be built upon for use by the member jurisdictions in weighing alternative financing sources.

One additional technical note is that all member jurisdictions use a July 1 - June 30 fiscal year with the exception of the District of Columbia, which uses an October 1 through September 31 fiscal year. Data for each jurisdiction is presented based upon their respective fiscal years, with the exception of the summary data on WMATA in the District of Columbia report which is presented based upon the WMATA fiscal year of July 1 - June 30. Other inconsistencies in the data are a result of inconsistencies found in the documents referenced as source material.

Table 1, following, summarizes some of the key credit data for the member jurisdictions.

TABLE 1

CREDIT DATA SHEET (1)

JURISDICTION	G.O. Rating	1986 Real Property Assessed Value and % of Full Value ($000's)	% Increase (Decrease) in Real Property A.V. Since 1981	Real Property Estimated Full Value ($000's)	1986 Real Property Tax Rate/ $100 A.V.	% Increase (Decrease) in Real Property Tax Rates Since 1981	1986 Tax Levied ($000's)	% Increase (Decrease) in Tax Levy Since 1981	1986 General Fund Composition		1986 Unreserved General Fund Balance (Deficit) as a % of Operating Revenues
District of Columbia	Baa/A	25,007,100 100% of full value	79.1%	25,007,100	$1.22-2.03 (4 classes)	N/A (4)	416,389	80.8%	Federal Revenue Federal Payment Real Property Tax Individual Income Tax Sales and Use Taxes Miscellaneous Revenue Other Sources	16% 15% 16% 16% 13% 15% 9%	(12.6%)
MARYLAND: (5)											
Montgomery County	Aaa/AAA	12,570,000 40% of full value	89.8%	31,425,000 (2)	$ 2.04	(12.8%)	281,587	44.0%	Local Property Tax Local Income Tax Other Sources	45% 30% 25%	6.55%
Prince George's County	A/AA	6,975,400 40% of full value	40.6%	17,061,700	$ 2.32 (3)	(10.8%)	193,507	25.6%	Local Property Tax Local Income Tax Transfer Taxes Intergov. Revenue Other Sources	43% 29% 7% 7% 14%	1.60%
VIRGINIA:											
City of Alexandria	Aaa/AA+	6,490,000 100% of full value	61.3%	6,490,000	$ 1.39	0.0%	81,340	62.4%	Property Tax Revenue from State Other Local Tax Federal Revenues Other Sources	51% 19% 16% 4% 10%	10.6%
Arlington County	Aaa/AA+	10,363,120 100% of full value	58.5%	10,363,120	$ 0.94	(16.1%)	119,794	54.7%	Property Tax Sales Tax Other Local Tax Revenues from State Revenues from Fed Permits and Licenses Other Sources	54% 6% 12% 13% 4% 1% 10%	6.3%
Fairfax County	Aaa/AAA	29,745,500 100% of full value	79.5%	29,745,500	$ 1.39	(9.7%)	542,537	75.1%	Property Tax Other Local Tax Other Sources	70% 17% 13%	5.9%

(1) Refer to Appendix A, B and C for explanation of ratings and discussions by Standard & Poor's Corporation and Moody's Investor Service of general principles of municipal credit ratings. For comparative information about large transportation-related bond issues, see Appendix D.
(2) Estimated by Shearson Lehman Brothers based upon 1986 real property assessed value.
(3) Represents a weighted average of the unincorporated area rate ($2.40) and the incorporated area rates (ranging from $1.67 to $2.24).
(4) The District has established four real property classes and rates. Historical data was not available in the Official Statement of June 1986.
(5) For comparative information regarding Maryland Department of Transportation see Appendix D.

TABLE 1

CREDIT DATA SHEET, continued

JURISDICTION	1986 Total Net Debt Outstanding ($000's)	Most Recent G.O. Issue ($000's)	Debt History/ Trend	Borrowing Restrictions & Current Status	1986 Debt Per Capita	1986 Median (2) Debt Per Capita	% of Debt to A.V.	Debt (1) Burden	Median (2) Debt Burden	1984 Per Capita Income	Median 1985 Per Capita Income	1986 Annual D/S as a % of Total Expenditures
District of Columbia	2,224,004	Dated: 11/86 Amount: 150,000 Competitive	Historically, borrowed money from U.S. Treasury; expected to be a frequent issuer of long-term bonds.	Debt service in any year may not exceed 14% of revenues.	$3,553	$477	8.89%	9.60%	1.90%	$17,113	N/A	8.7%
MARYLAND: (5)												
Montgomery County	509,875	Dated: 4/1/86 Amount: 50,000 Competitive	Frequent, large-scale issuer.	15% of A.V. Status: 3.6% of A.V.	$803	$614	4.05%	3.70%	2.10%	$21,456	15,864	7.9%
Prince George's County	201,400	Dated: 12/2/86 Amount: 23,805	Frequent issuer over past decade; overlapping units are also frequent issuers.	15% of assessable base; bond referendum required except for school bonds.	$297	$614	2.89%	4.20%	2.10%	$14,115	15,864	4.1%
VIRGINIA:												
City of Alexandria	108,954 (1985)	Dated: 2/1/86 Amount: 22,000 Competitive	Periodic, moderate-sized borrowings.	10% of real property A.V. Status: 1.68% of A.V.	$1,009 (1985)	$109	1.68%	2.40%	0.40%	$21,024	14,542	9.7% (1985)
Arlington County	101,433	Dated: 1/15/87 Amount: 11,000 Competitive	Frequent issuer; annual borrowings planned.	G.O. debt must be approved by referendum.	$655	$109	.90%	1.40%	0.40%	$22,582	14,542	7.6%
Fairfax County	437,334	Dated: 8/1/86 Amount: 89,500 Competitive	Frequent issuer; annual borrowings anticipated.	G.O. debt must be approved by referendum.	$644	$109	1.31%	1.31% (3)	0.40%	$19,825	14,542	7.8% (est.)

(1) Rate of overall net debt to estimated full value.
(2) Medians are for the state in which the jurisdiction is located, except for the median associated with the District of Columbia which is for cities with a population of over 500,000.
(3) Excludes sewer revenue bonds.

THE WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Introduction:

WMATA was created in 1967 by an interstate compact among the State of Maryland, the Commonwealth of Virginia and the District of Columbia. The Authority's primary function is to plan, develop, finance and operate transit facilities serving the Washington, D.C. metropolitan area.

Funding Mechanisms:

WMATA activities are funded from the combined resources of the U.S. Government, the State of Maryland, the Commonwealth of Virginia, the District of Columbia, the local participating jurisdictions and WMATA's farebox and other revenues. WMATA's present plan is for a 103-mile Metrorail system with an appropriate bus support system.

The original Federal rail construction funding of $1.147 billion was provided under the authority of the National Capital Transportation Act of 1969 (Public Law 91-143). $2.1557 billion has been provided from the Interstate Highway Transfer Program in lieu of highway construction while direct appropriations (for elderly and handicapped facilities and the Arlington Cemetery station), and the Federal-Aid Urban (highway) System Program made a total of $87.9 million available. The National Capital Transportation Amendment of 1979 (PL 96-184), also known as the Stark-Harris Act, authorized an additional $1.7 billion for Metrorail construction. WMATA has also obtained Federal funding under certain agreements to cover debt service on its original bond obligations. About $2.6 billion in Federal funds will have been provided by the time all the bonds have matured in 2015.

In the aggregate, when the 89.5 mile system is complete and the original WMATA bonds are retired, it is estimated that about $2.8 billion of local (and State) money will have been provided for Metrorail implementation, of which $1.3 billion will have been for bond interest and principal.

In addition to the capital contributions provided to WMATA by the Federal Government and the participating jurisdictions, WMATA's revenues consist primarily of farebox revenues from passengers and operating subsidy payments from UMTA under Section 9 (formerly Section 5) of the UMTA Act and the participating jurisdictions. In establishing its budget each year, WMATA makes an estimate of the revenues it expects to receive from operations of the system based on the current or projected fare schedule and ridership together with the amount of operating subsidy payments expected to be received from UMTA. The balance of WMATA's budget is provided through operating subsidy payments from the participating jurisdictions. Operating subsidy payments received from both UMTA and the participating jurisdictions are reflected in the accompanying financial statements as jurisdictional operating subsidies.

Funding of these subsidy payments is authorized by the participating jurisdictions through their budgeting processes. Any subsequent funding requirements in excess of the initially budgeted estimate are due two years thereafter.

Budgeted or appropriated funding of Federal and jurisdictional assistance for the fiscal year ended June 30, 1987 is summarized as follows ($000's):

	Debt Service	Operations	Construction	Capital Improvement Program	Total
Jurisdictional Operating Assistance	$27,484	$201,949	--	--	$229,433
Jurisdictional Capital Contributions	--	--	$31,280	$7,450	38,730
Internally Generated Funds	--	--	19,000	1,400	20,400
Federal Assistance	51,664	18,500	201,120	29,780	300,944
Total	$79,148	$220,449	$251,400	$38,630	$589,507

Sources and Uses of Funds:

WMATA's approved 1987 budget indicates that the major sources of revenue for operation of the system are passenger fares (42%) and operating assistance from the local jurisdictions (41%). Federal operating support makes up only 4% of WMATA's source of funding. Other system revenues make up the balance.

The largest percentage of WMATA's revenues is spent on wages and salaries (55%). Fringe benefits make up an additional 17% of the annual operating costs.

Member Jurisdictions

The member jurisdictions of WMATA are:

- Washington, D.C.
- Maryland

  Three major parties play significant funding roles in Maryland: the State of Maryland Department of Transportation, Montgomery County, and Prince George's County. A fourth entity, the Washington Suburban Transit District, has been formed to represent the Maryland jurisdictions in all dealings with WMATA.

- Virginia

  Funding contributors in Virginia are the Commonwealth, Arlington County, Fairfax County and the Cities of Alexandria, Fairfax and Falls Church (1). The Northern Virginia Transportation Commission ("NVTC") coordinates dealings between these jurisdictions and WMATA.

With the exception of the State of Maryland Department of Transportation and the NVTC, all of the above jurisdictions are signatories to the capital contributions agreements ("the Compact"). Table 2 lists the member jurisdictions, their pledged sources of revenue for the WMATA program, the authorization under which these funds are pledged and their FY 1986 contribution.

Current Funding Arrangement

The current funding arrangement is structured as a partnership between the Federal Government and WMATA, and, in turn, between WMATA and its member jurisdictions. In addition, State aid is provided to all member jurisdictions, except for Washington, D.C., through separate funding relationships. See Table 3 for a summary of contributions to WMATA by jurisdiction (1980–1985).

Funding relationships vary depending upon the type of cost incurred. Costs are incurred in the following areas:

- debt service on outstanding WMATA revenue bonds;
- new rail construction;
- rail and bus operating support; and
- rail and bus replacement and rehabilitation.

---

(1) For purposes of this study, we have not provided detailed information about Fairfax City or Falls Church, due to the relatively small contribution made to WMATA by each.

Table 2

Sources of Dedicated Revenues, Authorization, and Estimated FY 86 Contribution of WMATA Member Jurisdictions

Jurisdiction	Sources of Revenue (1)	Authorization	FY 86 Amount ($ millions) (2)
District of Columbia	° Selected parking and traffic taxes fees and civil penalties ° Proceeds from Section 3 of Title 10 of the DC Revenue Act of '37. ° Section 6 of DC Traffic Act of '25.	° Earmarked Funds (Legislative)	$118.260
Maryland			
Washington Suburban Transit District ("WSTD" umbrella for all Maryland jurisdictions)	° Potential taxing authority to levy taxes in Prince George's and Montgomery Counties, as yet unused due to sufficient contribution by Counties and State.	° Legislative	
State of Maryland (Maryland DOT)	° The Maryland Transportation Trust Fund: – highway user revenues (fuel taxes title fees, etc.); – a new gasoline tax effective in Fiscal Year 1983; – transportation revenue sharing (set-asides from the titling tax and corporate income tax); – operating revenues from component agencies (including the State Mass Transit Administration); and – bond sales for capital expenditures.	° Earmarked Funds (Legislative) ° Pays: – 75% of the WSTD share of the WMATA operating deficit; – 75% of the WSTD share of the WMATA debt service; – 100% of current WSTD capital obligations; and 75% of WSTD – rehabilitation and replacement obligations.	$67.434
Montgomery County	° "Special Mass Transit Facilities Tax" enacted in 1967.	° Earmarked Funds (Legislative)	$10.038
Prince George's County	° Through 1982, annual appropriations from County's general fund; now supported by revenues diverted from State of Maryland revenue sharing programs.	° Appropriated	$7.883

(1) All jurisdictions use UMTA formula-allocated Section 9 funds for meeting WMATA obligations.
(2) Source: Federal City Council Study, February 1986.

Table 2, continued

Jurisdiction	Sources of Revenue (1)	Authorization	FY 86 Amount ($ millions) (2)
Virginia			
State of Virginia	° 2% fuel surtax levied in Northern Virginia. ° Bi-annual appropriations to Northern Virginia Jurisdictions.	° Earmarked Funds (Legislative) ° Appropriated	$30.920
Alexandria (3)	° Annual appropriation from General Fund.	° Contract subject to annual appropriation. ° Ordinance stating intent to fund obligation on an annual basis.	$7.551
Arlington (3) County	° Annual appropriation from General Fund.	° Contract subject to annual appropriation. ° Ordinance stating intent to fund obligation on an annual basis.	$10.088
Fairfax County (3)	° Annual appropriation from General Fund.	° Contract subject to annual appropriation. ° Ordinance stating intent to fund obligation on an annual basis.	$22.546

(1) All jurisdictions use UMTA formula-allocated Section 9 funds for meeting WMATA obligations.
(2) Source: Federal City Council Study, February 1986.
(3) By virtue of the limited authority granted to local jurisdictions under the Virginia Constitution and consequent Commonwealth of Virginia law, local jurisdictions are limited to appropriating funds on an annual basis through the budget process.

Table 3

Contribution to WMATA by Jurisdiction (1)
1981 - 1985
($000's)

	1981	1982	1983	1984	1985
Washington, D.C.	53,015	67,148	85,843	87,340	90,611
WSTC (Maryland)					
Maryland DOT (2)	47,708	38,021	41,578	40,383	45,308
Montgomery County	5,131	5,179	5,287	8,053	8,973
Prince George's County	4,692	6,374	6,545	7,413	6,691
WSTD Subtotal	57,531	50,574	53,410	55,849	60,972
NVTC (Virginia)					
NVTC (3)	22,887	36,509	37,822	32,000	35,000
Alexandria	5,927	4,977	6,007	5,185	5,308
Arlington County	9,787	8,137	9,233	9,554	7,497
Fairfax County	16,282	14,731	12,557	17,973	16,762
NVTC Subtotal (4)	54,883	64,354	65,619	64,712	64,567
Total Contributions from Member Jurisdictions	165,429	182,076	204,872	207,901	216,150

(1) Source: "Transit in the Nation's Capital: What Lies Ahead?," Federal City Council, February 1986, unless otherwise footnoted.
(2) Source: Maryland Department of Transportation.
(3) Source: NVTC. Total for 1981 does not include debt service on WMATA revenue bonds.
(4) Does not include Fairfax City and Falls Church contribution from non-NVTC sources.

Debt Service on Outstanding WMATA Revenue Bonds

The WMATA bonds consist of five distinct series and were issued over four separate years. Approximately $997 million in 40-year bonds were marketed and backed by a 100% Federal guarantee. Of the $997 million in bonds sold, $763.4 million were applied to the rail construction program. The balance of funds was utilized for capitalized interest on the bonds. Under PL 96-184, the Federal Government provides for two-thirds of the annual interest payments and debt service, equal to approximately $51.7 million of the $78 million due and payable per year. In addition, the Federal Government agreed to provide additional assistance in meeting debt service payments between July 1, 1979 through July 1, 1982. The cost of these "advances," including accrued interest, was allocated to the local jurisdictions by WMATA. When WMATA begins retiring the bond issue in 2012, the Federal Government is to contribute additional amounts necessary to cover two-thirds of the debt principal retirement ($665 million of the $997 million due between 2012 and 2015). Upon their retirement in 2015, a total of about $2.6 billion in Federal funds will have been expended for bond principal and interest payments.

The one-third portion of debt service that is not paid by the Federal Government is allocated to the member jurisdictions according to the rail capital formula using data developed for the Proposed Financial Plan, August 1978. Seventy-five percent of the debt service cost allocated to Maryland jurisdictions on WMATA Revenue Bonds is paid by the State of Maryland. In Virginia, the Commonwealth provides assistance to the member jurisdictions through the NVTC, which pays debt service on the WMATA Revenue Bonds as a first priority out of available money. Washington, D.C. pays for its share without any state aid. (See Table 4 for a presentation of these funding relationships).

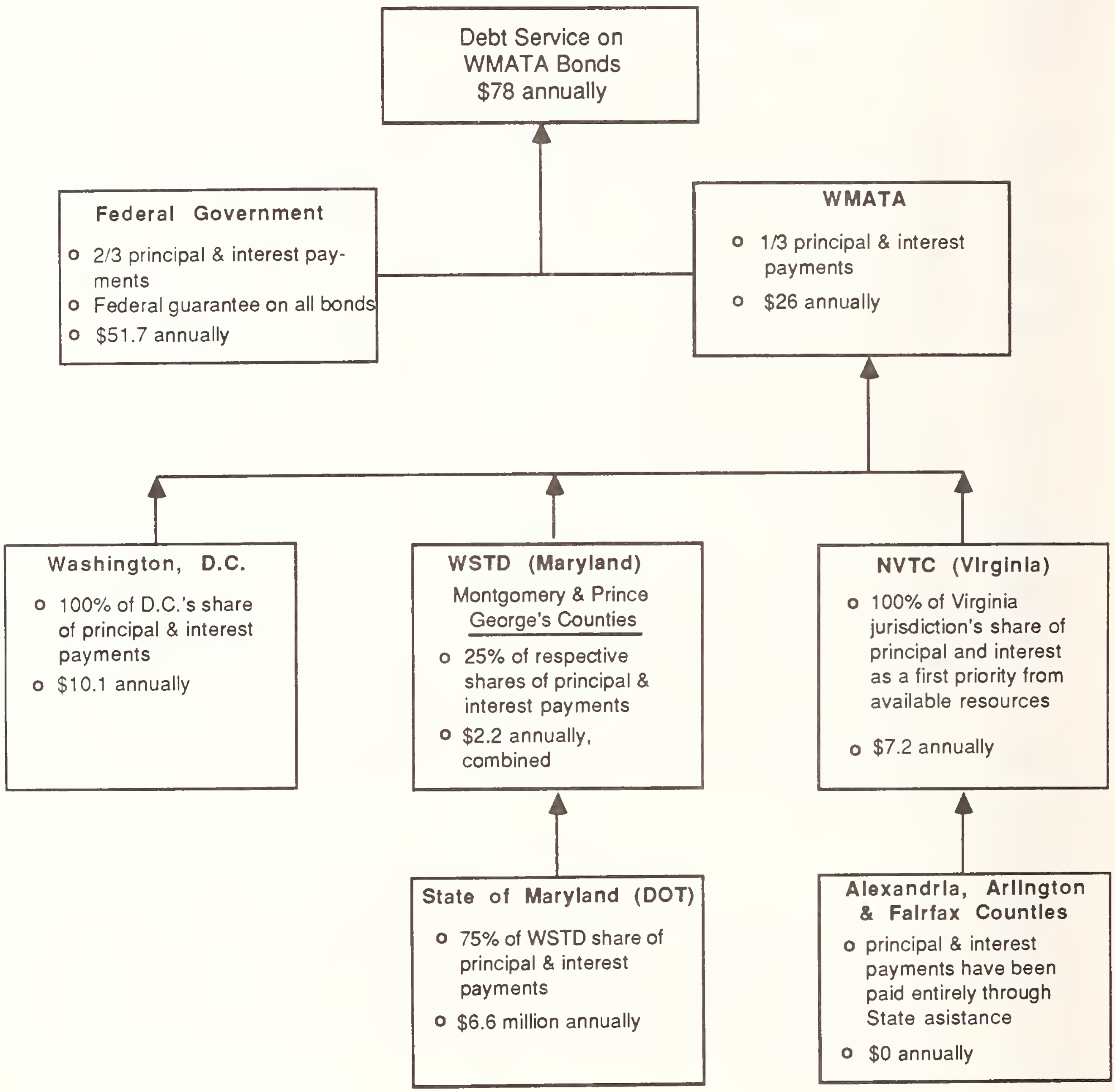
New Rail Construction

Under PL 96-184, the Federal Government authorizes up to $1.7 billion of funds for Metrorail construction which has been matched by 20% contributions from the member jurisdictions. As of January 1, 1987, approximately $542 million of the PL 96-184 funds are remaining. These funds will provide for completion of approximately 89.5 miles of the planned 103-mile system.

Table 4

WMATA FUNDING RELATIONSHIP

Estimated Debt Service on WMATA Revenue Bonds
($ in millions)



Source for funding levels: WMATA staff.

The twenty percent matching share is allocated to member jurisdictions through ICCA-IV which sets forth the construction schedule agreed upon by the member jurisdictions. ICCA-IV and its supplement establishes the maximum amount payable per jurisdiction for FYs 1986-1989. In the case of the Maryland jurisdictions, 100% of the Metrorail capital cost allocable to the Maryland member jurisdictions is paid through the WSTD by the Maryland Department of Transportation. In Virginia, State aid remaining after payment of WMATA debt service is distributed by formula to the jurisdictions. The Virginia local jurisdictions must make up the balance out of general fund revenues. Washington, D.C. pays its share of new rail construction out of its earmarked funds. See Table 5 for an illustration of the funding relationship between member jurisdictions for rail construction.

Rail and Bus Operating Support

Rail operating support is calculated by taking the difference between rail operating costs and rail revenues. Farebox recovery is high for the system, at over 70%. The net operating cost is allocated among member jurisdictions by a formula adopted by the WMATA Board that gives equal weight to: (i) rail system supply which is based upon the number of stations in each jurisdiction; (ii) ridership by jurisdiction of residence; and (iii) population density (based upon the 1980 census). The FCC Study estimates that rail operating support will nearly double between 1986 and 2000 in constant 1986 dollars.

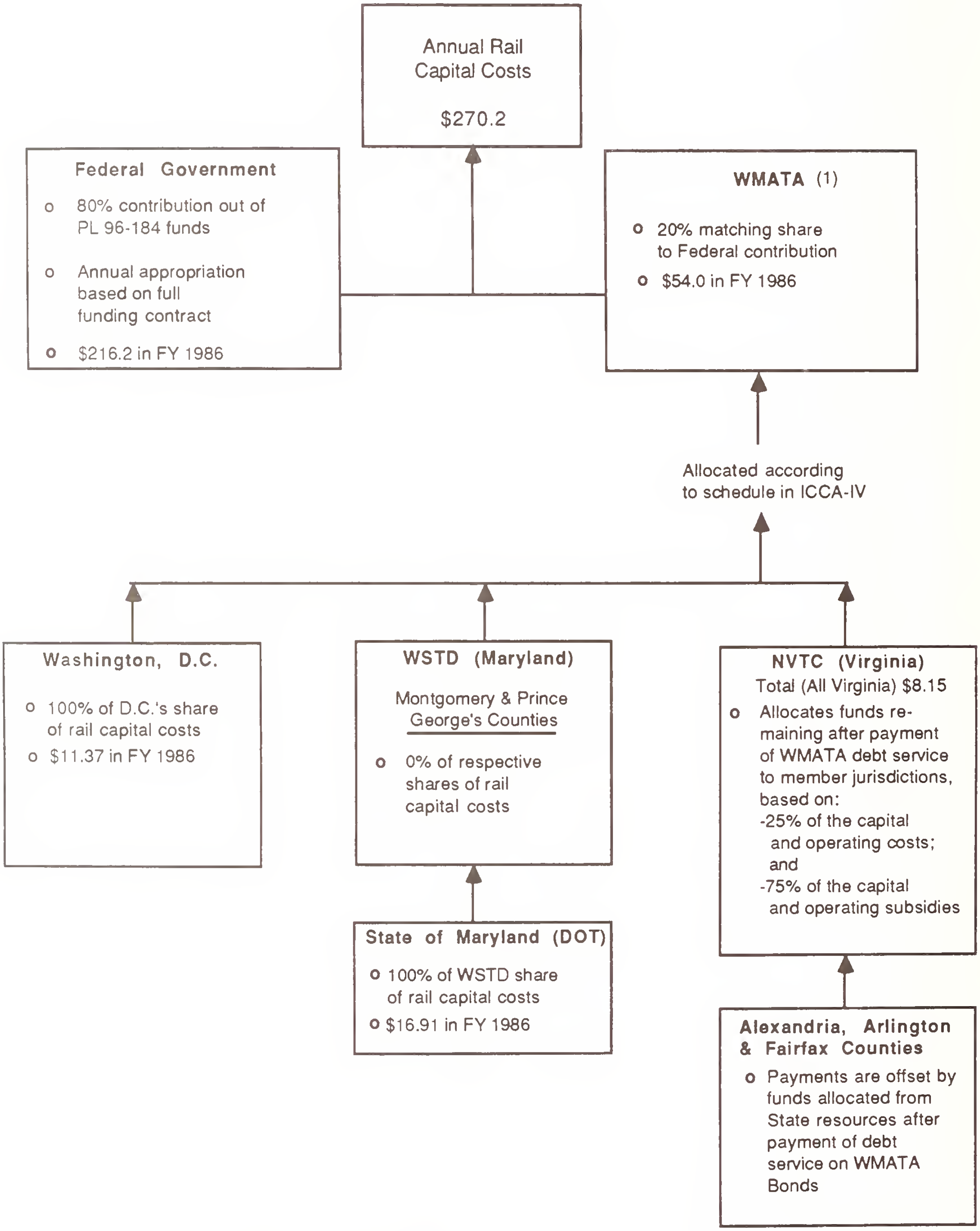
Bus operating support is computed by taking the difference between bus operating costs and bus revenues, allocated separately by jurisdiction. Variable bus costs are allocated on the basis of bus-miles and bus-hours of service within a given jurisdiction and fixed costs are allocated on the basis of 1975 peak period buses. The cost recovery ratio for bus operations was approximately 38% in 1986, according to the FCC Study.

The Federal Government gives limited operating assistance to WMATA through their Section 9 program. Section 9 funds are formula-allocated, based upon population, population density and level of transit service. WMATA is receiving approximately $18 million per year from this source. However, this funding source has been cut back each year and would be phased out entirely by 1987 in the FCC Study's unfavorable Federal funding scenario.

Table 5

WMATA FUNDING RELATIONSHIP

New Rail Construction Under PL 96-184
and Funding Levels for FY 1986
($ in millions)



(1) Includes internally generated funds of $17.6 million.

Source for funding levels: WMATA staff.

Washington, D.C. pays for operating support out of its earmarked funds. In Maryland, seventy-five percent of the operating support allocated to its member jurisdictions is paid by the State DOT, subject to a farebox recovery rate of 50% or higher, with the remaining 25% supplied by Montgomery County and Prince George's County.

Virginia jurisdictions may use funds allocated through the NVTC or, to the extent those funds are insufficient or are being used to support rail construction, may use general fund revenues to pay operating support. See Table 6 for an illustration of funding relationships between member jurisdictions for operating support.

Rail and Bus Replacement and Rehabilitation

WMATA has an ongoing bus and rail capital improvement program of about $50 million a year. This is 80% funded out of UMTA Section 9 grants with the remaining 20% funded by the member jurisdictions.

The Federal City Council Study initiated a long term view of rail and bus replacement and rehabilitation costs. Up until that time, no firm estimates beyond five years had been developed. WMATA is developing a long-term replacement and rehabilitation plan based on the results of the FCC study. One issue being considered is the allocation of costs among member jurisdictions.

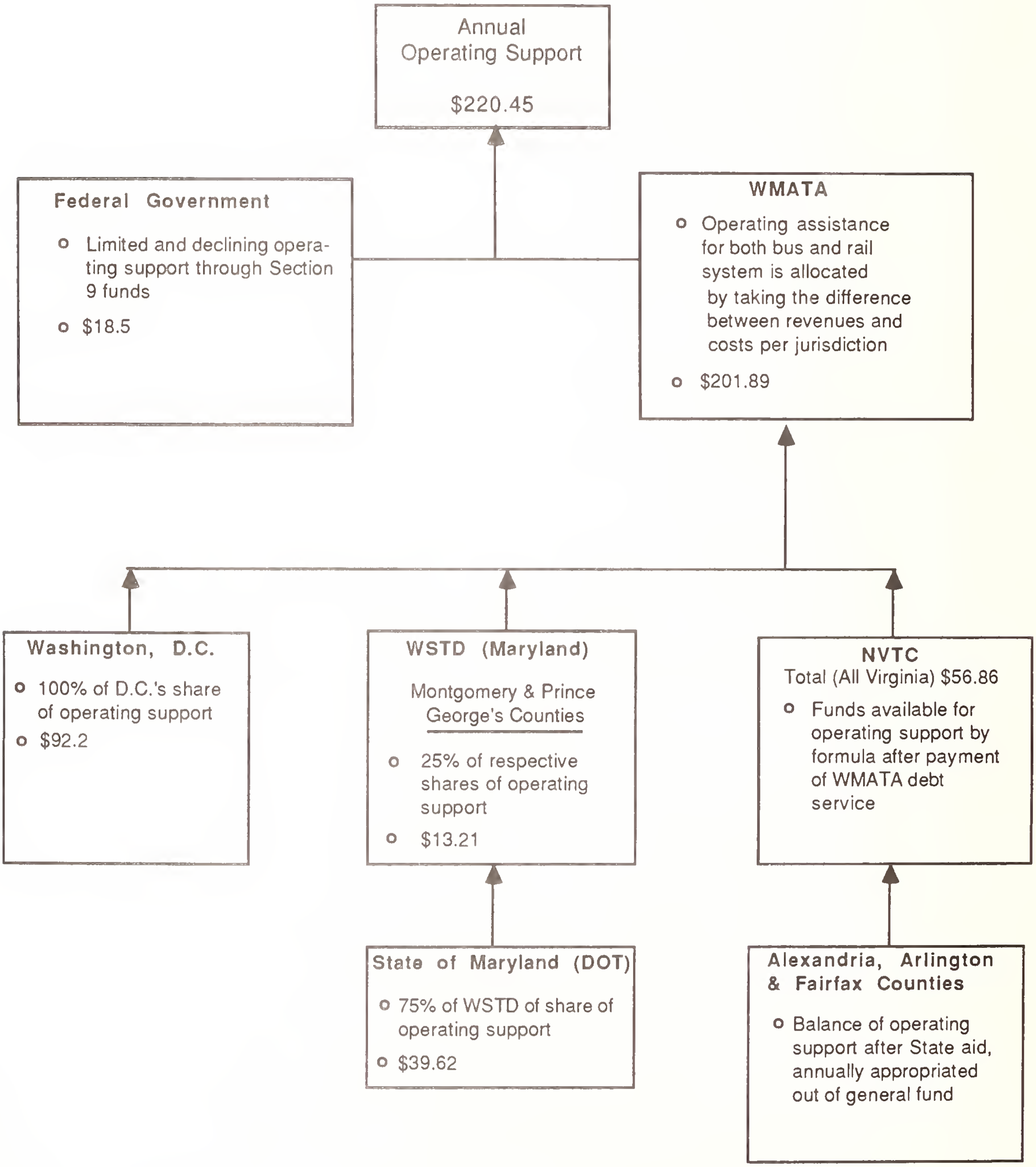
Limited Federal support for rehabilitation and replacement costs would be available through the proposed Formula Transit Grant program. Washington, D.C. will be responsible for paying for its portion of this cost from earmarked revenues. Maryland jurisdictions receive 75% of their allocated rehabilitation and replacement costs from the State of Maryland. Virginia jurisdictions will be able to use State funds allocated for capital costs through the NVTC or will use general fund revenues.

Table 6

WMATA FUNDING RELATIONSHIP

Operating Support for WMATA and Budgeted Funding Levels for FY 1987

($ in millions)



Source for budgeted funding levels: WMATA staff.

Sources of Revenue for the WMATA System

PL 96–184 required that the local participating governments or signatories to the Compact provide a stable and reliable source of revenue sufficient to meet both their payment of one-third of the debt service on the outstanding WMATA revenue bonds and their respective shares of operating and maintenance costs of the system. In response to this requirement, each jurisdiction involved in the Compact submitted information to the Federal Department of Transportation ("DOT") about its sources of revenue for the WMATA system. The DOT certified that these sources constituted a stable and reliable funding source. The diversity of sources of revenue identified by the member jurisdictions is a testament to the number of state, county and city governments involved in the Compact.

Washington, D.C.

The District of Columbia has designated certain revenues for deposit into the Metrorail/Metrobus account. They are: (i) Section 9 UMTA funds (formerly Section 5 funds) for operating expenses; (ii) sales taxes on parking lot fees, on hotel and restaurant bills, and on vehicle rentals, and (iii) certain taxes on vehicle-related activities such as the purchase of gasoline, traffic violations, vehicle registration fees, title certificates and transfer of title. Funds in the special Metrorail/Metrobus account can only be expended by annual appropriation which is dependent upon the passage of an annual budget. In the District, the budget must be submitted by the Mayor, approved by the District City Council, and transmitted to the Congress. Therefore, while the District does have a dedicated source of revenue in a special fund, its use is dependent upon approval by the Mayor, the City Council and the Congress.

Maryland

The 1980 session and subsequent sessions of the Maryland General Assembly provide that the State's Transportation Trust Fund be available to pay costs associated with the WMATA system. The Trust Fund is made up of:

- all of the motor vehicle fuel tax;
- all fees from oversize and overweight permits;
- all revenues of the Motor Vehicle Administration, including:
    - a) the vehicle titling tax,
    - b) vehicle registration fees,
    - c) driver's license fees, and
    - d) vehicle titling fees;

- one percent of the excise tax on motor vehicles; and
- two and three-quarter percent of the corporate income tax.

These funds are available after payment of debt service on bonds secured by the Trust Fund.

Montgomery County, Maryland

Montgomery County created a special fund in 1972 to finance and operate transit facilities. Proceeds from a tax on all assessable property in the County finance the fund and the proceeds are used to pay that portion of Montgomery County's operating subsidy and WMATA bond retirement payments not contributed by the State of Maryland. The tax was 20.5¢ per one hundred dollars of assessed value. In addition to providing for WMATA payments, proceeds from that tax are used for the locally provided transit system, Ride-On. The County has also issued general obligation bonds for mass transit purposes.

Prince George's County, Maryland

Prince George's County annually appropriates money from its general fund to the Mass Transit Special Revenue Fund to finance the County's share of WMATA costs. On July 20, 1982, the County further pledged to use its State of Maryland 12H funds to meet any deficits should revenues from other sources fail to meet expected requirements. Prince George's County may also issue bonds to fund mass transit projects.

Virginia

Since 1980, Virginia has provided for funds to support WMATA from three sources: (i) a 2% sales tax on gasoline sold within the member jurisdictions which generates between $8–10 million annually; (ii) $20–25 million in annual appropriations from Statewide gas tax revenues; and (iii) Federal funds available under Section 9, which were approximately $4.8 million in 1986.

In light of increased needs to improve Virginia's highway, ports and mass transit systems, the General Assembly of Virginia enacted new legislation during Fall 1986 which increased a number of different taxes to yield an estimated $421.7 million annually, statewide (See "NVTC" herein for a list of these tax increases). Revenues generated by the tax increases will be deposited into the Transportation Trust Fund to be used for transportation purposes. The legislation mandates that 8.4% of the revenues generated as a result of these tax increases be used for mass transit, increasing the statewide total for transit by over $35 million to approximately $70 million. The NVTC share of this $35 million increase is estimated to be approximately $24.8 million based upon the Virginia Department of Transportation ("VDT") allocation process which was included in the new legislation.

The VDT allocation formula works as follows:

- Up to 1–1/2 percent of the available funds is reserved for ridesharing, experimental and technical projects;

- At least 73.5% is allocated among transit properties in the same proportion that each property's operating expense (net of fares and Federal assistance) bears to statewide transit operating expenses. State funds can be used to pay up to 95% of eligible fuel, tire and maintenance costs and 50% of administrative costs for each property;

- The remaining 25% is reserved for capital. If not enough funds are available to cover up to 95 percent of the non–Federal share of the cost of capital, for all properties, then the funds will be prorated based on each property's share of total capital needs. Capital costs may include debt service on local or agency bonds.

In addition to the $24.8 million of new appropriations described above, the application of this formula to existing appropriations is expected to yield NVTC an additional $2.3 million over the $22.7 million previously appropriated.

NVTC's internal allocation formula, by which it distributes funds to its member jurisdictions, was also included in the State legislation as follows:

- Local payments of WMATA rail transit bonds are paid first and apportioned to each locality using the WMATA capital formula;

- The remaining funds are apportioned by calculating 25% of the capital and operating costs and 75% of the capital and operating subsidies applied to each locality. Capital costs may include 20% of annual local bus capital expenses.

Funds for WMATA are paid by the NVTC to WMATA and are credited to the five NVTC member jurisdictions. In recent years, approximately 85% of the NVTC contribution has been used for operating support and 15% for capital costs.

In addition to these tax increases, a new Commonwealth Mass Transit Fund was created as a part of the Transportation Fund. Interest on the Mass Transit Fund will be credited to that fund and the principal of the Fund will remain intact at the end of each year rather than reverting to the State's general fund. The legislation states that appropriations from the Mass Transit Fund are intended to provide a stable and reliable source of revenue as defined by PL 96-184.

Arlington and Fairfax Counties and Alexandria, Falls Church and Fairfax Cities, Virginia

Section 15.1–37.3:5 of the Virginia Code provides that "The governing body of any county, city or town may, within the limits permitted by the Constitution, designate any of its continuing sources of revenue, or portions thereof, as a stable and reliable source of revenue to pay its mass transit operating and debt service expenses to the extent that such designation is required by the United States as a prerequisite pursuant to Public Law 96–184 to the provision of funds for mass transit construction and debt service which benefits any such county, city or town." However, this code section could not give the Counties and Cities authority to contract a debt which is otherwise not within the Counties' and Cities' power. Thus, a county or city in Virginia cannot obligate itself to pay for a fixed proportion of a future deficit of WMATA if it cannot be paid out of current revenues or if there has not been a referendum authorizing the obligation. (Fairfax County v. County Executive, 210 Va. 253 (1969)).

Based upon the foregoing analysis of the law, these jurisdictions have concluded that while they cannot commit themselves either by legislation or contract to pay for the transit subsidy or debt service beyond a current year where revenues are available, they can by ordinance designate the stable and reliable revenue sources from which appropriations for WMATA may be derived. Accordingly, each of these jurisdictions has adopted an ordinance designating the general revenue as the source of funds to contribute to the expense of WMATA on an annual basis as agreed to by written contract with WMATA and has directed its chief administrative officers to continue close coordination with WMATA to insure that the jurisdiction's contribution be included in the annual budget submissions.

Virginia local jurisdictions always have made their contributions in the amounts agreed to with WMATA, generally pursuant to formal written contracts with WMATA.

WASHINGTON, D.C.

General Obligation Credit Rating:

Moody's: Baa Standard & Poor's: A

Credit Commentary: (1)

"The District's economy is dominated by the Federal Government and related institutions, although service industries, tourism and education facilities are also important. While a relatively large proportion of the District population is below the poverty level, recent revitalization of sections of the District are apparent, demonstrated by strong average annual growth of taxable values over the decade.

Recent passage of the Gramm-Rudman-Hollings Budget Act poses serious though uncertain affects on the District finances, particularly in view of the lack of a formula-based Federal payment. Federal revenues are the second largest revenue source, comprising about 34% of General Fund revenues. Prior to 1975 and enactment of the Home-Rule Act granting the District greater autonomy, control of District affairs rested with the Federal Government.

Having now operated under home-rule for ten years, improvements are noted. Concerns about the District's financial problems through the 1970s have been mitigated by a strong economic climate and improved finances. Evidence of improvement is manifested in declines in the substantial accumulated deficit inherited from the Federal Government, greater management control, and establishment of GAAP [Generally Accepted Accounting Principles] balanced financial statements. Since 1980 the extent of the District's financial imbalance has been subject to closer scrutiny through the independent audit process and GAAP financial statements to more fully disclose the extent of the District's revenue and expenditure condition. District officials have demonstrated a strong commitment to budget balance which for fiscal year 1985 resulted in the fifth consecutive excess of revenues over expenditures on a GAAP basis, following a long period of financial imbalance. Audited financial operations for fiscal year 1985 show a modest $24.9 million excess of revenues over expenditures, further reducing the accumulated deficit under GAAP from a peak of $388 million in 1980 to $244.9 million deficit at September 30, 1985.

Among the more prominent concerns affecting long-term credit quality are the substantial accumulated Pension Fund liabilities, which at the close of fiscal 1985 are estimated at $3.19 billion. The need for increased financial commitment to stabilize unfunded pension liabilities is likely to exert pressures on District finances. Additionally, other areas likely to exert pressures on the District in future years include social service and public safety requirements, control of the education budget, and debt service responsibilities associated with significant future borrowing plans."

Moody's Investors Service

Mass Transit Service: (2)

All five lines of Metrorail (the Red, Blue, Orange, Yellow, and Green Lines) run through the District and 29 stations are operational as of June 1986. All stations are completed in the District on 4 of the 5 lines; the Green line is not operational but segments from U Street to Anacostia are currently under construction. Metrobus operates throughout the District.

The District's Obligation to Metro: (3)

The District makes annual cash payments to WMATA for capital purposes. The District contributed $15.8 million in fiscal year 1986 and it will contribute $27 million in fiscal year 1987, as its share of the capital outlays.

To finance construction, WMATA issued $997 million of revenue bonds which were guaranteed by the Federal Government. Pursuant to a contractual obligation with the United States DOT, the District's estimated share of WMATA's debt service on those revenue bonds is $125 million, which required a payment of $10.1 million in FY 1985, and will require payments of between $10.3 million and $13 million annually from FY 1987 through FY 2014.

For its fiscal year ended June 30, 1986, WMATA's operating expenses (excluding depreciation) exceeded operating revenues by $199.6 million. The District's share of those operating costs was $96.4 million in FY 1986. In addition, the District received a Federal grant of $7.0 million in FY 1986 which was also used to finance part of the operating losses. The District's share of WMATA's operating costs, and the Federal grant assistance for 1987 are $98.5 million, and $6.2 million, respectively. The District's share of WMATA's annual debt service and operating loss is reported as a current expenditure for transportation services in the General Fund.

The District's share of the total operating subsidies for WMATA is expected to decrease over time as major suburban segments of the system are brought on-line. Currently, the deficit is allocated to participating jurisdictions based upon population, number of stations and ridership, in equal shares. As new stations open outside of the District and as suburban ridership increases, the District's relative costs should decrease. Consequently, the District of Columbia Budget Office projects that the WMATA contribution for operating assistance will be a stable or declining percentage of the District's total operating budget through the balance of the century. In contrast, the FCC Study projects that District operating support will increase by between 25-30%, depending upon levels of Federal funding support, by the end of the century.

Revenues Designated for WMATA Support: (4)

The revenues allocated by the District to the WMATA are sales taxes on motor fuel, parking fees, hotel rooms and restaurant meals; traffic fines; and, Federal grants for operating expenses of WMATA.

The District pays WMATA for taking public school students to and from school or school-related activities by bus or rail. The payments are recorded by the District as current expenditures in the General Fund.

WMATA Commitment: (5)

The following numbers reflect total WMATA Transit Assistance (including debt service) net of Federal aid ($000's):

1980	1981	1982	1983	1984	1985
45,848	53,015	67,148	85,843	87,340	90,611

General Economic Situation: (6)

While the District of Columbia is primarily known as the Nation's Capital, it is also an international city, a tourism and cultural center and the central city of the seventh largest metropolitan area in the country. The District covers 69 square miles and had a 1980 population of 638,333, larger than that of four states. The metropolitan area population of 3.37 million encompasses 15 additional jurisdictions in Maryland and Virginia. In 1980, the District had the second highest per capita income of cities over 500,000 in population and the metropolitan area ranked first among metropolitan areas.

As the Nation's Capital, the District of Columbia is the seat of the three branches of the Federal government and headquarters for most Federal departments and agencies. The Federal workforce in the District was 211,500 employees in 1985, while an additional 147,500 Federal employees worked elsewhere in the metropolitan area.

In addition to its role as the Nation's Capital, the District of Columbia is host to 150 foreign embassies and missions, with more than 10,000 employees.

In 1985, over 12 million domestic visitors and one million foreign visitors made overnight visits to the District of Columbia. An additional 5 million visitors came for day trips. Those visitors provided $1 billion in revenue to the hospitality industry and supported 31,000 jobs.

Total employment in the metropolitan area was 1,907,000 in 1985, an increase of 55.4% since 1970. (These numbers exclude self-employed, domestic workers, military and foreign government personnel. As such, the numbers exclude significant portions of the actual employed workforce in the area). District employment in 1985 was 629,000, 33% of the area total. While 82% of District of Columbia residents work within the District, 63% of all jobs within the District are held by non-residents.

Government jobs provided 42% of employment in the District in 1985, and 24% in the metropolitan area. Unemployment in the District was 8.0% in 1985, compared to 4.2% for the metropolitan area and 7.4% for the United States.

Per capita personal income in the District was $17,909 in 1985, compared to $13,451 for the United States. The relatively high per capita and household incomes in the District result from a combination of factors, including a high labor force participation rate, multiple earner households, small household size (2.4 persons), a large percentage of college graduates and a substantial concentration of employed residents in highly-skilled positions.

Tax Rate History
Collections, Tax Base: (7)

The District of Columbia has experienced substantial growth in assessed valuation of real property, from $9.1 billion in 1978 to $27.6 billion in 1987, a compound annual rate of increase of 13.1%. Non-residential property has increased in value from $3.2 billion in 1977 to $12.2 billion in 1986. Significant new construction of hotels and office buildings is occurring, with the District adding three million square feet downtown per year in 1983, 1984 and 1985. A major redevelopment project along Pennsylvania Avenue, including office buildings, hotels and residential areas, is being developed by a Federal agency, the Pennsylvania Avenue Development Corporation. The District of Columbia currently ranks third, after New York and Chicago, in square footage of downtown office space. Office building vacancies, despite the rapid expansion, remain below the national average.

The District has established four classes of real property for taxation purposes, ranging from residential class one property taxes at $1.22 per $100 assessed value in 1986 to class four commercial and industrial properties taxed at $2.03 per $100 assessed value in 1986. These tax rates include the "special real property tax rate" established for the 1986 tax year to pay principal and interest on outstanding parity General Obligation Bonds of the District. Revenues generated by the special real property tax rate are held in trust for the benefit of the holder of the outstanding bonds and made up $.1585 for class one to $.2638 for class four properties per $100 assessed value in 1986. These special tax rate figures are expected to double for the 1987 tax year. In tax years 1981 through 1985, the District realized a 97.8% average collection rate of the current real property tax and a 99.4% rate of total collections. Real property tax collections have increased at a compound annual rate of 12.4% from tax year 1978 to 1986.

Assessed valuation of taxable real property increased 79.1% from 1981 to 1986. Tax-exempt assessed valuation increased 68.5% over the same five year time period. The real property tax levy increased 70.4% from 1981 to 1985.

Property Tax Data
($000's)

Tax Year(1)	Taxable Real Property Assessed Valuation (2)	Tax-Exempt Real Property Assessed Valuation	Real Property Tax Levy
1981	$13,965,000	$13,407,000	$230,367
1982	18,000,000	14,954,000	281,137
1983	20,094,000	20,062,000	334,667
1984	20,724,100	20,531,000	346,839
1985	23,446,200	22,152,700	392,635
1986	25,007,000	22,585,000	416,389 (3)
1987	27,617,700	23,131,600	

(1) Tax year is from July 1 to June 30.
(2) Real property is required to be assessed at the estimated full market value of the property.
(3) District of Columbia, Comprehensive Annual Financial Report, Year Ended September 30, 1986.

Ten Highest Assessed Values For Commercial Properties

Year Ended June 30, 1986

Building	Total
National Place	$166,948,000
International Square	147,961,000
Washington Square	123,303,000
Washington Sheraton Corp.	112,875,000
1300 New York Ave., N.W.	102,289,000
Watergate	97,602,900
Federal Plaza	94,631,000
L'Enfant Plaza	93,232,414
Metropolitan Square	90,231,000
1801 K Street, N.W.	88,837,000
Total	$1,117,910,314
As % of Total Assessed Value	4.5%

Ten Highest Market Values For Tax-Exempt Properties

June 30, 1986

Property (1)	Value
George Washington University and Medical Center	$ 375,061,700
Howard University and Hospital	269,577,528
Georgetown University and Hospital	191,308,699
Washington Hospital Center	186,915,218
International Monetary Fund	151,055,000
National Geographic Society	102,513,000
Catholic University of America	101,958,488
National Cathedral	96,470,590
American University	80,352,030
Organization of American States	71,339,600
Total	$1,626,551,853

(1) Excludes Federal Government property. Market Value was calculated based on assessed value for the property tax year ended June 30.

Tax Rate Restrictions: (8)

The real property tax of the District of Columbia is levied by PL 93-407, D.C. Code §47-811. The special real property tax pledged to the payment of the bonds is authorized by the Home Rule Act and is levied by the Bond Act. The special real property tax rate has been established in the same manner as that for the real property tax and the taxes will be collected at the same time. The tax rates for real property taxes, including the special real property tax, are applied to each of four classes of real property and are established each year by an act of the Council, after receiving a recommendation from the Mayor on or before June 15. By July 15 of each year, the Council, after public hearing, is required to establish the real property tax rate. If the Council does not enact the rates within the time limit provided by law, or by resolution extend the time limit, (i) real property tax rates go into effect as calculated by the Mayor, pursuant to a statutory formula, to yield the same amount of revenue as was raised in the preceding tax year, plus an additional amount of revenue based on inflation and new construction; and (ii) the special real property tax rate will go into effect as calculated by the Mayor to yield (net of loss in collection) principal and interest requirements on outstanding District bonds.

General Fund Revenues (Composition): (9)

The District's General Fund has a broad revenue base with approximately 58% from local taxes, 7% from fees, fines and miscellaneous sources, and 35% from the Federal Government, including the annual Federal payment in lieu of taxes, grants and revenue sharing. The largest revenue sources are income and franchise taxes, sales and use taxes, real and personal property taxes and the Federal payment in lieu of taxes and grants. The largest expenditures by purpose are human support services, public safety and public education.

All District taxes are revenues to the General Fund. Major taxes are as follows:

Real Property Tax is levied on all real property in the District not expressly exempted by Chapter 10 of Title 47 of the D.C. Code. It is imposed annually on July 1 on the basis of 100% of estimated market value, and is payable in two equal installments, on September 15 and March 31. There is no limitation in the Home Rule Act on the amount or rate of real property tax levies. Real property taxes accounted for approximately 16% of General Fund revenues in FY 1986.

Personal Property Tax is levied annually at the rate of $3.10 per $100 of assessed valuation on all tangible personal property used in a trade or business, except inventories. The personal property tax accounted for approximately 2% of General Fund revenues in FY 1986.

Individual Income Tax is applicable to all individual domiciliaries and residents of the District at rates from 2 to 11% of taxable income. The individual income tax accounted for approximately 16% of General Fund revenues in FY 1986.

Sales and Use Taxes are applicable to all tangible personal property sold or rented at retail, and to selected services in the District, with certain exceptions. The general rate is 6% but rates on certain items and services range from 6 to 12%. The sales and use taxes accounted for approximately 13% of General Fund revenues in FY 1986.

A Public Utility Tax is levied at the rate of 6.7% on the gross receipts of gas, electric and telephone companies in the District and accounted for approximately 3% of General Fund revenues in FY 1986.

Franchise Taxes are levied at the rate of 10% (plus a 5% surtax) on the taxable income from District sources of corporations (including financial institutions) and of unincorporated businesses with annual gross income above $12,000. Franchise taxes accounted for approximately 5% of General Fund revenues in FY 1986.

Miscellaneous Revenues are other local source revenues derived from a variety of fees for licenses and permits, charges for services, fines and forfeitures and from legalized gambling. These revenues accounted for approximately 15% of General Fund revenues in FY 1986.

Federal revenue constitutes the second major source of funding for General Fund operations. This source accounted for approximately 35% of total General Fund revenues in FY 1986. The two major components of Federal revenue are the Federal payment and Federal grants.

The Federal Payment - The Federal government has made annual contributions for local expenses during most of the District's existence. Such contributions which have come to be known as the Federal Payment, are based on the local impact of the Federal presence and the unusual role of the District as the nation's capital. The Federal Payment finances a significant portion of the District's annual General Fund revenues. Historically, the Federal Payment has fluctuated between a high of 35.3 percent of District revenues in FY 1977 to a low of 23.6 percent in FY 1986. The Federal Payment was $450 million in FY 1986. The President's Budget for the United States Government proposes an appropriation of $425 million as the Federal Payment for FY 1988.

Federal Grants - The District is eligible to receive numerous Federal grants, including revenue sharing, Medicaid, low-income housing, community development block grants and Section 8 housing subsidies, Aid to Families with Dependent Children, and various education grants. Total Federal grant revenues in FY 1986 of $479 million accounted for 16% of General Fund revenues. Grant expenditures and revenues are included in the financial statements of the General Fund, but are not included in the District's appropriated General Fund budget.

The District is required to have a balanced budget. However, on a GAAP basis the General Fund Deficit expressed as a percentage of revenues was 12.6% for FY 1984 ($279.4 million), 9.4% for FY 1985 ($244.9 million), and 7.9% for FY 1986 ($224.9 million).

Borrowing History (10):

Years	Total Net Debt (millions)	Estimated Population	Net Debt/ Capita	Taxable Property Assessed Value (millions)	Net Debt/ A.V. (1)	Per Capita Income	Per Capita Debt as % of Per Capita Income
1981	$1,573.8	632,000	$2,490	$13,965	11.27%	$14,104	17.65%
1982	1,690.0	626,000	2,700	18,000	9.39	14,995	18.01
1983	1,824.6	623,000	2,929	20,094	9.08	15,721	18.63
1984	1,907.9	623,000	3,062	20,724	9.21	16,955	18.06
1985	2,059.5	626,000	3,290	23,446	8.78	18,168	18.11
1986	2,224.0	626,000	3,553	25,007	8.89	18,545	19.16

(1) Assesed value for real property only.

Borrowing Restrictions: (11)

The District has reserved the right to issue bonds, notes or other obligations secured by its full faith and credit and/or by such other security as may be authorized by law.

The District may issue additional general obligation bonds as long as debt service in any fiscal year on all bonds and capital project loans from the United States Treasury would not exceed 14% of the District revenues (less certain fees and service charges) which the Mayor estimates and the District of Columbia Auditor certifies will be received in the fiscal year in which the General Obligation Bonds will be issued. In FY 1987, debt service is estimated at 8.99% of adjusted revenue.

Planned Future Capital Expenditures: (12)

The District of Columbia borrows annually on a long-term basis to meet its capital project financing requirements. Prior to FY 1985, such borrowing was accomplished through capital project loans from the United States Treasury. Since FY 1985, the District has met its capital project financing requirements through the sale of general obligation bonds.

($ in millions)

	From U.S. Treasury			From Bonds				
	1983	1984	1985	1986	1987	1988	1989	1990
Future Capital Financing Required Beginning of Year (1)	504.2	447.7	470.2	433.8	606.0	747.0	843.4	848.7
Total Capital Projected Borrowing During Year (2)	145.0	115.0	167.5	199.9	214.1	180.0	185.0	200.0
General Fund Subsidies	0.0	0.0	5.4	3.5	10.3	3.5	5.0	5.0
New Capital Projects Authorized (3)	88.5	137.5	136.4	375.6	365.4	279.9	195.3	201.0
Future Capital Project Financing Required - End of Year (1)	447.7	470.2	433.8	606.0	747.0	843.4	848.7	844.7

(1) Estimated cost of all active capital improvement projects (including design and provision for inflation for all years), less amounts previously funded. Excludes capital improvement projects funded through grants.

(2) Includes actual capital project loans for fiscal years 1982-1984, Parity Bonds issued during FY 1985 and the projected principal amount of future additional bonds for capital improvements, exclusive of capitalized interest and cost of issuance, for FY 1986-1990, based on current estimates. No refunding bonds are included.

(3) Includes estimated additional costs for previously approved projects.

The FY 1988 - FY 1993 capital plan anticipates $880,541,000 in needed new authority for the general fund and the Water and Sewer Enterprise Fund. Projects included in the plan include renovation of eight housing projects, continued general improvements at the level of approximately $8 million a year by the Public Schools, the removal of hazardous electrical equipment and asbestos by the Department of Public Works, continued construction of roads, bridges and other street improvements; the purchase and renovation of the Potomac Buildings, and the renovation of the District Building. The plan includes a large annual pay-as-you-go capital project at the Department of Public Works for the purchase of major equipment for snow removal, construction, or solid waste removal.

Planned Future Capital Expenditures
FY 1988 - FY 1993
($000's)

	1988	1989	1990	1991	1992	1993	Total
WMATA	**11,400**	**22,200**	**24,400**	**8,800**	**6,400**	**5,700**	**78,900**
Housing	27,672	11,106	21,800	19,300	13,200	16,300	109,378
Schools	10,000	8,134	8,129	8,122	8,420	8,000	50,805
Public Works	69,006	67,034	47,927	51,188	57,137	43,071	335,363
Other	91,946	26,795	24,015	23,953	25,365	25,221	217,295
General Fund Total	210,024	135,269	126,271	111,363	110,522	98,292	791,741
Enterprise Funds	7,150	11,000	18,250	12,000	11,150	32,250	91,800
Total New Capital Authority	217,174	146,269	144,521	123,363	121,672	130,542	880,541

The District significantly revised its capital spending program when preparing the FY 1988 - FY 1993 capital plan. The thrust of the new capital program addresses financing capability first; second, all current authority will be analyzed to determine what has been completed or is no longer needed and prioritized so that financing is allocated to the implementation of those projects of the highest priority. With these points in mind, recommendations for new authority are minimal, in that they are only for projects that have no current authority to enter into certain specific contracts, or for new needs, such as site purchases or asbestos abatement, that have not been addressed in prior project authority. A comparison of authority in the FY 1987-1992 plan with the FY 1988-1993 plan follows.

SUMMARY OF CAPITAL IMPROVEMENT PLAN CHANGES
FY 1987-1992 COMPARED TO FY 1988-1993
($000's)

Agency Name	FY 1987-1992 Plan	FY 1988-1993 Plan	Percentage Difference
WMATA	94,065	78,900	-16%
Housing	192,331	109,378	-43%
Schools	123,721	50,805	-59%
Public Works (1)	385,096	335,363	-13%
All other	388,888	217,295	- 44%
General Fund	1,184,191	791,741	-33%
Water Sewer Utility	152,070	90,300	-41%
Aqueduct	2,100	1,500	- 29%
Enterprise Fund	154,170	91,800	-40%
Total	1,338,361	880,541	-34%

(1) Includes Government Facilities, Transportation and Environmental Facilities.

An analysis of past appropriations for capital projects demonstrates that the largest capital program has been transportation projects at the Department of Public Works. The second largest appropriations over the years have gone to the Department of Housing and Community Development. These agencies are followed by the Washington Metropolitan Area Transit Authority and the Public Schools which have each received large appropriations over the past six years.

Sources:

(1) Moody's Municipal Credit Report, District of Columbia, June 24, 1986, p. 2.

(2) District of Columbia General Obligation Bonds, Series 1986D Official Statement dated December 1986, p. 22 and Status of 103-mile Metro System Map.

(3) Official Statement, p. 22-23.

(4) Official Statement, p. B-14.

(5) "Transit in the Nation's Capital: What Lies Ahead?," Federal City Council, February 1986, p. I-8.

(6) Official Statement, p. A-1.

(7) Official Statement, p. 8, 9, A-1, A-2, A-6, A-7 and District of Columbia, Comprehensive Annual Financial Report, Year Ended September 30, 1986.

(8) Official Statement, p. 7.

(9) Official Statement, p. 18-19, Moody's Credit Report, p. 7.

(10) Official Statement, p. A-3, A-10.
Washington, D.C. Budget Office Staff.

(11) Official Statement, p. 7.

(12) Official Statement, p. 9-10. Capital Improvement Program for Fiscal Years 1988-1993, p. 34-40.

STATE OF MARYLAND, DEPARTMENT OF TRANSPORTATION

Although the Maryland Department of Transportation (the "Department" or the "Maryland DOT") is not a signatory to the Compact, State law mandates that funds from the Transportation Trust Fund provide a substantial portion of payments due from Prince George's and Montgomery Counties. Because the Maryland DOT issues bonds secured by revenues of the Transportation Trust Fund, a review of credit data prepared for these issues is relevant.

Credit Ratings:

Moody's:	Standard & Poor's:
Consolidated Transportation Bonds: Aa (revised from A1 8/86)	Consolidated Transportation Bonds: AA

Credit Commentary:

"The Maryland Department of Transportation is responsible for highways, rapid transit and ports. Financial support is derived from the Maryland Transportation Trust Fund, a constitutionally-dedicated fund credited with all transportation-related taxes, user fees and federal grants. The department issues two types of debt, supported by highway user revenues: consolidated bonds which finance statewide improvements and are secured by the state share of highway user revenues, and county bonds which provide financing for counties and City of Baltimore road projects and are secured by the respective unit's allocation of highway user revenues.

All Department debt is well secured by pledged revenues which have expanded significantly in the last several years as a result of gas tax increases and adjustments to fees. Underlying trends in fuel consumption and vehicle usage have also improved notably from their previously stagnant pattern, due to the economic vibrancy of the state generally and to the Baltimore and Washington metropolitan areas in particular. Borrowing levels have remained fairly constant despite an enlarged capital program, and debt service coverage on consolidated bonds--by both pledged taxes and net revenues—has increased accordingly. Capital plans through 1991 call for only $440 million in consolidated bonds, including the current issue, to finance a $1.7 billion, non-federal highway program. County bonds are issued at the request of local units and generally sold in an annual package. Both types of debt are subject to a debt service coverage test of 2.0 times pledged revenues, and consolidated bonds are subject to additional restrictions on the aggregate amount outstanding of $950 million, and debt service coverage by net revenues of 2.0 times. The Department has loaned $100 million to the state General Fund; it will be repaid in full over four years.

Consolidated transportation bonds have benefited both from a broadened tax base and from more positive general economic and fuel consumption trends. Resulting improved outlook and the expectation of continued control of rapid transit expense led to the revision from A1 to Aa."

Moody's Investors Service

Mass Transit Service (1)

Washington Metropolitan Area Transportation Authority

The Maryland DOT provides financial aid for the construction of the WMATA regional rail system. Prince George's and Montgomery Counties, Maryland comprise the Washington Suburban Transit District ("WSTD"). The Washington Suburban Transit Commission ("WSTC"), created by State law to manage and control the functions and affairs of the WSTD, is empowered to provide funds to meet the WMATA obligations allocated to WSTD. The Department provides funds for the WMATA system through grants-in-aid to the WSTC.

Baltimore Metropolitan Transit District

The Maryland DOT owns, operates and provides financial assistance to the Baltimore Metropolitan Transit District through its Mass Transit Administration.

The Mass Transit Administration provides public bus and rail transit services in the Baltimore Metropolitan Transit District, comprised of Baltimore City and Baltimore and Anne Arundel Counties. As of July 1986, it provided these services with 865 buses covering 1,296 route miles in regular service and 15 buses in the Mobility program. Through an agreement with the Baltimore City Board of Education, the Mass Transit Administration provides bus services for public school students on a reimbursable basis. Commuter bus service between the transit district and Harford and Howard Counties is also being planned as part of a "Suburban Transit Program."

The Mass Transit Administration also operates Baltimore Metro with 72 rapid rail cars on 7.6 miles of track in the Northwest section of Baltimore City. The system is still under construction.

Statewide Aid:

Department aid is available to qualifying local public agencies for the planning, capital and operating costs of public transportation projects. Where federal grants are available for planning and capital costs, the Department will provide up to 75 percent of the non-Federal share of approved costs. Under a program approved by the Maryland General Assembly in 1984, the Department is authorized to provide support to Montgomery and Prince George's Counties for local bus service to replace comparable bus service on routes formerly operated by WMATA. The Department is currently providing support to Montgomery County for 75 percent of the net operating deficit of the County's local Ride-On bus replacement for WMATA service. Prince George's County is not presently operating its own bus system, but it is the intention of the County to initiate local bus service in FY 1987 or FY 1988.

Maryland DOT's Obligation to WMATA (through the WSTD): (2)

Through the auspices of the Washington Suburban Transit Commission, the Department currently provides the following forms of support for WMATA's programs:

- 100 percent of Montgomery and Prince George's Counties' shares of the Metrorail construction program;
- 75 percent of Montgomery and Prince George's Counties' debt service costs on rail construction;
- 75 percent of Montgomery and Prince George's Counties' shares of WMATA's rehabilitation and replacement costs; and
- 75 percent of Montgomery and Prince George's Counties' shares of the net operating deficit of WMATA, within specified limits.

Since 1973, the Department has provided $250 million in capital assistance and $193 million in operating assistance to WMATA's programs. During the FY 1987-1992 program period, the Department anticipates the expenditure of another $160 million for capital and $282 million for operating costs.

In addition to its financial support, the Department maintains an office in Silver Spring where its staff supports Montgomery and Prince George's counties in their review and management of the WMATA capital and operating programs.

WMATA Commitment:

Historic contributions by the Maryland DOT to WMATA (net of Federal aid) were as follows (in $000's):

	1981	1982	1983	1984	1985
Operating	16,636	22,260	27,363	26,206	30,136
Capital	31,072	15,761	14,215	14,177	15,172
	47,708	38,021	41,578	40,383	45,308

Borrowing History:

Consolidated revenue bond debt has fluctuated between $250 and $500 million. The State borrowed $100 million from Maryland DOT this year in connection with the financing of savings and loan plans which will be repaid over four years, together with $29 million previously transferred to the General Fund.

Revenues Designated for Metro Support: (3)

Financing for the Maryland DOT is provided by the Transportation Trust Fund, which is credited with taxes, fees, charges, bond proceeds, federal aid and operating receipts of the Department, excluding the toll revenues collected by the Maryland Transportation Authority. The fund combines all transportation related receipts, except toll revenues, into a single fund. The Department may use the state's share of the trust fund for any lawful purpose related to the exercise of its rights, powers, duties and obligations within the approved budget.

All expenditures are made from the Trust Fund, including the revenue shared with local jurisdictions. The Trust Fund supports the Department's debt service, maintenance, operations, administrative and capital expenses. The Department's funds are allocated by the Secretary and approved by the Governor and the General Assembly. There are legislatively mandated expenditures for development and operation of mass transit projects in the Washington region (Montgomery and Prince George's Counties) for which the Secretary must provide an allocation. Unexpended funds in the Trust Fund at the close of a fiscal year remain in the Trust Fund for subsequent year expenses.

Taxes and Fees

State taxes on motor vehicle fuel and titling, fees for licensing and registration, and portions of the corporate income tax are major sources of funds for the Transportation Trust Fund. Most of the funds generated by these taxes and fees are allocated by law between the Department and the local jurisdictions of the state. The two categories of funds that are shared are Highway User Revenues and the Transportation Revenue Sharing Account.

The following state taxes are credited to the Transportation Trust Fund and constitute the major sources of revenue to the Department:

- o Motor vehicle fuel tax at 18.5 cents per gallon.

- o Motor vehicle titling tax, which is imposed at the rate of 5 percent on the fair market value of motor vehicles for which certificates of title are issued.

- o Net proceeds from motor vehicle registration fees, after deduction of certain programmatic expenses, and a portion of operators' license fees.

- o Two and three quarters percent of the corporate income tax; and effective January 1, 1987 through October 1990, a total of $129 million in monthly installments for transfers made to the General Fund and the Maryland Deposit Insurance Fund during FY 1984 and FY 1986, respectively.

Operating Revenues

This category includes revenue produced from facilities operated by the Department, investment income and reimbursements. These include revenues generated by the Maryland Port Administration from berth and storage fees and World Trade Center leases; Mass Transit Administration revenues from bus and rail fares, advertising and charters; and State Aviation Administration revenues from cargo building and terminal leases, airport parking, landing fees and various concession revenues.

Federal Aid

These revenues represent all Federal funds received by the Department for all modes and purposes, both capital and operating. The principal uses of Federal aid are for highway and transit projects and services. Smaller amounts of Federal aid are available for rail and aviation purposes. Federal aid due to local jurisdictions is also received in the Trust Fund and transferred to Baltimore City and the counties.

Revenues and Operating and Maintenance Expenditures and
Bond Coverage Calculations for FY 1981 – FY 1985

	1981	1982	1983	1984	1985
Revenues:					
Taxes and Fees	$236,588	$245,732	$297,593	$375,075	$403,372
Corporation Income Tax and Fees	342,268	348,688	404,537	501,936	521,533
Operating Revenues	87,912	96,548	100,291	121,409	126,421
Other (1)	21,354	22,232	7,880	16,841	20,634
	$451,534	$467,468	$512,708	$640,186	$668,588
Administration, Operation and Maintenance Expenditures:					
WMATA Grants-In-Aid (2)	16,636	22,260	27,363	26,206	30,136
Mass Transit Administration	84,909	88,060	95,485	110,204	118,596
State Highway Administration	54,807	67,805	86,286	93,778	104,307
All Other (3)	102,554	102,436	110,789	115,281	126,524
	$258,906	$280,561	$319,923	$345,469	$379,563
Less: Federal Funds Operating Assistance – Mass Transit	(25,593)	(14,001)	(10,741)	(10,722)	(10,670)
Other	(9,567)	(16,393)	(8,480)	(9,552)	(10,575)
Total	$(35,160)	$(30,394)	$(19,221)	$(20,274)	$(21,245)
Net Revenues	$227,788	$217,301	$212,006	$314,991	$310,270
Maximum Annual Principal & Interest Requirements	$ 50,894	$ 50,325	$ 53,008	$ 53,008	$ 46,084
Ratio of Net Revenues to Maximum Annual Principal & Interest Requirements	4.48	4.32	4.00	5.94	6.73
Ratio of Taxes Pledged to Bonds to Maximum Annual Principal & Interest Requirements	4.65	4.88	5.61	7.08	8.75

(1) Primarily investment income, except in FY 1981 when a $10,000,000 transfer was made from the Maryland Transportation Authority.

(2) Operating assistance only.

(3) Includes Secretary's Office, State Railroad Administration, Motor Vehicle Administration, Maryland Port Administration and State Aviation Administration.

Debt Ratios:

The following information applies to the State of Maryland, as a whole, not just the Department of Transportation.

FY	Maryland Net Tax Supported Debt (000)	Maryland Debt Per Capita	Median (1) Debt Per Capita	Maryland Debt Burden %	Median (1) Debt Burden %	Maryland Net Debt/ Personal Income	Median (1) Net Debt/ Personal Income%
1986	$2,712,590	$618	$275	2.1	1.2	4.3	2.4
1980	2,887,994	626	197	3.6	1.7	7.3	3.2
1975	1,994,551	492	136	4.3	1.4	8.9	2.3

(1) State medians are for all 50 states.

Borrowing Restrictions: (4)

The issuance of consolidated bonds is subject to a limit of $950 million outstanding at any time, as well as a two-tiered coverage test: both net revenues (total Department non-Federal receipts less operation and maintenance expenses) and proceeds of taxes pledged to debt service must provide 2.0 times coverage of aggregate maximum annual debt service.

Planned Future Capital Expenditures: (5)

The Fiscal Years 1987-1992 Consolidated Transportation Program includes final design, right-of-way acquistion, purchase of 28 rail cars and construction of a 6 mile extension of the Northwest Line to Owings Mills in Baltimore County. This extension is expected to be open for service in Fiscal Year 1988. The Mass Transit Administration has also begun preliminary engineering for a 1.5 mile extension of the rapid transit system to the Johns Hopkins Complex in the Northeast section of Baltimore City.

The capital program for bus system improvements includes the annual purchase of 80 buses, the construction of a new maintenance facility in the Northwest section of Baltimore City, the suburban transit program and bus related equipment.

Future Capital Expenditures
($ in millions)

	1987	1988	1989	1990	1991	Total
Uses of Funds:						
WMATA (1)	**40.4**	**21.0**	**20.4**	**25.3**	**27.4**	**134.5**
Mass Transit Administration	93.0	76.4	79.7	77.2	76.7	403.0
Other	690.3	770.1	685.7	606.3	432.8	3,185.2
Total	823.7	867.5	785.8	708.8	536.9	3,722.7
Sources of Funds:						
Special Funds	437.4	469.2	397.7	294.5	254.8	1,853.6
Federal Funds	386.3	398.3	388.1	414.3	282.1	1,869.1
Total	823.7	827.5	785.8	708.8	536.9	3,722.7

(1) In preparing the Consolidated Transportation Program for FY 1987–FY 1992, Federal aid was assumed at a reduced annual level and at a reduced Federal/local funding ratio (from 80%/20% to 75%/25% after PL 96–184 funds are depleted).

Sources:

(1) The Department of Transportation of Maryland, Consolidated Transportation Bonds, Series 1986, Official Statement dated July 1986, p. 7.

(2) 1987 State Report on Transportation, Volume 1: Maryland Transportation Plan, Maryland Department of Transportation, p. IV–1.

(3) 1987 State Report on Transporation, Volume 1, p. I–3, I–4.

(4) Moody's Municipal Credit Report, August 14, 1986.

(5) 1987 State Report on Transportation, Volume II: Consolidated Transportation Program FY 1987 – FY 1992, p. 5.

MONTGOMERY COUNTY, MARYLAND

General Obligation Credit Rating:

Moody's: Aaa Standard & Poor's: AAA

Credit Commentary: (1)

"Prime quality economic base affords abundant resources to support the County's above average level of indebtedness. Excellent protection is provided by proper debt structuring, strong financial performance and rapid growth in taxable valuations.

The County possesses an economic base of exceptional quality and depth. Serving as an employment center for the Washington metropolitan area has enabled the County to attract prime development in both the commercial/industrial and residential sectors. The County's industrial sector contains a growing number of computer technology, telecommunications and bio-technology firms. Building permit values for new residential construction reached a record level in 1985.

The resources available to the County afford excellent margins of security for its obligations despite the very substantial level of debt outstanding; debt per capita is extremely high, while debt burden is above average.

Financial operations have been well managed. The drawdown of fund balance in 1983 resulted solely from fiscal policy. A decision was made to utilize accumulated funds, and to operate with a more modest cushion. Fund balance increased considerably in 1984, however, resulting from a substantial operating surplus. This positive trend of operations continued in 1985 although at a more moderate pace. Projected results for 1986 evidence a sharp rise (11.7%) in year-end balance despite a 1% decrease in the tax rate."

Moody's Investor Service

Mass Transit Service: (2)

On February 6, 1978, WMATA mass transit rapid rail service began in Montgomery County with the opening of the Silver Spring Station. Maryland now is connected to downtown Washington and National Airport via mass transit. As of June, 1986, nine stations out of the planned twelve and almost 16 miles of service are operating in Montgomery County.

The Red Line was extended from the Van Ness station in the District of Columbia, through Bethesda to the Grosvenor station just outside the Beltway in Montgomery County on August 25, 1984. The entire line including the Twinbrook, White Flint, Rockville, and Shady Grove stations and nearly 14 miles of route became operative on December 15, 1984.

Coinciding with WMATA's arrival in the County was an expansion in the County-operated Ride-On bus system. It was anticipated that 6.4 million passengers would use the County's system in FY 1986. The Bethesda-Silver Spring Ride-On consists of 101 buses on 32 routes and provides 18 hours of service Monday through Friday, 17 hours of service on Saturday, and 16 hours on Sunday. The Gaithersburg-Rockville Ride-On consists of 50 buses on 18 routes for 15 hours of service Monday through Friday, for 12 hours on Saturday and eight hours on Sunday. This is a result of a major expansion of both systems in January 1985 that coincided with the opening of Metrorail to Shady Grove, an almost 14 mile increase in rail service to the County. The total fleet consists of 199 vehicles. A modest expansion may occur when the Red Line extends to Wheaton, now estimated to occur in 1990.

Montgomery County's Obligation to WMATA:

- Old capital projects (funded by WMATA Revenue Bonds):
  Montgomery County pays 25% of its share of the debt service on the outstanding WMATA Revenue Bonds. The State of Maryland pays 75% of Montgomery County's share of the debt service on the bonds.

- New Rail Capital Projects (Stark-Harris funds and any new projects):
  Montgomery County pays 0% of new capital project costs. The State of Maryland pays 100% of Montgomery County's share of new capital projects.

- Operating costs:
  Montgomery County pays 25% of the lesser of (i) the operating deficit or (ii) 50% of the operating costs. The State of Maryland pays 75% of Montgomery County's share of operating support.

- o WMATA rehabilitation and replacement costs:
  Montgomery County pays 25% of its share of WMATA rehabilitation replacement costs; the State of Maryland pays 75% of Montgomery County's share.

Revenues Designated for WMATA Support: (3)

The County levies an ad valorem tax of 22.5¢ (1986) per $100 assessed value for transit purposes. Taxes are deposited into the Mass Transit Fund and are distributed to both local bus and WMATA bus and rail programs. In addition, the County has issued bonds for mass transit purposes.

WMATA Commitment: (4)

The following numbers reflect the allocated total WMATA Transit Assitance for the County, (including debt service) net of State and Federal aid ($000's):

1980	1981	1982	1983	1984	1985
5,029	5,131	5,179	5,287	8,053	8,973

Montgomery County has issued $94,300,000 of bonds for mass transit facilities since 1970, $59,360,000 of which remain outstanding as of June 30, 1986. Annual debt service on the bonds is currently between $7 and $8 million annually.

General Economic Situation: (5)

Montgomery County has a growing labor force, high per capita income and minimal unemployment. Population in the County increased 5.3% between 1980 and 1984. The 1983 per capita income of $19,738 was the 3rd highest of the WMATA member jurisdictions. The County's unemployment rate was only 2.3% in late 1985, as opposed to the State's 4.5% rate and the nation's 6.7% unemployment rate during the comparable period.

Tax Rate History
Collections, Tax Base: (6)

The County has an exceptional tax base which has expanded vigorously in recent years. They have a declining tax rate and prompt collections. Average annual growth in full value has been about 10% during the 1981-1986 tax period. The 1986 assessed value of the County is $14.2 billion, which is about 40% of its full value. Assessed value has increased 70% from 1981 to 1986. The current tax rate (1986) is $2.04 per $100 of assessed value and has decreased almost 13% since 1981. The amount of property tax levied has increased approximately 9% annually since 1981.

The assessed value for property in Montgomery County over the past six years, the corresponding tax rates and levies are as follows:

	Real Property (1) Assessed Value ($000's)	Tax Rate/ (2) $100 A.V.	Total Levy (2) ($000's)
1981	7,404,000	2.34	195,595
1982	8,224,090	2.27	210,382
1983	9,106,306	2.27	232,269
1984	10,135,735	2.26	247,579
1985	11,221,679	2.26	264,203
1986	12,570,000	2.04	281,587

(1) Assessed value is 40% of full value.
(2) Includes both personal and real property.

The six largest taxpayers are as follows:

Name	Business	1986 A.V. (1) ($ 000's)
Potomac Electric Power Company	Utility	387,287
Chesapeake & Potomac Telephone Co.	Utility	257,746
IBM	Computers	192,108
Washington Gas Light Co.	Utility	84,919
Woodward & Lothrop	Retail	42,316
GEICO	Insurance	35,593
Total		999,969
% of Total A.V. of County (1)		7.0%

(1) Includes real and personal property.

Tax Rate Restrictions: (7)

There are no tax rate or tax levy limitations.

General Fund Revenues (Composition): (8)

The primary source of revenue to the County is the local property tax. The General County tax levied on all assessable property in the County for FY 1986 was $2.04 per $100 of assessed valuation; this was expected to generate approximately 45% of the total County General Fund operating revenue requirements. The proceeds of this tax levy are used to finance the County's General Fund operations which include the local financial support of the public school and community college operations.

The second major source of revenue to the County is the local income tax, which is levied by the County Council and administered by the State. Distribution of tax collections are remitted to the County essentially on a quarterly base. Anticipated revenues from this source approximate 30% of the County General Fund operations for FY 1986.

Other revenues that support the General Fund include the local real property transfer, recordation, fuel-energy, hotel-motel and beverage container taxes, State grants, State-shared taxes, interest on investments, charges for services, and licenses and permits.

The unreserved General Fund balance was 6.55% of total revenues at the end of FY 1985.

Borrowing History: (9)

Years	Total Net Debt (000's)	Estimated Population	Net Debt/ Capita	Real Property Assessed Value (millions)	Net Debt/ A.V. (1)	Per Capita Income (2)	Per Capita Debt as % of Per Capita Income
1981	$418,209	590,530	$708	$7,404	5.65%	$17,002	4.16%
1982	451,738	598,530	755	8,224	5.49	18,245	4.14
1983	465,572	607,500	766	9,106	5.11	19,738	3.88
1984	481,630	616,600	781	10,136	4.75	21,456	3.64
1985	504,975	625,800	807	11,222	4.50	23,025	3.50
1986	509,675	635,000	803	12,570	4.05	24,378	3.29

(1) Assessed value of real property only.
(2) Estimated based on population and income data, Official Statement, p. 31, 52.

Borrowing Restrictions: (10)

Borrowing is restricted to 15% of total assessed value. Currently, borrowing is at 3.6% of total assessed value. No referendum is required. A statement of the legal debt margin as of June 30, 1986 is provided below:

Statement of Legal Debt Margin
June 30, 1986
(000's)

Assessed Value (Estimated) (1)	$14,245,000
Debt Limit – (% of Assessed Value)	15%
Legal limitation for the borrowing of funds and the issuance of bonds	2,136,750
Amount of debt applicable to debt limit: General Obligation Bonds	509,675
Legal Debt Margin	$ 1,627,075

(1) Assessed value of both real and personal property.
(2) As a Charter County, the legal debt limit is 15% of the assessable base of the County as provided by Article 25A, Section 5, of the Annotated Code of Maryland.

Planned Future Capital Expenditures ($000's): (11)

	1987	1988	1989	1990	1991
Use of Funds:					
Transportation:					
Mass Transit	1,430	1,250	1,250	1,250	1,250
All Other	80,486	90,689	73,074	55,445	55,868
Non Transportation	54,247	38,823	21,123	15,911	14,739
Total:	136,163	131,762	95,447	72,606	71,857
Sources of Funds:					
General Obligation Bonds	69,114	59,534	59,694	46,061	40,087
Current Revenue	1,281	1,360	356	88	-0-
Federal Aid	3,660	7,029	3,491	1,003	1,003
Other	62,108	72,228	31,906	25,454	30,767
Total	136,163	131,762	95,447	72,606	71,857

Sources:

(1) Moody's Municipal Credit Report, March 25, 1986, p. 1-2.

(2) Montgomery County, Maryland Consolidated Public Improvement Bonds of 1986, Series A; Official Statement dated April 1986, p. 18.

(3) Official Statement, p. 22.

(4) "Transit in the Nation's Capital: What Lies Ahead?", Federal City Council, February 1986, p. I-8.

(5) Official Statement, p. 36, 46, 53.

(6) Moody's Municipal Credit Report, p. 4-5.

(7) Moody's Municipal Credit Report, p. 5.

(8) Official Statement, p. 20-21.

(9) Official Statement, p. 23, 26, 28, 31, 52.

(10) Official Statement, p. 26.

(11) Montgomery County Government Adopted FY87-92 Capital Improvements Program, p. 1010, 1375-1378.

PRINCE GEORGE'S COUNTY, MARYLAND

General Obligation Credit Rating:

Moody's: A * Standard & Poor's: AA

Credit Commentary: (1)

"The additional taxing capacity achieved from the TRIM amendment contributes to recently stabilized financial operations, and while debt burden is above average, steady economic expansion provides satisfactory margins of protection.

The amendment, which essentially permits property tax revenues to rise commensurately with the annual growth in the tax base, was effective with the beginning of the 1986 fiscal year. With this amendment, the County's ability to generate revenues has improved, and for 1986 the measure enabled a 7.2% increase in the County's property tax levy, or the equivalent of an additional $12.9 million in taxing capacity. While some financial vulnerability remains from the County's substantial dependence on property taxes, income, transfer and recordation taxes also form a significant and growing revenue source. Moreover, the County's recent financial performance depicts a degree of recovery from the period of severe operating deficits that eroded fund balances to minimal levels in the early years following the adoption of TRIM. The current level of undesignated balance is low.

Prince George's other credit factors remain favorable. The economic base is broad and development activity is strong. The County's recent personal income gains and population growth, however, still lag other suburban Washington, D.C. counties. The proportion of new housing built between 1970 and 1980 is average and the amount of full valuation per capita is moderate. The substantial presence of the federal government affords considerable stability as reflected in consistently low unemployment.

The County's debt commitments are substantial. Debt burden is above average, and the direct portion is above the median on both a full valuation and per capita basis, although payout is fast. There is a considerable amount of additional borrowing planned."

Moody's Investor Service

*Bonds issued prior to TRIM are rated A1 by Moody's Investors Service.

Mass Transit Service: (2)

The Metrorail system approved in 1968 includes 35.44 miles of service in the Maryland suburbs, with four lines consisting of 17.03 miles and 12 stations in Prince George's County. To date, 5.4 miles and five stations have been completed in Prince George's County. Two rail lines remain to be constructed in the County. The Branch Avenue Line is in the general planning stage, while construction of the Greenbelt Line began in the fall of 1985. The Greenbelt Line is scheduled to become operational in 1993. The entire regional system is expected to be fully operational by 1997.

The County currently maintains no separate local transit service, but has plans to initiate such service in fiscal year 1987.

Prince George's County's Obligation to WMATA: (3)

- Old capital projects (funded by WMATA Revenue Bonds):
  Prince George's County pays 25% of its share of the debt service on the outstanding WMATA Revenue Bonds. The State of Maryland pays 75% of Prince George's County's share of the debt service on the bonds.

- New capital projects (Stark-Harris funds and any new projects):
  Prince George's County pays 0% of new capital project costs. The State of Maryland pays 100% of Prince George's share of new capital projects.

- Operating costs:
  Prince George's County pays 25% of the lesser of (i) the operating deficit or (ii) 50% of the operating costs. The State of Maryland pays 75% of Prince George's County's share of operating support.

- WMATA rehabilitation and replacement costs:
  Prince George's County pays 25% of its share of WMATA rehabilitation and replacement costs. The State of Maryland pays 75% of Prince George's share.

Revenues Designated for WMATA Support: (4)

On July 20, 1982, the County Council adopted a resolution which stated that appropriations would be made annually into the Mass Transit and Operations Special Revenue Fund in sufficient amounts to pay (i) the Prince George's County portion of WMATA's approved operating budget and (ii) the Prince George's County debt service on WMATA revenue bonds. Should these sources prove to be insufficient, the County would use funds made available under Section 12H of Article 81, Annotated Code of Maryland which is a State grant program that provides approximately 11¢ per $100.00 of County assessed value.

WMATA Commitment (in $000's): (5)

The following numbers reflect the allocated total WMATA Transit Assistance (including debt service) net of State and Federal aid ($000's):

1980	1981	1982	1983	1984	1985
6,978	4,692	6,374	6,545	7,413	6,691

General Economic Situation: (6)

During the past ten years, overall population growth in Prince George's County has been gradual compared to previous decades. In each of the years from 1980 to 1985, the increase in population was less than 1% compared with an 84.7% increase from 1960 to 1970. From 1984 to 1985, the County had a .3% increase in population, whereas the State and national increases for that same period were 1% and 2.4%, respectively. Changes in the age composition of the population have resulted in increases in the number of households, in the size of the available labor force and in the number of residents employed.

As reported by the Census Bureau, the number of business establishments increased in Prince George's County from 9,297 in 1979 to 11,592 in 1984, representing an annual average increase of approximately 5%. This trend is reflected in the major expansion in office and in research and development building activity in the County, which began during the 1970's and has continued through 1985.

Business expansion within the County has brought about continuing increases in the size and diversity of the economic base. Employment growth from 1979 to 1984 averaged 4,500 new jobs annually, broadly distributed across a wide spectrum of industrial classifications.

Unemployment rates within the County have fluctuated between 3.2% and 5.8%, on an annualized basis over the past decade (1976–1985). Such rates have remained consistently below comparable metropolitan, State and national levels throughout this period, reflecting the strength of the local economy, as well as the adaptability of the local labor force to changing market conditions and other factors. As of July 1986, the County's unemployment rate was 3.2% according to the Research and Analysis Division, Maryland Department of Employment and Training.

Per capita income for the County in 1984 was $14,115 which was lower than that for the State, but higher than that for the nation. Per capita income in Maryland in 1984 was $14,445, as compared with the national per capita income of $12,772. From 1980 to 1984, per capita income in the County increased 34%; the increase in per capita income for the State and for the nation for the same period was 39% and 35%, respectively.

Tax Rate History
Collections, Tax Base: (7)

The strict levy limit imposed in 1979 by the County's tax limitation measure, known as TRIM, was modified by voter amendment in November 1984. The amendment, which essentially permits property tax revenues to rise commensurately with the annual growth in the tax base, was effective with the beginning of the 1986 fiscal year. With this amendment, the County's ability to generate revenues has improved, and for 1986 the measure enabled a 7.2% increase in the County's property tax levy over 1985 levels, or the equivalent of an additional $12.9 million in taxing capacity.

The tax levy has increased 26% from 1981 to 1986 while the assessed value has increased 46% over that same period.

The assessed value and corresponding tax rate for the County for the past six years are as follows:

June 30	Total Assessed Value (1) (Millions)	Tax Rate/ $100 A.V. (2)	Levy (2) (000's)
1981	$5,786.1	2.69	154,050
1982	6,138.6	2.60	158,950
1983	6,667.2	2.63	174,452
1984	7,154.7	2.54	180,502
1985	7,747.2	2.35	180,566
1986	8,459.2	2.32 (3)	193,507

(1) In 1986, real property was assessed at approximately 40% of full value. Total includes both real and personal property.
(2) For both real and personal property.
(3) Represents a weighted average of the unincorporated tax rate and the incorporated tax rate.

The largest taxpayers are as follows:

Name	Business	1986 A.V. ($000)
Potomoc Electric Power Co.	Utility	$ 612,429
C & P Telephone Co. of MD	Utility	163,181
Washington Gas Light Co.	Utility	69,744
Giant Foods, Inc.	Grocery Stores	45,558
Baltimore Gas & Electric Co.	Utility	33,607
Safeway Stores, Inc.	Grocery Stores	24,579
Total		950,098
% of Total to Assessed Value of County		11.23%

Tax Rate Restrictions: (8)

In November 1978, County voters passed a County Charter Amendment (TRIM) which freezes its property tax levy at the 1979 level ($143.9 million). This limitation, as modified by voters in November 1984, allows the levy to be based on the greater of a tax rate of $2.40 or the amount of fiscal 1979 levy ($143.9 million); the November 1984 TRIM modification was effective beginning July 1, 1985 (fiscal 1986 levy).

In 1980, County voters elected to alter the charter and permit the issuance of limited tax bonds. Further, State law adopted during the 1980 session clarified that the TRIM amendment does not apply to taxes levied for debt service on County bonds with an unlimited tax pledge issued prior to TRIM's effective date.

General Fund Revenues (Composition): (9)

The County levies real and personal property taxes on all taxable property within its boundaries. The primary source of revenue to the County is the local property tax. For FY 1986 the property tax levy generated 42.6% of the total County General Fund. The second major source of revenue to the County is local income tax which is levied by the County according to State law. Income taxes accounted for 29.2% of the General Fund in FY 1986.

Other sources of revenue for the General Fund include transfer taxes (7.0%), intergovernmental revenue generated from grants from the State and Federal Government (6.6%), State shared taxes (3.6%) and recordation taxes (2.8%).

In 1986, Prince George's County had an unreserved General Fund balance of $7.1 million or 1.6% of total revenues.

Borrowing History: (10)

Years	Total Net Debt (000's)	Estimated Population	Net Debt/ Capita	Real Property Assessed Value (millions)	Net Debt/ A.V.	Per Capita Income	Per Capita Debt as % of Per Capita Income
1981	$184,600	671,400	$274.95	$4,959.9	3.72%	$11,602	2.37%
1982	184,300	672,200	274.17	5,231.0	3.52	12,383	2.21
1983	150,500	673,500	223.46	5,558.4	2.71	12,899	1.73
1984	172,300	674,200	255.56	5,930.7	2.91	14,115	1.81
1985	160,600	676,400	237.43	6,389.6	2.51	*	*
1986	201,400	677,300	297.36	6,975.4	2.89	*	*

* Information not available.

Borrowing Restrictions: (11)

The County is authorized to undertake borrowings for any public purpose of the County, provided that the aggregate amount of indebtedness outstanding at any one time shall not exceed fifteen per cent of the assessable base of the County, excluding tax anticipation notes or other obligations having a maturity not in excess of twelve months, obligations issued or guaranteed by the County payable primarily or exclusively from taxes levied in or on, or other revenues of, special taxing areas or districts, or obligations issued for self-liquidating and other projects payable primarily or exclusively from the proceeds of assessments or charges for special benefits or services. The County's Charter requires that there be both a County enabling act and a County bond authorization act before bonds may be issued to finance capital projects.

The Charter further states that "The Council shall refer to a referendum of the voters of the County, at the ensuing regular congressional primary or general election, any act enabling the County to borrow money to finance capital projects, and any act or resolution pledging the full faith and credit of the County or any other guarantee by the County for any bonds to be issued by or for the benefit of any state or bi-county agency or district, except for school construction bonds".

A summary of the County's available bond issuance authority is as follows:

Available Bond Issuance Authority
($000's)

	Enabled	Authorized
Available Authority as of June 30, 1986:		
Enabled by the State of Maryland	28,076	–0–
Enabled by the County	135,471	15,848
Additional Authority subsequent to June 30, 1986:		
Proposed Refunding Issue–August 6, 1986	–0–	39,000
Voter Referendum–November 4, 1986	120,767	
Total	284,314	–0–
Less: December County Bond Sale	–0–	(23,805)
Available Authority Remaining After Proposed Bond Sale	284,314	31,043

The County currently has outstanding bonds equal to 2.4% of the available 15% limitation.

Planned Future Capital Expenditures ($000's): (12)

	1987	1988	1989	1990	1991	Total
Uses of Funds:						
Metrorail	100	100	100	100	100	500
Metrobus	1,622	1,600	1,600	1,200	1,200	17,222
All Other	143,521	58,796	79,477	73,813	34,343	389,950
Total	145,243	60,496	81,177	75,113	35,643	397,672
Sources of Funds:						
General Obligation Bonds	43,338	32,940	63,143	55,128	25,921	220,470
Other	101,905	27,556	18,034	19,985	9,722	177,202
Total	145,243	60,496	81,177	75,113	35,643	397,672

Sources:

(1) Moody's Municipal Credit Report, November 26, 1986, p. 1–2.

(2) Prince George's County, Maryland Consolidated Public Improvement Bonds, 1986, Refunding Series Official Statement dated December 1986, p. B–4.

(3) State Report on Transportation, Volume I, Maryland Transportation Plan, 1987.

(4) WMATA Executed Plan for Stable and Reliable Sources, August 1982.

(5) "Transit in the Nation's Capital: What Lies Ahead?," Federal City Council, February 1986, p. I–8.

(6) Official Statement, p. 48 – 55.

(7) Official Statement, p. 26, 41; Moody's Municipal Credit Report, p. 1, 5.

(8) Moody's Municipal Credit Report, p. 5.

(9) Moody's Municipal Credit Report, p. 1, 7, Official Statement, p. 24.

(10) Official Statement, p. 41, 56.

(11) Official Statement, p. 35 – 36.

(12) Prince George's County, Maryland, Adopted Capital Budget FY 1987, p. A–11, 296 – 298.

NORTHERN VIRGINIA TRANSPORTATION COMMISSION

Introduction:

The NVTC is a political subdivision of the Commonwealth of Virginia established in 1964 by statute of the Virginia General Assembly. The principal business activity of the Commission is to manage and control the functions, affairs and property of the Northern Virginia Transportation District, as defined in the Transportation Act of 1964. The NVTC serves as the coordinator of the Virginia member jurisdictions of WMATA.

As a part of this function, the NVTC receives all mass-transit Commonwealth of Virginia funds for the Virginia WMATA member jurisdictions and, after paying debt service on the outstanding WMATA bonds on their behalf, credits each jurisdiction with their respective share of the regional gas tax and allocates most of the remainder based on an NVTC adopted formula which was recently incorporated into Virginia legislation.

However, all mass transit State aid allocated by the NVTC is not used for WMATA purposes. Local bus transit support is also provided through the NVTC.

Since 1980, Virginia has provided for funds to support WMATA from three sources: (i) a 2% sales tax on gasoline sold within the member jurisdictions which generates between $8–10 million annually; (ii) $20–25 million in annual appropriations; and (iii) Federal funds available under Section 9, which were approximately $4.8 million in 1986.

In light of increased pressure to improve Virginia's highway, ports and mass transit systems, the General Assembly of Virginia enacted new legislation last fall which increased the following taxes to yield an estimated $421.7 million annually, statewide:

- 1/2% increase in the sales tax to 4.5%;
- 2.5 cents per gallon increase in the gas tax to 17.5 cents per gallon;
- 1% increase in sales tax on motor vehicles to 3%; and
- $3 increase in vehicle registration fees to average $25 per vehicle.

Revenues generated by these tax increases will be deposited into the Transportation Trust Fund to be used for transportation purposes. The legislation mandates that 8.4% of these revenues be used for mass transit, increasing the statewide total for transit by over $35 million to approximately $70 million. The NVTC share of this $35 million increase is estimated to be approximately $24.8 million based upon the Virginia Department of Transportation ("VDT") allocation process which was included in the new legislation.

The VDT allocation formula works as follows:

- Up to 1-1/2 percent of the available funds is reserved for ridesharing, experimental and technical projects;

- At least 73.5% is allocated among transit properties in the same proportion that each property's operating expense (net of fares and Federal assistance) bears to statewide transit operating expenses. State funds can be used to pay up to 95% of eligible fuel, tire and maintenance costs and 50% of administrative costs for each property;

- The remaining 25% is reserved for capital. If not enough funds are available to cover up to 95% of the non-Federal share of the cost of capital, for all properties, then the funds will be prorated based on each property's share of total capital needs. Capital costs may include debt service on local or agency bonds.

In addition to the $24.8 million of new appropriations described above, the application of this formula to existing appropriations is expected to yield NVTC an additional $2.3 million over the $22.7 million previously appropriated.

NVTC's internal allocation formula, by which it distributes funds to its member jurisdictions was also included in the legislation as follows:

- Local payments of WMATA rail transit bonds are paid first and apportioned to each locality using the WMATA capital formula;

- The remaining funds are apportioned by calculating 25% of the capital and operating costs and 75% of the capital and operating subsidies applied to each locality. Capital costs may include 20% of annual local bus capital expenses.

Funds for WMATA are paid by the NVTC to WMATA and are credited to the five NVTC member jurisdictions. In recent years, approximately 85% of the NVTC contribution per jurisdiction has been used for operating support and 15% for capital contributions. Until 1981, however, almost all State funds chanelled through NVTC were used for capital purposes only.

In addition to the tax increases, a new Commonwealth Mass Transit Fund was created as a part of the Transportation Fund. Interest on the Mass Transit Fund will be credited to that Fund and the principal of the Fund will remain intact at the end of each year rather than reverting to the State's General Fund. The legislation states that appropriations from the Mass Transit Fund are intended to provide a stable and reliable source of revenue as defined by PL 96-184.

Table 7 sets forth the current and updated six year improvement program for the Department of Highways and Transportation of the Commonwealth of Virginia and shows the level of increased transit assistance available as a result of the new legislation.

Tables 8 and 9 set forth the historic and expected funding contributions to member jurisdictions from NVTC for FY 1986 and for FY 1988.

Table 7

Commonwealth of Virginia
Department of Transportation

Fiscal Years Ending June 30, 1986-1991
($000's)

	1986	1987	1988	1989	1990	1991	Total
CURRENT PROGRAM							
Public Transit	31,915	31,920	31,920	31,920	31,920	31,920	191,515
Maintenance	444,492	468,617	494,077	520,944	549,299	579,227	3,056,656
Construction	580,401	414,962	390,309	363,335	341,859	326,195	2,417,061
Total	1,056,808	915,499	916,306	916,199	923,078	937,342	5,665,232
UPDATED PROGRAM [1]							
Public Transit		47,794	70,241	73,221	74,933	76,628	342,817
Maintenance		516,621	528,265	561,827	600,566	642,297	2,849,576
Construction		556,644	786,283	725,825	719,454	710,311	3,498,517
Total		1,121,059	1,384,789	1,360,873	1,394,953	1,429,236	6,690,910

(1) Reflects increased State assistance resulting from new legislation.

Source: Revised 6-Year Improvement Program, Department of Transportation, Commonwealth of Virginia, January 30, 1987.

Table 8

Distribution of NVTC Aid to Member Jurisdictions FY 1986

(in $000's)

Sources of Revenue	NVTC	Alexandria	Arlington	Fairfax City	Fairfax County	Falls Church	Total
State Aid for Mass Transit	7,518	2,583	3,448	199	7,205	147	21,100
Gas Tax	100	1,845	2,462	142	5,146	105	9,800
Federal Aid	0	910	1,215	70	2,538	52	4,785
Total Aid	7,618	5,338	7,125	411	14,889	304	35,685 [1]

[1] Approximately 5% of the total aid is used by member jurisdictions for local, rather than WMATA transit costs.

Source: NVTC, February 18, 1987.

Table 9

Distribution of NVTC Aid to Member Jurisdictions FY 1988

(in $000's)

Sources of Revenue	NVTC	Alexandria	Arlington	Fairfax City	Fairfax County	Falls Church	Total
State Aid for Mass Transit	7,227	8,062	11,414	506	24,173	334	51,716
Gas Tax	417	1,409	1,995	88	4,225	58	8,192
Federal Aid	0	834	1,181	52	2,501	35	4,603
Total Aid	7,644	10,305	14,590	646	30,899	427	64,511 (1)

(1) Approximately 5% of the total aid is used by member jurisdictions for local, rather than WMATA transit costs.

Source: NVTC, February 18, 1987.

ALEXANDRIA, VIRGINIA

General Obligation Credit Rating:

Moody's: Aaa Standard & Poor's: AA+

Credit Commentary: (1)

"Expanding and high quality taxable resources and a strong underlying economy combine with strong financial performance to heighten levels of security for moderate indebtedness. Elimination of all short-term debt is an additional credit strength.

The City's proximity to the nation's capital has been key in the development of its high quality economic base. The City is characterized by favorable wealth levels, above average personal income gains and high priced housing; it also possesses a burgeoning commercial/industrial sector and a substantial employment base. Unemployment levels have been consistently moderate.

The construction of mid-rise office buildings and commercial properties, which continues at a strong pace, has helped push the value of building permits to a record high of $197 million in 1985. A recent increase in construction activity is largely due to the opening of three Metrorail stations in 1983, which provide a direct link to downtown Washington. The City's waterfront area has also been the focus of recent commercial development; substantial office park development is planned for the City's Cameron Run Valley section near the Capital Beltway.

Resources afforded by the growing tax base support sound financial operations, with a favorable trend of ending balance providing comfortable margins of protection. Stronger budgetary performance in 1985 resulted from better-than-anticipated sales and business license tax receipts as well as building permit revenue and investment earnings. Debt has traditionally been easily managed and scheduled for rapid payout. With the funding of all remaining short-term debt by a portion of this issue, overall debt structure has improved. Future borrowing requirements, which are to enable the city's infrastructure to keep pace with expected private development, appear manageable, given the city's significant rate of growth in taxable valuation."

Moody's Investors Service

Mass Transit Service:

The City is a member jurisdiction of WMATA and NVTC. Alexandria has entered into agreements with WMATA and the other participating jurisdictions to make contributions towards the cost of constructing the 103-mile rail transit system. In addition, the City has entered into quarterly and semiannual agreements with WMATA to provide operating subsidies and contributions for the replacement of bus and rail capital equipment.(2)

Alexandria is connected to downtown Washington via the Blue Line with 3 metrorail stops currently in operation, Braddock Road, King Street, and Eisenhower Avenue. The fourth and final stop in Alexandria is Van Dorn Street on the Yellow Line which is under final design and is expected to open in late 1990. (3)

City-Sponsored Bus System: (4)

During FY 1984, the City established a local bus system. A non-profit corporation, Alexandria Transit Company (ATC), was established and is wholly-owned by the City. The Board of Directors employed ATE Management and Service Company to manage the system. ATE, in turn, established a wholly-owned subsidiary corporation which employs all personnel to operate and maintain the bus service. All financial transactions are accounted for through an enterprise fund.

Four bus routes are operated by ATC. The routes both supplement and replace some bus service previously provided by WMATA. The local transit operation was established to improve the effectiveness of transit in meeting the City's transportation objectives. City officials estimate that the net cost of the four bus routes operated by ATC is approximately 65% of the cost which would be incurred by the City if the same service was provided by WMATA.

Since its first full month of operation in April of 1984, average monthly ridership has increased from 49,254 passenger trips to over 90,000 trips each month. Increasing ridership and adjustments of routes and schedules have resulted in more than a 100% increase in passenger per hour of revenue service. In FY 1985, the City's subsidy to ATC, including capital outlay costs, was $686,565. For FY 1986, the budgeted subsidy for ATC was $1,145,750 including $260,000 for the purchase of two additional buses. During FY 1984 (partial year of operation) and FY 1985, actual subsidy costs were at least 10% or more under budgeted costs. Current estimates indicate that the subsidy to ATC for FY 1987 will be approximately $835,000 to $950,000 depending upon whether or not an increase in fares is approved.

Alexandria's Obligation to WMATA: (5)

Alexandria is responsible for paying:

- its share of debt service on the outstanding WMATA revenue bonds;
- its share of WMATA operating support; and,
- its share of WMATA rail and bus capital costs.

The Virginia State aid package (described under the financial report on the NVTC, herein) provides a substantial and increasing share of Alexandria's WMATA obligation, as follows:

- 100% of the annual debt service on WMATA bonds;
- approximately 40% of Alexandria's obligation for operating support and rail and bus capital costs for WMATA (this percentage will increase as a result of the recently passed Virginia State aid package).

Rail Transit Construction Costs

As of June 30, 1985, the City had contributed a total of $44,132,365 to WMATA as matching funds for Federal grants to construct the rail transit system, including costs for facilities for the handicapped and add-on costs for modifying rail transit stations in Alexandria. Since 1974, all of the City's contributions for rail capital construction were provided from State aid and current revenues.

Pursuant to ICCA-III and ICCA-IV, the City had pledged to contribute a total of $11,266,600 in fiscal years 1986 through 1989. However, the amounts and schedule of payments will depend upon approval of Federal grants for rail transit construction. By the end of 1989, the construction program specified in the Agreement would exhaust all Federal funds authorized by Public Law 96-184 for construction of the rail transit system.

The City's adopted Capital Improvement Program projected a possible need to borrow $9,000,000 during fiscal years 1986 through 1989 to fund rail capital contributions. State aid was expected to provide the remainder of scheduled contributions. Delays in approval of Federal grants for fiscal years 1985 and 1986 allowed the City to reduce the amount of previously planned borrowing by $1,495,000 in those years. City officials now estimate that, at most, up to $6,000,000 in borrowing may be required to fund the City's rail capital contributions during fiscal years 1987 through 1989.

Bus and Rail Operating Subsidies to WMATA

Pursuant to Virginia law, Alexandria may make subsidy payments to WMATA only after entering into contracts for the provision of transit services. The City entered into a transit service agreement for FY 1986 which required payment of up to $8,572,121 during the fiscal year. The following reserves were available for this payment: General Fund appropriation for transit operations -- $875,000; credits at WMATA -- $1,311,143; and State Aid on deposit with the NVTC -- $1,275,775. During FY 1986, the City expected to receive additional allocations of Federal aid, State aid and motor fuels sales tax revenues in excess of $1,500,000.

Debt Service on WMATA's Revenue Bonds

To date, all of the debt service costs allocated to the Northern Virginia jurisdictions have been paid by NVTC from State aid. The City has not entered into any agreement to make contributions to WMATA for debt service. In July of 1985, NVTC paid $4,263,087 to WMATA, at the City's request. This payment was made from State aid allocated to Alexandria and repaid all of the cost of the advances and accrued interest which had been allocated to Alexandria.

Bus and Rail Capital Replacement

Since 1973, Alexandria has funded all of its allocated share of bus and rail capital replacement costs from State aid. All payments have been made pursuant to quarterly, semiannual, or annual contracts approved by the Alexandria City Council and WMATA.

Revenues Designated for WMATA Support: (6)

As part of the plan submitted to the Secretary of Transportation regarding stable and reliable funding, the Alexandria City Council adopted an ordinance affirming that the City had fully funded its share of transit expenses since 1973. The ordinance also states, ".... The City declares its intent to fund on an annual basis any contractually agreed to contribution for the expenses of the Washington Metropolitan Area Transit Authority agreed to by written contract by the allocation of such stable and reliable revenues as are or may become available and does hereby designate the general revenues of this city as the source of funds which may be appropriated to pay for Metro transportation services for which this city has or may in the future contract with WMATA, it being understood that no money shall be drawn from the treasury nor any obligation for the expenditure of money be incurred in pursuance of a legally adopted appropriation ordinance."

WMATA Commitment: (7)

The following numbers reflect total allocated WMATA Assistance (including debt service) net of State and Federal aid ($000's):

1980	1981	1982	1983	1984	1985
4,656	5,927	4,977	6,007	5,185	5,308

General Economic Situation: (8)

The U.S. Bureau of the Census found that Alexandria's population in 1980 was 103,217, as compared to 110,938 in 1970. This decline in population resulted mainly from the temporary closing of 2,100 apartments at Shirley-Duke/Regina (reopened in the fall of 1980 as Foxchase) and a decline in the average household size. The Alexandria Department of Planning and Community Development estimates that the population has increased to 106,700 in 1983. This increase in population is largely due to the rise in apartment and condominium residential construction.

While the population growth in Alexandria has moderated, Alexandria's per capita income growth has kept pace with growth rates for Northern Virginia and the Washington metropolitan area. For instance, in 1980, Alexandria's per capita income rose by 26%, compared to 25% in the Washington metropolitan area. Alexandria's per capita income is now ranked fifth highest in the nation.

Economic growth in Alexandria has been strong, especially in the area of office and industrial warehouse development. In 1983 and 1984 the value of building permits issued totaled over $160,000,000, which represent the highest values ever in the City. The opening of three Metro Stations to serve the City during 1983 and the attraction of over 100 national associations to the City since 1981 has resulted in the strong commercial growth.

Because of the emphasis being given to commercial and industrial growth by the City Council, and the recreational, educational and cultural amenities offered by the City, Alexandria anticipates that the commercial and industrial development will continue to produce significant increases in the City's tax base.

Employment, both by place of work and place of residence, continues to demonstrate strong growth. The continuance of Alexandria as an important employment center is demonstrated by the fact that in 1984 there were over 12,450 more persons working in the City than there were employed residents. Alexandria's unemployment rate continues to be below the State of Virginia and national levels, and above that for Northern Virginia.

Tax Rate History
Collections, Tax Base: (9)

Increasing property values in Alexandria, resulting from the continued high demand for housing and a stable rate of inflation over the past few years have provided a steady growth in the City's taxable base. Throughout 1985, property values in the City appreciated both in residential and commercial properties.

The following table shows Alexandria's assessed value over the past six years and the corresponding tax rate:

	Real Property Assessed Value (1) (Millions)	Real Property Tax Rates/ $100 A.V.	Total Tax Levy (2) (Millions)
1981	$4,024	1.39	$50.097
1982	4,675	1.37	63.785
1983	4,822	1.37	67.509
1984	5,093	1.41	73.619
1985	5,516	1.41	75.586
1986	6,152	1.39 (3)	81.340

(1) Real property is assessed at 100% of full value.
(2) Levy for real and personal property.
(3) Reduced to $1.38 in November, 1986.

The tax rate in Alexandria is currently at the same level that it was in 1981. Over the course of the past five years, the tax rate has decreased as much as 1.4% in one year and increased as much as 3% in another year. The assessed value has increased by 61% and the total tax levy has increased by 62% over the five year period.

The following data show the assessed value of the real property of the largest holders of real property in the City, and they represent approximately 7.1% of the total assessed valuation of real property.

	Owner's Name	Property	1985 Assessed Value (000's)
1.	First Alexandria Associates	Foxchase & Shop. Cntr	$75,000
2.	Hubelt M. Hoffman	Office Buildings	62,244
3.	Harold Winkler, Et al	Southern Towers Apts	56,000
4.	Alexandria Country Club Apts.	Oakwood Apartments	46,404
5.	Radisson Mark Plaza Jt. Venture	Radisson	38,000
6.	Stone Tract Associates	Park Center Office	35,700
7.	Newport Associates	Newport Village	32,300
8.	Higgins, R.L.	Hamlet N. & Shop. Cntr	30,558
9.	Catherine Winkler, Et al	Hamlet East	29,000
10.	North Virginia Joint Venture	Bush Hill (LNT Bldg.)	26,480
	Total		$393,686
	Total as % of 1985 Total Assessed Valuation		7.1%

Tax Rate Restrictions: (10)

Alexandria has sole local governmental taxing power within its boundaries. There are no tax rate or tax levy restrictions.

General Fund Revenues (Composition): (11)

Approximately 51.4% of operating revenues were derived in FY 1986 from property taxes, of which 43.2% represents real property taxes and 8.2% personal property taxes. Two sources of growth in the real property base are new construction and the reassessment of existing property. The assessed value of taxable real property in the City has increased at an average annual rate of 15.2% between 1978 and 1985.

The second largest source of revenue is from the Commonwealth of Virginia, which comprise 18.6% of the general fund. 16.3% of revenues are derived from other local taxes. Federal revenues contribute 4.2% and other sources contribute 10% to total revenues.

Alexandria had an unreserved general fund balance of 10.6% of total revenues as of FY 1985.

Borrowing History: (12)

There is no overlapping general obligation debt or taxing powers. The water system and the sewage treatment plant within the City are operated by a private company and an independent authority, respectively, for which the City has no debt obligations.

Years	Total Net Debt (000's)	Estimated Population	Net Debt/ Capita	Real Property Assessed Value (millions)	Net Debt/ A.V.	Per Capita Income	Per Capita Debt as a % of Per Capita Income
1981	$ 98,216	104,000	$ 944	$4,024	2.44%	$17,555	5.38%
1982	92,450	106,000	872	4,675	1.98	18,784	4.64
1983	110,747	106,700	1,038	4,822	2.30	19,723	5.26
1984	120,324	107,000	1,125	5,093	2.36	21,024	5.35
1985	108,954	108,000	1,009	5,516	1.98	*	4.80 (1)

* Information not available.
(1) Based on 1984 per capita income.

Borrowing Restrictions: (13)

The City is authorized to issue general obligation bonds without being subject to a referendum. The amount of debt outstanding may not exceed 10% of the most recent assessed valuation of the City's taxable real property. Current debt outstanding is 1.68% of the assessed value.

Planned Future Capital Expenditures ($000's): (14)

Uses of Funds:	1987	1988	1989	1990	1991	Total
Transit	1,605	1,941	2,062	2,250	2,250	10,108
Other	11,635	8,830	10,155	12,853	9,930	53,403
Total	13,240	10,771	12,217	15,103	12,180	63,511
Sources of Funds:						
General Obligation Bonds	9,490	6,771	10,217	13,103	10,180	49,731
Sale of Surplus Property	3,750	4,000	2,000	2,000	2,000	13,750
Total	13,240	10,771	12,217	15,103	12,180	63,511

City officials have noted that this planned capital expenditure program could be affected by (i) federally mandated environmental standards with which the City would be required to comply, and (ii) future, unpredictable reductions in Federal aid programs.

Sources:

(1) Moody's Municipal Credit Report, February 6, 1986, p. 1 – 2.

(2) The City of Alexandria, Virginia, Public Improvement General Obligation Bonds–1986 Series Official Statement dated February 1986, p. 26.

(3) Metro Annual Report, 1985, p. 2.

(4) Official Statement, p. 27.

(5) Official Statement, p. 26, 27.

(6) Official Statement, p. 27.

(7) "Transit in the Nation's Capital: What Lies Ahead?", Federal City Council, February 1986, p. I–8.

(8) Official Statement, p. 19–24.

(9) Official Statement, p. 14, 15, Moody's Municipal Credit Report, p. 4., The City of Alexandria Annual Report 1986, p. 46.

(10) Official Statement, p. 3.

(11) Official Statement, p. 10 – 11, Moody's Municipal Credit Report, p. 7.

(12) Official Statement, p. 28 – 35, The City of Alexandria Annual Report, p. 46.

(13) Official Statement, p. 28.

(14) Official Statement, p. 37.

ARLINGTON COUNTY, VIRGINIA

General Obligation Credit Rating:

Moody's: Aaa Standard & Poor's: AA+

Credit Commentary: (1)

This urban county's exceptional economic strength stems from its favorable location just across the Potomac from the nation's capital. Income levels remain among the highest in the country and housing values are also high. Recent personal income gains have been well above the state figure. Unemployment has been consistently low. The completion of the eleventh Metrorail station in the county last June not only confirms the county's role as a major employment center, but also continues to spur commercial and residential development. Intensive development is concentrated along the county's two Metrorail corridors and consists mainly of high-rise office buildings and shopping malls. Total building permit values for 1986 are more than double the prior year's figure. While office space in the country has increased by more than one-third in the last five years, the current office vacancy rate (2.9%) is reportedly the lowest in the Washington metropolitan area.

Arlington's expanding tax base easily supports its moderate debt level and bond payout is aggressive. Future needs appear manageable with an additional borrowing expected in 1988. The county's five-year, $168.8 million improvement program anticipates more use of pay-as-you-go financing than in the past.

Financial operations, which receive primary support from property taxes, remain sound with a satisfactory level of year-end balance. The county has eliminated the use of cash flow borrowing in this fiscal year. The tax rate has steadily decreased since 1984; tax collections have been prompt. Officials project a 1987 year-end balance of $17.0 million, which is 9.0% above the prior year's.

Moody's Investors Service

Mass Transit Service: (2)

The eleven planned Metro stations located in Arlington County have been completed and are operational. Arlington County is connected to downtown Washington via the Orange, Blue and Yellow lines.

Arlington County uses the Metro bus service and currently does not operate a local bus service of its own. The County is, however, developing a mass transit plan, to be completed in FY 1988 which will explore the use of locally operated transit to supplement the Metrobus service.

Arlington County's Obligation to WMATA: (3)

Arlington County currently pays:

- its share of debt service on the outstanding WMATA revenue bonds;
- its share of WMATA operating support; and,
- its share of WMATA rail and bus capital costs.

The Virginia State aid package (described under the financial report on the NVTC, herein) provides a substantial and increasing share of Arlington County's WMATA obligation, as follows:

- 100% of the annual debt service on WMATA bonds;
- approximately 40% of Arlington County's obligation for operating support and rail and bus capital costs for WMATA (this percentage will increase as a result of the recently passed Virginia State aid package).

Pursuant to a Capital Contributions Agreement dated January 9, 1970, the County originally agreed to make capital contributions to WMATA totaling approximately $54 million. Under the terms of subsequent agreements, the County has made or has agreed to make additional capital contributions totaling approximately $60 million, which have been financed primarily by State transportation aid.

On November 6, 1984, Arlington County voters approved a bond referendum for $13 million in general obligation bonds to continue funding of the County's share of Metrorail construction. The County was not billed for any Metrorail capital contributions during the fiscal year ended June 30, 1986. The amount allocable to the County for contributions in fiscal year 1987 is estimated to be not greater than $10.6 million, for which the County has $15.7 million in bond proceeds on hand.

Funding to complete the proposed 103-mile Metrorail system has not been assured. Financing for the remaining portions of the County's share is expected to be provided by State transportation aid and possibly by the issuance of general obligation bonds of the County if State funds are not sufficient. The issuance of general obligation bonds to fund additional capital contributions to WMATA must be approved at referendum by County voters.

Capital expenditures for the WMATA bus system are also shared by the County. The County's total contribution for the purchase of buses, maintenance facilities and various items of equipment has been approximately $7.9 million. State aid for transportation capital has been utilized to finance these payments which totaled $255,319 in 1986. County contributions for the fiscal year 1987 are estimated to be approximately $221,000.

The County residents receive transportation services provided through WMATA. The County paid an operating subsidy of $8,246,507 and $9,325,473 in 1985 and 1986, respectively, to WMATA to subsidize operating costs.

In addition, the NVTC paid funds from State aid to WMATA to subsidize operating costs on behalf of the County. The County's share of these operating costs in 1987 is estimated at $10.5 million.

The County is party to an agreement, dated August 1, 1984, for the purchase of the present Ballston Public Parking Garage facility at a total purchase price of $3,929,879. The effective date of this purchase was October 22, 1986, when the first mortgage installment of $500,000 was paid. Payment for the purchase is scheduled over a 45-year period, at an interest rate of 8%, payable solely from revenues derived from garage operations.

Revenues Designated for WMATA Support: (4)

Arlington County has designated its general revenues as the source of funds to contribute to WMATA subject to annual appropriations through its budget process.

WMATA Commitment: (5)

The following numbers reflect total allocated WMATA Transit Assistance (including debt service) net of State and Federal aid ($000's):

1980	1981	1982	1983	1984	1985
7,060	9,787	8,137	9,233	9,554	7,497

Arlington County has issued $80,000,000 of bonds for mass transit since 1970, $35,500,000 of which remains outstanding as of June 30, 1986. Annual debt service in 1986 was $6.8 million and is declining.

General Economic Situation: (6)

According to estimates provided by the U.S. Bureau of the Census, as of 1983 Arlington County had a population of 153,200. The County estimates that by 1986 the population increased to 154,900. It is expected that the County's population will increase gradually to 157,000 by 1990 and 164,450 by the year 2000.

The County's population decreased from an estimated peak of 179,000 in 1966 to 152,599 in 1980. A significant decline in the number of persons per household was the principal reason for this decrease. County-wide, the average number of persons per household dropped from 2.90 in 1960 to 2.07 in 1980. Personal income per capita for Arlington County was $22,582 in 1984, and was estimated to climb to $25,476 during 1986. County residents also achieve high educational levels. In 1980, 43% of the population over age 25 had completed four or more years of college.

The ten largest tax payers in the County are as follows:

	Tax Year 1986 Real Property Assessed Value
1. Richmond Land	$ 347,334,600
2. Robert H. Smith, Trustee	302,268,900
3. Gateway Associates	178,778,250
4. RF & P Railroad	171,185,400
5. Cafritz Co., et al.	150,963,500
6. Arland Towers	143,960,500
7. Airport Plaza	93,241,500
8. John L. Hancock	90,111,600
9. Polk & Taylor Associates	78,027,600
10. MCI Telecommunications Association	72,052,975
Total	$1,627,924,825
% of Total Assessed Value of County	15.7%

Estimated Value of Tax-Exempt Property - 1986

Federal	$ 1,023,140,600
State & Regional	42,182,500
Local	454,733,750
Religious, Charitable, Educational & Other	203,891,500
Total Tax-Exempt Property	$1,723,948,350

Arlington County has one of the highest at-place employment bases (civilian and military) of any jurisdiction in the Washington metropolitan area - 101 jobs for each 100 residents. This figure increased from 99,700 in 1967 to 156,400 in 1986, a gain of 56,700. These increases are largely a reflection of the tremendous growth in office development in both the Rosslyn-Ballston and Jefferson Davis Corridors. The Federal government plays a significant role in the employment in the County, providing 45% of total at-place employment in 1984.

Arlington has managed to maintain lower unemployment rates than both the Commonwealth and the nation. In September 1986, the County's unemployment rate was 2.6%, as compared with the Virginia rate which was 4.5%.

Tax Rate History
Collections, Tax Base: (7)

Tax base expansion has been strong in prior years; however, the County's land area is limited and future tax base growth will be largely linked to redevelopment. Located within the County are several Federal installations including the Pentagon. Federal tax-exempt property comprises about one-tenth of the County's taxable valuation although this portion of the base is not expanding, according to officials. The tax base easily supports the County's indebtedness and debt burden is low. Current collections in the last four years are prompt and range from 98.7 to 100.2%.

The following is a table of the real property assessed value of Arlington County for the past five years and the corresponding tax rate:

Year	Real Property Total Assessed Value (1) ($000's)	Personal Property Assessed Value (2) ($000's)	Real Property Tax Rate/ $100 A.V.	Personal Property Tax Rate/ $ 100 A.V.	Total Levy (3) ($000's)
1982	7,267,757	526,371	.96/.98	5.30	84,100
1983	7,446,510	569,808	.98/.99	5.10	92,257
1984	8,099,698	699,170	.99/.97	4.05	98,306
1985	9,042,243	775,599	.97/.95	4.75	106,067
1986	10,363,121	923,922	.95/.94	4.65	119,794

(1) Real property is assessed at 100% of full value as of January 1 of each fiscal year.
(2) Actual personal property values at average loan value as of January 1 of the prior fiscal year.
(3) Real and personal property taxes.

Assessed value of real property has increased 42% from 1982 to 1986. The tax rate on real property has decreased by 3% overall between 1982 and 1986; and the revenues generated by the tax levy on real property has increased 39% from 1982 to 1985.

Tax Rate Restrictions: (8)

There is no limit at the present time on property tax rates or amount levied by the County.

General Fund Revenues (Composition): (9)

The primary source of revenue to the County is local property taxes. In FY 1986 they accounted for 54% of total General Fund receipts. In FY 1987 real property tax was levied at $.94 per $100 assessed value and the personal property tax rate was $4.50 per $100 assessed value.

A 1% retail sales tax is added to the 3.5% State sales tax accounting for approximately 6% of the General Fund receipts. The tax monies for the local portion are remitted to the County by the State during the month following receipt.

Revenues received from other local taxes include business and professional license taxes, a $.05 a pack cigarette tax, a 5% transient occupancy tax, a recordation tax and an automobile license tax, together representing approximately 12% of total General Fund receipts.

Other sources of revenue include a variety of other permits and licenses representing approximately 12% of total General Fund receipts in FY 1986.

Revenues from the Commonwealth consisting of reimbursement for gasoline taxes, various health and social service programs, law enforcement aid, etc. account for 13% of total General Fund receipts in FY 1986.

Revenues from the Federal Government for a variety of housing programs equal approximately 4% of total General Fund receipts in FY 1986.

The County had an unreserved General Fund balance equal to 6.3% of revenues for FY 1986.

Borrowing History: (10)

Years	Total Net Debt (1) at June 30	Estimated Population	Net Debt/ Capita(1)	Taxable Property Assessed Value (2) (millions)	Net Debt/ A.V.	Per Capita Income	Per Capita Debt as a % of Per Capita Income
1982	$72,101,500	153,000	$471	$7,794	.93%	$19,450	2.42%
1983	81,335,339	153,200	531	8,016	1.01	20,588	2.58
1984	90,821,000	153,400	592	8,799	1.03	22,582	2.62
1985	111,532,116	153,600	726	9,818	1.14	24,372	2.98
1986	101,433,232	154,900	655	11,287	.90	25,476	2.57

(1) Excludes water and sewer system general obligation bond and Ballston parking garage revenue bonds which are paid from the Enterprise Funds of the County.
(2) For calendar year ended December 31. Includes real and personal property.

Borrowing Restrictions: (11)

General obligation issues must be approved by referendum. The general obligation bonded indebtedness of the County on June 30, 1986 was as follows:

	Indebtedness
General Obligation Bonds	$134,913,750
Parking Revenue Bonds	22,300,000
Gross Bonded Debt	$157,213,700
Less:	
Self-supporting Utility Bonds	33,480,518
Parking Revenue Bonds	22,300,000
Net Bonded Debt	$101,433,232

Planned Future Capital Expenditures: (12)

The only capital requirements for mass transit are for projects designed to assist in vehicular and pedestrian access to Metrorail and Metrobus routes and three new bus shelters per year from FY 1987 – FY 1991:

FY 1987–1991 Capital Improvement Program
($000's)

Uses of Funds:	1987	1988	1989	1990	1991	Total
WMATA	**0**	**0**	**0**	**0**	**0**	**0**
All Other (1)	25,133	27,376	50,845	11,034	44,909	159,297
Total	25,133	27,376	50,845	11,034	44,909	159,297
Sources of Funds:						
Bond Issues	11,000	13,070	38,603	—	34,215	96,888
General Fund	8,906	10,146	9,752	7,874	7,594	44,272
Utilities	4,227	3,160	1,490	2,160	2,100	13,137
Fed/State Contrib.	1,000	1,000	1,000	1,000	1,000	5,000
Total	25,133	27,376	50,845	11,034	44,909	159,297

Sources:

(1) Moody's Municipal Credit Report, January 20, 1987, p. 1.

(2) Status of 103-mile Metro System Map, June 1986 and Arlington County Staff.

(3) Arlington County, Virginia General Obligation Public Improvement Bonds, Series of 1987, Official Statement dated January 1987, Appendix p. 27-28.

(4) WMATA Executed Plan for Stable and Reliable Funding Sources, August 1982, p. 18 - 19.

(5) "Transit in the Nation's Capital: What Lies Ahead?," Federal City Council, February 1986, p. I-8.
Official Statement, p. A-27.
Arlington County Budget Office.

(6) Official Statement, p. 22 - 30.

(7) Official Statement, p. 22 - 23.

(8) Official Statement, p. 2.

(9) Official Statement, p. 21 and Arlington County Staff.

(10) Official Statement, p. 7.

(11) Official Statement, p. 7.

(12) Official Statement, p. 13.

FAIRFAX COUNTY, VIRGINIA

General Obligation Credit Rating:

Moody's: Aaa Standard & Poor's: AAA

Credit Commentary: [1]

"Extensive taxable resources and continuing sound financial performance provide highest quality security for a moderate level of indebtedness.

The steady growth in taxable resources of this large, affluent Washington suburb affords prime quality security for the County's moderate indebtedness. The steady valuation growth derives mainly from the presence of well-developed industrial and commercial sectors in addition to a high quality residential base. Population growth, as evidenced by the 1984 census estimate, remains strong and the opening of two additional Metrorail stations in the Vienna and Dunn Loring sections of the County should assure the continuance of this positive trend. Personal income gains have been above average.

Extensive industrial and commercial development consisting of corporate headquarters, research and development centers, light manufacturing plants and office complexes, enhanced by employment opportunities in Washington, has resulted in consistently low County unemployment rates. There are plans to construct important computer centers in the Dulles Airport area by Electronic Data System (EDS) and the Software Productivity Consortium (SPC). The $35 million EDS facility will bring 3,000 new jobs to the county. EDS holds major contracts with federal agencies and SPC specializes in research for the U.S. defense and intelligence agencies.

Sound financial performance continues with strong liquidity and favorable year-end balances. Although revenues are derived primarily from property taxes, their collection has been prompt and valuation growth has allowed frequent downward adjustments in the tax rate. Planned annual borrowing is expected to add only moderately to the County's debt burden."

Moody's Investors Service

Mass Transit Service: (2)

Fairfax County is connected to downtown Washington by the Orange and Blue Lines with all four stations on these routes operational. The County will also be connected to D.C. via the Yellow Line when the Franconia-Springfield segment is completed (it is currently under final construction design). At present, the NVTC is exploring alternative methods of financing the Franconia-Springfield section in order to speed completion.

The County is serviced by and contributes to the financing of Metrobus. The County operates its own feeder bus system to the Huntington Metrorail Station.

Fairfax County's Obligation to WMATA: (3)

Fairfax County is responsible for paying:

- its share of debt service on the outstanding WMATA revenue bonds;
- its share of WMATA operating support; and,
- its share of WMATA rail and bus capital costs.

The Virginia State aid package (described under the financial report on the NVTC, herein) provides a substantial and increasing share of Fairfax County's WMATA obligation, as follows:

- 100% of the annual debt service on WMATA bonds;
- approximately 40% of Fairfax County's obligation for operating support and rail and bus capital costs for WMATA (this percentage will increase as a result of the recently passed Virginia State aid package).

Through June 30, 1986, the County has contributed a total of $102.2 million toward Metrorail construction, consisting of $69.8 million of County bond proceeds and $32.4 million of State aid for transportation.

In order to make the Metrorail capital contribution payments for FY 1986, the County utilized $420,000 of State aid, plus $1,483,800 of County general obligation bond funds. These bond funds represent proceeds from the sale of bonds approved for Metrorail capital support by County voters on November 2, 1982. Of the $25 million approved by voters in 1982, there is presently a remainder of $11.475 million in authorized bonds which have not been sold. The projected rail capital payment of $9,703,080 for FY 1987 will be paid by utilizing $5,498,080 of State aid and $4,205,000 of approved bond funds.

The formula for allocating funds from NVTC to the jurisdictions in Northern Virginia will provide Fairfax County with $11.3 million in FY 1987. These funds will be used as follows: $3.2 million toward payment of WMATA's revenue bond debt service, $5.3 million toward funding the County's share of bus and rail operating subsidies, $2.0 million to be used toward the County's share of the Metrorail capital payments, and $0.8 million for the County's share of Metrobus capital payments.

For FY 1987, it is estimated that Fairfax County will be allocated approximately $4.4 million from the proceeds of the motor fuel sales tax. However, the continued reduction in gasoline prices could result in lower actual proceeds from this source. These funds will be used in fiscal year 1987 toward the County's rail and bus transit operating subsidies.

Revenues Designated for WMATA Support: (4)

Capital and operating subsidies are paid from the General Fund, gasoline tax receipts, State aid, and from Federal operating assistance.

WMATA Commitment: (5)

The following numbers reflect allocated WMATA Transit Assistance (including debt service) net of State and Federal aid ($000's):

1980	1981	1982	1983	1984	1985
12,227	16,282	14,731	12,557	17,973	16,762

The County has issued approximately $75,652,000 of general obligation bonds for metrorail construction. A $25 million Metrorail Bond Referendum was approved by County voters in the November 1982 election. Currently, $11,475,000 of the Referendum remained unissued.

General Economic Situation: (6)

According to final results from the 1980 U.S. Census, between 1970 and 1980 population in Fairfax County grew more than six times the rate reported for the entire Washington, D.C., metropolitan area.

Median household income in Fairfax County was estimated to be $42,600 in 1983, and was among the highest income levels in the metropolitan area. The Bureau of Economic Analysis of the U.S. Department of Labor reported per capita income in the County to be $17,931 in 1983, which was 9th highest in the country. Educational attainment is above average with 47.9% of the County's 1984 population 25 years of age and older having attended college for at least four years.

In recent years, Fairfax County has experienced a dramatic increase in economic growth. This increase results from a policy commitment by the Board of Supervisors for high quality economic growth in the area by approving and funding the second phase of a multi-phase marketing effort by the Economic Development Authority.

Planning and development strategies are being undertaken for new commercial and industrial development in the vicinity of the Metro rapid rail system stations and in the western portions of the County, south and east of Washington Dulles International Airport.

Unemployment in the County has historically been and continues to be well below national and state-wide averages. The January 1986, unemployment rate was 3.0% in the County, compared with a 3.3% unemployment rate in the total Northern Virginia area. State and national unemployment rates were 6.1% and 7.3%, respectively.

Tax Rate History
Collections, Tax Base: (7)

There is steady growth in taxable resources of this large, affluent Washington suburb. The steady valuation growth is mainly derived from well-developed industrial and commercial sectors in addition to a high quality residential base. Over the period from 1981 to 1986, real property assessed value has increased 79% in Fairfax County. Real property tax rates have decreased 9.7% in that 5-year period and the total tax levy has increased 75% over that same period.

The collection of property taxes has been prompt and valuation growth has allowed frequent downward adjustments in the tax rate.

The assessed value of Fairfax County Real Property and the corresponding tax rates for the past six years are as follows:

Year	Real Property Assessed Value (1) (Millions)	Real Property Tax Rate/ Per $100 A.V.	Total Tax Levy (2) (Millions)
1981	$16,575	$1.54	$309.897
1982	20,023	1.51	369.148
1983	23,126	1.47	416.349
1984	24,498	1.47	444.068
1985	26,653	1.46	498.956
1986	29,746	1.39	542.537

(1) Real property is assessed at 100% of estimated market value.
(2) The total levy is the levy for General Fund real and personal property taxes.

The following data show the assessed value of real property of the ten largest holders of real property in the County:

Taxpayer Name	Property Type	Assessed Value (1)
1. Westpark Associates	Various Industrial/Commercial	$ 191,419,425
2. Prudential Insurance	Various Industrial/Commercial	174,977,235
3. Westgate	Various Industrial	162,641,485
4. Lehndorff Tysons Prop.	Tysons Corner Regional Shopping Center	151,032,141
5. Mobil Oil Corp.	Headquarter Office & Various Commercial	115,203,460
6. Fairfax Associates	Fair Oaks Regional Shopping Center	101,925,855
7. Franconia Associates	Springfield Mall	94,426,155
8. G T Warehousing Co.	Various Industrial	87,213,980
9. Reston Land Corp.	Various Vacant Land Parcels	82,514,080
10. Washington Gas Light	Public Utility	82,285,194
Total		1,243,639,010
Total as a % of Total Assessed Value		4.18%

(1) Source: Fairfax County Office of Assessments. Derived from January 1, 1986, tax rolls. Some taxpayers have been combined as a result of holding several parcels of land.

Tax Rate Restrictions: (8)

There is no legal limit at the present time on the property tax rates which may be established by the County.

General Fund Revenues (Composition): (9)

It is anticipated that Combined General Fund receipts will increase at an annual rate of approximately 9.44% over the coming five-year period, with total receipts projected at $860.99 million in FY 1987. The General Property Tax category primarily consists of current real estate taxes and current personal property taxes. These taxes comprise 70.4% of General Fund revenues in FY 1985. The tax rate used in forecasting the Real Estate Tax category is based on the approved rate of $1.35/$100 assessed value. Other local taxes are expected to increase approximately 11.4% in FY 1987. Other local taxes primarily consists of local sales tax; business, professional and occupational license taxes; auto license taxes; and consumer utility taxes. These categories comprise 17.1% of General Fund revenues in FY 1985. General Property Taxes and other local taxes account for approximately 89.1% of General Fund revenue in FY 1987. The County does not receive any income tax revenues.

The remaining sources of revenue to the General Fund consist of intergovernmental revenue, permits, licenses, fines and miscellaneous fees.

Fairfax County had an unreserved general fund balance of 7.2% of revenues at the end of FY 1985.

Borrowing History: (10)

Years	Total Net Debt	Estimated Population	Net Debt/ Capita	Real Property Assessed Value (millions)	Net Debt/ A.V. (1)	Per Capita Income	Per Capita Debt as a % of Per Capita Income
1981	$321,324,500	612,600	$525	$16,575	1.94%	$15,484	3.39%
1982	322,052,100	620,800	519	20,023	1.61	16,669	3.11
1983	398,240,700	630,400	632	23,126	1.72	18,203	3.47
1984	365,063,800	649,300	562	24,498	1.49	19,825	2.83
1985	394,271,957	668,300	590	26,653	1.48	*	*
1986	437,334,213	679,100	644	29,746	1.47	*	*

(1) Assessed value for real property only.
* Information not available.

Debt Service Requirements as a
Percentage of Combined General Fund Disbursements

Fiscal Year Ending June 30	Debt Service Requirements	Combined General Fund Disbursements	Percentage
1980	$42,947,174	$398,688,804	10.8%
1981	45,363,951	461,961,217	9.8
1982	43,490,332	527,356,021	8.2
1983	48,203,601	581,705,849	8.3
1184	57,013,924	649,336,294	8.8
1985	54,906,760	706,348,424	7.8
1986	63,312,277	788,275,403	8.0

Planned Future Capital Expenditures ($000's): (12)

	1987	1988	1989	1990	1991	Total
Uses of Funds:						
Metrorail	5,970	5,231	5,629	5,610	5,610	28,050
County Road Bond Program	17,000	14,055	30,980	45,765	27,200	135,000
All Other	166,452	177,950	133,537	93,201	111,194	682,334
Total	189,422	197,236	170,146	144,576	144,004	845,384
Sources of Funds:						
Bond Sales (1)	91,629	107,052	111,705	79,959	55,346	445,691
General Fund	39,403	25,529	27,555	14,891	14,762	122,140
Other	58,390	64,655	30,886	49,726	73,896	277,553
Total	189,422	197,236	170,146	144,576	144,004	845,384

(1) Of the $445.691 million proposed from the sale of general obligation bonds over the Capital Improvement Plan period from FY 1987 through FY 1991, $266,132 million have received voter approval at referenda. Future referenda will be required for $179.559 million which are proposed for sale but not yet approved.

The County has outstanding the following amounts of general obligation bonds as of June 30, 1986:

Purpose	Total Bonds
School	$170,813,757
General Government	266,520,638
Sanitary Sewer	38,940,000
Total	476,274,395
Less: Self-supporting Sanitary Sewer Bonds	38,940,000
Net Bonded Indebtedness	$437,334,395 (1)

(1) Of this total, $69.8 million were issued to support the WMATA system.

The County does not rely upon short-term borrowing to fund operating or capital requirements.

Borrowing Restrictions: (11)

There is no legal limit on the amount of bonded indebtedness which Fairfax County can at any time incur or have outstanding. However, all indebtedness must be approved by voter referendum prior to issuance. As of August, 1986, the County had approximately $177.930 million in general obligation bonds authorized but not issued. Of this total, approximately $11 million is for transit purposes.

The Board of Supervisors also has imposed limits which provide that the County's long-term debt should not exceed 3% of the total market value of taxable real and personal property in the County. The limits also provide that annual debt service should not exceed 10% of annual General Fund expenditures and transfers. Currently, outstanding debt is 1.31% of total market value of taxable property and annual debt service is 7.8% of annual General Fund expenditures and transfers. These limits may be changed by the Board of Supervisors, and they are not binding on future Boards of Supervisors of the County.

Sources:

(1) Moody's Municipal Credit Report, July 10, 1986, p. 1-2.

(2) Status of 103-mile Metro System Map, June 1986.
Fairfax County, Virginia, Approved Capital Improvement Program, Fiscal Years 1987-1991, p. 140.
Fairfax County, Virginia Official Statement dated July 1986, p. 24.

(3) Official Statement, p. 22-25.
Approved Capital Improvements Program, p. 140.
"Transit in the Nation's Capital: What Lies Ahead?" Federal City Council, February 1986, Appendix G.

(4) Official Statement, p. 23.

(5) "Transit in the Nation's Capital: What Lies Ahead?", Federal City Council, February 1986, p. I-8.
Official Statement, p. 23, 93.

(6) Official Statement, p. 25-31.
Montgomery County, Maryland 1986 Series A Official Statement, p. 56.

(7) Official Statement, p. 36-38;
Moody's Municipal Credit Report, p. 1.

(8) Official Statement, p. 11.

(9) Official Statement, p. 10-12.
Moody's Municipal Credit Report, p. 7.

(10) Official Statement, p. 39, 42.

(11) Official Statement, p. 36-43.

(12) Approved Capital Improvment Program, p. 6.
Official Statement, p. 44.

APPENDIX A

APPENDIX A

CREDIT RATINGS

Moody's[1]

Rating	Credit Assessment
Aaa	Bonds which are rated Aaa are judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as "gilt edge". Interest payments are protected by a large or by an exceptionally stable margin and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most unlikely to impair the fundamentally strong position of such issues.
Aa	Bonds which are rated Aa are judged to be of high quality by all standards. Together with the Aaa group they comprise what are generally known as high grade bonds. They are rated lower than the best bonds because margins of protection may not be as large as in Aaa securities or fluctuation of protective elements may be of greater amplitude or there may be other elements present which make the long term risks appear somewhat larger than in Aaa securities.
A	Bonds which are rated A possess many favorable investment attributes and are to be considered as upper medium grade obligations. Factors giving security to principal and interest are considered adequate but elements may be present which suggest a susceptibility to impairment sometime in the future.
Baa	Bonds which are rated Baa are considered as medium grade obligations, i.e., they are neither highly protected nor poorly secured. Interest payments and principal security appear adequate for the present but certain protective elements may be lacking or may be characteristically unreliable over any greater length of time. Such bonds lack outstanding investment characteristics and in fact have speculative characteristics.

Standard & Poor's[2]

Rating	Credit Assessment
AAA	Debt rated AAA has the highest rating assigned by Standard & Poor's. Capacity to pay interest and repay principal is extremely strong.
AA	Debt rated AA has a very strong capacity to pay interest and repay principal and differs from the highest rated issues only in small degree.
A	Debt rate A has a strong capacity to pay interest and repay principal although it is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than debt in higher rated categories.
BBB	Debt rated BBB is regarded as having an adequate capacity to pay interest and repay principal. Whereas it normally exhibits adequate protection parameters, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to pay interest and repay principal for debt in this category than in higher rated categories.

Source:

1 Moody's Bond Record, p.1.
2 Standard & Poor's Municipal Bond Ratings, p. 7.

APPENDIX B

Excerpt from:

<u>The Appraisal of Municipal Credit Risk</u>

Moody's Investors Service, Inc.

Pp. 86-94; Pp. 337-346

Property Taxes

The amount of property taxes that may be levied is of considerable importance. Legal limitations on taxes for operating purposes pose numerous problems for local government, while limitations on taxes for debt service are objectionable to bond and note holders. The first matter to be determined by the analyst is the extent of the local government's power to levy *ad valorem* property taxes, and the nature and implications of the legal limits, if any.

Most property tax limits are on the rate of the tax, or on the rate for a particular purpose. There are a few states which set a maximum dollar amount on the levy, and some where there are limits on the permissible increase year-to-year or over a base year. There may be individual limits set for the several types of local government (sometimes subdivided into individual limits for particular funds or purposes), or there may be overall limits prescribing a maximum rate for all local purposes combined. Where the limit is overall, the allocation of the allowable total among the individual local units may be prescribed by law or left to the determination of a board or commission. Finally, the limit may be set by the state constitution, by statute, or by the unit's charter. In some instances the limitation may be exceeded with voter approval. Since laws are changed with considerable frequency, an up-to-date digest of state constitutions and statutes is indispensable to the analyst's library.[6]

Municipal bonds and notes are respectively said to be "unlimited" tax or "limited" tax obligations according to whether (1) there are no legal limitations on the rate or amount of property taxes or the principal and interest on bonds and notes is payable outside the applicable limitations (i.e., from taxes additional to those within the legal limits), or (2) property taxes for debt service are within the legal limits. It is argued in a few jurisdictions that, once they are issued, "limited" tax bonds become "unlimited" tax obligations because of legal provisions that sufficient taxes must thereafter be levied to provide for their requirements, or that, the limited tax being many times what conceivably could be required, there is no real limit on the service for the bonds. Such provisions, if enforceable, are obviously significant, but they do not make the limited bonds into unlimited tax bonds for analytical and descriptive purposes. There is also the special case of bonds issued for a particular purpose and payable solely from a specified property tax, whose rate is prescribed or limited by the law. While such obligations are "limited tax" in the foregoing sense, they are not general obligations and are properly described as special tax bonds, a class of debt in which the characteristic of limitation is inherent (see Chapter 22).

Historically, tax limitations have an implication which the analyst may not ignore. If limitations are set low enough to really limit, sooner or later they will prevent necessary or desirable activities or improvements. Either the limits will be relaxed or they will be evaded, particularly through use of special districts and revenue and other limited liability obligations. If the limitations are not, in fact, restrictive, the protection they afford the taxpayer may well be illusory, and they may then serve as covers for actual extravagance. Nevertheless, when taxes for bond service are legally limited, the promise to pay is conditional, just as the pledging of unlimited taxes provides the most impressive possible evidence of willingness to pay.

The rate or amount of property taxes legally allowable having been determined, the next step for the analyst is to examine the procedures established by law, sometimes in great detail, for calculating and collecting the taxes. Four distinct steps are involved:

- Assessment of the taxable property
- Calculation of the amount of tax due from each taxable parcel
- Billing and collection of the taxes
- Enforcement of delinquent taxes

Property assessments are annual, at least nominally, in some jurisdictions. In others, the law allows a rotation schedule, with the entire roll intended to be revised over a cycle extending as long as four or five years. After the assessor makes the roll public, property owners' protests must be heard and passed upon, and a definite date set for turning over the final roll to the collecting officer or agency. There are two important time constraints. One is that the final assessed valuation should be known before adoption of the budget, which, in turn, should be adopted prior to the beginning of the fiscal year. The other consideration is that all appeals from the assessment review board's findings should be completed before the tax rate is set. Otherwise, the unit may expend taxes which cannot legally be levied.

The collecting agency "extends" the tax from the assessment roll by calculating the amount due on each parcel. Tax bills are prepared and sent to taxpayers advising them of the amount due and the due date or dates. The best practice is that the taxes be payable in two or more installments, and there is considerable support for quarterly payments. Customarily, a "grace" period is allowed between the due date and the date on which the taxes become delinquent; a 30-day interval is customary and there appears to be no valid reason why the interval should be any longer. On the delinquent date, a specified penalty should apply to the amount of taxes delinquent and interest should begin to run against the delinquency. Penalty and interest combined should exceed the prevailing mortgage rates and bank rates for personal loans in the area, or taxpayers may "borrow" from the tax collector. Bills or statements should be sent before each installment, but whether this should be required by law for the second and later installments appears to be debatable.

Enforcement of a tax due will be uncertain unless the tax is a lien on the property, paramount to all other liens. This lien should be "sold" (i.e., "bid in" by a bookkeeping transfer) to the collecting jurisdiction before the end of the fiscal year. Penalty and interest rates from the date of this sale, like penalties and interest on delinquent taxes, should exceed prevailing mortgage and bank loan rates. The interval allowed for redemption of the lien (by payment of all taxes, penalties, and interest due) should not exceed four years from date of sale of the lien. There appear to be sound reasons why the redemption period should begin on the date the first installment of taxes was due. Liens unredeemed at expiration of the redemption period should be required to be advertised and offered at public sale promptly thereafter. The law should make specific provision for the handling and disposition of properties for which no bids are received, by automatic transfer of ownership to the collecting jurisdiction.

Nothing is more detrimental to collections than uncertainty that the tax will be enforced, or the expectation that part of the amount due may be compromised (forgiven). In past recessions, much unnecessary financial difficulty has been caused for local governments by injudicious indulgences granted to delinquent taxpayers.[7] For ordinary residential property and other non-income producing property, the most effective permissible indulgence is to permit installment payment of arrears and interest over a period of years, provided current tax payments are maintained. For the income-producing property, tax receivership modeled on the Illinois and New Jersey laws is most effective. The collector takes over as a receiver, collects rents, and applies the property's revenue first to necessary operating and maintenance and then to taxes; when arrears and interest are repaid, the property is returned to the owner. These procedures grant fair and workable concessions to the deserving without encouraging further delinquency, and protect the interest of the paying taxpayers. No justification can be found for any indulgences to vacant land that goes delinquent. Overwhelmingly, it is speculatively held.

When assessment and collection are the responsibility of another unit, there remains the matter of payments to the several other local units of the amounts due to them. In most jurisdictions, the actual collections are prorated. In others, the collecting jurisdiction is required to pay the other units their full levies, itself absorbing any delinquency.

The manner in which the local unit discharges its responsibilities under the applicable law, is also of interest. Collection records not only provide a measure of the diligence and vigor of collection efforts, they also reveal existing deficiencies—as in instances where the final installment of the tax becomes due or delinquent in the next succeeding fiscal year. Thus, it is useful to distinguish between such strengths and deficiencies in actual performance arising from the law itself, and those which reflect the competence and zeal of the local government involved.

Other Taxes

Other than property taxes, the oldest taxes used by American local governments are franchise and business gross receipts taxes. The former are privilege taxes (the price exacted by the public for the privilege, generally exclusive, of carrying on a business, usually a public utility). Franchise taxes often are a percentage of sales or gross receipts, sometimes of net receipts, determined according to a formula contained in the franchise.

Business gross receipts taxes usually involve payment of an annual license fee plus a percentage of the sales or gross receipts. The gross receipts tax principle is used today as the basis for widely used local "business taxes."

General sales taxes, selective excises, and municipal payroll or income taxes first appeared in New York City and Philadelphia in the mid-1930s, and are common now. For efficiency, these local taxes should use the same base as the state tax and be collected at the same time—a process called "piggy-backing." Payroll and the corresponding gross income taxes will customarily require separate machinery. Taxes should be withheld at the source, or paid in installments in the case of the self-employed. Employers should be required to pay their withholdings over to the municipality at reasonably frequent intervals. Provisions for auditing taxpayers and enforcing payment of the amounts due deserve scrutiny. Generally, what is not promptly collected will never be collected.

Licenses, Fees, Charges

The essential attribute of taxes is that they are exacted under compulsion. The taxpayer has no choice but to pay. Revenues from licenses fees and charges lack this compulsory feature, at least theoretically.

Licenses are required in order that the activity licensed may be regulated in some way, with the amount of the license theoretically intended to defray the cost of that regulation. The courts generally have denied increases in license fees clearly fixed to raise revenue rather than reimburse for costs.[8] License fees which have been raised and become highly lucrative to the municipality may thus be challenged successfully. While one may be required to obtain the license to engage in the activity (an exercise of the police power), no one is compelled to engage in the activity, so that the license is not compulsory in the same way a tax is compulsory.

Permits are authorizations to do a specific thing once, rather than authorizations to carry on activities over time. For instance a permit is required for installation of plumbing in a building. The idea of reimbursement of cost for regulating something involving safety or health is basic. On the other hand, certain fees are identified with special work done by the local government charging them, as when a fee is charged for recording a document, or providing a duplicate copy of a tax bill, or there is a fee of so much per page for copies of documents.

The revenues from licenses, permits, and fees are usually minor. Except in unusual circumstances such as extraordinarily high yield from a new license, they call for little study. The reliability of the income, rather than the legal features of the license or permit, will be of chief interest.

Charges are fees imposed for a special service rendered to some citizens, but not to all, in order to finance that service without requiring everyone to contribute. The distinction between fees and charges is sometimes elusive.

However, there are two groups of service charges which have assumed substantial fiscal importance. The most long-standing are charges to patients in public hospitals and sanatoria, which parallel those of proprietary or voluntary institutions. The other are sewer service charges, measured generally according to the way water is charged for—

quantity, or number of fixtures or rooms. Hospital charges are less important today since third-party payment systems became prevalent. Sewer service charges are generally revenues of a public service enterprise.

The manner of enforcing collection of licenses and charges may be of interest. (Collections from permits and fees are regarded as self-enforcing.) In some places, sewer charges are a lien against the realty of the property served—by far the most effective means of enforcement. When court action is required for enforcement of collections, the expense may discourage diligence in enforcement.

Fiscal Aid

The analyst's concern with laws and procedures respecting fiscal aid centers, first, on the dependability of the revenue and, second, on the calendar of payments and its relationship to the local unit's financial requirements.

Even though an aid is, in fact, a matching or reimbursement grant, it may be distributed under a formula whereby the amount available for distribution fluctuates with state collections of one or more specified revenues. Dependability may also be affected when an annual aid appropriation faces serious competition from the grantor's own direct needs. Thus, an important aspect of any fiscal aid is the way the grant fits into the grantor's fiscal arrangements and demands.

The second aspect relates to the regularity with which the aid is paid over, and the relationship of the payment calendar to the local government's own cash requirements. Reimbursements based on the actual local expenditure for the purpose aided inevitably involve a lag in receipt of the aid. This can be serious when the sum involved is large in relation to the local unit's other requirements.

The analyst must be familiar with the current federal and state situations respecting the aid programs; know the recent histories respecting changes in programs, amounts receivable, and payment practices; and watch for cut-backs and changes in the payments calendar. At the same time, where claims are based on eligible expenditures, the care and timeliness with which the local unit handles its expenditures and claims may have much to do with the extent to which claims and payments are or are not disallowed and disrupted.

Special Assessments

Special assessments are similar in nature to service charges because they provide financing for such things as permanent improvements or street lighting, fire protection, or other services, delivered to only a part of a population, or delivered to different areas under substantially different terms. In other words, special assessments relate to special benefits received.

There are essentially two special assessment systems, the eastern system and the system used in much of the central and western part of the nation. In the eastern system, the assessable benefits are always spread on a front-foot or land area basis, according to the intensity of the benefit deemed received, which is not necessarily equal for all parcels assessed for a given purpose. The bonds are general obligations of the county, town, or city involved. In the western system, the bonds are invariably limited obligations secured only by the assessments. These may be levied according to area or may be levied *ad valorem* on land or, sometimes, on both land and improvements. Because assessable improvements normally are represented by a relatively large number of relatively small projects, each having its own assessments, special assessment management and accounting are very complex. Even where bonds are general obligations, a firm understanding is required. In the case of limited liabilities, law and practice must be very carefully examined. Limited liability assessment bonds are not rated under present policy, but special protections are sometimes afforded, and the analyst must be prepared to study set-ups very carefully when guarantees or other faith and credit features are said to be present.

Debt Law and Administration

The administrative and legal aspects of state-local debt are limited in number. They concern the kinds of debt that may be incurred, how debt is authorized, what limitations are imposed on the incurrence of debt, and the mechanisms, if any, for controlling the purpose and amount of debt incurred.

Authorization of Debt

Since a local government can do only those things which it has been authorized to do by the state, the laws (constitution, charter, statute) prescribing the procedures by which debt may be incurred also identify the kinds of debt which may be incurred. In general, the analyst may expect that a governmental unit will be permitted to issue bonds for permanent improvements relating to any of the functions or activities for which it is responsible or may engage in at its option. It can also be assumed that local governments with the power to levy *ad valorem* property taxes have authority to issue general obligation bonds. Municipalities, and water, power, and sewerage taxing districts, may additionally have the power to issue enterprise revenue bonds, while authorities, commissions, and districts lacking taxing power can issue only some type of limited liability bonds.

There are only two ways in which a local unit may exercise its power to incur debt—action by the governing body alone, or with approval of the voters. In many jurisdictions, the electorate for bond issues was formerly restricted to property owners or taxpayers, but such restrictions have been held unconstitutional by the U.S. Supreme Court. The general rule thus now appears to be that anyone qualified to vote in local elections is qualified to vote in bond elections. Approval by a simple majority may suffice, or a special majority (two-thirds, three-fourths of all votes cast, or a major fraction of the number of voters voting at the last state general election) may be required. In a few jurisdictions, governing body approval suffices unless a petition for a referendum signed by a predetermined number of voters is filed, in which case electoral approval is required.

It is desirable that the law authorizing issuance of bonds should contain estoppel provisions to make the validity of the authorization incontestible after a stated period, and so guard against a bond issue being delayed by repeated and prolonged litigation. There is an obvious public interest in preventing nuisance suits, while providing ample opportunity for serious protest. In the case of new kinds of financing, test suits to confirm that the bonds will be valid and legally binding may be necessary.[9]

Limitation of Debt

Very few governments in the United States lack constraints on the amount of debt that they can incur. However, the meaning of the word "debt" before the law is not necessarily the same as that of the layman. Prohibition or restriction of debt may still not preclude the incurrence of other debt, to which the prohibition is not deemed applicable.

The difficult subject of permissible debt incurrence is perhaps best approached at the state level. Although many state constitutions contain prohibitions against the incurrence of debt (except to repel invasion or in consequence of a natural disaster) every state in the Union already had some form of state funded debt by the 1930s, even if only a few hundred thousands of dollars. Today, some states are paying from their general budgets the debt service on billions of dollars of debt incurred without voter approval, notwithstanding constitutional provisions appearing to require voter approval for debt incurrence. How is this possible?

In law, government has been equated with taxation, and taxation with constitutional restraints on debt. Thus, a constitutional restraint on debt is in fact a restraint on taxation. It follows that in the absence of taxation, the constitutional restraint on debt does not apply. This conclusion is essentially the basis for the so-called "special fund" doctrine. Initially, it permitted issuance of highway improvement bonds secured solely by motor fuel taxes and vehicle and drivers licenses (from whence the term "highway revenue bonds"). Today, it validates numerous issues of enterprise revenue bonds and limited liability obligations payable from special taxes and charges.

The second concept of debt to which constitutional restraints do not apply is based on the executory nature of leases. To be binding, a lease requires that both parties more or less continuously execute its terms—the lessee must pay the rentals, and the lessor must keep the premises fit for occupancy. If either fails to execute its part of the agreement, or specified parts of it, the lease is invalidated. While a legislative body may not bind its successors to future appropriations, it may enter into long term contracts, and a lease is a contract. It is a long-standing principle of law and accounting that a lease does not create a debt. The courts have thus readily determined that long-term debt under a lease is not debt within the constitutional intent.

The third, and most recent, distinction found by the courts rests on the recognition that legal obligation may be created even though no indebtedness is created in the constitutional sense. Bonds issued under this doctrine are sometimes called "moral obligations." This term was first applied to this type of liability in the mid-19th century by the New York State Court of Appeals and most conspicuously reaffirmed in the Williamsburgh Savings Bank case, which held the state liable for defaulted local water district bonds.[10] The essence of the device is a debt service reserve fund (back-up fund) which the state must replenish as needed, at least annually—sometimes without further appropriation by the legislature, sometimes with legislative approval.

These three exceptions to constitutional debt are all limited liabilities. The taxing power is not pledged, even though, in the case of lease-rental and back-up fund bonds, tax proceeds may be used. Lease-rental and back-up fund bonds are invariably issued by an agency of the state, rather than directly by the state itself, and there are now some local counterparts (at present, mostly lease-rental bonds), of which the commonest issuers are school building authorities or corporations.

A requirement that bonds be voted is an obvious restraint on the amount issued, but this is not usually what is meant by debt limitation. At all levels the amount of debt is commonly limited in either of two ways:

- By a dollar ceiling on the amount that may be outstanding at any one time or, less commonly, the total amount that may be issued
- By a ceiling on the amount that may be outstanding at the time of incurrence, expressed as a percentage of the assessed valuation of taxable property or, less commonly, a percentage of regularly recurring (or otherwise specified) revenues

State debt is most commonly subject to dollar limits, in total or for specific purposes. General obligation local debt is most commonly limited to a percentage of assessed valuation, and enterprise and special revenue bonds by the ratio of past revenues to future debt service.

Each local unit customarily has its own debt limit. Within a state which classifies its counties, municipalities, and special districts, the limits may differ according to class. In practice, there are many exceptions to the limits, particularly for municipalities. All or some enterprise debt may be excluded from the limitation. Self-supporting enterprise debt, or simply debt for certain purposes, may be deemed of exceptional priority. New Jersey school districts which have exhausted their borrowing power are allowed to charge certain debt above the district limit to the unused margin of the municipality. Percentage limitations based on assessed valuations are usually based on the last or current valuation. In some instances, a moving average is used, in other instances, equalized full valuation.

Just like tax limits, debt limits either prove unduly restrictive and are relaxed or evaded, or they are meaningless, the former being the commoner situation. Debt limits, like tax limits, may appear plausible when based on assessment at full or market value. However, assessment at less than market value often makes them severely restrictive.

A decline in the maximum legal debt limit to below the amount of outstanding applicable debt does not invalidate the bonds. So far as the debt limit is concerned, it is the situation at time of issuance that counts. The complexity of debt limitation laws and court rulings are such that the analyst rarely may calculate the maximum allowable and outstanding limited debt; that must be left to the unit's accountants and lawyers. Like the investor, the analyst is dependent on bond counsel's findings. Neither, if they still retain serious doubts, has any recourse, save that of staying on the sidelines.

Administrative Debt Control

Whether local debt results from careful deliberation on how to meet pressing needs in an orderly, programmed manner, or represents the careless incurrence of a low-priority expense is of great concern. These matters are within the credit analyst's capacity and competence to observe and measure.

Careful planning and orderly execution are essential for meeting the future physical needs of a community. So is the establishment of a schedule of priorities for meeting those needs. Future community needs are essentially functions of developmental patterns and estimated growth trends. The planning process thus begins with a master land use plan and its implementation by zoning ordinances. From these data, the future needs for services and facilities can be projected, plans for land acquisition and public buildings developed, and a capital improvement plan created.

The capital improvement plan (CIP) customarily provides capital appropriations for the ensuing year and projections for the ensuing five years, and is revised and updated annually. It differs significantly from the master land use and zoning plans underlying it. These are generally revised either in a piecemeal manner, or at excessively long intervals. Thus, after their first enactment, the master plan and the zoning plan draw farther and farther apart, and their usefulness as CIP controls is impaired.

One reason why control over the CIP is soon lost is that the studies of population, economic and cultural activities, and existing land use on which the master plan is based are time-consuming, tedious, and expensive. Moreover, much of the information quickly becomes stale or outdated, so that updating appears to be a formidable task and is postponed indefinitely. The prevalance of spot zoning (the dotting or spotting of the map with exceptions to the requirements of the zoning code) also complicates dependable forecasting of improvement needs. It eventually produces a zoning scheme that merely ratifies whatever property owners randomly decide they want to do. Finally, the publication of an elaborate master plan document tends, paradoxically, to freeze the plan in a rigid, hard-to-revise form.[11] When the plan is overlaid by a gloss of "social goals", as some post-war plans have been, necessary practical changes may appear as political or social treason.

The analyst must seek evidence that the master or comprehensive plan is not only strongly based on factual studies and reasonable projections, but also that it is continuously revised and updated. The zoning ordinance should be rigidly administered, which is feasible only if it has been fairly and carefully devised in the first place. When compared with the zoning map, recent land use maps should not be spotted with exceptions. Comparison of zoning variances granted with variances asked may be misleading, since zoning appeals boards that grant few exceptions are not likely to get many requests for variances and may show high ratios of exceptions granted compared with a community where indiscriminate spot zoning is common.

PROPERTY TAXES

The unique place of the ad valorem property tax in local revenue systems has been elsewhere noted—its function as the balancing element in most budgets and its ultimate enforceability. That its flexibility and dependability are frequently impaired by bad law or poor administration has also been noted. This memorandum is concerned with some of the quirkier aspects of the tax not usually found in the standard discussions, as well as the more obvious features. No attempt is made, however, to describe current practices in detail; such a work would require a large book, and unfortunately would be dated by the time it saw print. For detail in a particular jurisdiction, use of a continuously updated property tax digest is essential.

As with so much else in governmental finance, the words used to describe property taxes lack precision, although, within the limited array of terms applicable, the kind of tax and its purpose are usually clear enough in context. All taxes of the class are levied ad valorem, that is, according to the value of the property taxed. And there are both general property taxes and special property taxes. But, is the former a tax on "general property" or a "general tax" on property, and is the latter a tax on "special property" or a "special tax" on property? The answer is yes; each term is used in both senses. In the case of "general property tax," both conditions are normally met: the tax is levied for general purposes, and it is levied on the entire generality of property made subject to ad valorem taxation.

Some special property taxes, on the other hand, are indeed special taxes levied ad valorem on a special or particular type of property not otherwise taxed ad valorem, but others are special taxes levied against the same generality of property also taxed ad valorem for general purposes. A 5 mill tax on money and credits divided among state and local units would be an example of the former, while 25 mill county road tax against all taxable general property would be an example of the latter. Municipal analysts tend to regard taxes of the latter type as "limited taxes" because bond service on debt issued against such special taxes is limited-tax indebtedness, but in the tax structure they function as special taxes. Since in some states all local jurisdictions of a class levy only "special" ad valorem taxes, although such taxes run against all taxable property, it is practical to follow credit analyst usage. It is readily recognizable that when the property tax is really a collection of small, individual taxes each with its own rate limit, there is a rigidity lacking when a single levy may be imposed for all general purposes combined.

Power to levy ad valorem general property taxes is granted to all cities, counties, and school districts as well as to a vast number of special-purpose districts other than school districts. Such taxes may also be levied in the name of city or county commissions for special purposes or groups of purposes, and at least one "authority" has such power. [1] A particular parcel of property taxable ad valorem is thus subject to an array of general property taxes, and the tax paid by that parcel is the sum of the individual city, school, county and perhaps special district levies. The total of the levies of the individual local units overlapping a given area is called the overall levy.

Property taxes as a class are to be distinguished from special assessments, which are ostensibly levied against properties in proportion to the benefit provided by the improvement or service. In the East, benefit assessments are typically spread according to formula in which assumed degree of benefit and front footage or land area are the variables; in the Far West, there abound assessment districts whose assessments are in the guise of ad valorem levies against land only or accasionally land and improvements. It is sometimes difficult to find much substantive difference between the latter and the ad valorem general property taxes of small special-purpose districts whose sole function is to finance a capital improvement. Special assessments are discussed elsewhere in connection with consideration of assessment bonds.

What is Taxable: It is readily observable that "property" falls into four identifiable categories: land, improvements on land (such as buildings, drains, water pipes, walls and fences, telephone poles and electric transmission towers), tangible personal property (machinery, furniture, gold ingots, wheat, cattle), and intangible personalty (i.e., evidences of ownership of or interest in things of value such as mortgages, stocks and bonds, bank deposits). Land and improvements on land are impossible to conceal, land is immovable and while buildings may be destroyed many are immovable and most others may be moved only with conspicuous and costly effort. Tangible personalty is readily moved, however, and intangible personalty is both movable and readily concealed. These characteristics give the tax collector unique powers of enforcing collection, and legislatures have responded by making the property subject to seizure and sale if the tax is not paid, with the procedures deliberate in the case of the immovable real estate and generally more precipitate in the case of personalty.

Real estate (land and improvements) is everywhere subject to the general property tax. Tangible personal property is also so taxed, but with a variety of exceptions, while fewer than a dozen states impose the general property tax on intangibles. Such personal property as clothing and household effects is almost everywhere omitted from the tangible property assessment, either by law or by deliberate omission. The legal definitions are so various that only a state-by-state digest of the laws suffices for their description. In some states what is elsewhere classified as personalty is included in the improvement grouping—as in New York, where there is no separate classification of personal property. In a number of states intangible personalty, while not assessed for the general property tax, is subject to a special tax at a low rate that is uniform statewide.

Another way of classifying property is by ownership. Property owned by the government is not assessed, a variety of other owners have historically enjoyed exemption, and the list of favored owners is constantly being expanded. Exemption of property owned by religious organizations is very old, and extension of the exemption to charitable, philanthropic, and educational property was logical. Partial exemption of property owned by veterans, and often of that owned by their widows or orphans, has the sanction of long usage, and in this century partial exemption has been extended to houses occupied by the owner and more lately to dwellings owned and occupied by the elderly poor. It may be generalized that only a negligible part of intangible personalty is taxed, only a minor fraction of tangible personal property, and only from half to three-fourths of real property. Most students of taxation regard the taxation ad valorem of personal property as undesirable; administrators regard such taxes on intangibles as unenforceable and on tangibles as disproportionately costly and uncertain.

Intergovernmental exemption from property taxes is not universal, it should be noted. In some states property owned by a local unit but located in another is subject to the general property taxes of the unit where located. Thus, New York City and Los Angeles pay sizeable amounts of property taxes to local units for water system properties, the amounts often being a matter of dispute. In a few instances payments in lieu of taxes are made, particularly where municipal public service enterprise property is involved.[2]

A final question respecting what is taxable relates to newly constructed improvements. At what point does a new building go on the tax rolls? In some jurisdictions the property becomes taxable when it is completed or substantially completed on the assessment date. In others, such work as is in place on the assessment date goes on the rolls, whether the structure is finished or not. Property destroyed after the assessment date is generally still liable for the tax for that year, but the obvious difficulty of collecting it is often recognized by procedures for abatement and cancellation of part or all of the amount due.

Assessing Taxable Property: In the majority of states the property tax is administered by only one local jurisdiction, which assesses and collects for itself and each of the overlapping units. Only in Hawaii is the ad valorem property tax administered by the state. In twenty-eight states the county is the administrative unit. In about a dozen states, municipalities are the administrative jurisdictions (these including all the so-called "town" or "township" states except Pennsylvania). In the remaining states the arrangements provide for a mixture of responsiblity: in general, municipalities administer the tax within their jurisdictions and the counties for the areas outside the municipal boundaries. However, overlapping administration exists and, where it exists, it is an important factor due to the confusion and inefficiency it generates. In Florida the counties are the primary administrative units, but under the constitution incorporated places are required to make their own assessments for municipal purposes. In Texas counties assess and collect for county and remaining state purposes, but there is separate administration for municipalities, some classes of school districts, and certain special districts, it being reported once that as many as seven separate assessments on a single property were not uncommon. In California certain special districts do their own assessing, and while cities have the legal burden of assessment and collection they may contract for that service with the county and most have done so.

Taxable property is almost always required by state law (often constitutional) to be assessed at its "full," "true" or "fair" value. These terms have a meaning long established by custom and court interpretation: to wit, the price which an owner under no compulsion to sell would accept and a buyer under no necessity to buy would offer, in other words, the market price as determined by an arms-length transaction. A few states mandate that the assessment of property be at a stated ratio of its "full" or "true" value, while in some different classes of property must be assessed at different ratios to full or market value. Partial classification exists in several states, but Minnesota is usually cited as the only state with a "classified property tax" system.

While the laws uniformly require the assessor to record initially for each taxable property its "full" or "true" value, even where the property is to be assessed at some stated ratio to that value, this is rarely done. And, since debt and tax limits are invariably based on assessed valuation, the resulting under-assessment frequently has serious financial consequences to local governments. Further, it may be demonstrated that under-assessment, particularly at notably low ratios to market price, facilitates and perpetuates assessment inequities between like properties.

Some under-assessment results when a complex technical procedure is entrusted to officials without the necessary qualifications to do a satisfactory job. Some is presumed to represent the effort of elected assessors to curry favor with the voters who put them in office. Some is the result of favoritism and corruption. Finally, under-assessment is countenanced by the assessors' professional organization, which in the later 1940s recommended that the "boom and bust" fluctuations in assessed valuations should be "smoothed" by adherence by assessors to a kind of "long-range" "normal" concept of full value. Perpetuation of under-assessment also tends to result from activities of the state supervisory agencies (tax commissions and the like), which mandate uniformity while countenancing assessment at less than "full" or "true" value. However, New Jersey mandates 100% assessment, and many jurisdictions come close to it, while 100% of full value benchmarks are provided in several states, notably Minnesota and Michigan, and others publish their findings as to the actual ratio of assessed to market value used in the several primary assessing jurisdictions.

It is generally argued in defense of under-assessment at some predetermined ratio to market value that the basis of assessment makes no difference as long as all properties are assessed on the same basis. This ignores two facts: first, that tax limit and debt limit laws are almost universally determined by legislative bodies on the assumption of assessment at market value, and use of a lesser figure destroys taxing and borrowing power; and second, that such under-assessment itself contributes to unequal assessments among like properties. The latter results because property owners cannot satisfactorily determine the fairness of their assessment against those of other property owners, and if they do go to court the proceeding is complicated and difficult. The level of assessment as measured by assessed value-selling price studies, and the degree of equity in assessment as measured by the coefficient of dispersion, is reported in the quinquennial Census of Government studies for all the larger cities and counties. A coefficient of 15% may be regarded as satisfactory, one of 10% or less as remarkably good.

Scientific assessment, so-called, rests on the compilation and use of several types of information. Zoning and land-use maps facilitate the establishment of land valuation measures, while manuals are prepared or purchased giving unit costs (current construction costs) for different types, materials, and qualities of construction. Property descriptions are prepared for each parcel, including a dimensioned sketch of the plot, sometimes a picture of the structure, and details on the date of construction, size, volume, type, materials used, quality of both materials and workmanship, and so on. From these data and the unit cost manual standardized figures on cost new (reproduction cost) can be determined, and observation and age afford a basis for depreciation to present or reproduction-cost-new-less-depreciation value. In the case of income-producing properties, rentals and rental value are considered. Cost and value multipliers are kept current by continuing studies of construction costs, land sales, the real estate market, and properties are kept under surveillence by means of building permit records, property transfer records, etc. When manual procedures were necessary, there was some justification for revising the roll one-third, one-fourth, or one-fifth each year, but with computers readily available there is no reason why even the largest rolls cannot be run through the updating calculations annually.

Such assessing procedures obviously require trained personnel, including specialists competent to work on large and unusual properties, no two of which are exactly alike. It follows, therefore, that assessing jurisdictions should be large enough to economically utilize the required staff and have access to adequate computer support. In urban areas the county is certainly the smallest acceptable assessing jurisdiction, and in the remaining areas two or more counties need to be combined to be able to afford a first-rate assessing office. It goes without saying that the assessor and staff should be appointed, and selected subject to adequate professional standards. In the main, unfortunately, both the size of the assessing jurisdiction and the quality of personnel do not meet these standards.

Poor assessments are costly to the levying unit in terms of lost revenues and unfair to taxpayers. Inequities make assessments vulnerable to taxpayer litigation, something likely in times of economic stress. Corrupt assessments are likely to impair taxpayer morale as well.

Equalization: Assessed valuations are the only universally available, annually revised, direct measure of local government wealth. All other measures are incomplete or periodic—such data as individual and family income, business sales, manufacturing sales, are available only for larger cities and the counties, a small fraction of all the individual local units. Consequently, assessed valuations adjusted to full or market value are a necessary proxy for other, more satisfactory, measures of local government wealth and income. Because of this, they provide a base for the measurement of local debt burden—the ratio of local overall net debt to estimated full or market value of taxable property.

There are two types of equalization ratios, official and unofficial. The former represent the finding of county and state boards of equalization, the latter, those of civic or research groups, realtors, or even local officials who have no formal equalization process at hand. The best of both kinds are based on, or make use of, what are called assessment/selling-price studies. Sales in a given period are carefully screened to eliminate transactions between persons of the same name (presumably family transfers), distressed sales and foreclosures, and so on, so that the remainder represent arms-length, voluntary transactions. Unfortunately, a considerable number of the official equalization findings are not based on such studies and produce full-value assessed valuations that are absurdly low when compared either with available indirect wealth measures or with assessment/selling price data. The analyst must know the dependability of the equalization ratios in the areas with which he is concerned, and, when they are unsatisfactory, encourage local officials to procure or undertake themselves at least small sample assessment/selling price studies. In some instances, poor quality equalization ratios as officially promulgated severely distort measurements of wealth and debt burden.

One reason for the official understatement of equalization ratios is that in many state aid formulas equalized full value is a variable, and the lower the equalized full value the greater the state assistance. This is particularly true for school aid. In judging the dependability of official equalization ratios the analyst should not ignore the part they may play in the distribution of state (and federal) aid.

Individual local assessors are often not the best source of information on the actual equalization ratio in use. They are sworn to assess either at full value or at some ratio to full value determined by statute, and may consider it imprudent to give any answer except "100%" or whatever the legal ratio is, when asked the ratio of assessed to full or market value. Other officials may be more informative; real estate organizations sometimes have well documented findings, and local bureaus of municipal research ordinarily do an excellent job if they do it at all.

To raise assessed value to "full" or "market," divide it by the equalization ratio expressed as a decimal fraction, (i.e., 50% = .5). (However, to reduce the ratio of debt to assessed valuation to the ratio to full value, multiply the ratio to assessed value by the equalization ratio expressed as a decimal fraction. If debt is 10.0% of assessed value, and the equalization ratio is 50%, then $10.0 \times .5 = 5.0\%$ = ratio debt to estimated full value.)[3]

Both assessed and full value figure in the study of the trend of the value of taxable property. Assessed value measures actual fiscal or taxing capacity; it may be either increased or decreased by changes in actual property valuations and by reassessment. Reassessment changes may result from improved equalization, from discovery of previously unlisted properties (including improvements to structures), or from changes in the equalization ratio. Full value figures measure economic trend. They may be tested against building permit valuations (lagged for the time it takes from securing the permit to completing construction and getting the property on the rolls) and against other data on construction.

There is sometimes confusion concerning equalized full valuations. In most situations the assessor figures a valuation for each parcel, and, perhaps rounded off, the sum of such figures for all parcels is the total assessed valuation; an official or unofficial equalization figure provides the only other valuation number, full value. Sometimes, however, the assessor's initial figure is an appraised value figure, some uniform percentage of which is carried onto the roll as the assessed value, which in turn is subject to an official equalization. In Minnesota, the assessor produces two official figures, the appraised value and the assessed value (sometimes termed respectively assessor's full value and taxable value), while the state tax commission calculates yet another figure which it deems to represent "actual full value." In Michigan, the local assessor's figures are equalized to a uniform 50% equalized valuation figure; often only the latter is reported. Since descriptive terminology is not always uniform, it is obviously important for analysts to know just which figures are which.

Tax Rates and Levies: The amount of taxes that are or may be levied is obviously of the first importance, but much attention centers on the tax rate, perhaps because it is a number of low magnitude. There are three terms in the tax equation, and the equation, like any other, may be stated with its terms transposed:

$$\text{Tax} = \text{AV} \times \text{Rate} \qquad (1)$$

$$\text{Rate} = \text{Tax}/\text{AV} \qquad (2)$$

$$\text{AV} = \text{Tax}/\text{Rate} \qquad (3)$$

Equation (1) is used by the assessor or collector in calculating the tax on each individual parcel of property, while (2) is used in the official determination of the tax rate by the governing body. Equation (3) has no known legal standing, but it has been used (or is presumed to have been used) by assessors in determining just how much of an increase in assessed valuations they would "allow." None of these equations may be used by the analyst—the actual amount of the levy is affected by "breakage" in extending the rate against individual parcels as well as by a myriad of adjustments; and efforts to interpolate a levy from reported rate and assessed valuation, or interpolate the rate from levy and valuation data, lack the necessary precision.

The analyst will find it convenient to uniformly show rates in dollars per thousand of assessed valuation. For this purpose it will be remembered that 10 mills = 1¢ per $1 = $1 per $100 = $10 per $1,000 = 1% of AV. The number of digits required to be expressed in the rate is usually a matter of law or regulation, as is whether the rate be stated in mills, per $100, or per $1,000. Administrators and analysts like a minimum number of digits, the former for ease and speed of calculation on extending taxes, the latter to save space in reports; taxpayers, especially those with large assessed valuations, tend to like the rate carried to many decimal places.

The trend of rates of an individual unit may be informative, provided that over the period there have been no significant changes in the basis of assessment. When comparisons are to be made between units in different taxing (assessing) jurisdictions, however, rates must be adjusted to full or market value. Furthermore, when assessments of overlapping units are determined by different assessors, the rates must be individually adjusted to full value before being totaled to get the overall rate, which is then an adjusted rate. Further, when there are underlying units in a city with differing rates, there is the problem of selecting representative figures for inclusion in the overall. Consider:

	Assessed By	Rate per M	Equalization Ratio	Adjusted Rate
County	County	$ 5.00	50%	$ 2.50
School	County	25.00	50	12.50
City	City	12.00	75	9.00
Sewer*	City	1.00	75	.75
Overall rate adjusted				$24.75

*Special Sewer District #1, which represents over 2/3 of City AV; Sewer District #2 with rate of $1.25 represents about 10% of AV; no rate is presently levied in other sewer districts.

Note that adding up the rates as levied would produce a meaningless number. Note also that the adjusted individual rates disclose a considerably different relationship among the units than is suggested by the rates as levied. The school rate appears to be more than twice that of the city, but actually is about 28% greater. The sewer district rate is not 20% of the county rate, but 30%.

For at least several generations, property tax rates in the United States, adjusted to full value, have not fluctuated far above or below 3% of full value. There is, however, a marked variation in the traditional levels in various sections of the country, and there are quite strong traditions controlling the acceptability of rates in most individual communities. Moreover, the range of adjusted rates runs from those notably low by any standard, objective or otherwise, to some which are two to three times the "normal" 3% average. It would be an amenity for the analyst were there a universal, objective, measure of "property tax burden," but there is not, although by reference to adjusted overall rates the analyst may at least identify debtors whose property tax "burden" is evidently either very low or unusually high.

There is probably more promise in attempts to measure "burden" by use of the tax levy than from the adjusted tax rate, through use of per capita figures. Direct and overall tax levy or property tax revenue figures can be constructed as per capitas, as can total governmental revenues, and inter-city comparison may then be more feasible, provided differences in wealth and income levels and sources are also considered. Only overall figures have validity for comparative purposes, however, and there is presently no regularly recurring source of such constructions.

Tax Limitation: The flexibility of the property tax as the balancing element in the annual budget, and its revenue-raising potential, are restricted by legal limitations on the rate or amount of taxes that may be levied, or levied for particular purposes. Such limitations prevail at least as to some funds of some of the local units in all except a handful of states, located mostly in the northeast. When such limitations include the taxes to be levied for bond service, the bonds for which taxes are so restricted are called limited tax bonds, to distinguish them from bonds, taxes for which are additional to and outside of any limitations, which are called unlimited tax bonds.

Most tax limitations are expressed as maximum allowable rates. In a few instances, however, there are limitations on the percentage by which the tax for a purpose or for all general purposes may increase over the prior year, or over some base year.

Concepts of tax rate limitation in forms similar to those now prevailing date from the last century, but their extension on a large scale occurred in and following the 1930s' depression. In that period, seven states adopted constitutional overall rate limits — i.e., set legal maximum rates for all local purposes combined, or "overall." Twelve additional states have in their constitutions limitations on at least one local purpose or form of property taxation, and, except in New England, no state is to be found lacking statutory limits affecting at least one primary level of government.

Under the overall rate limits, the apportionment of the limited total among the overlapping units is either set by statute or left to the determination of a review board, prevalently at the county level, with sometimes opportunity to appeal to the state tax board or commission. Thus, in Washington statute law apportions the overall 40 mill limit among the local units, while in Oklahoma a county board makes the apportionment each year, and in Ohio the 15 mills overall is distributed in proportion to the actual rates preceding adoption of the limitation amendment and each share remains unchanged from year to year.

Some of the constitutional rate limits as adopted provided for the exclusion of taxes for bond service from the taxes limited, some purported to include all debt service, and some provided specifically for the exclusion of taxes for debt outstanding at the time of adoption but inclusion of service on debt incurred thereafter. The efforts to subject to the limit taxes to service outstanding bonds were unsuccessful, and in Oklahoma, where the amendment subjected to the overall limit taxes on future bond issues, the state supreme court threw out that attempt as also unconstitutional.

In some instances, rate limits are imposed by city charters, and some of these include debt service within the taxes so limited. Obviously, the analyst is faced with a very large array of limitations, as to authority, coverage, and implementation, and must be familiar with the sources of the specifics as to any individual debtor under study.

Many of the limitation measures provide that the limits may be exceeded for certain purposes or provided certain conditions are met. When service on new bonds is limited, provision may be made for issuance of unlimited tax bonds provided the bonds are voted (Ohio) or voted with a specially high majority (Washington). In such jurisdictions bonds may be either limited or unlimited, depending. There may also be provision for voting additional taxes for operating purposes. In one state at least (Ohio), voted operating levies are all that maintains the property tax as a viable revenue source, amounts available within the limits being utterly inadequate. In jurisdictions where both limited tax and unlimited tax bonds may be issued, credit prospects may differ significantly for each class, while, in situations where budget balancing is dependent on recurring approval of special rates or levies, fiscal stability may be jeopardized if the voters decline to renew levies.[4]

Two general considerations may be stated with respect to tax rate limits. First, any limitation on the authority to levy taxes for bond service is *per se* an impairment of credit; whenever taxes for debt service are subject to a legal limitation, the unused margin within the legal limit relative to the potential requirements for bond service and for competing purposes must be carefully appraised. Second, it may be apparent that a charter limit is more readily changed than a statutory limitation, and a constitutional limitation least readily of all.

Exemptions: Almost as detrimental to local finances as tax limits are exemptions of taxpayers of a class traditionally considered taxable. The oldest of these are the veterans' exemptions, but these are usually rather minor, running to the first few hundreds or few thousands of dollars of assessed valuation; in every postwar period, however, they exact a considerable toll of lost local revenues. In the 1930s, Florida and Oklahoma adopted constitutional homestead tax exemptions —, the former exempted the first $5,000 of assessed valuation of a house occupied by the owner, Oklahoma from $1,000 to $5,000 of homestead property similarly defined, the amounts to be fixed by the legislature and changed not oftener than every twenty years. In all, fourteen states now have some form of homestead exemption dating from the 1930s, some of them in the form of tax credits; in recent years exemptions, particularly in the form of credits, have been adopted to benefit the aged needy. Most, but not all, apply to all local taxes. In some instances the local unit is reimbursed for the lost revenue, but since this was sometimes done by adding a new local tax or providing additional state aid, it is difficult to determine whether the loss is really made up.

Another class of exemption is exemplified by the Louisiana industrial exemption, where capital investment was encouraged (very inefficiently, studies have shown) by granting new industrial properties exemptions for ten years, after which the property becomes fully taxable. In some cases, the equivalent of an exemption is provided by agreement deliberately to under-assess new buildings, as in Boston in the case of a large commercial complex.

While the revenue losses from exemptions persist in the form of hidden subsidies to the owners of the exempt property, their impact on local finances, sometimes quite sharp initially, fades as the units become adjusted to the revenue loss and growth obscures the adverse effect. Nontheless, these "hidden subsidies" are unfair and economically obnoxious, and have appeal only to politicians.

APPENDIX C

Excerpt from:

Debt Ratings Criteria: Municipal Overview

Standard & Poor's Corporation

Pp. 17-19; Pp. 23-36

GOVERNMENT FINANCE

State and local trends

Just as national developments in the 1970s were prologue to developments in municipal finance in the 1980s, current events will set the stage for the 1990s. Among these developments:

—A disenchantment with big government, exhibited in national election trends and in cuts or restraints in federal and local spending, especially in domestic and entitlement programs (social services, transportation, environment)
—A trend towards improved financial management, better accounting and reporting standards and wider general acceptance of GAAP for governments
—Expanding public burdens for toxic waste, water quality and supply
—Increased public attention to the nation's infrastructure, with different financing techniques emerging
—Rising pension liabilities, parity pay and the expanding scope of potential liabilities and judgments

Taxpayer revolts

Taxpayer revolts in the mid-1970s emerged in many states including California, New Jersey, Michigan and Massachusetts. These resulted in various degrees of spending restraints as well as limitations on the types of taxes that could be levied. The property tax became increasingly unpopular. Its longstanding inequities in both administration and impact became clear, as this tax no longer necessarily represented a fair measure of ability to pay. New Jersey, for example, imposed a state personal income tax to partially fund school aid and reduce property taxes. Some states have assumed a greater burden of public school financing. In states that adopted certain state aid withholding mechanisms for school debt service payments, S&P gives such laws special recognition by rating the school bonds at least in the 'A' category, where the state's rating is at that level.

When federal revenue sharing was first adopted in the 1970s, it was expected that municipalities would use it for capital improvements rather than to add the funds to the general operating budget. As national inflationary pressures took hold, this expectation became increasingly elusive. States and local units will have to sort out priorities as the federal government reduces programs and subsidies in critical areas like social services, education and transportation, and eliminates federal revenue-sharing.

Changing debt structure

Although nominal interest rates have receded from their record highs of the early 1980's, many governments have continued to use short-term debt instruments. Real interest rates have remained high, and demand continues for short-term debt. These include fixed-rate, cash-flow borrowing due in one year or less and commercial paper. Variable rate debt-instruments having market characteristics of short-term debt (owing to a demand or put-option feature), as well as insured instruments, are also in this category. Lease financing gained popularity as traditional bond authorizations have become legally proscribed. Credit-quality assessors therefore will have these new dimensions to evaluate in the debt-rating process.

Environmental questions

Increased public financing will be needed in several environmental problem sectors: toxic and nuclear waste, resource recovery, solid waste, water resources, and energy supplies.

New York, New Jersey, Florida, Missouri and Washington have been documented as states with high concentrations of toxic wastes. Most of the problems stem from long-neglected disposal criteria as well as the failure to find acceptable methods of disposal. Progress is slow in combining the solid-waste problem with energy supply. The technology is not without its complications, and a uniform solution remains elusive. A continuing hurdle is the challenge of enhancing long-term water supply as well as distribution.

Risk management

Financial managers have to cope with increasing governmental exposure to law suits as immunity has been eroded and liability insurance has become increasingly costly or unavailable. Improved disclosure practices have also provided analysts with the basic tools with which to ask better questions concerning outstanding litigation or suits likely to occur.

Rating considerations

Several emerging developments affect S&P's rating approach.

It is now apparent that a municipal debt rating must place greater emphasis upon underlying economic trends. It is the economic base that provides the ultimate capacity to repay debt. Population, employment, personal income, and trade activity are now plotted over a time-frame of 10 years or more.

Trend data for debt service and other fixed costs, such as pensions, are also traced. A debt structure with a heavy tilt toward short-term debt may be viewed negatively. In the 1970s, those municipalities under the greatest fiscal stress naturally included those with the heaviest short-term debt burdens.

As fiscal ties to the federal government become untangled, states and local units will be expected to rely on their own revenue sources for ongoing budget requirements.

Adverse court decisions as well as a closer look at pending litigation and unresolved pension funding are also likely to become more significant in credit evaluations.

Financial emergencies

In a general sense, financial emergencies or payment difficulties can mean different things to different people. Such problems, when occurring in municipal finance, range from a cut in services to a default on debt service. A municipality in payment difficulty is one that can no longer continue an existing level of services because to do so would make it unable to meet payrolls and current bills, pay amounts due other governments, or make payments on long- and short-term debt.

Thus, a financial emergency could precede an actual default on debt service or may develop without an actual default occurring or a bankruptcy filing.

Signs of fiscal stress

Seeds of potential problems are planted early. They include declining population and changes in composition of the population—young versus old, low versus middle and higher income. Other factors are home ownership; impact of collective bargaining on fixed costs (e.g., pensions) and labor-intensive services; tax-base erosion; slow revenue growth, and management's slow response to trends.

Other signs of a financial emergency include the possibility of loss in revenues caused by:

—National economic depression
—A court decision invalidating a major revenue source that requires a refund of receipts already collected
—Rejection by voters of major revenue source (Ohio municipalities, Washington and Oregon school districts)
—Failure to receive budgeted fiscal aids (Detroit, Newark, and Philadelphia in 1975 and 1976)
—Loss of major taxpayers—Bethlehem Steel (Lackawanna, N.Y.); U.S. Steel (Clairton, Pa.)
—A substantial court award against a municipality
—Unanticipated spending mandates by other governmental levels
—Sharp declines in sales and income tax receipts
—Substandard financial practices or inadequate financial planning and reporting
—Increased use of short-term operating loans
—Inadequate funding of local employee retirement systems
—Persistent balance sheet deficits
—Substandard financial planning and reporting

The ingredients leading to potential payment difficulties are not a mystery. They are indeed well documented. Whether dealing with the experience of the 1930s or the mid-1970s, those municipalities getting into difficulty to a very large degree experienced significant economic base erosion over a period of time. In addition, the erosion was too often and too long ignored by management in debt and fiscal policy.

The long-term economic dislocations in the 1930s in Michigan, with its dependence upon the auto and auto-related industries, were ignored then as they have been in recent times. Consequently, tax base erosion, job losses and revenue shortfalls were insufficiently addressed by managements then and they have been inadequately addressed in the 1970s and 1980s. The option of management to continue heavy borrowing and deficit funding (New York City in the 1970s) just added quickly to the burden of remaining taxpayers as the municipality lost population and employment—the vital ingredients that enable a municipal obligor to meet debt payments.

Although the economic base is often associated for the most part with general government obligors, S&P views the economic base as important in all municipal ratings from hospitals to electric power revenue bonds.

As a result of its study of the ingredients of municipal payment difficulties, S&P's worksheets for general obligation bonds in particular have long used an early warning list of indicators to monitor potential problems in debt payment capacity

CRITERIA OVERVIEW

Key analytical factors

Standard & Poor's credit-rating analyses include four broad areas of concern covering *established* sectors of credit. These are:

—Economic
—Debt
—Administrative
—Fiscal

Economic factors. It is important for an area to offer economic diversity in its tax and service base. Diversity should be reflected in employment and income as well as in taxpayers. The creation of jobs and adequate income levels are elements which ultimately generate a vital ingredient: the ability to repay debt. Economic base strengths, to be fully reflected in a debt rating, need to be captured through an adequate tax structure. Economic strengths not reflected in positive financial factors are of limited use.

Debt factors. These include the type of security being pledged to debt repayment, overall debt burden, debt history and trend. The debt burden is measured against certain aspects of the ability to repay. These include income and the municipality's total budget resources. Debt history as well as projected debt needs are also considered. A community desiring an optimum debt rating also should be able to demonstrate an effective planning program for capital improvements.

Administrative factors. S&P examines the form of government and assesses its ability to implement its plans and fulfill its legal requirements. Important considerations here are tax-rate and levy limitations, debt limitations, and current unused margin in each of these categories. Focus on management capabilities includes personnel turnover ratios, the history of labor-management relations, and legal and political restraints evident in the issuing entity's structure and environment. Assessment procedures and property valuation are important credit ingredients.

Fiscal factors. Current account analysis will include an examination of fiscal performance versus the budget. The balance sheet for the main operating account is examined with emphasis on current financial position and fund balances. Trends in these factors are important. If, for example, a current deficit is scheduled for elimination within a year, it will not be viewed too negatively. But an accumulated deficit for three successive years would be a definite negative. Pension liabilities are critical; their funding should be adequate and on schedule.

More details on each of the above factors are found throughout this book (including pages 29 through 36 which discuss the four major factors as they apply to general obligation ratings.

Most critical elements

Overall, S&P considers the economic base and operating account analyses to be the most critical elements in determining municipal bond debt ratings. Another important index is the comparison of fiscal results, over a three to five year period, with planning and budgeting procedures. A current or total operating deficit is cause for further evaluation. Impinging significantly on the rating process are financial results. Credible financial performance includes timely funding of such essential obligations as legal mandates, pensions and the like. Other credit-measuring yardsticks also are employed in developing a total credit profile. The ultimate picture developed is reflected in S&P's rating of the credit instruments in issuance.

Other key financial points

S&P looks to see if management's financial policy is reflected in financial performance. Otherwise, questions may ensue not only about financial controls and policies but also about the quality of management in general.

However, financial policies can weigh favorably when management achieves noteworthy financial performance despite a mediocre economic base. Positive bottom-line accomplishment in such a situation can be a very positive factor.

Although S&P's analysis does not include an audit, it does include an assessment of the reporting and accounting methods applicable to the issue being rated. A management letter that helps explain any weaknesses or apparent deficiencies in financial and/or management controls is very useful.

S&P often is asked about trigger points leading to rating changes. A set of early warning guidelines used in the rating process appears in the worksheets used by S&P's analysts for general obligation bond issues (see page 163).

Management factors

Although financial trends are a major credit determinant, they do not by themselves determine credit quality. Management is a vital ingredient in any enterprise and an ever-present factor in credit evaluation. It is the management team that comes to grips with adversities and makes the difficult decisions. Management willingness to make hard choices can be the difference between a high-grade credit and one that is less desirable. Reliability and continuity of information are important elements in S&P's qualification of management. Managements that keep in regular contact with S&P are well-regarded. The most difficult rating relationships are created by surprises that should not occur and that a full disclosure environment would prevent.

Updated accounting and financial reporting systems are an integral part of management teams that are ready to meet the challenges of hard decision-making. Only with current and reliable data can financial managers provide solid frameworks for intelligent executive and legislative decisions.

S&P often is asked how an issuer can improve its present bond rating. The most frequent response is that management ought to focus on those elements mostly within its direct control. For example, location is an important factor in the economy, but management cannot change the location of the unit. Planning and budgeting *can* be improved and financial results will reflect these tools of policy. Avoidance of large reliance on short-term debt is desirable. S&P prefers to see a balance between short and long-term debt, so that bonds, not notes, are issued to pay for capital projects when all costs are in. Although the local economic base usually is not under the direct control of management, municipalities can, by adopting an orderly climate in planning, zoning and land use, encourage a balanced economic environment. Such environments are conducive to ratables. Sometimes a rating will be difficult to improve owing to economic base dislocations not readily subject to restoration. But in more cases than not, management does have within its reach the ability to enhance the credit quality of a bond issue.

In recent years, the federal government has legislated significant changes affecting local government. Local aid reductions and in certain areas increased regulatory enforcement have and will continue to exert downward pressure on credit quality. This is particularly true in the areas of revenue sharing with local governments, water and sewer regulation and capital subsidies, and transportation funding.

The U.S. Congress voted in favor of continuing revenue sharing through its October 1986 expiration. However, a three-year deficit reduction plan calls for no reauthorization of this program. With this potential in mind, S&P conducted a survey, in May 1985, to analyze the effect a loss in revenue-sharing funds would have on local government.

Revenue sharing

Despite the probable loss of revenue-sharing funds, S&P believes there will be little immediate impact on credit ratings. By October 1986, when this program would end, local government units would have had time to adjust to the loss of this revenue. However, certain cities and counties will be faced with difficult financial and political decisions.

The existence of legal taxing limits or high tax efforts will be key in determining whether local governments will have difficulty in this new environment. This is true regardless of whether the government has a high or low revenue-sharing dependence. If taxation and user fees are legally or politically restricted, and spending is not reduced, then the loss of funds could result in diminution of financial positions. Under these circumstances, ratings could be negatively affected.

In the more extreme situations of high revenue-sharing dependence or high tax efforts, tax increases, service cuts, or reduced infrastructure funding may undermine local governments' long-term economic viability and may affect their ratings.

Revenue sharing was created by an act of Congress in 1972 with the intended goal to help equalize the relative tax efforts between and within the 50 states. The program distributes federal dollars to virtually all the cities and counties, and until 1981 to states as well, with a particular weighting in favor of low per capita income and high per capita tax local jurisdictions. This weighting is the basis of the per capita formula used to allocate revenue sharing to the 50 states and *then* within each state.

To determine the degree of dependence on revenue sharing, S&P surveyed the 50 largest cities. Data were obtained from the federal government on a large number of local governments receiving revenue sharing. The chart (see pg. 26) expresses revenue sharing as a percentage of a city's operating budget and taxes. Except for a few cities, the degree of dependence on revenue sharing does not appear to be great. Cities most affected are primarily those with relatively low-income levels that provide relatively low levels of service and have low local-taxing levels.

Such is the case with El Paso, Texas which has low per capita income levels and receives an above average allocation of its state's federal revenue sharing pool. Since its budget and taxes are relatively lean, its revenue sharing allocation totals a larger percentage of both budget and taxes than other cities surveyed—7% of budget and 12.4% of city taxes.

High revenue-sharing dependence

High revenue-sharing dependence, as it relates to taxes, becomes more apparent in smaller cities and counties beyond the scope of this survey. It affects those states in which local taxes are low due to either low local service levels or high levels of state funding of local governments. These states' revenue-sharing allocations, which are based on local income and tax levels, comprise a higher percentage of local taxes. Federal government data indicate levels of dependence on revenue sharing ranging from a low 3.9% of total local taxes in New York to 26.7% in Arkansas. For instance, Little Rock's allocation of revenue sharing is 16.4% of its taxes; Pine Bluff City, Ark. is 29.9%. In South Carolina, where revenue sharing totals 21% of local taxes, Columbia's dependence is 20%; North Charleston's is 26% of its taxes. Higher levels of revenue-sharing dependence in low tax states are even more prevalent in rural counties where income levels are often lower than the cities.

The data derived from the survey and federal government will be integrated into the rating process. Where legal, economic, or political limitations on revenue raising or budget reductions exist, additional concerns of credit quality may be warranted.

Low dependence

Most of the revenue-sharing levels are not very striking for the 50 cities. However, for many of these cities, the low levels of revenue-sharing dependence reflect the very problems which revenue sharing attempts to correct—i.e., high taxes in low-income jurisdictions. Many of the older cities with large pockets of poverty have above average budget requirements and taxes. Reflecting such high per capita taxes and low per capita income, these cities receive the largest per capita allocation of revenue sharing; but expressed as a percentage of budgets and taxes, it is quite small. However, these cities tend to be operating at the margin of adequate service delivery and acceptable tax efforts. For instance, Philadelphia fits this description; it has large service requirements as it is both a city and county government. St. Louis is another example of a city with large budget requirements which operates and subsidizes a hospital system. Both cities indicate that tax increases will be difficult to implement given the low income levels. In the case of St. Louis, it would require voter approval to raise taxes or fees—and this was already done in 1984 to correct a deficit. Service cuts according to city officials in both cities are the most probable outcome of the loss of revenue sharing.

Detroit has experienced its share of fiscal pain over the last five years, having reduced its municipal work force by 23% since 1980. Its proposed fiscal 1986 budget calls for adding back 1,150 jobs to restore some of the services lost in the past. The loss of revenue sharing will make attainment of this goal difficult as Detroit, like St. Louis, is at its state-imposed tax rate limit.

Another city that is at its property tax limit is Louisville, Ky., which has a high revenue-sharing dependence. City officials indicate that services will be cut with the loss of revenue sharing.

Miami and Phoenix, two rapidly growing Sunbelt cities, also must contend with state-imposed property tax limits. Miami indicated that because it is near its property tax rate limit of 10 mills for operations, it would have to reduce its work force.

Only a handful of the 50 cities allocate revenue sharing to nonrecurring capital outlay. One of them, San Diego, indicated that the loss of its $11 million allocation would result in a cancellation of capital projects that are not fee-supported. However, since general obligations (G.O.) bond issuance is no longer an option, the city is considering creating special assessment districts in order to fund capital improvements. Kansas City, Mo. has allocated revenue sharing to its general fund but has spent a like amount for capital outlay. City officials are concerned about their ability to continue to fund infrastructure improvements from general fund operations if revenue sharing is lost. Furthermore, G.O. bond issuance is difficult as bond authorizations require approvals of two-thirds of the voters at bond elections.

Loss of revenue sharing may likely have indirect implications for state finances where revenue sharing comprises a large percentage of local taxes. Those states may experience local pressures to replace revenue-sharing losses. Local governments in states with high local tax burdens will also, in the aggregate, lose many dollars from revenue-sharing's curtailment. New York State, for instance, will lose $465 million. States engage in tax equalization when distributing state aid for education. To the extent that taxing imbalances could result from the loss of revenue sharing to local jurisdictions, additional funding or altering of state-aid equalization formulas might occur.

Water and sewer financing

Renewal of the Clean Water Act of 1977 is the dominant issue in wastewater treatment at present. Additional concern results from a heightened level of enforcement by the Environment Protection Agency (EPA) as the date for compliance with the Act's effluent regulations, July 1, 1988, draws near. These two forces, combined with the demands of a growing economy, are expected to raise the level of

Revenue-sharing cuts

	Rating	Amt. ($) of rev. share	Use of	Fiscal year ending	% of oper. budget[2]	% of taxes[3]	Possible measure if cut?[4]
Albuquerque, N M	AA	7.5	O&M[1]	6/30/86	5.1	11.1	cut expenses, restore 1/4¢ gross receipts tax
Atlanta, Ga	AA	7.8	O&M	12/31/85	3.3	5.4	combination of property tax incr & budget cuts
Austin, Texas	AA+	4.7	O&M	9/30/85	2.3	5.9	property or sales tax increase
Baltimore, Md	A	22.8	O&M	6/30/86	5.0	8.1	across the board cuts, manpower reductions seek state rev sharing increase
Birmingham, Ala	AA	8.0	capital	6/30/86	6.3	9.1	cut prgms & try to absorb in gen. fund—not bond out
Boston, Mass	BBB+	18.0	O&M	6/30/86	3.9[5]	8.6	no answer
Buffalo, N Y	BBB+	4.8	O&M	6/30/86	2.7	5.3	combination of property tax incr & spending cuts
Charlotte, N C	AAA	6.0	capital	6/30/85	4.8	7.4	incr prop. tax to fund capital outlay
Chicago, Ill	BBB+	67.2	O&M	12/31/85	4.8	7.0	budget cuts or tax increases
Cincinnati, Ohio	AA	10.3	O&M	12/31/85	6.4	6.9	parking fine decriminilization—adminis changes
Cleveland, Ohio	BBB	14.2	O&M	12/31/85	5.5	7.1	reduce services (500 positions) or incr. local income tax
Columbus, Ohio	AA	9.4	O&M	12/31/85	4.7	8.4	increase misc fees, privatization
Dallas, Texas	AAA	14.6	debt service	9/30/85	3.4	4.7	cut service, raise property taxes
Denver, Colo	AAA	12.4	debt service	12/31/85	3.6	4.9	raise taxes first, service cuts, if taxes not possible
Detroit, Mich	BB	33.8	O&M	6/30/86	3.8	7.7	targeted budget cuts
El Paso, Texas	AA	8.2	O&M	8/31/86	6.9	12.4	deter equip purchases & probably raise prop taxes
Fort Worth, Texas	AA	5.7	d/s in gen fund	9/30/85	4.1	6.2	raise property taxes *not* cut services
Honolulu, Hawaii	AA	15.0	O&M	6/30/85	4.7	6.1	no answer
Houston, Texas	AAA	23.4	equipment	6/30/86	3.5	4.2	budget cuts & mostly property tax increases, not bond
Indianapolis, Ind	AA	12.5	O&M	12/31/84	7.1	8.0	cut back in planned incr in police & street resurfacing
Jacksonville, Fla	AA	10.4	O&M	9/30/85	4.1[5]	7.9	budget cuts or revenue increases
Kansas City, Kan	AA	10.5	O&M	4/30/85	4.4	5.8	cut neighborhood programs, reduce cap spending
Long Beach, Fla	AA	6.5	C&E	6/30/86	3.3	5.9	Raise business license & util user taxes
Los Angeles, Calif	AA	52.1	O&M[1]	6/30/86	3.2	6.1	hiring freeze, budget wide cuts, refuse collection fees
Louisville, Ky	—	8.8	O&M	6/30/86	8.9	10.7	cut services, are at property tax (state) limit
Memphis, Tenn	AA	12.5	O&M	6/30/86	5.0	8.2	raise property taxes
Miami, Fla	A+	8.9	O&M	9/30/86	4.4	7.5	reduce work force, limited review flexibility
Milwaukee, Wis	AA+	12.3	O&M	12/31/85	3.0	11.2	spending cuts & prop tax increases
Minneapolis, Minn	AAA	6.5	O&M	12/31/85	3.8	6.7	reduce expenditures & services—no tax incr
Nashville, Tenn	AA	11.0	O&M	6/30/85	4.6[5]	7.0	mostly property tax increase—some exp cut
New Orleans, La	A	15.8	O&M	12/31/85	5.0[5]	7.5	budget-wide cuts excluding public safety
New York City, N Y	BBB	270.0	O&M	6/30/86	2.0[5]	3.6	targeted budget cuts and/or revenue increases
Newark, N J	BBB	5.6	O&M	12/31/85	3.9	9.8	no answer
Oakland, Calif	AA	8.3	O&M	6/30/86	4.4	7.3	cut O&M expend & reduce gen fund cap. outlay
Oklahoma City, Okla	AA	8.8	capital	6/30/85	4.8	7.4	further deferral of capital projects
Omaha, Neb	AAA	5.6	O&M solid waste	12/31/85	5.2	6.7	mostly thru replacement of revs., decrease in solid waste expend
Philadelphia, Pa	BBB+	45.1	O&M	6/30/86	2.9[5]	4.8	service cuts & to a lesser extent prop tax increases
Phoenix, Ariz	AA	10.9	O&M	6/30/86	3.4	7.6	reduce work force 2%-3% or incr user fees
Pittsburgh, Pa	A	11.6	O&M	12/31/85	4.7	6.4	cut personnel costs
Portland, Oreg	—	10.5	'85—O&M	6/30/86	5.0	10.2	in '86—make cuts & shift to 1 time capital items & may increase util franchise fees
San Antonio, Texas	AA+	12.0	'85—O&M '86—Capital	9/30/85	4.3	9.7	'86—budget reductions or accelerate sched 3-yr fee increase plan
San Diego, Calif	AA	11.0	capital	6/30/85	4.3	6.7	cancel capital expend in general fund
San Francisco, Calif	AA	21.5	O&M	6/30/86	2.2[5]	4.3	targeted budget savings
San Jose, Calif	AA	8.5	'85—Cap '85—O&M	6/30/86	3.2	5.9	would finance projs thru lease rev bds
Seattle, Wash	AA	11.2	'86—Cap '85—O&M	12/31/85	4.8	6.3	utilize reserves or raise sales tax after 1986
St Louis, Mo	BBB	10.6	'86—Cap	4/30/85	3.8[6]	4.7	budget reductions, not tax increases
Toledo, Ohio	A	5.9	O&M	12/31/85	5.9	8.1	layoffs, income tax increase less likely
Tucson, Ariz	AA	5.5	O&M	6/30/86	3.0	8.2	'86—exp savings, eliminate overtime, etc. FY '87 cut gen fund cap.
Tulsa, Okla	AA	7.6	C&E	6/30/86	6.4	6.5	voters' approved special sales tax for capital & equipment replacement
Washington, D C	A	17.7	O&M	9/30/86	1.1[7]		budget savings

[1]O&M—Operations and maintenance expenses, C&E—capital outlay and equipment replacement.
[2]Operating budget—General fund and revenue sharing fund when used for operations Excludes debt service and schools expenses and transfers to other governmental units Pension and some other fixed expenses are included in all examples
[3]Source Federal Government Includes revenue sharing as a percentage of entity's local taxes
[4]Questioned phrased assuming Oct. 1, 1985 early expiration of revenue sharing as originally proposed by President Reagan.
[5]Unified county and city government
[6]Includes hospital functions
[7]Unified county, city, and state government

local financing necessary to pay for construction of the required wastewater treatment plants.

The Senate and House of Representatives have taken a strong bipartisan approach to renewal of the Act. Legislation is expected to emerge from a conference committee in time for passage in early 1986, owing to the need for sewer grant allocations.

The EPA has indicated that it will be less willing to give municipalities that are not in compliance extensions beyond the July 1, 1988 deadline. At the local level this means additional debt financing and higher rates. Where capital needs are greater than debt capacity under existing bond ordinances, refundings to dilute legal protections are likely. Lower rate covenants and more permissive additional bond tests have become a trend. Inclusion of connection fees in coverage calculations and parity tests increases the risk of bondholders, particularly where a community decides that "growth should pay for itself." Frequently this means reliance on potentially volatile connection fees to pay debt service.

Halfway measures inept

Further, such halfway measures only postpone the time when rates must be raised to pay additional debt service. Substantial rate increases in the immediate future also are risky. Large monthly payments may have adverse effects on collections and high rates often make a community unattractive to new business and residents. A balance between these seemingly contradictory rate risks must be achieved within the political context. In evaluating the risk to bondholders, clearly the best rate-making approach is one that minimizes the economic dangers to the community and provides a steady and reliable revenue stream. Protection of groundwater sources remains a major issue in water resource management. Concerns are emerging about the effects of toxic waste sites on municipal water supplies. Some communities have already financed new wells to replace those threatened by toxic wastes.

Capital needs rise

Capital needs are expected to grow for replacement water sources as long as toxic-waste disposal sites remain to be cleaned up. The level of funding provided in the 1985 renewal of the federal superbond financing will determine how much site cleanup and water-resource protection is accomplished. Loss of these resources will increase the demand for surface water sources, particularly in areas that also have experienced problems of land subsidence.

Development of surface water sources increasingly depends on municipal financing as a result of reduced federal spending for water projects. Western states in particular are likely to experience increased spending needs for these projects. California will be a focal point as plans emerge for moving water from north to south.

Federal transportation

While proposed cutbacks in federal financing for transportation may cause pain, the credit implications for most municipal bonds appear minor. There are two reasons for this. First, most transportation projects which are vulnerable to federal funding cutbacks already have additional credit support, such as sales taxes, behind their bonds. Second, when federal grant money for new projects is cut, the projects are usually cancelled and no bonds are sold.

Transportation funding must be looked at in the context of the overall federal budget. The budgeted federal deficit for fiscal 1985 was $222 billion on expected receipts of $737 billion. Over the same period, transportation outlays by function were estimated at about $27 billion. The President's 1986 budget proposes that transportation funding by outlay should decrease to about $24 billion by 1988 and stay at roughly that level for the next few years.

The proposed 1986 cuts were modest on a combined program basis. Where proposed cuts were greatest, however, such as the total elimination of Amtrack subsidies, political resistance has been fierce. Recent Congressional action suggests that there will be only about a 9% cut in Amtrack funding next year.

The President's budget also proposed eliminating budget authority for Section 9 capital and operating grants for mass transit. These amounted to $2.4 billion in 1985. Proposed, too, was freezing the $1.1 billion Section 3 discretionary grants under a new formula method of distribution.

At time of writing, the House and Senate have passed different budget bills with only slight cuts in such funding. Congress also has continued to support the $250 million transfer of interstate gas-tax money for mass transit.

The President proposed essentially level funding for airport capital grants. These are funded from dedicated seat taxes unusable for other purposes, regardless. Likewise, highway funding comes mainly from dedicated motor vehicle fuel taxes. Financial strains in these two areas have stemmed mostly from a clash at the limited federal trough for new capital expansion and maintenance beyond current service levels.

Many estimates of infrastructure needs have been bandied about. One federal study has concluded that Highway and Bridge funding needs will total $720 billion in the U.S. through the year 2000, with a funding shortfall of $265 billion. The same study concluded there will be a shortfall of other transportation needs of $88 billion.

Nevertheless, large airports appear relatively well positioned to survive federal-grant cuts if they should occur. A Congressional Budget Office study concluded that federal grants totalled only 18.5% of the airport investment of large airports over a four-year period, while accounting for 27% and 69% of medium-sized and small airport's investment, respectively. Most rated airports today have substantial revenue-raising ability and are in good financial health.

Large mass-transit systems generally have less dependence on federal operating assistance than most of the public believes. The six largest mass transit systems in the country recently had federal operating subsidies as a per cent of revenues running from a low of 3.8% in New York to a high of 14.9% in Washington D.C. Cutbacks for operating subsidies seem politically difficult and Congress has been reluctant to cut back even capital grant programs.

Waterborne commerce can expect continued pressure for user-fees to off set dredging and lock-maintenance costs. However, the build-up of dedicated fees for these purposes mitigates funding cutback pressure even though cuts in many specific water-related areas (such as the Coast Guard) have been proposed by Congress.

Overall, funding proposals on a combined basis may ease, though not allay, public concerns. Highway funding has fared best under Presidential and Congressional proposals. It shows some increases and is backed by growing dedicated-fuel taxes. Airport funding could experience modest cuts in selected programs which would affect small airports disproportionately, even if eventual withdrawal of almost all federal capital grant support for large airports occurs as proposed under de-federalization. This is the result of the lessor dependence of the large airports on Federal aid and their generally good financial strength. Air carrier subsidies for commuter airlines serving small airports would be eliminated under the President's plan.

Freezes and cutbacks in waterborne-related financing will probably have a small, uneven and case-by-case impact on municipal ports. Mass transit shows the greatest Presidential budget cuts. Yet even if fully enacted, the effect of operating subsidy cuts on the large systems will be minor on a percentage basis, if no less painful. The biggest impact will be to increase the backlog of the many frustrated cities unable to get federal funding for proposed subway and light rail systems, which will remain unbegun. Even in the mass transit area, however, Congress appears very resistant to cutbacks in funding.

Note: At press time, analysts were still pondering the effects of the 1985 Gramm-Rudman bill. On March 1, the Department of Transportation faced a 4.6% across the board 1986 budget cut, with greater cuts possible in 1987 and 1988. However, the highway trust fund, the airport trust fund, and the inland waterways trust fund, along with other excise tax funds created for specific purposes, are exempt from the Gramm-Rudman cutbacks. Hence, the effects could be highly uneven, and not as drastic for infrastructure financing as it might first appear. There are proposals to exempt the FAA from cutbacks. In early 1986, most observers were waiting for the administration's specific proposals on future budget cuts.

GENERAL OBLIGATION DEBT

G.O. ratings

After several years of decline, general obligation (G.O.) bonds made a strong comeback in 1985. Bonds backed by the full faith and credit of the issuing states and municipalities totaled $48.4 billion in 1985, a 75% increase over 1984. This volume represented 30% of the $161.5 billion tax-exempt debt total in 1985. The G.O. market share is the highest since 1980 when these issues captured 35% of the total.

Through the mid-1970s, G.Os had dominated municipal capital financing. Various factors at that time forced a shift away from G.O. debt. These new measures included California's Proposition 13, Michigan's Headley Amendment, and Massachusetts' Proposition 2 1/2. Nontraditional debt such as housing revenue bonds, industrial development financing and health care issues grew rapidly as a result. These new capital-raising techniques quickly overshadowed the traditional capital-market instruments. It was not until 1985 that significant indications of a sustained G.O. comeback appeared.

An issuer selling a G.O. bond secured by its full faith and credit attaches to that issue its broadest pledge. This security encompasses such things as its ability to levy an unlimited ad valorem property tax or to draw from other unrestricted revenue streams, such as sales or income taxes. However, the issuer's ability to actually generate any such revenue depends upon numerous factors. For S&P's analytical purposes, these factors have four classifications:

—Economic
—Financial
—Debt
—Administrative

Economic base

The economic base is the most critical element in determining an issuer's rating. A community's fiscal health derives from its economy, affecting such major revenue sources as sales, income and property taxes. Economic conditions also dictate the quantity and quality of services delivered in such categories of expenditures as welfare, community development, health care and the like.

Two kinds of criteria are brought into play in evaluating the economic base: general factors and specific comparisons.

General factors include issuer characteristics, demographics, tax base, employment base, income levels and diversity, and sales activity. Each contributes importantly to the evaluation process.

Issuer characteristics: This first step in effect is a full camera sweep, taking in the issuer's location, transportation network, infrastructure, natural assets and liabilities.

Demographics: Population analysis extends over a four-decade span. It embraces the impact of annexations and the effect of migration, inward and outward. The population is profiled in terms of age, education, wealth and income levels.

Tax base: The initial focus is on diversity and growth. The tax base's composition is studied to establish proportionate contributions from residential, commercial and industrial sources. To determine the degree of concentration, the top 10 taxpayers are identified. Focus also is on the housing stock—i.e., its age and the extent of owner-occupancy. Significant changes in the tax base are reviewed in terms of both its composition and growth. Measurements of growth include assessed and market value trends as well as building permit activity.

Employment base: Diversity and growth of the employment base also are prime considerations. This scrutiny includes:

—Composition by sector (manufacturing, durable and nondurable; trade; construction; fire and police; community services; government administration).
—Shifts within these sectors.
—Concentration, to determine relative reliance on single employer or industry.
—Employer commitment to the community,

trends in work forces (expanding or contracting), business development plans, age of plants, vigor of industry.
—Employment trends, to measure local-economy performance during recession with special focus on local employment vis-a-vis general labor force trends.

(The quality of the local labor force—i.e. the match between the skills and education levels of the labor force and the employment base—has become an increasingly important consideration owing to the shift to a service economy and the loss of traditional entry-level jobs.)

Retail sales: Analyzed for growth and market share, this activity can indicate a community is locally or regionally important as a shopping center. This factor increases in importance if a point-of-sale formula determines the sales tax receipts.

Comparative criteria

Specific comparisons of the general factors outlined above then are made with overall data at the state and national level. These criteria, where appropriate (wealth and income levels are examples), also are compared with SMSA data.

Sources

Data for economic analysis must come, in part, from the issuer itself. Other sources include the Bureau of Census, Departments of Commerce, Labor and Agriculture, the State Labor Departments, and from such publications as *Sales Management and Marketing Magazine.* Additionally, S&P uses as an in-house data bank Interactive Rating Support System (IRSS).

Summary

Generally, those communities with higher income levels and diverse economic bases have superior debt repayment capabilities. They are better protected against sudden economic fluctuations than communities less fortunately situated. But even when economic change is slower its impact can be persistent. Thus an issuer's ability to meet long-term debt service must be a long-term consideration. A high current capacity to pay may not translate into a long-term strength.

Financial indicators

Financial analysis involves several areas within this broad category: (a) accounting and reporting methods; (b) sources of revenues and uses and expenditures; (c) annual operating histories; (d) balance sheet history; (e) budget and financial planning; and (f) such miscellaneous variables as pension fund position and other long-term obligations. The combination of these factors will present a clear indication of the financial strengths and weaknesses of an issuer.

Accounting and reporting

The first and possibly most important variable is the accounting and financial reporting methods. Predicated on the basic guidelines of Generally Accepted Accounting Principles (GAAP), S&P assesses the treatment of revenues and expenditures as well as assets and liabilities.

The accounting methods utilized are examined with the modified-accrual basis most often employed for governmental funds, i.e. general funds, debt-service fund and special-revenue fund. Governmental Accounting Standards Board (GASB) interpretations of accounting rulings are considered in evaluating the organization of funds, accruals and other financial methods. GAAP reporting is considered a credit strength, and the ability to meet Government Finance Officers of America's (GFOA) Certificate of Conformance requirements is also viewed favorably. A Comprehensive Annual Financial Report (CAFR) should include significant financial data, information on debt and other long-term liabilities and various statistical charts.

Although S&P does not perform an audit, it expects issuers to supply adequate and timely financial reports, preferably prepared by an independent certified public accountant. Lack of an audited financial report prepared according to GAAP could have a negative impact on an issuer's rating. Offsetting factors such as an extremely strong reported financial position or consistently strong cash-flow history may be given positive consideration in view of non-GAAP reporting. If audits are prepared by state agencies or other internal government units, S&P is interested in the independence and timeliness of such reports. A copy of the management letter which accompanies an independent audit is also requested along with the issuer's plans to meet any cited problem areas.

Current account analysis

Account analysis includes an examination of operating trends focusing on the composition of revenue sources and expenditure items, primarily within the general fund and debt-service funds. If other funds are tax-supported or include revenues relative to general government purposes (i.e., highway or park & recreation funds), they, too, will be carefully considered. Revenue-source diversity lends strength to financial conditions; if the income stream is dependent on one or two revenue sources, economic downturns could severely affect revenue flow. A balanced composition of revenues gives an issuer the maximum flexibility to meet all its obligations, not just those due the long-term bondholder. Recent history indicates that in order for an issuer to remain a viable entity, it must be able to operate day-to-day, meet operating expenses, and pay debt service. Major revenue sources such as property, sales and income taxes, intergovernmental aid, investment income and user-charges are analyzed over a three-to-five-year period. S&P looks for shifting proportions or decreases in revenue sources that could lead to future financial difficulties.

Similarly, expenditures are analyzed in relationship to revenue patterns. The growth of operating budget expenditures is viewed in the light of the pattern of population changes, and tax base increases or decreases. Large expenditure items are identified and examined to determine their possible burdensome effect. Changes in expenditure classifications are examined carefully. Debt-service costs as a part of total expenditures are evaluated to assess the burden of debt retirement. Revenue and expenditure balance or imbalance over a period of years is analyzed. The balance sheet is reviewed to determine the cumulative effect of each year's revenue and expenditure position.

The financial-position examination focuses on liquidity, the fund balance position and the composition of assets and liabilities. In S&P's consideration of fund balance size, several variables are important: the cash-flow of an issuer (i.e. tax collection patterns versus spending patterns); other reserves or contingency funds available to meet unforeseen expenses, and the philosophy of government officials and the overall community toward large government revenue surpluses. Since the fund-balance position is a measure of the flexibility of an issuer to meet essential services during transitionary periods, S&P does consider an adequate fund balance a credit strength. Finally, in reviewing the operating fund and financial position, the effect of any transfers of revenue is considered. Where the general fund (and/or debt-service fund) is supported by transfers from other funds, S&P looks to determine the policy guidelines and transfer practices historically.

The analysis of the financial performance takes into account the role of short-term financing and its implications. As outside fiscal (state and federal) aids decrease, and since taxing calendars do not always meet expenditure patterns, cash-flow difficulties can become more prominent. S&P's staff has been rating short-term debt since 1982 (see page 103). This understanding of cash-flow patterns is carefully integrated into the flow-of-funds analysis.

Creative management and financial strategies can enable an issuer to minimize cash-flow problems. But S&P is ever mindful of issuers' ventures into risky strategies—i.e., those which may prove reliable in the short-run but problematic in the long-run. In reviewing an issuers cash-management and investment practice, the types of investments, security precautions and uses of investment income are considered.

The budget documents are reviewed and compared with actual operations. This is a significant indicator of financial and managerial strengths. In budget development and planning, assumptions and forecasts are extremely important. S&P is interested in the strategies built into future budgets and the monitoring systems utilized to determine budget execution.

Pensions and other long-term liabilities

Other factors have become increasingly important in considering the financial condition of a municipal debt issuer. Pension fund position, other long-term liabilities and risk management have significant impact on financial performance. While all areas of expenditure growth are important indicators, pension fund requirements are particularly noteworthy. S&P expects issuers to provide recent and ongoing actuarial valuation reports. The emphasis of the pension fund analysis is toward the trends and ratios of asset accumulation versus accruing benefits.

While "unfunded accrued liabilities" generally is considered a major indicator, it is often clouded by the assumptions and funding methodologies involved. Furthermore, the rate of return on investments may be predicated on various assumptions whose accuracy could affect significantly the level of unfunded liabilities. Recent GASB rulings regarding computation methods are designed to standardize pension fund reporting for the public sector. However, in view of current limitations and lack of standardization in valuation studies, no system-by-system comparison analysis can be undertaken. S&P's effort involves trend-data analysis on individual systems, with the direction of such trends closely monitored.

Long-term contingent liabilities are examined to determine the issuers exposure to financial pressures. Accrued sick and vacation pay costs should be accounted for at least as a footnote within the financial statements. It is considered a strength for a reserve fund to be established to cover some or all of such costs.

Risk management for governmental issuers has become increasingly more complex. In light of the difficulties of assuring that sufficient coverage can be provided by traditional insurance programs, this area has become of greater significance. S&P is interested in the types of coverage, and where self-insured programs exist, the amount of insurance reserves set aside to meet claims. Sound management and financial planning can effectively meet concerns where long-term liabilities face an issuer—if resources are available and allocated to meet such liabilities.

Debt factors

The analysis of debt focuses on the nature of the pledged security, the debt structure, the current debt burden and on the future financing needs of an issuer. Because debt level and structure are important credit factors, an issuance pace that overburdens a municipality may lead to rating downgrades. Conversely, a low debt burden may not be positive. Low debt could evidence underinvestment in infrastructure, which could impede economic growth. Indeed, fiscal crises in the 1970s left some large cities with a backlog of capital needs that is placing downward pressure on their credit ratings. Long-term debt issued to finance operating expenditures or to fund deficits has a negative credit impact. While deficit financing may ease a crisis, it is not a cure for financial problems.

To analyze debt, S&P focuses on four factors:

—Type and strength of security pledged.

—Maturity schedule and whether it matches the life of the projects being financed.

—The degree of reliance on short-term debt or variable-rate put bonds.

—Current debt burden and future financing needs.

Type of security

A G.O. pledge takes various forms which provide different degrees of strength.

Unlimited ad valorem tax debt, secured by a full faith and credit pledge with no limit on tax rate or levy, carries the strongest security. However, during a period of fiscal stress, debt service must compete with essential services such as police and fire protection.

Limited ad valorem tax debt, or a limited tax pledge, carries legal limits on tax rates that can be levied for debt service. S&P views this type of security more as a means to limit debt than as a strict cap on revenues available to retire debt. In a limited tax situation, the tax base's growth and the economy's health are more significant credit factors than the limited source of payment. In fact, a limited tax bond can be rated on par with unlimited bonds if there is enough margin within the tax limit to raise the levy or if other tax revenues are available for debt service.

Double-barreled bonds are secured by an enterprise system's revenues, such as by water or sewer user charges. They also carry a full faith and credit pledge, but taxing power is used only if the enterprise's revenues are insufficient. S&P's approach is to rate both pledges—the government and the enterprise—and to assign the higher of the two ratings. A well-run enterprise system can enhance the general government's credit by making substantial financial contributions to the general fund, or because the enterprise has greater flexibility in setting its rates than the government has in setting its tax levy. However, a troubled utility can severely drain the general fund.

Credit implications may be positive when the enterprise has:

(1) A solid track record of self-support.

(2) Covenants to maintain rates.

(3) Other provisions which would work to prevent a potential fiscal drain upon the general fund.

Special assessment bonds are now rated based on their own creditworthiness (see page 100). Such bonds may have some speculative characteristics. But a lien on parity with or ahead of ad valorem taxes, legal protections, economic incentives for timely payment, in addition to low risk associated with the particular project, can mitigate concerns. If the assessment can be reallocated in the event of bankruptcy of one or more of the participants, credit protection is improved. The project's importance to those paying the assessments is critical in determining if timely payment will be made. Water, sewer, or street improvements generally meet this test, while landscaping might not. A high ratio of property value to debt is another indication of the likelihood of timely payment. A debt service reserve fund or other security feature that will cure problems associated with delayed collections is essential.

A moral obligation pledge occurs when an issuing entity relies on another to make up any deficiency in the debt service reserve fund. That pledge is most often given by a state to the debt of its agencies or authorities. The promise of the state to appropriate money to the debt service reserve fund usually enhances the creditworthiness of the issuing authority. Close attention is paid to the public purpose being served by the project (the more essential it is, the more likely it is that successive legislatures will appropriate funds for debt service). In most cases, S&P rates moral obligation debt one category below the G.O. debt of the guarantor.

Maturity schedule

The maturity schedule can become important in some circumstances. Prudent use of debt dictates that the bond's term matches the useful life of the facilities being financed, even though the legal obligation to repay exists. For example, 15-year bonds issued to finance police cars would be viewed negatively.

An average maturity schedule for capital projects is one in which 25% of the debt rolls off in five years, and 50% is retired in 10 years. A faster maturity schedule is viewed positively only if it does not place undue strain on the operating budget, or if the expected life of resources paying off the debt is shorter than the facility's useful life.

Debt structure

Short-term debt is now a permanent part of many municipalities' cash flow management and capital structure. To accommodate the different types of short-term debt being issued, S&P has three sets of symbols: municipal notes rated 'SP-1+' to 'SP-3'; tax-exempt commercial paper rated 'A-1+' to 'D'; and variable rate put bonds with dual ratings, for example 'AAA/A-1+'.

In the 1970s, municipalities under the greatest stress had the heaviest short-term debt burdens. If properly used, however, short-term debt is a valuable management tool that evens out the flow of receipts and disbursements. The short-term market also provides lower interest costs when the long-term rates are temporarily high. It does carry risks: Limits on the period during which notes can be outstanding may force an issuer into the long-term market when rates are higher.

Excessive reliance on short-term debt can result in a lowered credit rating. Such is the case of Camden County, N.J. The county guaranteed the project notes of its Municipal Utilities Authority being used to finance construction of a large regional sewage treatment facility. Contingent liability that accompanies the guarantee is projected to exceed the county's bonded indebtedness by project completion in the next two to three years. This market-access risk was the primary reason why the county's rating was reduced to 'BBB' from 'A' last year.

Balloon or bullet maturities expose the bondholder to market access risks which are not present in serial maturities. Because balloons must be refinanced to assure timely repayment, a large amount of debt comes due at one time. However, several circumstances provide a degree of comfort. S&P prefers small balloons to large ones, and prefers a long maturity to a short one. Moreover, an issuer with a high long-term rating, good operating record, and satisfactory plan for dealing with the balloon is viewed more favorably.

Put or variable rate demand bonds may have a final maturity in 25 years, but holders have the right to demand the entire principal and interest within a short period of time (for example, every seven to 30 days). S&P assumes all holders simultaneously will exercise the put option. Therefore, credit quality of both the long-term serial maturity and the demand portion are analyzed, and two ratings are assigned. For example, an issuer may have variable rate demand bonds rated 'A/A-1+'. The 'A' reflects the likelihood of timely repayment of the serial maturity, and the 'A-1+' may be based on the rating of the bank providing liquidity support for the put. The issuer's ability to honor the put or possible onerous repayment terms from a bank providing the liquidity support can negatively impact the long-term debt rating.

Debt limitations and needs

S&P looks for realistic debt limitations that permit the issuer to meet its ongoing financing needs. A city near its debt limit has less flexibility to meet future capital needs—but, more importantly, may be unable to borrow money in the event of a financial emergency. Restrictive debt limitations often result in the creation of financing mechanisms that do not require G.O. bond authorization or voter approval.

S&P examines the community's future financing needs, in particular, evidence of regular needs assessment as well as planning for capital improvements is sought. History of past bond referendums indicates the community's willingness to pay. S&P also measures the debt burden against a community's ability to repay, that is, against the tax base, the disposable income of the community, and total budget resources. In general, a debt burden is viewed as high when debt service payments are 15%-20% of the combined operating and debt service fund expenditures.

Administrative factors

As municipal operations expand and become more complex, an understanding of the organization of government is a prime requisite. It establishes an entity's ability to execute autonomous actions, with the focus being the entity's degree of autonomy including home rule powers, legal and political relationships at state and local levels.

The range and level of services provided by the issuer also is examined in relation to the capacity to provide such services. Tested, too, is the ability of officials to make timely and sound financial decisions to meet both economic and fiscal demands. Tenure or term of office, frequency of elections and the background and experience of key members of the administration are important considerations, to the extent that they affect continuity and ability to formulate and execute plans.

There are several elements in the organization of government beyond the control of the administration, (e.g., state statute, voter initiative or political reality). But even where constraints exist, a strong and innovative administration will find ways to lessen this effect. The ability to work with what is available, and gain maximum results is a key factor in this area.

Documenting the planning goals

Long-range financial planning goals and objectives should be well documented, and should include projections for fund and cash balances as well as anticipated sources of revenues and expenditures. Revenue requirements must be able to respond to the needs of expenditures. Total reliance on one or two revenue sources could be of concern. Ability to make accurate short-range forecasts, in order to ensure the availability of funds to meet seasonal and other short-range requirements, is a consideration. Financial planning goals and objectives should be closely aligned with the same format as that of the operating budget, to reflect proposed or projected future revenues and capital and other expenditures. Adherence to long-range financial plans is considered a reflection of good forecasting and planning.

Financial management

Financial management is a major factor to be considered in the evaluation of state and local government creditworthiness. Historical trends, the organization in place, experience and qualifications of personnel, all have an impact on the "bottom line."

Financial management, by definition, has two basic and broad considerations: financial and managerial. Within these areas exist several distinct disciplines. Major financial aspects include debt, tax policy, economic base analyses and forecasting, governmental accounting and financial reporting. Knowledge of interest rate movements is important in management of cash and other assets, as well as pension costs. Increasing attention is paid to risk management, which includes adequate insurance for accidents, health, and potential law suits for public officer's liability. The language and use of data processing are vital requirements. The need to develop a meaningful balance between taxes and user charges is often a volatile political issue. Politicians need the support of qualified professionals to establish and carry forward their priorities. The national mood in recent years has reduced the scope of governmental resources, and major considerations for the future will be how to cope with cuts, fewer resources, and managing the phase-out of certain services previously taken for granted. This may include recreation programs or outreach programs for the aged or handicapped.

Effective management includes training in the political process and the interpersonal relations so vital to the achievement of goals. Management of one's time, effective decision-making, and knowledge of details are necessary ingredients for successful management.

Annual budget

A budget and budget-preparation policy statement, along with three years of audits are required documentation in the debt-rating process. S&P views the budget as an expression of administrative capability. Timeliness of budget adoption is another factor considered. A smooth budget-formulation process is reflected in a history of passing budgets on time. Late budgets are a hindrance to planning and an indication of political difficulty. Timely adoption reflects cohesiveness in both the administrative and political process.

Also weighed are budget oversight controls or guidelines e.g., tax and revenue, and expenditure limitations as they affect an administration's flexibility. Expenditure limits are less of a concern, unless they impair the ability to issue or service debt.

A sound budget plan should identify those elements which lie outside of the administration's control e.g., the condition of the economy and its effect on a major revenue source, such as sales taxes. The administration is expected to exhibit a willingness to make revenue and expenditure adjustments to ensure a realistic operating budget. S&P's experience shows that where these adjustments have been made, serious situations have been resolved. Continuous monitoring and surveillance should be carried out once the budget has been adopted, preferably monthly, with any deviations reported to S&P, and responded to in a timely and effective manner.

Capital improvement program

As part of the debt rating process, S&P requires a well documented capital improvement program (CIP), which should be reflected in the capital budget. Funding sources in the CIP should be identified, and the positive or negative impact on the operating budget in the capital improvement plan should be discussed.

Benefits statement

A pension and employee benefits policy statement, explaining the degree of participation by both employer and employees and describing appropriate actuarial methods and assumptions, should be made available to S&P. There should be some discussion on funding policy and levels, and investment guidelines. Periodic acturial reports and review of the financial position of the program by independent professionals should be submitted to S&P.

In cases where bonds are issued to fund the unfunded portion of the employee retirement pension obligations, attention will be focused on the impact of additional debt on already outstanding debt. Keeping in mind the limitations and lack of standardization in evaluation studies, no system-by-system comparison analysis is undertaken. The effort involves trend data on individual systems, with the direction on such trends closely monitored.

Property tax administration

Administrative factors analyzed by S&P include the issuer's property valuations and assessment trends, changes in assessment ratios, and assessment procedures. S&P looks at the valuations by categories—industrial, commercial, utility and residential—and at how the assessment ratio is applied to these different classes of properties. Tax rates, levies, collections (on both a current basis and a total basis, including delinquencies) and procedures are examined over a ten-year period. Tax-due dates and delinquency rates are noted for their possible effect on cash flow. An administration's taxing flexibility, or the ability to raise taxes without any political or other obstacles, is an important rating factor. Inability to collect taxes is viewed negatively.

Labor settlements and litigation

Full disclosure of labor disputes and settlements should be made. There should also be full disclosure on budgetary implications in terms of funding and on the impact on future budgets. Relationship between employer and employees, timely resolution of negotiations, settlement at levels the municipality can support, and a lack of work stoppages or strikes, also are important rating factors. Possible litigation against local municipalities has become a reality, and this area is analyzed for any fiscal vulnerability. The focus here is on whether insurance coverage is adequate, and on the implications from a budgetary standpoint in terms of near and long-term liabilities.

State ratings

The approach to rating the general obligation bonds of states is similar to that for local government units. However, state governments have sovereign powers and therefore possess certain unique options and flexibility. These options and how they are exercised will affect the creditworthiness of a state's general obligation bonds. Conversely, the states' functional responsibilities are more widespread than those of local units, increasing the likelihood of expenditure pressures.

Changing relationships

In recent years, states' relationships with their localities have changed. In California, for example, the local units' dependence on state aid has grown since 1978, when voters approved Proposition 13, a constitutional amendment that limited property tax revenue. Similarly, in Massachusetts, local governments came to rely more on state aid in 1980 when voters passed Proposition 2 1/2, also a property tax limitation measure.

S&P's general obligation worksheets (see page 163) includes the factors considered in any general obligation rating under the four broad categories discussed on page 29. The discussion below highlights areas of difference between state and local ratings.

Economic base

As with local units, the economic condition of a state defines its ability to generate tax revenue, perform its functions, and retire debt. Thus economic-base analysis is the most critical element of the rating process.

A state's economy is generally more diverse than that of a local unit. It encompasses central cities with major tax and employment bases and generally lower-income levels as well as wealthier bedroom communities and cities incorporating both elements.

The creditworthiness implication of this difference between states and local units can be both positive and negative. The larger nature of the state's economic base may avoid the problems of concentration, low income, and economic dependency on a neighboring community that can exist for local units. But the state's greater diversity can leave it more vulnerable to downturns in a larger variety of industries. Also, a state must find a method to handle effectively the diverse needs of the various areas within its boundaries.

Financial factors

Since states can unilaterally establish funding levels for certain local programs (such as education), they have an increased degree of control over expenditure levels. Funding levels are usually statutorily, not constitutionally, determined. However, the political reality is such that once a certain level has been established, it may be difficult to change. Nevertheless, states enjoy considerable discretion in establishing or changing major disbursement dates and funding levels for state assistance. States also enjoy a similar flexibility in setting and modifying tax rates and their collection timing. These discretionary powers can immediately and favorably influence a state's cash flow calendar, as well as its fiscal condition.

Debt considerations

States generally issue a wide variety of tax-supported debt in addition to general obligation debt. Such issues include authority debt that is secured by state lease rental payments, subject to annual or biennial appropriation (see pg. 121), moral obligation debt (see pg. 36), and debt secured by general taxes such as the sales tax.

When S&P examines the debt burden of a state it looks not only at the direct general obligation debt but also at these other types of debt and at all the obligations incurred as local government debt. A calculation is then made of the S&P index, which is per capita total debt divided by per capita personal income. The index yields a measure of the debt burden relative to the income level. The S&P index also can be used as a balancing indicator, since states differ in their relationships with local governments. Some states issue a great deal of general debt for local purposes (roads, schools, etc.), and others very little, leaving these functions to the local units. The S&P index evens out these jurisdictional variations.

To deal with timing differences between receipts and disbursements, some states enter the public short-term debt market because of prohibitions against—or limitations on—interfund borrowing. Others borrow to the maximum interfund and then issue short-term debt as necessary. S&P looks at both internal and external liquidity supports to fully assess the effect of the alternative used on creditworthiness.

Administrative factors

Administrative factors are as important to state creditworthiness as they are to local governments. Tax structure, or the ability of a state to benefit from the economic activity within its boundaries, is an important rating factor, as is the degree of flexibility existing in this structure, both legally and politically. Expenditure pressures and disbursement schedules are also important, as state officials deal with the needs of a wide variety of local communities.

Many challenges exist for state governments today as they strive to create a workable balance between their tax structures and service demands. Federal revenue reductions have intensified this struggle since needs at both the state and local levels continue to expand. Tax reform of any sort also creates additional burdens as state and local governments face uncertainty and possible revenue losses. For states, these challanges have become particularly acute as local units turn to them for assistance.

APPENDIX D

Comparative Information for Large Transportation Related Bond Issues

Issuer	Debt Outstanding	Ratings Moody's/S&P	Project	Pledged Revenues	Coverage	Additional Bonds Test
Alabama Highway Authority (Highway Bonds, 1984 Series A & B)	$409,110,000	A1/AA-	To finance The construction of roads and bridges	Motor vehicle tag taxes ($13) Gasoline tax (7¢ gallon) Petroleum inspection fees	From 2.4x to 3.0x from 85-89, then increasing to 10x	Additional parity bonds if pledged revenues are equal to 2.0x maximum annual principal and interest.
State of Arizona - Department of Transportation (Highway Improvement Bonds Series 1982)	$198,290,000	Aa/AAA	To finance construction and improvement of highways	Fuel tax (13¢ gallon) Vehicle registration fees Motor carrier tax Motor vehicle license tax	From 7.03x in 1986 to 8.36x in 1992 (based on pledged revenues)	Additional parity bonds if pledged revenues are equal to 3.0x future maximum annual debt service.
State of Connecticut (Transportation Infrastructure Bonds, Series 1984)	$125,000,000*	A1/AA	Improvements to State roads	Motor fuel taxes (15¢ gallon) Registration fees ($21) Miscellaneous fees	10.5x debt service coverage decreasing to 3.3x for prior year equal or exceed 2.0x future maximum annual debt service.	Additional parity bonds can be issued if revenues available for debt service

* Includes $83,636,000 of Boston Metropolitan District obligations for which the Authority is responsible.

Issuer	Debt Outstanding	Ratings Moody's/S&P	Project	Pledged Revenues	Coverage	Additional Bonds Test
Delaware Transportation Authority (Motor Fuel Tax Revenue Bonds, Series 1981)	$110,720,000**	A/A+	Improvements to State roads	Motor fuel tax (11¢/gallon)	4.9x debt service coverage	Additional parity bonds if pledged revenues are equal to 2.0x maximum annual principal and interest.
Harris County, Texas (Toll Road Tax and Subordinate Lien Revenue Bonds 1985 F - $186.2mm)	$550,000,000	Aaa/AAA	To construct two major toll roads	Revenues of the project, Ad valorem taxes on all taxable property in County with no legal limit	From 2.29x in 1988 to 5.44x in 1989; 1.90x in 1991 and 2.64x in 2000	No limitations on additional bonds.
State of Kansas - Department of Transportation (Highway Bonds, 1983)	$227,665,000	A1/AA	Improvements to State roads	Gasoline tax (8¢/gallon) Diesel taxes (10¢/gallon) Liquified petroleum taxes (7¢/gallon)	2.5x debt service coverage	2.0x debt service coverage. $320 million of authorization of which $40M remains.

** Includes only Motor Fuel Tax Revenue obligations. Also outstanding are $69,680,000 of Transportation Revenue Bonds.

Issuer	Debt Outstanding	Ratings Moody's/S&P	Project	Pledged Revenues	Coverage	Additional Bonds Tes
Department of Transportation of Maryland* (Consolidated Transportation Bonds, Series 1982)	$355,010,000***	A1/AA	Improvements to State roads	Motor Vehicle Fuel Tax (7¢ or 9¢ - June 1982 additional 2¢ - June 1983 additional 2.5¢ - July 1984 increase of 10% of excess over $1.35) Motor carrier identification marker ($3) Motor Vehicle Titling Tax Motor Vehicle Registration Tax Corporation Income Tax (1% of State's 7% tax)	Debt service	Additional parity bonds may be issued if debt service coverage is 2.0x maximum annual principal and interest.
Massachusetts Bay Transportation Authority (General Transportation System Bonds 1984 Series A)	$635,381,000*	A1/AA-	Equipment and improvements	Direct and general obligation of the Authority; also determined to be a general obligation of the Commonwealth of Massachusetts		
Metropolitan Atlanta Rapid Transit Authority (1983 Refunding Series E)	$501,850,000	A/A+	To construct a mass transit system in two counties	Secured by a first lien on and pledge of the receipts of the Sales Tax	From 2.8x in 1984 increasing to 14.04x in 2011	Additional parity bonds if pledged revenues are at least equal to 2.0x the aggregate principal and interest due in each year.

* Includes only Special Tax Obligations for Transportation Infrastructure. Total State bonded debt is an excess of $2.2 billion.
*** Includes only Consolidated Transportation Bonds. Also outstanding are $281,545,000 County Transportation Revenue Bonds.

Issuer	Debt Outstanding	Ratings Moody's/S&P	Project	Pledged Revenues	Coverage	Additional Bonds Test
State of Michigan - Department of Transportation (State Trunk Line Fund Bonds Series 1984)	$185,000,000	A/AA-	Various road projects	Motor fuels taxes(15¢/gallon) License Plate Weight Tax Miscellaneous fees	7.3x debt service coverage*	Additional parity bonds may be issued if debt service coverage is 2.0x maximum annual principal and interest.
(Comprehensive Transportation Bonds - Series 1984)	$207,750,000	A/A+	Various transportation projects	Motor fuels taxes(15¢/gallon) License Plate Weight Tax Motor Vehicle Related Sales Tax (4%)	5.69x debt service coverage	Additional parity bonds may be issued if debt service coverage is 2.0x maximum annual principal and interest.
State of Montana Department of Highways (Highway Revenue Bonds, Series 1983)	$64,000,000	A1/A+	Acquisition of site for and construction of Department of Highways Headquarters	Motor Vehicle Fuel Tax - gasoline (15¢/gallon) - diesel (17¢/gallon) Gross vehicle weight tax	At least 3.5x debt service coverage	Additional parity bonds can be issued if debt service coverage is 1.5x maximum annual principal and interest.

* Projected for one year only.

Issuer	Debt Outstanding	Ratings Moody's/S&P	Project	Pledged Revenues	Coverage	Additional Bonds Test
Metropolitan Transportation Authority of New York State	$480,985,000	Baa/BBB+	Equipment and improvements to the transit system	Secured by a pledge of and payable from the revenues derived from the operation of the transit system	Self-sustaining	Additional parity bonds if pledged revenues are at least 4.0x Adjusted Aggregate Maximum Debt Service for next three years.
(Transit Facilities Service Contract)	$613,125,000	A/A-	Equipment and improvements to the transit system	Secured by a service contract and payable from New York State appropriations made annually	Self-sustaining	
(Commuter Facilities Revenue)	$ 50,000,000	Baa/BBB+	Improvements to the commuter rail system	Secured by a pledge of and payable from the revenues derived from the operation of the commuter system	Self-sustaining	
(Commuter Facilities Service Contract)	$288,270,000	A/A-	Improvements to the commuter rail system	Secured by a service contract and payable from annual State appropriation	Self-sustaining	

Issuer	Debt Outstanding	Ratings Moody's/S&P	Project	Pledged Revenues	Coverage	Additional Bonds Test
Puerto Rico Highway Authority (Highway Revenue Bonds)	$700,510,000	Baa1/A	Construction of highways	Gasoline Tax (16¢/gallon) Gas Oil/Diesel Oil Tax (4¢ of 8¢), Motor vehicle license fee increase, Tolls or use charges	2.3x debt service coverage	Additional parity bonds can be issued if pledged revenue equals 1.5x maximum annual principal and interest.
State of Wisconsin Department of Transportation (Transportation Revenue Bonds, 1984 Series A)	$ 90,000,000	A1/AA	Various transportation projects	Registration Fees - motorcycles ($7) - automobiles ($25) - trucks ($30)	15.4x debt service coverage, increasing	Additional parity bonds can be issued if pledged revenues exceed 1.75x maximum annual principal and interest.

NOTICE

DOT-I-87-23

TECHNOLOGY SHARING

A PROGRAM OF THE U.S. DEPARTMENT OF TRANSPORTATION