The City of New York

In July 1996 Moody's Investors Service, Inc., was reviewing the ratings for the general obligation bonds of the City of New York. With a population of approximately 7.3 million, New York was the largest city in the United States and an international business and cultural center. Its key industries included banking, securities, life insurance, communications, publishing, printing, fashion-design, apparel manufacture, retailing, and construction. In addition, the City was the leading tourist destination in the United States.

New York's economy was closely linked to national economic events. Thus, in the early 1990s, it experienced a decline in employment and real gross product. Growth picked up in the period 1992 to 1994, but slowed after 1995. The City's general obligation bonds were rated Baa1, the lowest rated investment grade bonds.

Moody's review included an analysis of the challenges facing U.S. municipalities generally, as well as an examination of the financial performance of New York. At the completion of review, Moody's had to decide whether to upgrade, downgrade, or maintain the City's current rating.

Municipalities

Municipal governments typically provided a range of services to local communities, including legislative, executive and judicial functions. They also offered a range of other services, such as primary and secondary education, public safety (police and fire), public works (streets, sewers, and sanitation), public welfare, public transportation, airports, utilities (water and power), colleges, hospitals, corrections facilities, community development, and parks and recreation facilities. To fund these activities, municipal governments received support from state and federal governments, property and other forms of taxes, charges for various services, and utility revenues.

Municipal governments grew dramatically after World War II, from 2.8 million employees in 1945 to 7.4 million in 1970 and 10 million in 1987. This level of employment exceeded that for the combined state and federal civilian governments.

During the 1990s municipalities faced a number of financial challenges, including deteriorating infrastructure, stagnant revenues accompanied by increasing cost structures, unfunded

---

Professor Paul M. Healy prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. The case has benefited from the comments of Jack Miller and Elizabeth Krahmer.

mandates from federal and state governments to provide additional services, pressures to increase the quality of public services provided (without increasing costs), and competition between municipalities to attract new businesses.

Much of the infrastructure for older U.S. cities, such as New York, was provided during the Depression. For example, the public works projects of the New Deal provided for the construction of municipal roads, bridges, and some public buildings. The 1970s saw a shift from maintenance and replacement of this infrastructure to increased social services. As a result, infrastructure deteriorated and by the early 1990s often required replacement.

A second financial challenge facing older U.S. municipalities arose from stagnant revenue bases and increased cost structures. Many municipalities in the Northeast and the Midwest had stable or declining populations, and had seen key businesses move to less costly areas of the country. As a result, their revenue base was stagnant. Compounding this problem, their costs had escalated during the 1980s and early 1990s. For example, medical costs increased at rates significantly higher than inflation during this period. This increased significantly the cost of medical benefits for municipal employees, as well as the cost of providing health services to older and poorer residents through public hospital systems.

A third factor affecting municipal governments had been the increase in unfunded State and Federal government mandates to provide additional services. For example, state and federal governments required local governments to accept increased responsibility for undertaking such services as police and safety, mass transit, housing for the indigent, and special education, without necessarily providing the full funding for these services.

The 1980s and 1990s also saw increased product and service quality in many areas of the private sector. For example, there have been significant product improvements in the computer and auto industries, faster customer response times due to overnight delivery, faxes, and email, as well as opportunities for home shopping and banking. Taxpayers frequently expected the same types of quality improvements in public services, leading to a growing expectations gap between taxpayers and public service providers about the quality and cost of services. As a result, there was widespread pressure on local governments to improve productivity and to make existing resources stretch further.

Finally, there was increased competition among local governments to attract new businesses to their community. In many cases, local governments offered tax incentives and commitments to provide infrastructure to companies considering locating in their communities. For example, in late September 1993, after months of negotiations with at least 30 states and municipalities which were willing to provide attractive location packages, Mercedes-Benz announced that it had decided on Tuscaloosa, Alabama as the site of its new $300 million plant. The plant, which was expected to open in 1997, would employ 1,500 and manufacture 60,000 sport utility vehicles per year. The city of Tuscaloosa committed as much as $30 million for land acquisition and site preparation; Mercedes would be allowed to buy this package for $100, implying that the deal cost local taxpayers roughly $20,000 per new job.

Financial Reporting by Municipalities

Financial reporting standards for municipalities were developed by the Government Accounting Standards Board (GASB), as well as by the Financial Accounting Standards Board (FASB) and municipal laws. There were a number of differences between financial reporting for municipalities and reporting by for-profit organizations. Some of these differences were differences in terminology. For example, the income statement was called the Statement of Revenues and

Expenditures and Changes in Fund Balances, and owners equity was termed the "fund balance" in government organizations. However, there were also substantive differences, including the use of fund accounting and modifications to accrual accounting.

Fund Accounting

Fund accounting required separate funds reports to be maintained to account and report for many of the different activities of government. For example, separate statements were typically created for the local public hospital, for new capital projects, for debt service, for public employee pension funds, and for general government operations. Each of these activities was viewed as a separate entity or "fund" and received its own allocation of resources. For many funds these resources are restricted, and could only be used for specific purposes. Separate financial reports are therefore prepared for each fund account so that users can monitor whether the resources allocated to the funds were used in the way intended.

For municipalities there are three major classes of funds: governmental funds, proprietary funds, and fiduciary funds.

Governmental funds included the general fund (where resources were unrestricted), special revenue funds (which were restricted to outlays for specific purposes other than major capital projects), capital project funds (where funds were restricted to use for capital expenditures), and debt service funds (used to accumulate funds to pay interest and principal on outstanding debt).

Proprietary funds were for activities that were intended to be operated like a business. They included enterprise funds (such as hospitals and water and sewer operations) which provided goods and services to outside parties and which are intended to be self-supporting. Proprietary funds were also created for operations that provided goods or services for other parts of the government.

Fiduciary funds were assets held by a government unit in trust. They typically included pension funds for government employees.

Financial statements for municipalities presentet separate results for all three classes of funds. Also, separate group accounts were reported for debt obligations and fixed assets.

Modifications to Accrual Accounting

For proprietary funds, the traditional accrual accounting system was used. However, for governmental funds several modifications to accrual accounting were made. These modifications (for revenue recognition, accrual of interest, and depreciation), made governmental fund accounting closer to a cash basis of accounting than accrual accounting.

The first key difference between governmental accounting and traditional accrual accounting was that revenues for governmental funds were reported when they became measureable and available, rather than when they were earned. For example, property taxes were recognized as revenue when levied rather than when they were earned. A second major difference was that interest on long-term debt was not recorded until it became due, rather than when it was accrued. Thus, if quarterly interest payments on municipal bonds outstanding were due on January 31, a municipality with a December 31 year-end would not accrue interest owed to bondholders for the months of November and December. Finally, while depreciation was recorded for business-like activities (proprietary funds), for governmental funds new capital outlays were effectively expensed. As a result, the balance sheet for the principal government fund, the general fund, typically included only current assets and liabilities.

The City of New York's Finances

New York City had a checkered financial recent history. In February 1975, the New York Urban Development Corporation was unable to repay a $100 million short-term note to Chase Manhattan Bank. This triggered a crisis that resulted in the City being shut out of the credit market. Its bleak prospects eventually forced bankers, unions and government to work together to reach an agreement. City management took on three sacred cows (low transit fares, CUNY tuition, and subsidized housing); a special agency, the Municipal Assistance Corporation of the City of New York (MAC), was created as a vehicle to issue new municipal debt; State legislators agreed to provide a 28 percent increase in intergovernmental aid; the banks deferred debt and interest payments and provided additional financing; and municipal employees accepted short-term pay cuts and layoffs (many through attrition) and agreed that their pension fund would invest in new MAC debt.

Subsequent analysis attributed the City's financial collapse to a dramatic increase in short-term debt (from $747 million to $4.5 billion in only six years). The New York State Charter Revision Commission explained that:

> Since 1970-71 every expense budget has been balanced with an array of gimmicks—revenue accruals, capitalization of expenses, raiding reserves, appropriation of illusory fund balances, suspension of payments, carry-forward of deficits and questionable receivables, and finally, the creation of a public benefit corporation whose purpose was to borrow funds to bail out the expense budget.[1]

As a result of the managment and budgetary changes discussed above, by 1981 the City had balanced its budget again, and has since recovered from the financial crisis.

Exhibit 1 presents General Fund Revenues and Expenditures for the City during the period 1992 to 1996, the 1996 budget, footnotes, and management discussion of performance. Revenues were generated from a variety of sources, including real estate taxes, sales taxes, income taxes, as well as funding from the federal and state governments. As reported in **Exhibit 2**, in 1996 real estate tax rates for the City were 10.37 percent of assessed property values, and 1.88 percent of their market values. This difference reflects the City's practice of assessing property at less than its full market value.[2] The ratio of the assessed value of property to its market value (called the Special Equalization Ratio) had declined steadily from 29.7 percent in 1993 to 22.1 percent in 1996.

Sales taxes arose from the City's 4 percent sales tax as well as the State's 4.25 percent retail sales tax. In addition, the City levied a personal income tax on City residents and on earnings made in the City for non-residents, and a corporate income tax on companies doing business in the city. Other revenues were generated by fees paid to the City for issuing licenses, permits and franchises; interest income; tuition fees from city-run colleges and universities; and rents collected from city-owned property and airports. In 1995, the City included in Other Revenues $200 million from the recovery of prior year FICA overpayments for Social Security and Medicare, as well as $120 million from the sale of upstate jails to the State. Other Revenues in 1996 included one-time receipts of $170 million from the New York City Health and Hospitals Corporation, and $28 million from the New York City Housing Financing Agency.

Most of the federal and state funding provided to the City was in the form of categorical grants, which were earmarked for specific activities. These include expenditures for welfare, education, higher education, health and mental health, community development, job training programs, housing, and criminal justice. The City also received a modest amount of unrestricted federal and state aid, which could be used for general-purpose expenditures. However, this support had been declining.

The City's major General Fund Expenditures were for social services, education, public safety, debt service, health, and pensions. As reported in Exhibit 1, the difference between General Fund revenues and expenditures, the General Fund surplus, has been $5 million for the three years 1994-1996. However, this surplus did not tell the whole story, since the City was required to balance its budget each year. The reported surplus therefore includes discretionary transfers and expenditures used to cover a deficit or to eliminate any surplus. Operating surpluses before discretionary transfers and expenditures were $570 million, $371 million, $72 million, $71 million and $229 million in the period 1991 to 1996.

New York's financial plan for the period 1997 to 2000, presented in **Exhibit 3**, shows a steadily growing gap between General Fund revenues and expenditures. By 2000 this gap was projected to be $3.4 billion. To meet this deficit the City has embarked on a series of programs to contain costs and increase revenues. The new programs were expected to provide revenues and cost savings by reducing entitlements, by restructuring City government through consolidating and privatizing operations, by increasing federal and state aid, and by selling assets. In addition, for 1997 the City projected a savings of $150 million in pension fund costs from changing the actuarial assumption on investment earnings.

Other studies, however, suggest that the City's problems may be more serious than official projections. For example, a May 1996 report by the City Comptroller identifies between $1.176 billion and $1.546 billion of potential risks for the 1997 forecasts. These included uncertainties about $100 million of assumed state aid, $160 million in proposed revisions to Medicaid benefits, $40 million from changes in entitlement programs, $319 million in airport-related payments which had been the subject of ongoing unsuccessful negotiation, and as much as $400 million from unidentified cuts in education. These concerns were echoed in staff reports from the OSDC and the Control Board. The OSDC report, published in May 1996, concluded that the City had a structural imbalance, and only succeeds in balancing the 1997 budget by including $1.4 billion of one-time items. The study points out that the City's structural problems did not appear to have diminished by workforce reductions of more than 20,000 employees, the lowering of public assistance and Medicaid costs, and the scaling back of tax reduction proposals.

In addition to its 1996 operating outlays of $32 billion, the City made capital outlays of $3.8 billion. These were financed through the issuance of bonds by the City and City agencies, as well as by state and federal grants. **Exhibit 4** provides a breakdown of Capital Expenditures for the period 1992 to 1996, as well as long-term projections of capital outlays required to maintain and improve the City's infrastructure. These included outlays for mass transit facilities, sewers, bridges and tunnels, and investments to improve the City's operating productivity. The four year Capital Commitment Plan for the period 1997 to 2000 projected that in 1997 the city would make commitments for capital projects of $4.3 billion, and will have capital expenditures of $3.7 billion.

As required by its charter, the City reported on the condition of fixed assets, and recommended maintenance expenditures and capital outlays needed to ensure assets were in a good state of repair. The report suggested that the City was letting its fixed assets deteriorate. Actual maintenance outlays in the last five years have been only 33 percent of recommended levels, and the four year Capital Commitment Plan projected a continuance of this pattern for the period 1997 to 2000. In addition, budgeted capital expenditures in the Capital Plan were only 63 percent of those recommended.

Bond Rating Review

As shown in **Exhibit 5**, at December 31, 1996 the City had $30.3 billion of debt outstanding. This included debt for the City itself, MAC, and City-guaranteed debt. On a per capita basis the City's debt had increased from $2,202 in 1989 to $3,901 in 1995, outpacing the growth in pretax personal income of City residents.

The New York State Constitution required that the City's debt outstanding be less than 10 percent of the average market value of taxable real estate for the last five years, and that debt raised to fund low-rent housing, low-income nursing homes, and urban renewal be less than 2 percent of taxable real estate for the pervious five years. The City's projections indicated that by 1998 its debt outstanding will exceed the general debt limit. As a result the City was proposing State legislation to create the new Infrastructure Finance Authority. The Infrastructure Finance Authority would be permitted to issue debt that would not be subject to the constitutional limit.

Throughout 1996, the City's $25.9 billion of general obligation bonds had been rated Baa1 and A- by Moody's and Fitch Investors Service respectively. However, Standard & Poor's had downgraded their rating from A- to BBB+, and Moody's and Fitch were also contemplating a downgrade. Additional information on Moody's ratings as well as the relation between yields and ratings are presented in Exhibit 6. During 1996 the City issued $5.3 billion of general obligation bonds, using $2.7 billion to refinance outstanding bonds. Yields on 30 year City debt peaked in 1995 at 6.65% and declined to 6.18% by March 1996. The City's debt traded 53 basis points over the Bond Buyer 20 Bond Index in July 1995, but this spread had declined to 48 basis points by June 1996.

Exhibit 1 The City of New York Condensed Financial Statements—General Fund Revenues and Expenditures, 1992-96 (in millions)

	Adopted Budget 1996	1996	1995	Actual 1994	1993	1992
General Fund Revenues						
Taxes (net of refunds):						
Real estate	$7,274	$7,100	$7,474	$7,773	$7,886	$7,818
Sales and use	3,097	3,111	3,013	2,855	2,739	2,621
Income	6,502	6,808	6,015	6,281	5,751	5,389
Other	1,029	1,095	1,184	1,206	1,204	1,221
	17,902	18,114	17,686	18,115	17,580	17,049
Federal, State and Other Aid:						
Categorical	9,891	10,880	10,733	10,143	9,535	8,880
Unrestricted	549	621	603	667	707	826
	10,440	11,501	11,336	10,810	10,242	9,706
Other than Taxes and Aid:						
Charges for services	1,253	1,312	1,298	1,277	1,304	1,195
Other revenues	1,578	1,118	1,244	1,127	961	1,039
OTB transfers	30	26	27	24	29	33
	2,861	2,456	2,569	2,428	2,294	2,267
Total Revenues	31,203	32,071	31,591	31,353	30,116	29,022
General Fund Expenditures						
General government	$811	$855	$853	$875	$862	$853
Public safety and judicial	4,226	4,446	4,121	3,846	3,759	3,586
Board of Education	7,286	7,835	7,863	7,561	7,213	6,626
City University	363	348	348	353	571	459
Social services	7,522	7,901	8,112	8,030	7,430	7,108
Environmental protection	1,096	1,138	1,120	1,156	1,094	989
Transportation services	667	732	933	981	1,023	1,044
Parks, recreation, cultural	239	244	240	238	229	202
Housing	399	455	527	590	516	541
Health (including HHC)	1,544	1,829	1,737	1,620	1,452	1,276
Libraries	176	253	168	172	146	129
Pensions	1,555	1,356	1,273	1,274	1,427	1,370
Judgments and claims	279	309	251	271	231	232
Fringe and other benefits	1,227	1,581	1,444	1,552	1,492	1,378
Other	948	210	307	375	267	257
Transfers for debt service	2,865	2,574	2,289	2,454	2,440	2,968
Total Expenditures	31,203	32,066	31,586	31,348	30,152	29,018
Surplus (deficit)	0	5	5	5	(36)	4

Source: The City of New York, Comprehensive Annual Financial Report Of The Comptroller For The Fiscal Year Ended June 30, 1996.

Exhibit 2 Real Estate Tax Levies, Values, and Tax Collections, The City of New York

Comparison of Real Estate Tax Levies, Tax Limits, and Tax Rates

Fiscal Year	Total Levy	Operating Limit[a]	Rate Per $100 of Full Valuation	Average Tax Rate per $100 of Assessed Valuation
1993	$8,392.5	$11,945.0	$1.60	$10.59
1994	8,113.2	13,853.8	1.30	10.37
1995	7,889.8	13,446.5	1.14	10.37
1996	7,871.4	8,633.4	1.88	10.37
1997	7,835.1	7,857.3	2.46	10.37

[a]The State Constitution limits the amount of revenue which the City can raise from the real estate tax for operating purposes ("the operating limit") to 2.5% of the average full value of taxable real estate in the City for the current and the last four years less interest on temporary debt and the aggregate amount of business improvement district charges subject to the 2.5% tax limitation. The most recent calculation of the operating limit does not fully reflect the current downturn in the real estate market, which was expected to lower the operating limit in the future.

Billable Assessed and Full Value of Taxable Real Estate

Fiscal Year	Billable Assessed Valuation of Taxable Real Estate (in millions)	÷	Special Equalization Ratio	=	Full Valuation (in millions)
1993	$79,370.6		0.2965		$267,691.6
1994	78,364.6		0.2627		298,304.4
1995	76,202.4		0.2384		319,641.1
1996	76,029.4		0.2209		344,180.3
1997	75,668.5		0.2069		365,724.8

Real Estate Tax Collections and Delinquencies

Fiscal Year	Tax Levy (in millions)	Tax Collections as Percentage of Tax Levy	Delinquent at Fiscal Year End (in millions)	Delinquency as Percentage of Tax Levy
1990	$6,872.4	94.7%	$230.2	3.35%
1991	7,681.3	93.7	315.7	4.11
1992	8,318.8	93.1	370.2	4.45
1993	8,392.5	92.5	411.2	4.90
1994	8,113.2	92.7	403.4	4.97
1995	7,889.8	93.5	381.6	4.84
1996	7,871.4	93.4	288.9	3.67

Exhibit 3 The City of New York Financial Plan, 1997–2000

Fiscal Years	**1997**	**1998**	**1999**	**2000**
		(in millions)		
Revenues				
Taxes:				
General property tax	$7,088	$7,244	$7,469	$7,752
Other taxes	10,407	10,837	11,352	11,897
Tax audit revenue	659	659	659	659
Tax reduction program	(25)	(188)	(366)	(432)
Miscellaneous revenues	4,468	3,549	3,117	2,894
Unrestricted intergovernmental aid	523	510	509	513
Anticipated state actions	50	-	-	-
Other categorical grants	293	275	281	280
Interfund revenues	260	260	258	256
Less: Intracity revenues	(647)	(647)	(646)	(644)
Disallowances against categorical grants	(15)	(15)	(15)	(15)
Total City Funds	$23,061	$22,484	$22,618	$23,160
Federal categorical grants	3,771	3,600	3,586	3,582
State categorical grants	6,149	6,071	6,106	6,087
Total Revenues	$32,981	$32,155	$32,310	32,829
Expenditures				
Personal service	$16,237	$16,813	$17,612	$18,182
Other than personal service	14,128	14,064	14,256	14,271
Debt service	2,735	3,015	3,124	3,241
MAC debt service funding	328	394	423	370
General reserve	200	200	200	200
Total Expenditures	$33,628	$34,486	$35,615	$36,894
Less: Intracity Expenses	(647)	(647)	(646)	(644)
Net Total Expenditures	$32,981	$33,839	$34,969	$36,250
Deficit	$0	$1,684	$2,959	$3,421

Exhibit 4 The City of New York Actual and Planned Capital Outlays, 1992-2000

Actual Capital Outlays (in millions)

	1996	1995	1994	1993	1992
Education	$ 812	$ 881	$ 727	$ 758	$ 686
Environmental protection	1,135	819	768	934	1,046
Transportation	554	444	423	341	364
Transit authority	218	150	221	250	330
Housing	246	292	387	431	639
All other	831	1,108	817	903	828
Total Expenditures	$3,796	$3,694	$3,343	$3,617	$3,893

Capital Commitment Plan, 1997-2000 (in millions)

	1997	1998	1999	2000
Education	$713	$859	$799	$1,392
Environmental protection	1,385	1,270	1,488	518
Transportation	760	643	671	590
Transit authority	497	231	231	231
Housing	311	267	317	382
Sanitation	185	604	167	361
City operations/Facilities	1,321	630	650	587
Economic and port development	71	46	35	44
Reserve for unattained commitments	(449)	(107)	(300)	(244)
Total Commitments	$4,793	$4,443	$4,058	$3,861
Total Expenditures	$4,255	$3,958	$4,114	$4,179

Management Discussion of Capital Projects

Capital expenditures increased by $102 million to $3.8 billion in fiscal year 1996, or 2.8% more than in fiscal year 1995 and approximately 2.5% less than just four years ago. Expenditures on the infrastructure component of the Capital Budget were $2.1 billion in fiscal year 1996, $873 million more than in fiscal year 1995. Expenditures for environmental protection (excluding sanitation) accounted for 48.6% of the total spent on infrastructure in fiscal year 1996. Expenditures for mass transit in fiscal year 1996 accounted for 10.6% of the total expenditures on infrastructure. The amount expended on the City's water distribution and sewage collection system in fiscal year 1996 was $1.0 billion.

In October 1990, the City completed a project to inventory the major portions of its physical plant. The first citywide and individual agency report was published in fiscal year 1991, which has been updated yearly. It provides the City with a comprehensive assessment of the condition of its major assets, the projected costs necessary to restore these assets to a state of good repair and schedules detailing the maintenance required to maintain the assets' structural integrity. The City estimates costs for repairs, replacements, and major maintenance for fiscal years 1997 through 2000 to be $4.3 billion.

Exhibit 5 *Combined Net City Debt (in millions)*

	1996	1995	1994	1993	1992
Net City debt	$25,052	$23,258	$21,531	$19,424	$17,916
Net MAC debt	3,936	4,033	4,215	4,470	4,657
Net Samurai debt	200	200	200	200	--
Total City, MAC and Samurai Debt	29,188	27,491	25,946	24,094	22,573
City guaranteed debt	1,155	1,104	1,114	733	745
Combined Net City Debt	$30,343	$28,595	$27,060	$24,827	$23,318

City, MAC, and City-Guaranteed Proprietary Corporation Debt Service

Fiscal Years	Principal on City Long-term Debt	Interest on City Long-term Debt	City-Guaranteed Debt	Required MAC Funding	Total
1966	$22,718	$150,987	$22,560	$425,310	$621,575
1997	1,220,995	1,493,357	110,015	570,498	3,394,865
1998	1,206,764	1,401,147	116,997	583,535	3,308,443
1999	1,133,395	1,329,846	125,751	602,079	3,191,071
2000	1,072,079	1,271,698	125,749	537,438	3,006,9,64
2001	1,072,637	1,218,150	125,634	537,621	2,954,042
2002-2147	19,111,773	11,693,985	1,644,505	3,766,678	36,216,941
Total	$24,840,361	$18,559,170	$2,271,211	$7,023,159	$52,693,901

City, MAC, and City-guaranteed Proprietary Corporation Debt

Fiscal Year	Debt Per Capita	Debt Per Capita as % of Personal Income Per Capita	Debt as % of Assessed Value of Taxable Property	Debt as % of Full Value of Taxable Property
1989	$2,202	9.96%	25.4%	4.6%
1990	2,490	10.49	26.0	4.5
1991	2,917	11.93	28.0	4.5
1992	3,192	12.14	28.5	4.1
1993	3,389	12.51	31.3	3.9
1994	3,691	n.a.	35.2	4.4
1995	3,901	n.a.	36.9	4.1

Exhibit 6 Moody's Investor Service, Inc.—Bond Ratings

Rating	Description of Rating	Average Yield, December 20, 1995
Aaa	Best quality or "gilt edge," with the smallest degree of investment risk. Interest payments are protected by large or exceptionally stable margin and principal is secure. Protective elements can be visualized and are most unlikely to impair strong position of such issues.	5.38%
Aa	High quality by all standards. Together with the Aaa group they comprise high grade bonds. They are rated lower than the best bonds because margins of protection may not be as large, fluctuation of protective elements may be of greater amplitude, or risks appear somewhat larger than in Aaa securities.	5.50%
A	Upper medium grade obligations. Security to principal and interest is considered adequate, but susceptibility to impairment some time in the future	5.55%
Baa	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 unreliable over any great length of time. Such bonds lack outstanding investment characteristics and have speculative characteristics.	5.70%
Ba	Judged to have speculative elements; their future cannot be considered as well assured. Often the protection of interest and principal payments may be very moderate, and not well safeguarded during good and bad times over the future. Uncertainty of position characterizes bonds in this class.	n.a.
B	Lack characteristics of desirable investment. Assurance of interest and principal payments or maintenance of other terms of the contract over any long period of time may be small.	n.a.
Caa	Poor standing. Such issues may be in default or there may be present elements of danger with respect to principal or interest.	n.a.
Ca	Speculative in a high degree. Such issues are often in default or have other marked shortcomings.	n.a.
C	Lowest rated class of bonds. Issues so rated have extremely poor prospects of ever attaining any real investment standing.	n.a.

Source: Moody's Bond Record. Moddy's Investors Service, New York.