Debt Management

Capital Expenditures vs. Current Expenditures

Local government expenditures can be broadly categorized as either current or capital. Generally, current expenditures are related to ongoing operations or purchases that are relatively inexpensive or short-lived. Capital expenditures tend to be one-time, relatively high-cost, or long-lived assets. There is not a perfectly clear line separating current and capital expenditures, but current expenditures should be funded with current sources of revenue and it may be appropriate to fund capital expenditures with current revenue and/or debt financing. When debt financing is used, it is important that the useful life of the asset exceed the time necessary to pay for the asset. Carroll County's operating expenditures are entirely funded by current revenue. A mix of sources such as bonds, grants, and paygo funding is used to fund capital projects.

Paying for Capital Assets

There are two general approaches to paying for capital assets: paygo, or using current resources to pay as the expenditure occurs, and debt financing, or paying over time as the asset is used. Paygo funding creates no long-term obligation but may require years of saving that delay addressing a need. Constraints on accumulating funds over time may make it difficult or impossible for a local government to save for a future project. Paygo funding places the entire burden on the existing taxpayer, even though a long-lived asset may benefit new taxpayers in future years. Debt financing commits the County to a long-term obligation and increases the cost of the funding, but allows timely filling of needs and spreads the cost of an asset over a larger number of taxpayers, who will benefit from its use. To benefit from the advantages of each of these approaches, Carroll County uses a mix of paygo and debt funding in the Capital Budget.

Bonds

For local governments, financing with long-term debt usually means issuing bonds. A bond is like a mortgage; it is written evidence of the issuer's obligation to repay a specified principal amount on a certain date (maturity date), together with interest at a stated rate, or according to a formula for determining that rate.

General obligation bonds are used when the capital project is beneficial to the community. Examples would be expenditures for law enforcement, fire protection, education, public health facilities, or roads and bridges. The payments are financed by the taxpayers of the issuing government because general obligation bonds are secured unconditionally by the full faith, credit, and taxing powers of the issuing government. These bonds typically carry high credit ratings with correspondingly low risk.

Serial bonds are a package of individual bonds with each bond potentially having a different maturity than the rest. Typically, a municipal serial bond issue has maturities ranging from one year to more than twenty years. General obligation bond issues are usually entirely in serial form.

Debt Retirement

As of June 30, 2016, 67.7% of long-term debt owed by the County will be retired within ten years and 41.3% will be retired in five years. New Consolidated Public Improvement Bonds bonds issued in November 2016 have an aggregate principal amount of $14.0 million in new bonds and $6.8 million in refunded bonds.

Rating Agencies

There are currently three credit rating agencies used by Carroll County: Moody's, Fitch, and Standard & Poor's. These agencies tackle the difficult task of evaluating municipal bond issues in light of demographic, economic, financial, and debt factors. The result of the evaluation process is a "rating" that is assigned to the bond issue. Ratings generally measure the probability of the timely repayment of principal and interest on municipal bonds. The higher the credit rating assigned to the issue, the lower the interest rate the County will need to attract investors.

The following table displays the various rating categories used by the rating agencies:

Moody's[1]	Standard & Poor[2]	Fitch	Description
Aaa	AAA	AAA	Highest quality, extremely strong capacity to pay
Aa	AA	AA	High quality, very strong capacity to pay
A	A	A	Upper medium quality, strong capacity to pay
Baa	BBB	BBB	Medium quality, adequate capacity to pay
Ba	BB	BB	Questionable quality, low capacity to pay

[1]Relative ranking within a range may be designated by a 1, 2, or 3.
[2]Relative ranking within a range may be designated by a + or -.

Credit evaluation, to some extent, is subjective which may result in different analysts looking at different data or assigning different weight to the same data. The rating agencies do not necessarily give the same credit ratings to the same bond issues.

Ratings are initially made before issuance and are continuously reviewed and amended as necessary to reflect change in the issuer's credit position. According to the rating agencies, Carroll County demonstrates very strong credit worthiness. Moody's has assigned Carroll County an **Aa1** rating, Standard & Poor's an **AAA** Rating, and Fitch an **AAA.** These high ratings allow Carroll County to pay lower interest rates on capital projects that are financed with long-term debt issues. The

County's goal is to maintain or improve our current bond ratings in order to minimize borrowing costs.

Sale of Bonds

Bonds are sold to investors through the services of an underwriter. Underwriters buy the entire bond issue from the issuer and then resell the individual bonds to investors. Since they assume the responsibility of distributing the bonds, they risk having to sell the bonds at a price below the purchase price and thus realize a loss.

The financial advisor helps the issuer: design the bond issue in terms of maturity dates, maturity amounts, and calls provisions; prepare the official statement; select an appropriate time to mark the issue; and comply with legal requirements.

Carroll County historically has used a competitive bid process to sell its bonds. This means that at a specified date and time, bids are accepted from various underwriters. The underwriter submitting the lowest bid (interest rate) is selected to purchase the bonds. The underwriter then, within a few days of purchasing the bonds, sells the bonds to various investors.

Debt Affordability

Carroll County does not have a legal debt limit. The County uses a debt affordability model to evaluate the county's ability to support debt. The model establishes guidelines for the amount of debt the County can initiate each year, and projects the effects of that financing through six years of the CIP.

Debt affordability measures a number of criteria such as total debt to assessable base, and debt service to General Fund revenue, and compares the projected ratios to guideline ratios. The model takes into account potential changes in revenue and interest. The model distinguishes between direct debt, debt to be paid with general fund revenue, and indirect debt which is debt that is backed by the government, but with an associated revenue stream separate from the general fund.

Schedule of Debt Service Requirements on Direct County Debt

The following table sets forth the schedule of debt service requirements for the County’s direct general obligation bonded debt, State of Maryland Loans, Promissory Notes, Capital Leases, and Enterprise Fund bonded debt, projected as of the year ended June 30, 2017.

Schedule of Debt Service Requirements (1)

Fiscal Years Ending June 30	G.O. Bonds (2)		Watershed Bonds		Notes, Capital Leases, and Other Debt		General Obligation Debt		Total General Fund			Enterprise Funds			
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Total Debt Service	Principal	Interest	Total	Grand Total Debt Service (1)
2018	$27,437,154	$10,461,900	$54,489	$20,188	$296,536	$138,025	$0	$1,818,826	$27,788,179	$12,438,939	$40,227,118	$1,961,379	$581,913	$2,543,292	$42,770,410
2019	25,593,002	9,312,472	56,437	18,240	316,017	126,594	1,201,212	1,818,826	27,166,668	11,276,132	38,442,800	1,746,175	492,348	2,238,523	$40,681,323
2020	24,165,298	8,244,834	58,455	16,222	336,498	144,513	0	1,746,753	24,560,251	10,122,322	34,682,573	1,784,826	411,044	2,195,870	$36,878,443
2021	21,093,825	7,238,211	60,546	14,132	391,245	101,461	0	1,746,753	21,545,616	9,100,557	30,646,173	1,494,575	330,600	1,825,175	$32,471,348
2022	17,593,158	6,342,634	62,710	11,967	344,966	91,064	246,000	1,746,753	18,246,834	8,192,418	26,439,252	1,436,831	263,544	1,700,375	$28,139,627
2023	16,713,016	5,551,049	45,198	9,724	391,972	82,329	680,930	1,715,308	17,831,116	7,358,410	25,189,526	1,326,984	178,590	1,505,574	$26,695,100
2024	15,939,697	4,795,212	33,755	8,094	401,975	73,026	1,006,624	1,694,994	17,382,051	6,571,325	23,953,376	700,303	134,268	834,571	$24,787,947
2025	13,996,485	4,115,587	30,776	7,021	411,505	63,496	2,179,934	1,585,027	16,618,700	5,771,131	22,389,831	513,515	82,973	596,488	$22,986,319
2026	14,347,352	3,530,539	23,986	5,739	421,261	53,740	1,346,000	1,516,802	16,138,599	5,106,820	21,245,419	537,648	60,918	598,566	$21,843,985
2027	14,610,207	2,976,237	24,861	4,864	431,248	43,752	2,584,000	1,469,915	17,650,316	4,494,768	22,145,084	559,793	41,873	601,666	$22,746,750
2028	14,967,898	2,407,045	25,769	3,956	441,472	33,528	0	1,332,935	15,435,139	3,777,464	19,212,603	582,102	21,910	604,012	$19,816,615
2029	15,339,351	1,813,618	26,709	3,016	451,938	23,062	107,290	1,332,935	15,925,288	3,172,631	19,097,919	605,649	1,150	606,799	$19,704,718
2030	11,542,615	1,261,464	27,686	2,042	462,653	12,347	4,662,430	1,251,807	16,695,384	2,527,661	19,223,045	127,385	3,708	131,093	$19,354,138
2031	7,727,229	866,890	28,264	1,031	235,424	2,077	13,115,500	878,826	21,106,417	1,748,824	22,855,241	2,771	68	2,839	$22,858,080
2032	6,450,000	608,756	0	0	0	0	0	295,866	6,450,000	904,622	7,354,622	0	0	0	$7,354,622
2033	5,140,000	408,294	0	0	0	0	445,320	284,176	5,585,320	692,470	6,277,790	0	0	0	$6,277,790
2034	4,065,000	250,953	0	0	0	0	3,475,344	272,487	7,540,344	523,440	8,063,784	0	0	0	$8,063,784
2035	2,805,000	134,887	0	0	0	0	0	90,031	2,805,000	224,918	3,029,918	0	0	0	$3,029,918
2036	2,055,000	55,212	0	0	0	0	473,924	77,590	2,528,924	132,802	2,661,726	0	0	0	$2,661,726
2037	700,000	10,500	0	0	0		1,303,000	32,575	2,003,000	43,075	2,046,075	0	0	0	$2,046,075
	$262,281,287	$70,386,294	$559,641	$126,236	$5,334,710	$989,014	$32,827,508	$22,709,185	$301,003,146	$94,180,729	$395,183,875	$13,379,936	$2,604,907	$15,984,843	$411,168,718

(1) Totals may not add due to rounding.
(2) Loans paid from revenues or by repayments by others:

(a) Promissory Notes.. $0
(b) Capital Lease Agreements.. $5,666,102

Source: Carroll County Department of the Comptroller.

Projected Statement of Direct and Enterprise Fund Bonded Debt Issued and Outstanding As of June 30, 2017[1]

Direct Bonded Debt	Principal Date of Issue	Issued	Outstanding
Volunteer Fire Dept. Project Bonds	11/01/03	2,100,000	345,000
Volunteer Fire Dept. Project Bonds	09/22/04	2,065,000	517,628
Volunteer Fire Dept. Project Bonds	12/01/05	2,900,000	760,000
Consolidated Public Improvement	10/10/06	20,260,000	0
Consolidated Public Improvement Refunding Bonds	01/09/07	23,165,983	0
Consolidated Public Improvement & Refunding	11/13/07	27,100,000	4,073,920
Consolidated Public Improvement	11/13/08	72,088,000	8,145,755
Consolidated Public Improvement & Refunding-Series A	11/12/09	30,931,089	7,996,302
Consolidated Public Improvement Series B	11/12/09	33,577,761	33,577,761
Consolidated Public Improvement Refunding Series A	10/21/10	12,480,329	1,001,998
Consolidated Public Improvement Refunding Fire Company Series B	10/21/10	2,210,000	275,000
Consolidated Public Improvement Series D	10/21/10	19,649,128	15,817,099
Consolidated Public Improvements and Refunding	11/10/11	28,623,957	20,580,262
Consolidated Public Improvement and Refunding	11/08/12	37,680,345	31,606,066
Consolidated Public Improvement	11/14/13	26,000,000	21,985,000
Taxable Pension Refunding Bonds	12/23/13	4,524,000	2,670,000
Consolidated Public Improvement and Refunding	11/13/14	67,576,682	60,221,140
Consolidated Public Improvement and Refunding	11/19/15	34,015,081	32,570,081
Consolidated Public Improvement and Refunding	11/10/16	20,138,285	20,138,285
Installment Purchase Agreements:			
Installment Purchase Agreements Issued Fiscal Year 2002	7/1/01-6/30/02	396,000	396,000
Installment Purchase Agreements Issued Fiscal Year 2003	7/1/02-6/30/03	530,930	530,930
Installment Purchase Agreements Issued Fiscal Year 2004	7/1/03-6/30/04	100,000	100,000
Installment Purchase Agreements Issued Fiscal Year 2005	7/1/04-6/30/05	2,179,934	2,179,934
Installment Purchase Agreements Issued Fiscal Year 2006	7/1/05-6/30/06	1,346,000	1,346,000
Installment Purchase Agreements Issued Fiscal Year 2007	7/1/06-6/30/07	2,584,000	2,584,000
Installment Purchase Agreements Issued Fiscal Year 2009	7/1/08-6/30/09	2,215,126	2,215,126
Installment Purchase Agreements Issued Fiscal Year 2010	7/1/09-6/30/10	4,662,430	4,662,430
Installment Purchase Agreements Issued Fiscal Year 2011	7/1/10-6/30/11	13,115,500	13,115,500
Installment Purchase Agreements Issued Fiscal Year 2013	7/1/12-6/30/13	445,320	445,320
Installment Purchase Agreements Issued Fiscal Year 2014	7/1/13-6/30/14	3,475,344	3,475,344
Installment Purchase Agreements Issued Fiscal Year 2016	7/1/15-6/30/16	473,924	473,924
Installment Purchase Agreements Issued Fiscal Year 2017	7/1/16-6/30/17	1,303,000	1,303,000
Farmers Home Administration:			
Watershed Bond — 1972	06/01/72	769,700	158,846
Watershed Bond — 1974	07/01/74	253,000	79,663
Watershed Bond — 1979	09/02/80	678,800	321,131
		$501,614,648	$295,668,445
Enterprise Fund Bonded Debt			
Consolidated Public Improvements	10/10/06	200,000	0
Consolidated Public Improvement Refunding Bonds	01/09/07	212,504	0
Consolidated Public Improvement & Refunding	11/13/07	9,401,000	625,869
Consolidated Public Improvements	11/13/08	7,616,000	818,858
Consolidated Public Improvement & Refunding Series A	11/12/09	745,461	255,450
Consolidated Public Improvement Series B	11/12/09	1,072,239	1,072,239
Consolidated Public Improvement Refunding Series A	10/21/10	6,371	512
Consolidated Public Improvement D	10/21/10	13,742	11,062
Consolidated Public Improvements and Refunding	11/10/11	484,429	228,821
Consolidated Public Improvement and Refunding	11/08/12	198,549	181,169
Consolidated Public Improvement and Refunding	11/13/14	5,446,058	5,050,751
Consolidated Public Improvement and Refunding	11/19/15	2,978,549	2,978,549
Consolidated Public Improvement and Refunding Bonds	11/10/16	56,307	56,307
Water Quality Loan — MD Dept. of the Environment	03/22/00	532,680	128,607

Solid Waste……………………………………………………………………………………..	01/09/07	345,658	0
Solid Waste…………………………………………………………………………………….	11/13/07	604,000	40,211
Solid Waste……………………………………………………………………………………..	11/13/08	296,000	45,387
Solid Waste Series A…………………………………………………………………………...	11/12/09	203,450	3,248
Solid Waste…………………………………………………………………………………….	11/10/11	789,648	475,148
Solid Waste…………………………………………………………………………………….	11/13/14	406,860	223,611
Solid Waste…………………………………………………………………………………….	11/19/15	191,370	191,370
Solid Waste…………………………………………………………………………………….	11/10/16	91,589	91,589
Septage………………………………………………………………………………………….	10/09/06	200,000	0
Septage………………………………………………………………………………………….	11/08/12	62,391	62,391
Airport…………………………………………………………………………………………..	11/13/01	2,200,000	550,000
Airport…………………………………………………………………………………………..	01/09/07	240,854	0
Airport Series A…………………………………………………………………………………	10/21/10	93,300	7,491
Airport Series D…………………………………………………………………………………	10/21/10	27,130	21,839
Airport…………………………………………………………………………………………..	11/10/11	286,966	145,769
Airport…………………………………………………………………………………………..	11/08/12	18,715	15,374
Airport…………………………………………………………………………………………..	11/13/14	85,400	34,498
Airport…………………………………………………………………………………………..	11/10/16	63,819	63,819
		$ 35,171,039	$ 13,379,939
		$536,785,687	$309,048,384

[1]This table reflects indebtedness of the County exclusive of the following obligations:

(a) Promissory Notes $0
(b) Capital Lease Agreements……………………………………………………………………………………………… $5,334,709

Note: This subtotal reflects the direct bonded indebtedness of the County exclusive of those items in Note (1) of this table and Enterprise Fund Bonded Debt and is exclusive of any related bond premiums/discounts or other unamortized charges.

Source: Carroll County Department of the Comptroller.

The following tables set forth the County's long-term debt per capita and ratios of debt to assessed value for the six most recent fiscal years ended June 30 and a projection for the fiscal year ended June 30, 2017.

Projected County Debt
Exclusive of Enterprise Fund Debt[1]

	Bonded Debt	Estimated Population	Assessed Value	Bonded Debt Per Capita	Bonded Debt to Assessed Value
2017………………………………..	$295,668,445	173,015	$19,057,823,000	$1,708.92	1.55%
2016………………………………...	309,180,611	172,703	18,733,020,866	1,790.24	1.65
2015………………………………...	308,973,068	171,702	18,495,548,665	1,799.47	1.67
2014……………………………...	322,300,607	170,643	18,549,381,425	1,888.74	1.74
2013………………………………	319,294,954	169,519	18,808,823,173	1,883.53	1.70
2012………………………………	323,601,170	168,570	19,829,611,572	1,919.68	1.63

Projected County Debt
Inclusive of Enterprise Fund Debt[1]

	Bonded Debt[2]	Estimated Population	Assessed Value	Bonded Debt Per Capita	Bonded Debt to Assessed Value
2017………………………………	$309,048,384	173,015	$19,057,823,000	$1,786.25	1.62%
2016………………………………	324,624,173	172,703	18,733,020,866	1,879.67	1.73
2015………………………………	326,345,144	171,702	18,495,548,665	1,898.53	1.76
2014………………………………...	342,092,417	170,643	18,549,381,425	2,004.72	1.84
2013………………………………...	341,226,838	169,519	18,808,823,173	2,012.91	1.81
2012………………………………...	347,723,989	168,570	19,829,611,572	2,062.79	1.75

[1]These tables reflect indebtedness of the County exclusive of MD Industrial Land Act and MD Industrial Commercial Redevelopment Fund Loans, Promissory Notes, Capital Lease Agreements, and any related bond premiums/discounts or other unamortized charges..
[2]This chart includes, among other things, the bonded indebtedness originally incurred by the Carroll County Sanitary Commission, which indebtedness is to be paid first from various charges which the County is authorized to levy together with State and federal monies received, but which indebtedness is ultimately secured by the full faith and credit of the County.

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland

Computation of the Projected Legal Debt Margin
As of June 30, 2017

Net assessed value- Real Property	$ 18,489,412,000	
Debt limit - 6% of net total assessed value (1)		$ 1,109,364,720
Assessed Value-Personal Property	568,411,000	
Debt limit- 15% of Net Assessed Value		85,261,650
Total Debt Limit		1,194,626,370
Amount of debt applicable to debt limit:		
Total Bonded Debt	$ 309,048,384	
Less- Agricultural Preservation Program Self Supporting Debt	32,827,507	
Less- Fire Company Loans- Self Supporting Debt	6,227,978	
Less - Bureau of Utilities bonds and loans payable	11,279,586	
Less - Septage bonds payable	62,391	
Total amount of debt applicable to debt limit		258,650,922
Legal debt margin		$ 935,975,448

Note: (1) Recommended limit - Carroll County does not have a legal debt limit.
Source: Carroll County Department of the Comptroller.

Schedule of Legal Debt Margin
2008-2017

Fiscal Year	Assessed Value	Legal Debt Limitation	Legal Borrowing Limitation	Debt Subject to Limitation	Legal Debt Margin	Ratio of Debt Subject to Limitation To Legal Borrowing Limitation
2008	17,902,568,902	6%/15%	1,124,225,213	214,237,099	909,988,114	19.06%
2009	20,409,412,280	6%/15%	1,274,735,894	268,496,244	1,006,239,650	21.06%
2010	22,066,168,625	6%/15%	1,373,814,980	303,156,906	1,070,658,074	22.07%
2011	20,895,165,478	6%/15%	1,302,726,361	301,960,750	1,000,765,611	23.18%
2012	19,813,576,019	6%/15%	1,248,709,194	292,937,714	955,771,480	23.46%
2013	18,789,765,921	6%/15%	1,175,305,137	287,113,093	888,192,044	24.43%
2014	18,514,343,538	6%/15%	1,158,193,261	286,486,025	871,707,236	24.74%
2015	18,495,548,665	6%/15%	1,159,503,407	273,161,300	886,342,107	23.56%
2016	18,733,020,866	6%/15%	1,174,512,828	272,857,221	901,655,607	23.23%
2017	19,057,823,000	6%/15%	1,194,626,370	258,650,622	935,975,748	21.65%