Municipal Finance Officers Forum

MFC Updates

September 26, 2017

MFC Updates - Agenda

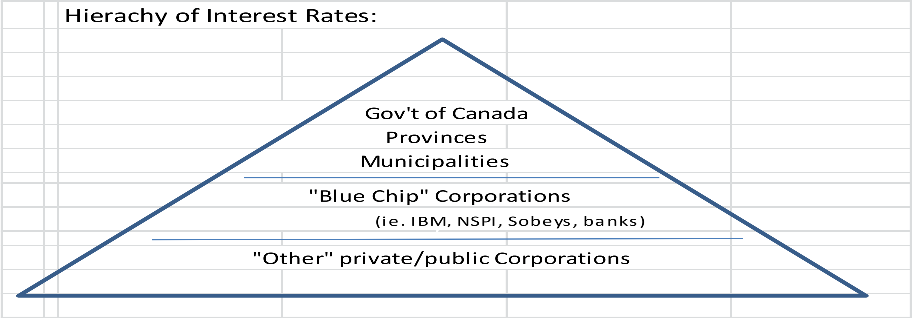
- ***(1) Dispelling the Myth – debentures vs bank loans***
  - How interest rates are derived
  - Matching
  - Structure
  - Pre-Payments and Early Payout
  - MFC vs Bank Example
- ***(2) Core Best Practices***
  - What are the MFC “Core” Best Practices (CBP)
  - What Municipalities have implemented, or looking at the CBP.
- ***(3) Debt Affordability Model***
  - History
  - DMA Relationship
  - Example
- ***(4) High Interest Savings Account (HISA)***

“Debenture vs Long Term Bank Loans for Capital Projects…..Dispelling the Myth”

The MFC Myth

A municipality can borrow more cheaply at the bank than with the MFC.

Fiction – *the MFC borrows on the credit of the Province plus a little bit. This means that the cost of issuing debentures through the MFC is the lowest cost of funds available to a municipality.*



Prime rates are a better source of capital financing than the MFC.

Fiction – *bank prime rates are floating short term rates, because they are a floating rate they are volatile. The MFC is locked in financing over the life of the project where there is certainty with the cost of funds and the associated principal and interest payments.*

Better financing method for setting long-term residential and commercial tax rates.

The MFC Myth (Continued)

Local Government Resource Handbook (S3.4, page 12)

Short-term versus long-term interest rates

It is inappropriate to compare short-term rates (prime) with long-term borrowing rates, as they represent different types of financing for different purposes. A short-term rate is a floating rate that is subject to change on a daily basis, whereas a long-term rate is fixed for a specified period. Generally the longer the term, the higher the interest rate because the investor is committing to a longer period of time at a fixed rate. A MFC debenture issue costs reflect a weighted average of borrowing costs for each debenture maturing. For example, a fifteen year MFC serial debenture issue has fifteen interest rates that when averaged, can appear to cost more than the short-term rates (prime) that are quoted by the various Canadian Chartered Banks. However, the 15 year MFC rate is fixed for the life of the loan. The current prime rate will change over the life of the loan and there is increased risk in using this alternative. The rates of a MFC debenture issue carry lower interest rates in the early years (that are comparable to prime), and as the further out in time that the debenture issue goes the bond market adjusts interest rates upward for this time risk factor.

The MFC Myth (Continued)

The MFC is inflexible. (Whether on timing, term, interest rates)

Fiction *– the MFC can structure long term capital financing over the term that you want 3, 5, 8 or 15 years. It can provide blended payments, serial payments, gross proceeds or net proceeds.*

The MFC has a short term borrowing program available to municipalities. It is up to the municipality to do their cash flow projections that best suits their financing needs (not MFC's responsibility). The MFC mirrors the information provided by the municipality when it borrows.

The MFC goes out twice a year, to coincide with construction season.

The MFC does not allow for early repayment of debentures.

Fact *– the MFC issues debentures in its own name in order to lend to municipalities. An early repayment by a client would put the MFC "offside" and would result in increased costs for municipalities. The MFC can arrange debentures with a shorter term than the amortization period.*

The MFC Myth (Continued)

Local Government Resource Handbook (S3.4, page 12)

A participant in a MFC debenture issue is not required to finance over the full life of the debenture. The participant can finance for a shorter time period than the project's amortization period thus taking advantage of the lower interest rates in the debenture issue's earlier years. Traditionally, municipalities have locked in rates for as long a period as possible because they want to know with certainty what their long-term debt service commitments will be. There are arguments on both sides of this debate. It is important when comparing MFC and bank rates that a comparable term is used. Short-term rates quoted by the Canadian Chartered Banks are normally lower but more volatile because the prime interest rate may change several times over the course of the financing period, based upon scheduled announcements by the Bank of Canada. Long-term rates provide certainty with respect to future debt service costs.

The MFC Myth (Continued)

Debenture versus Prime Interest Rates

Prime Interest Rates		
Effective	Rate	# of days
8-Sep-10	3.00%	1,597
22-Jan-15	2.85%	175
16-Jul-15	2.70%	728
13-Jul-17	2.95%	56
Average	**4.61%**	**131**
Next scheduled announcement		
7-Sep-17	TBA	49
26-Oct-17	TBA	42
7-Dec-17	TBA	42
18-Jan-18	TBA	49
8-Mar-18	TBA	41
18-Apr-18	TBA	43
31-May-18	TBA	42
12-Jul-18	TBA	56
6-Sep-18	TBA	49
25-Oct-18	TBA	42
6-Dec-18	TBA	??

NSMFC Interest Rates			
Year	June 1/15	Nov 17/14	June 29/10
1	1.0110%	1.2000%	1.5100%
2	1.1920%	1.3870%	2.1750%
3	1.3420%	1.6810%	2.7600%
4	1.6260%	1.9700%	3.1500%
5	1.8330%	2.2210%	3.4300%
6	2.0560%	2.4550%	3.7300%
7	2.3300%	2.6780%	3.9650%
8	2.5200%	2.8730%	4.1750%
9	2.6610%	3.0410%	4.3600%
10	2.7860%	3.1900%	4.5000%
11	2.8710%	3.2910%	4.5800%
12	2.9560%	3.3460%	4.6550%
13	3.0510%	3.4160%	4.7200%
14	3.1350%	3.5010%	4.7950%
15	3.2050%	3.5590%	4.8750%

July 16/15, prime at 2.70% for 2-years. (MFC 1.10%)

Jan 22/15, prime at 2.85% for 6-months. (MFC 1.20%)

Sep 8/10, prime 3.00% for 4-years, 4-months (MFC 2.40%)

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The MFC Myth (Continued)

Analysis of Financing: NSMFC vs Bank

Amount	1,000,000.00	
Term (yrs)	15	(for both MFC & Bank calc)
Int rate	2.700%	(for Bank financing calc only)
Start date	9-May-17	

	NSMFC May 9, 2017 Debenture				***Bank Financing at Prime +/-***			***Cum. Variance - NSMFC vs Bank***		
	Interest Rates	***Principal Payment***	***Interest Payment***	***Outstanding Principal***	***Principal Payment***	***Interest Payment***	***Outstanding Principal***	***Outstanding Principal***	***Interest Payment***	***Cumulative Interest***
9-Nov-17		0.00	11,494.34	1,000,000.00	27,259.20	13,272.60	972,740.80	27,259.20	(1,778.26)	(1,778.26)
9-May-18	1.200%	66,666.67	11,494.34	933,333.33	27,627.20	12,904.60	945,113.61	(11,780.27)	(1,410.26)	(3,188.53)
9-Nov-18		0.00	11,094.34	933,333.33	28,000.16	12,531.64	917,113.44	16,219.89	(1,437.30)	(4,625.82)
9-May-19	1.350%	66,666.67	11,094.34	866,666.67	28,378.17	12,153.63	888,735.28	(22,068.61)	(1,059.29)	(5,685.12)
9-Nov-19		0.00	10,644.34	866,666.67	28,761.27	11,770.53	859,974.01	6,692.66	(1,126.19)	(6,811.31)
9-May-20	1.475%	66,666.67	10,644.34	800,000.00	29,149.55	11,382.25	830,824.46	(30,824.46)	(737.91)	(7,549.22)
9-Nov-20		0.00	10,152.67	800,000.00	29,543.07	10,988.73	801,281.39	(1,281.39)	(836.06)	(8,385.28)
9-May-21	1.655%	66,666.67	10,152.67	733,333.33	29,941.90	10,589.90	771,339.50	(38,006.16)	(437.23)	(8,822.52)
9-Nov-21		0.00	9,601.00	733,333.33	30,346.11	10,185.69	740,993.38	(7,660.05)	(584.69)	(9,407.20)
9-May-22	1.860%	66,666.67	9,601.00	666,666.67	30,755.79	9,776.01	710,237.60	(43,570.93)	(175.01)	(9,582.22)
					Loan refinanced at 5th year anniversary. What will be the new rate of prime???					
9-Nov-22		0.00	8,981.00	666,666.67	31,170.99	9,360.81	679,066.61	(12,399.94)	(379.81)	(9,962.03)
9-May-23	2.059%	66,666.67	8,981.00	600,000.00	31,591.80	8,940.00	647,474.81	(47,474.81)	41.00	(9,921.03)
9-Nov-23		0.00	8,294.67	600,000.00	32,018.29	8,513.51	615,456.52	(15,456.52)	(218.84)	(10,139.87)
9-May-24	2.237%	66,666.67	8,294.67	533,333.33	32,450.53	8,081.27	583,005.99	(49,672.65)	213.40	(9,926.47)
9-Nov-24		0.00	7,549.00	533,333.33	32,888.62	7,643.18	550,117.37	(16,784.04)	(94.18)	(10,020.65)
9-May-25	2.384%	66,666.67	7,549.00	466,666.67	33,332.61	7,199.19	516,784.76	(50,118.09)	349.81	(9,670.84)
9-Nov-25		0.00	6,754.33	466,666.67	33,782.60	6,749.20	483,002.16	(16,335.49)	5.13	(9,665.71)
9-May-26	2.524%	66,666.67	6,754.33	400,000.00	34,238.67	6,293.13	448,763.49	(48,763.49)	461.20	(9,204.51)
9-Nov-26		0.00	5,913.00	400,000.00	34,700.89	5,830.91	414,062.60	(14,062.60)	82.09	(9,122.42)
9-May-27	2.653%	66,666.67	5,913.00	333,333.33	35,169.35	5,362.45	378,893.25	(45,559.91)	550.55	(8,571.87)
					Loan refinanced at 10th year anniversary. What will be the new rate of prime???					
9-Nov-27		0.00	5,028.67	333,333.33	35,644.14	4,887.66	343,249.11	(9,915.78)	141.01	(8,430.86)
9-May-28	2.802%	66,666.67	5,028.67	266,666.67	36,125.33	4,406.47	307,123.77	(40,457.11)	622.20	(7,808.65)
9-Nov-28		0.00	4,094.67	266,666.67	36,613.03	3,918.77	270,510.75	(3,844.08)	175.90	(7,632.76)
9-May-29	2.942%	66,666.67	4,094.67	200,000.00	37,107.30	3,424.50	233,403.45	(33,403.45)	670.17	(6,962.59)
9-Nov-29		0.00	3,114.00	200,000.00	37,608.25	2,923.55	195,795.20	4,204.80	190.45	(6,772.14)
9-May-30	3.024%	66,666.67	3,114.00	133,333.33	38,115.96	2,415.84	157,679.23	(24,345.90)	698.16	(6,073.97)
9-Nov-30		0.00	2,106.00	133,333.33	38,630.53	1,901.27	119,048.71	14,284.63	204.73	(5,869.25)
9-May-31	3.109%	66,666.67	2,106.00	66,666.67	39,152.04	1,379.76	79,896.67	(13,230.00)	726.24	(5,143.01)
9-Nov-31		0.00	1,069.67	66,666.67	39,680.59	851.21	40,216.08	26,450.59	218.46	(4,924.55)
9-May-32	3.209%	66,666.67	1,069.67	0.00	40,216.08	315.52	(0.00)	0.00	754.15	(4,170.40)
		1,000,000.00	**211,783.40**		**1,000,000.00**	**215,953.80**		**0.00**	**(4,170.40)**	**(4,170.40)**

NSMFC's "All-in" cost = 2.731%

Prime = 2.70% at May 1, 2017.

MFC is cheaper than the bank.

Based on:	**2.700%**
Monthly P&I payment =	**$6,755.30**

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Core Best Practices

Core Best Practices

	MFC's Seven Core Best Practices	
	Core Best Practice	***Inquired/W.I.P./Implemented***
1.	Appropriate Minimum Level of Operating Reserve and Accumulated Surplus	Middleton, Lockeport
2.	Audit Committees	Middleton, Lockeport, Annapolis Co
3.	Debt Management Policy	Middleton, Lockeport, East Hants
4.	Documenting Accounting Policies / Procedures	Middleton, Lockeport, Digby Co
5.	Financial Forecast, Budget Prep, & Cash Flow Forecasting	Lockeport
6.	Multi-year Capital Planning	Middleton, Lockeport
7.	Purchase Policy	Barrington, Lockeport, Digby Co, Middleton

Debt Affordability Model

Debt Affordability Model (DAM)

The DAM has been in existence for municipal use since the summer of 2004.

Originally, it was designed to assist municipal councils in determining the appropriate level of debt for their municipality. Now the Model can be used for multi-year budgeting, and for forecasting and analyzing revenue and expenditure options.

The Model has been used in the dissolution hearings.

Since inception, 35 municipalities have had presentations/training.

Since 2014, 29 Models have been done.

DMA mandatory requirement if Debt Service Ratio goes over 15%, or 6 Red Municipal Indicators.

Debt Affordability Model (DAM)

Nova Scotia Municipal Finance Corporation										***Schedule #4***
Operating Budget for the										
Municipality of ABC										
Description	***2015-16***	***2016-17***	***2017-18***	***2018-19***	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***	***2024-25***
Revenue Sources										
Residential property tax	2,162,649	2,191,155	2,207,600	2,224,168	2,240,861	2,257,679	2,274,622	2,291,693	2,308,892	2,326,220
Commercial property tax	528,297	547,363	551,626	555,920	560,247	564,607	568,999	573,424	577,882	582,373
Other taxes	237,685	237,685	237,685	237,685	237,685	237,685	237,685	237,685	237,685	237,685
Transfers from other govts	840,441	840,441	840,441	840,441	840,441	840,441	840,441	840,441	840,441	840,441
Other revenue sources	3,662,614	3,662,614	3,662,614	3,662,614	3,662,614	3,662,614	3,662,614	3,662,614	3,662,614	3,662,614
	7,431,687	7,479,259	7,499,966	7,520,829	7,541,849	7,563,026	7,584,362	7,605,857	7,627,515	7,649,334
Expenditures										
Discretionary Expenditures	6,869,149	10,297,586	10,305,089	10,347,676	10,391,464	10,436,488	10,482,782	10,530,385	10,579,332	10,629,663
Mandatory Expenditures										
Debt servicing	410,536	532,736	1,547,497	1,708,442	1,832,379	2,069,619	2,252,398	2,357,940	2,177,864	2,231,623
Other than debt servicing	710,317	719,155	728,130	737,244	746,499	755,898	765,444	775,139	784,985	794,986
Deficit from prior year	**0**	**673,757**	**4,859,416**	**10,055,607**	**15,443,581**	**20,872,075**	**26,571,055**	**32,487,317**	**38,544,924**	**44,459,591**
Reserves	0	0	0	0	0	0	0	0	0	0
	7,990,002	12,223,234	17,440,132	22,848,969	28,413,924	34,134,080	40,071,679	46,150,781	52,087,105	58,115,863
Surplus/(Deficit)	***(558,316)***	***(4,743,975)***	***(9,940,166)***	***(15,328,140)***	***(20,872,075)***	***(26,571,055)***	***(32,487,317)***	***(38,544,924)***	***(44,459,591)***	***(50,466,529)***
Debt Summation:										
Actual debt outstanding	2,730,961	2,365,990	2,001,020	1,697,546	1,460,199	1,222,852	985,504	748,157	665,938	583,720
Outstanding, per Capital Budget	1,035,500	10,115,185	11,264,837	11,979,248	12,921,410	13,272,482	12,883,907	11,383,984	10,441,464	8,836,553
Actual & forecasted outstanding	3,766,461	12,481,175	13,265,856	13,676,794	14,381,608	14,495,334	13,869,411	12,132,141	11,107,403	9,420,273
*****Note: Any deficits are assumed to be included as part of the manditory expenditures in the following fiscal year.**										

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Your Thoughts

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High Interest Saving Account (HISA)

High Interest Saving Account (HISA)

What is HISA?

It is exactly what the name suggests, just a simple interest bearing savings account that provides a higher rate of interest than a standard bank account.

What's in it for you?

Ability to earn superior interest rates

No term commitments

Ease of administration

No administration fee and no service fees

The greater the total fund balance, the higher the interest rate

Now lets look at the HISA presentation for more details.