

## In-Depth Discussion of Variable Rate Debt

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DISCUSSION  
OF VARIABLE  
RATE DEBT

### Fixed or Variable ?

#### ***Fixed Rate Debt***

- ‖ Known debt service
- ‖ Historically higher cost of funds
- ‖ Generally not callable for 10 years
- ‖ Certainty of forecasting cash flows
- ‖ Eliminates interest rate risk

#### ***Variable Rate Debt***

- ‖ Estimated debt service
- ‖ Historically lower all-in borrowing cost
- ‖ Callable at par at any time
- ‖ Various risks (rate, liquidity, put, etc.)

## VARIABLE RATE DEBT

- A type of bond that carries an interest rate that rises and falls based on the movement of an underlying index
- Variable rate bonds are multi-modal (daily, weekly, long term, fixed rate)
- Can be revenue or general obligation
- Internal liquidity / external support

## Most Common Types of Variable Rate Debt

### Variable Rate Demand Bonds

- A bond which bears interest at a variable, or floating, rate established at specific intervals.
- Contains a put option permitting the bondholder to tender the bond for purchase when a new interest rate is established.
- Typically secured by letter of credit from a bank or a bond insurer with a liquidity facility from a domestic bank.
- Institutional buyers from remarketing.

## Most Common Types of Variable Rate Debt

### Auction Rate Bonds

- Long term variable rate bonds tied to short-term interest rates that are reset through a “dutch auction” process which occurs every 7-35 days.
- Considered highly liquid by market participants because of the auction process.
- Institutional and retail buyers through broker-dealers.

## Other Types of Variable Rate Debt

- Commercial Paper
- Short-term note program

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## Variable Rate Debt- Other Considerations

- Administrative requirements
- Credit rating implications
- Ability to maximize arbitrage opportunities
- Liquidity / credit enhancement (availability/pricing)
- Utilizes credit capacity
- Interest rate risk (market, tax law)

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## BENEFITS OF VARIABLE RATE DEBT

- Short term instruments less costly than long term instruments
- Attractive in a higher interest rate environment (low end of the yield curve)
- Pre-payment flexibility
- Easily hedged

## Comparison of Cost between Fixed Rate Issue and Variable Rate Issue

### Fixed Rate Bond Issue

Bond interest rate	4.65%
Credit/insurance	<u>0.40%</u>
Total rate	5.05%

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## Variable Rate Demand Bonds

Bond interest rate	3.00%
Credit enhancement	0.50%
Remarketing agent	<u>0.10%</u>
Total rate	3.60%

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## Auction Rate Bonds

Bond interest rate	3.10%
Credit enhancement	0.08%
Broker/Dealer	<u>0.25%</u>
Total rate	3.43%

## Fixed vs. Variable Financing Comparison

Extra cash flow to university  
from going variable rate:

Fixed rate all-in	5.05%
Variable rate all-in (VRDB's)	3.60%
Variable rate all-in (auction)	3.43%

**Questions?**