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**Financing Options  
Through  
Variable Rate Debt**



**EDWARDS<sup>SM</sup>**

CAPITAL  
MARKETS

# The Variable Rate Choice

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## Virginia Municipalities Are Not Restricted to Issuing Only Fixed Rate Debt



- Higher interest cost
- Reduced interest rate risk
- Reduced prepayment flexibility
- Reduced ongoing administrative burden

- Lower interest cost
- Increased interest rate risk
- Increased prepayment flexibility
- Increased ongoing administrative burden
- Subject to credit qualification (liquidity facility)

## Why Issue Variable Rate Debt?

- ❖ Virginia municipalities can obtain long-term financing at short-term rates
- ❖ The **short-term BMA municipal index** has averaged **over 250 basis points lower** than the long-term 20-Bond G.O. index since 1990!

### Averages From 1990 to Present

G.O.	5.57%
BMA	3.06%

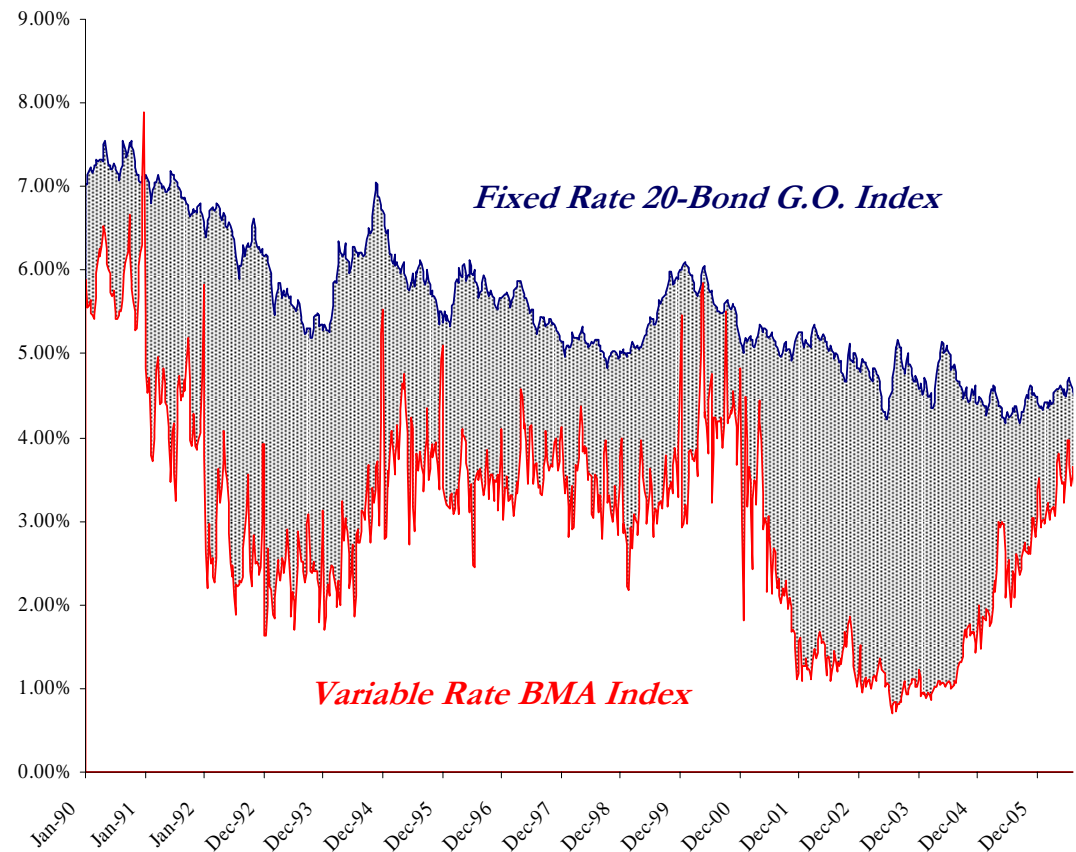
### 52 Week Averages

G.O.	4.48%
BMA	3.18%

### Annual Averages

	G.O.	BMA	Spread
1990	7.27%	5.91%	(1.36%)
1991	6.92%	4.37%	(2.55%)
1992	6.44%	2.81%	(3.63%)
1993	5.59%	2.37%	(3.22%)
1994	6.19%	2.84%	(3.34%)
1995	5.95%	3.85%	(2.10%)
1996	5.76%	3.43%	(2.32%)
1997	5.52%	3.66%	(1.86%)
1998	5.09%	3.44%	(1.65%)
1999	5.44%	3.29%	(2.14%)
2000	5.71%	4.12%	(1.59%)
2001	5.15%	2.61%	(2.54%)
2002	5.04%	1.38%	(3.66%)
2003	4.74%	1.03%	(3.71%)
2004	4.68%	1.23%	(3.44%)
2005	4.40%	2.46%	(1.93%)
2006	4.50%	3.38%	(1.12%)

Sources: AGE/Bond Buyer/Bloomberg



## How do the Rating Agencies View Variable Rate Debt?

- ❖ Rating agencies recognize the value of variable rate debt to an issuer's overall debt portfolio
- ❖ Variable rate debt is an appropriate choice for municipalities rated "A" or higher
- ❖ The rating agencies are typically comfortable with a 20% to 25% variable mix of a total debt portfolio; however
- ❖ Issuer must maintain sufficient liquidity
- ❖ Evaluation of liquidity:
  - Historic and projected liquidity positions.
  - Assets with maturities of less than 1 year.
- ❖ Application:

**"Prudent use of floating rate debt can enhance an issuer's financial flexibility and reduce interest costs, resulting in a positive impact on the credit quality."**

**"However, because of liquidity and interest rate risks... The debt must be structured appropriately and the issuer must have sufficient financial flexibility."**

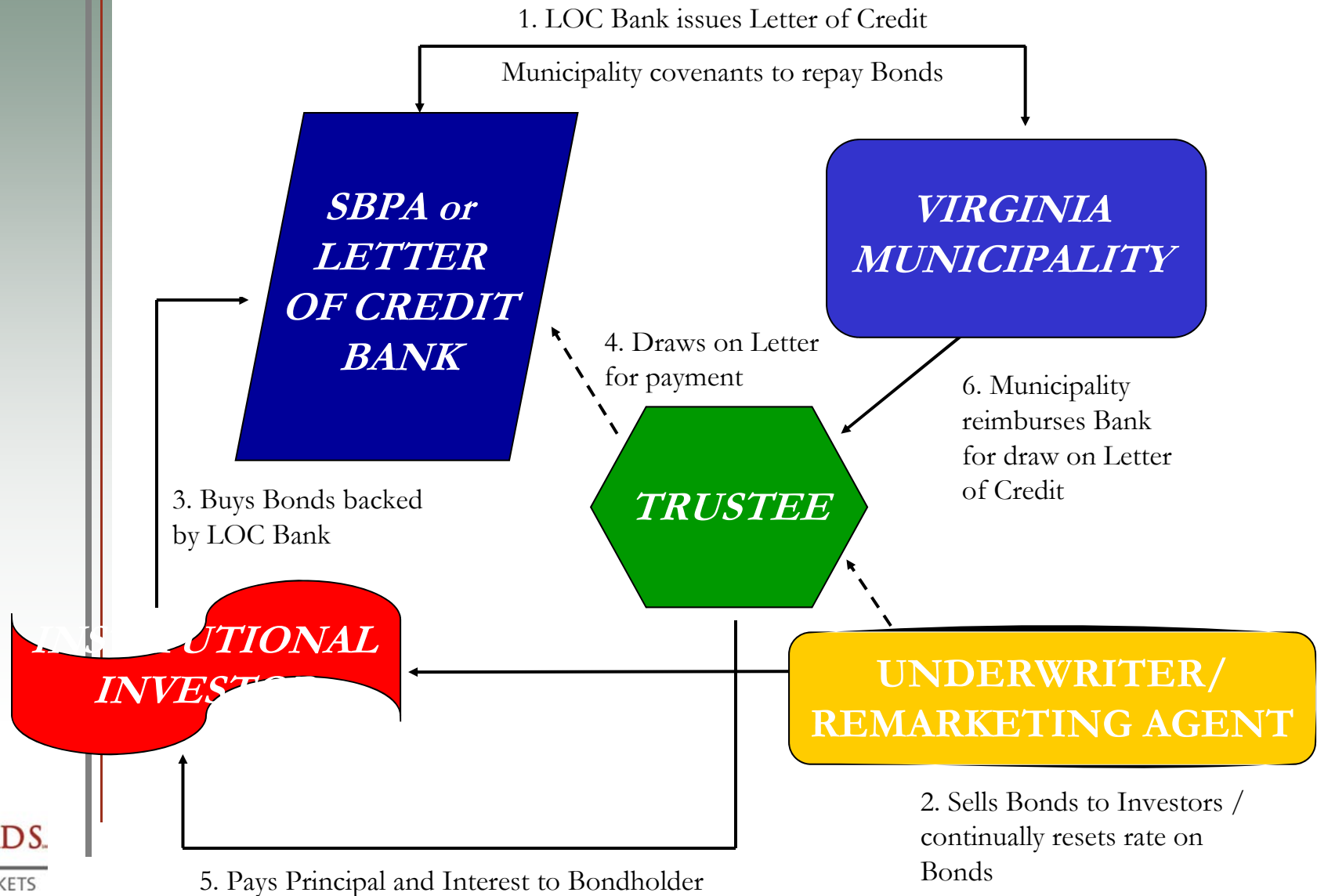
## Types of Variable Rate Debt

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**There are Three Primary Financing Options to Incorporate Variable Rate Debt Into Your Portfolio**

- ❖ Variable Rate Demand Bonds (“VRDBs”)
- ❖ Municipal Auction Rate Securities (“ARS” or “MARS”)
- ❖ Synthetic Variable Rate Debt

# Mechanics of a Variable Rate Demand Bond



## VRDB Advantages and Disadvantages

<i>Advantages of Variable Rate Demand Bonds</i>	
<b><i>Short-Term Rates</i></b>	❖ Allows long-term financing with short-term interest rates
<b><i>Call Provisions</i></b>	❖ Callable without penalty on each interest payment date with prior notice
<b><i>Flexibility</i></b>	❖ VRDBs can be remarketed at various modes in order to take advantage of market conditions
<b><i>Amortization</i></b>	❖ Issuer may be able to defer principal amortization in early years of loan, depending on credit facility provider

<i>Disadvantages of Variable Rate Demand Bonds</i>	
<b><i>Cost Changes</i></b>	<ul style="list-style-type: none"> <li>❖ The credit facility is renegotiated periodically through the life of the issue, subjecting the borrower to potential increases in credit costs</li> <li>❖ VRDBs are sold based on the credit of the bank. If the bank is downgraded, the borrower's cost could go up</li> </ul>
<b><i>Various Risks</i></b>	<ul style="list-style-type: none"> <li>❖ VRDBs are reset periodically and are therefore subject to <i>interest rate risk</i></li> <li>❖ <i>Remarketing risks</i> – remarketing agent performance can negatively effect VRDB rates</li> <li>❖ <i>Tax structure risk</i> – a change in the federal income tax structure could negatively affect interest rates on the bonds</li> </ul>
<b><i>Buyers</i></b>	❖ Sold primarily to institutional buyers

# The Role of the Remarketing Agent and Credit Enhancement

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## Remarketing Agent

- ❖ Sets the daily, weekly or monthly interest rates and remarkets the bonds that have been “put” back to the issuer to new investors

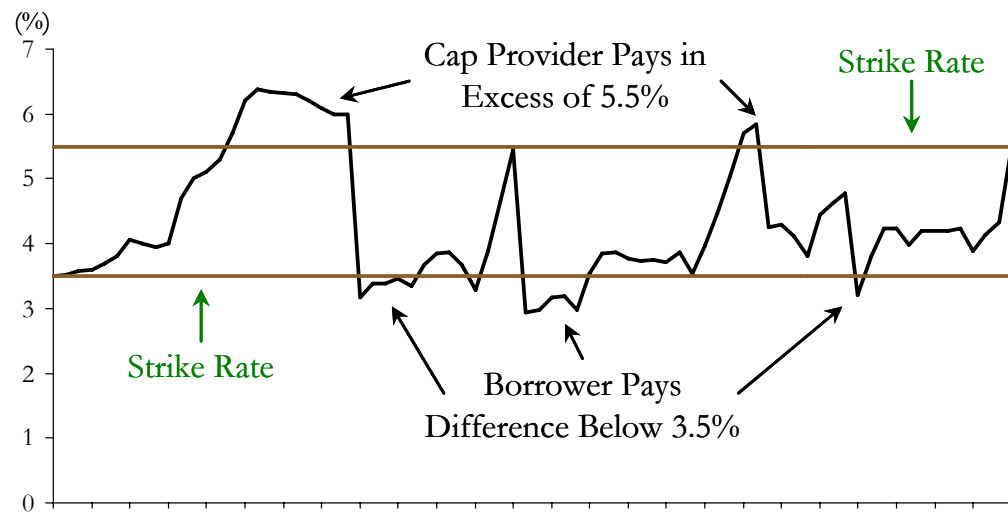
**Because of This “Put” Option, Liquidity or Credit Support Must Be Obtained to Protect the Issuer From a Remarketing Failure**

## Credit Enhancement

- ❖ Most common forms are a **Standby Bond Purchase Agreement (“SBPA”)** or a **Bank Letter of Credit**
- ❖ Municipalities with extremely strong credit and financial resources may provide their own liquidity
- ❖ An issuer’s Financial Adviser or Underwriter can assist in the RFP process to select a suitable Liquidity Provider
- ❖ Issuers are generally able to replace the Remarketing Agent or Liquidity Provider upon 30 days’ notice

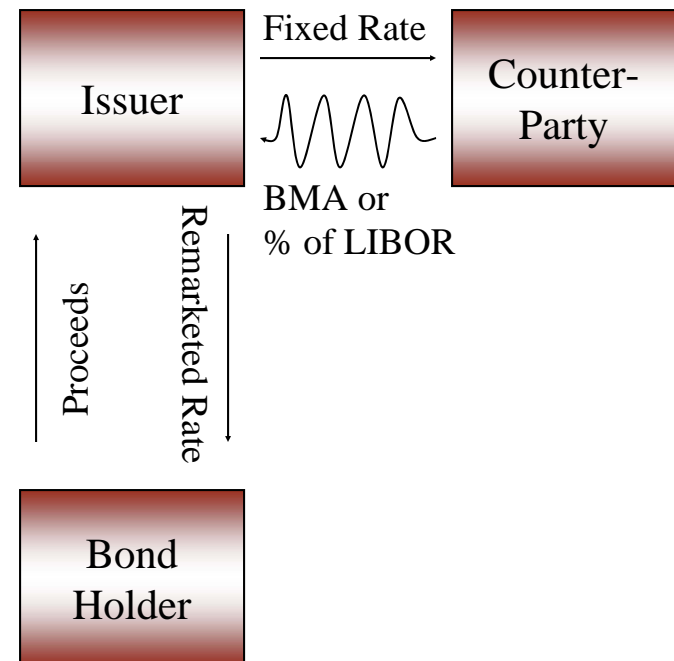
## Variable Rate Debt Hedging Techniques

- ❖ Budget variable rate debt service payments at 4% interest rate
  - 4% assumption is an industry standard (the BMA Index has averaged 3.05% since January 1990)
  
- ❖ Purchase an Interest Rate Cap
  - Sets the maximum rate an issuer would pay during the cap term (provider would pay excess %)
  - Issuer can pay offset cap premium cost by simultaneously selling a floor (creating a collar)



## Variable Rate Debt Hedging Techniques

- ❖ Enter into a floating-to-fixed interest rate swap
  - A swap effectively creates synthetic fixed rate debt
  - The issuer pays a fixed rate and receives back a variable rate, which should approximate the variable rate paid on the bonds
  - Rate received is either BMA or a % of LIBOR



## Variable Rate Demand Bonds – Summary

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- ❖ The **VRDB** interest rate is reset either **daily or weekly** by the remarketing agent, although other modes are available
- ❖ Rate is usually set at the **BMA Index plus a credit spread**
- ❖ Purchasers of VRDBs can “put” the bonds back to the borrower (remarketing agent) at any time
- ❖ Because purchasers are able to “put” the bonds back to the borrower, a liquidity facility and/or credit facility is usually required to fund any unexpected puts
- ❖ The liquidity facility usually takes the form of a **Standby Bond Purchase Agreement**, while a credit facility normally takes the form of a **bank Letter of Credit**
  - Borrowers with a “AA” or higher rating can sell bonds backed by a standby credit facility
  - Borrowers with ratings below “A” generally require a bank LOC, although we have sold such issues with an SBPA
  - An SBPA can also be combined with “AAA” bond insurance in lieu of an LOC

## Municipal Auction Rate Securities – Summary

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- ❖ Municipal auction rate securities are floating rate debt obligations, with **interest rates set through a modified Dutch auction**, much like U.S. Treasury sales
- ❖ ARS are considered long-term securities with **interest rates reset every 7, 28 or 35 days**
- ❖ **ARS do not require a bank Letter of Credit or liquidity facility**
  - **ARS, however, are usually “AAA” insured**, although high “AA” issues are sometimes sold without bond insurance
- ❖ ARS are different from the other forms of variable rate debt in that **the investor has no “put”**
  - From the issuer’s perspective, the lack of a “put” is a positive, as there can be no unexpected funding (i.e., draw on a liquidity facility)
- ❖ Because ARS can be sold in \$5,000 denominations, they are **extremely popular money market alternative to retail investors**
  - ❖ VRDBs are generally sold solely to institutional investors
- ❖ Over the past several years, ARS have cleared through the BMA Index

## How the Dutch Auction Process Works

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- ❖ Bids are submitted to an outside Auction Agent (e.g., Deutsche Bank, Bank of New York)
- ❖ The lowest rate that clears all the bonds wins the auction and remains in effect until the next auction
- ❖ If all bidders elect to hold their bonds, the auction will come at the minimum auction rate
- ❖ Alternately, if all bidders elect to sell their bonds, the auction will come at the maximum auction rate (both min/max as prescribed in the bond documents)

## ARS Advantages and Disadvantages

<i>Advantages of Auction Rate Securities</i>	
<b><i>No "Put" Risk</i></b>	<ul style="list-style-type: none"> <li>❖ Because they lack a "put" provision, Auction Rate Securities eliminate the risk of issuers having to honor unexpected funding</li> </ul>
<b><i>Call Provisions</i></b>	<ul style="list-style-type: none"> <li>❖ Callable without penalty on each rate reset date with prior notice</li> </ul>
<b><i>No Bank Costs</i></b>	<ul style="list-style-type: none"> <li>❖ Tax-exempt Auction Rate Securities reprice through a modified Dutch auction and have no put provision; therefore, the need for a costly bank facility is eliminated</li> </ul>
<b><i>Investor Base</i></b>	<ul style="list-style-type: none"> <li>❖ Since money market mutual funds are prohibited under SEC Rule 2a-7 from investing in ARS, issuers can target the highly stable retail and high-net worth investor base</li> <li>❖ Likewise, ARS rates tend to be less volatile because money market mutual funds use them as an investment vehicle</li> </ul>

<i>Disadvantages of Auction Rate Securities</i>	
<b><i>Failed Auction</i></b>	<ul style="list-style-type: none"> <li>❖ When there is more supply than demand for an issue (more sellers than buyers), an auction can "fail"</li> <li>❖ All holders of the "failed" issue must hold their bonds at a rate specified in the offering document until the next successful auction</li> </ul>
<b><i>Buyers</i></b>	<ul style="list-style-type: none"> <li>❖ The buyer base of ARS is limited to high net worth and retail buying segments of the fixed income market</li> </ul>

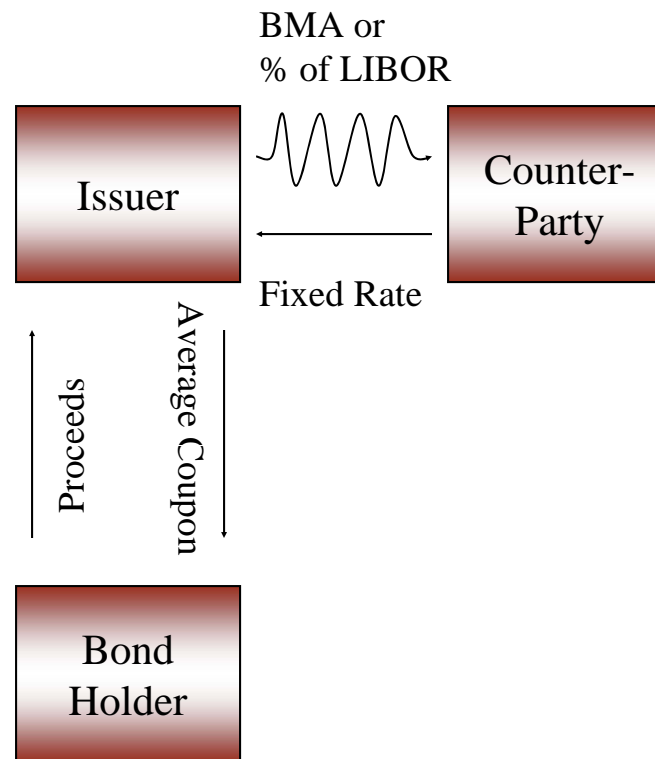
## Synthetic Floating Rate Debt – Summary

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- ❖ Synthetic Floating Rate Debt can be created by:
  - Issuing new money fixed-rate bonds and simultaneously entering into an interest rate swap agreement with a counterparty
  - Entering into an Interest Rate Swap agreement with a Counterparty on existing fixed rate debt obligations
- ❖ An Interest Rate Swap is an agreement between two parties to exchange cash flows (i.e., swapping from a fixed interest rate to a floating interest rate) over a predetermined period of time on a predetermined principal (“notional”) amount
- ❖ The floating rate for tax-exempt issuers is typically based on the BMA Index or a percentage of LIBOR
- ❖ No principal is exchanged; only interest payments are exchanged
- ❖ In a synthetic floating rate transaction, the borrower enters into a fixed-to-floating interest rate swap and receives a fixed rate payment from and makes a floating rate payment to the Swap Counterparty

## Synthetic Floating Rate Debt – Mechanics

- ❖ A fixed-to-floating rate swap converts fixed rate bonds to a variable rate
- ❖ Structure allows issuer to achieve variable rate exposure without traditional VRDB risks and liquidity costs
- ❖ Generate savings between fixed and floating swap rates



## Synthetic Floating Rate Advantages and Disadvantages

### *Advantages of Synthetic Floating Rate Debt*

<b><i>No Bank Costs</i></b>	❖ The need for a costly Bank Liquidity Facility is eliminated
<b><i>No “Put” Risk</i></b>	❖ No underlying floating rate bonds
<b><i>No Remarketing Risks</i></b>	❖ The underlying obligations are fixed rate bonds; consequently there are no ongoing remarketing fees or exposure to remarketing agent performance

### *Disadvantages of Synthetic Floating Rate Debt*

<b><i>Counterparty Risk</i></b>	❖ The Swap Counterparty may renege or be unable to honor its obligation to make payments
<b><i>Flexibility</i></b>	❖ Less flexibility to redeem bonds prior to maturity unless swap is terminated

Section 15.2-2626 of the Public Finance Act of 1991 provides the scope of authorization for localities’ governing bodies to authorize swap contracts and related ancillary contracts to bond issuances. The swap, depending on a number of factors, may or may not be integrated with the related bond issue for yield purposes under federal tax law.

# Variable Rate Financing Case Study



IDA of  
Chesterfield County,  
Virginia

\$6,490,000  
*Variable Rate*  
*Revenue Bonds*  
Series 2005A

\$11,630,000  
*Variable Rate*  
*Revenue Bonds*  
Taxable Series 2005B

## *Situation Analysis*

- ❖ Proceeds funded the acquisition of real property for the Meadowville Technology Park and certain infrastructure improvements
  - Overall project is an industrial and office park, along with wetlands preservation area and interchange to I-295
- ❖ Due to private activity, the overall financing included both tax-exempt and taxable pieces
- ❖ A.G. Edwards bankers (*while at their previous firm*) assisted the County and Financial Advisor with all critical aspects of the financing
  - Helped negotiate an extremely competitive 12.5 basis point liquidity facility commitment (5 years) from SunTrust Bank
  - Assisted in documents coordination and preparation
- ❖ Project received AA+/A-1+ rating from Standard & Poor's
- ❖ Bond documents are multi-modal, allowing for easy conversion of each series from a weekly reset rate to a daily or monthly rate, commercial paper rate, medium-term rate or a fixed rate

# Variable Rate Financing Case Study



Mecklenburg County,  
North Carolina

**\$18,155,000**  
**Variable Rate**  
**Certificates of**  
**Participation**  
**Series 2004**

**\$100,630,000**  
**Variable Rate**  
**General Obligation**  
**Bonds**  
**Series 2004B**

## *Situation Analysis*

- ❖ Proceeds from 2004 Certificates will fund the design, construction and equipping of a high school, improvements to certain mental health facilities and the construction of a county services facility and recreation center
- ❖ Proceeds from the 2004B Bonds will fund the construction, expansion and renovation of various school facilities
- ❖ A.G. Edwards bankers (*while at their previous firm*) assisted the County with all critical aspects of the financing
  - Helped negotiate an extremely competitive liquidity facility commitment from Helaba
  - Assisted in documents coordination and preparation
- ❖ The Series 2004B Bond indenture is multi-modal, allowing for easy conversion between reset rate periods
  - A.G. Edwards bankers determined that the County could lock into an Initial Rate Mode for one year to take advantage of low short-term rate environment
  - Rate was initially locked in at 1.10% for one year versus the then-current BMA rate of 0.94% for the same period

## About the Speakers

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### *Richard Marvin – Managing Director*

Prior to joining the A.G. Edwards & Sons, Inc. in 2005, Mr. Marvin was the national manager of the Public Finance Department of Legg Mason Wood Walker, Inc. Previously, he managed the Public Finance Department at Wachovia Securities Inc. from 1987 – 2000. Throughout his public finance career, he has been involved in over 175 financings with a total par amount of more than \$4.5 billion.

Mr. Marvin's government financing experience includes both fixed and variable issues in both Virginia and North Carolina. **In the Commonwealth, Mr. Marvin served as senior investment banker to the City of Richmond's Broad Street CDA financing and Hanover County's Bell Creek CDA financing (both in 2004). In 2005, he served as lead banker for two economic development financings for Chesterfield County. He has also served as financial advisor for the Virginia Municipal League / Virginia Association of County Officials Finance Program.**

Mr. Marvin previously served as City Manager of Streamwood, Illinois and Myrtle Beach South Carolina and Assistant City Manager of West Palm Beach Florida. He graduated with a Bachelors of Arts in Economics with honors from the University on North Carolina at Chapel Hill and received a Masters in Public Administration from American University.

## About the Speakers

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### *Marcus Smith – Vice President*

Mr. Smith joined A.G. Edwards & Sons, Inc. in 2005. Previously, he was an investment banker in the Public Finance Departments at both Legg Mason Wood Walker, Inc. and Wachovia Securities, Inc. Mr. Smith has provided issuers in the Southeastern United States with investment banking and support in structuring new money financings and debt refundings for over seven years.

**Mr. Smith’s financing experience in the Commonwealth include transactions for Cities of Hampton and Roanoke; Hanover, Chesterfield and Southampton Counties, the Virginia Municipal League / Virginia Association of County Officials, Bridgewater College, Virginia Commonwealth University and Virginia Tech.**

Mr. Smith has lectured at the Wake Forest University MBA program, the University of North Carolina School of Government on Public Finance and various Virginia Government Finance Officers (“VGFOA”) conferences, and has previously written an article for the VGFOA titled *The Variable Rate Choice*.

Mr. Smith holds a Bachelor of Science degree in Finance from the University of North Carolina at Wilmington and a Masters in Business Administration in Finance from the Babcock Graduate School of Management at Wake Forest University.

## A.G. Edwards in Virginia

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## A.G. Edwards in Virginia

A.G. Edwards Virginia Presence	
Branch Location	Number of Brokers
Norfolk	17
Alexandria	16
Richmond	15
Roanoke	13
Charlottesville	8
Gloucester	6
Leesburg	5
McLean	4
Bluefield	4
Danville	4
Virginia Beach	4
Harrisonburg	3
Lexington	2
<b>Totals</b>	<b>101</b>

A.G. Edwards Virginia Offices and Accounts	
Number of Offices	13
Number of VA Registered Brokers	3,821
Number of In-State Brokers	101
Number of Retail Accounts	68,500+
VA Resident Cash & Money Market Balances	\$457,000,000+



- ❖ A.G. Edwards has 5,002 customer accounts holding \$527 million in Virginia municipal securities.
- ❖ A.G. Edwards has more branch brokerage offices in six of the seven southeastern states than any other major securities brokerage and investment banking firm in the nation.