

Presentation to:

California Debt and Investment Advisory Commission

Introduction to Variable Rate Financing

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Alternative Short-Term Products

Why Issue Variable Rate Bonds?

Cost savings and flexibility are key considerations

◆ Achieve Interest Rate Savings

- Move “down the yield curve” where rates traditionally are lower
- May be paired with swaps for “synthetic” fixed rates lower than “natural” fixed rates
- “Diversified portfolio” may have long-term advantages

◆ Achieve “No-cost” Call Options

- Flexibility to call bonds with little notice and no call premium
- Take advantage of lower fixed interest rate environment in the future

◆ Asset-Liability Management

- Natural hedge against investment risk
- May hedge certain cyclical enterprise revenue characteristics

Alternative Short-term & Variable Rate Instruments

A variety of structures exist to meet a range of issuer needs

- ◆ **Commercial Paper**
- ◆ **Bond Anticipation Notes**
- ◆ **Variable Rate Demand Bonds/Notes**
- ◆ **Put Bonds**
- ◆ **Index Bonds**
- ◆ **Auction Rate Securities**

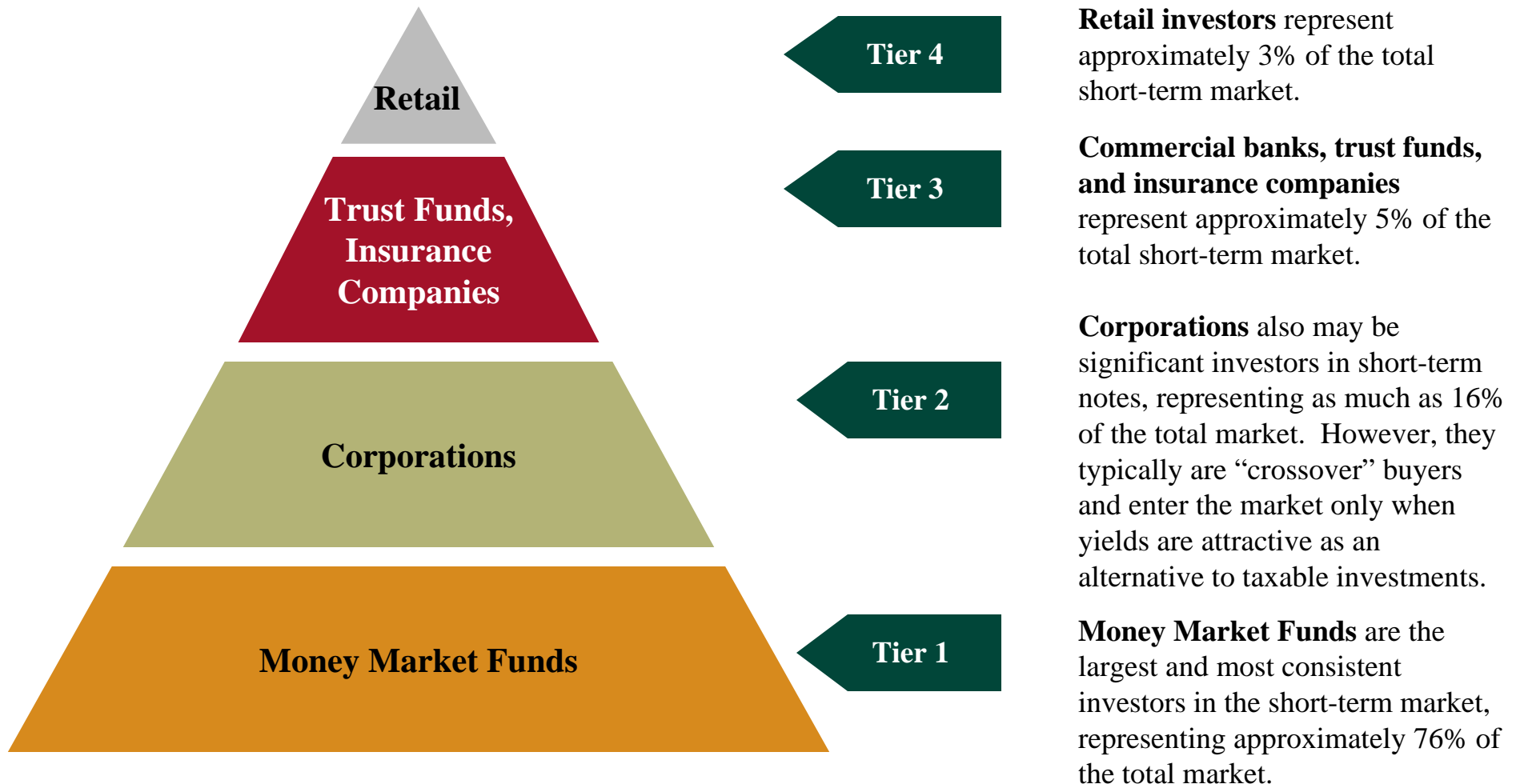
Structures Differ by Terms & Re-pricing Mechanisms

Structures have trade-offs between flexibility and interest rate risk

- ◆ **Commercial Paper/BANs** – Most common use is to facilitate low-cost, early financing of multiple-phase projects; often “taken out” with long-term bonds. CP typically requires liquidity and/or credit support, BANs may not.
- ◆ **Variable Rate Demand Bonds/Notes** – Can be re-marketed in daily, weekly or other reset modes, and may be put-back to issuer on periodic basis by investor; can be left outstanding to maturity or called with little notice. Require outside liquidity support to ensure timely payment to investors. Also may have bank or insurer credit enhancement.
- ◆ **Put Bonds** – Are fixed-rate bonds with a date-certain upon which the borrower may require the investor to “put them back” to borrower, and are priced to the yield at the put date; mechanisms for future rate reset are specified in advance for case where borrower does not redeem on put date. Investor carries remarketing risk.
- ◆ **Index Bonds** – Periodic repricing is based on an index, so no liquidity facility or remarketing agent involved; have no put option by investor, but are callable by issuer. When using with swaps for synthetic fixed rate, can eliminate basis risk.
- ◆ **Auction Rate Securities** – Periodic repricing is done via auction, with no resulting need for outside liquidity support; can be left outstanding to maturity or called on short notice – **recent market dislocation is curtailing market for ARS.**

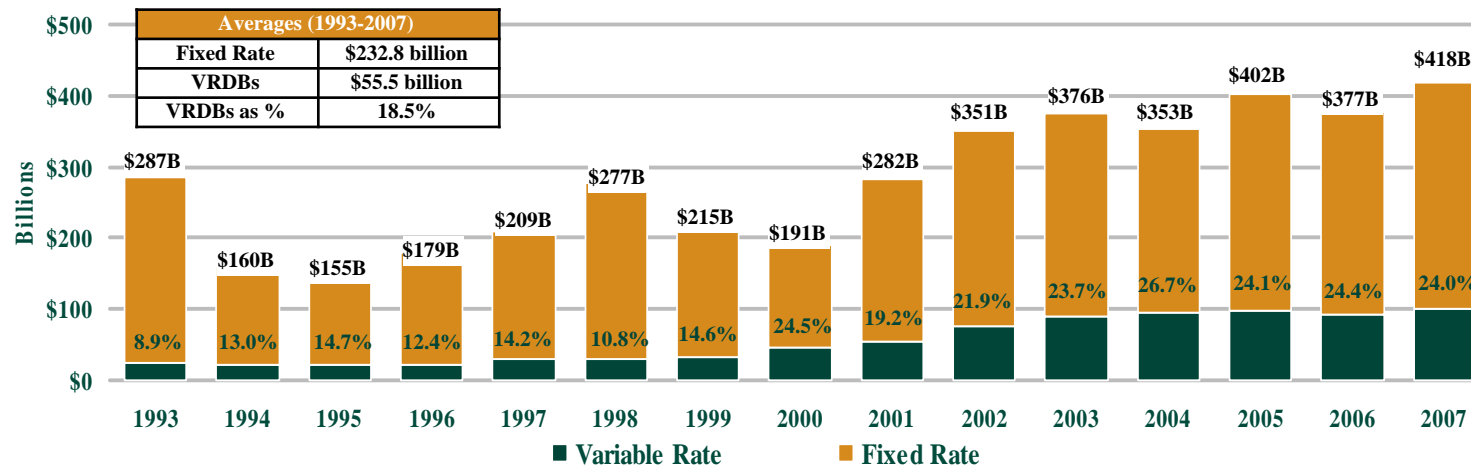
Profile of Variable Rate and Short-term Investors

Money market funds dominate the market for these instruments

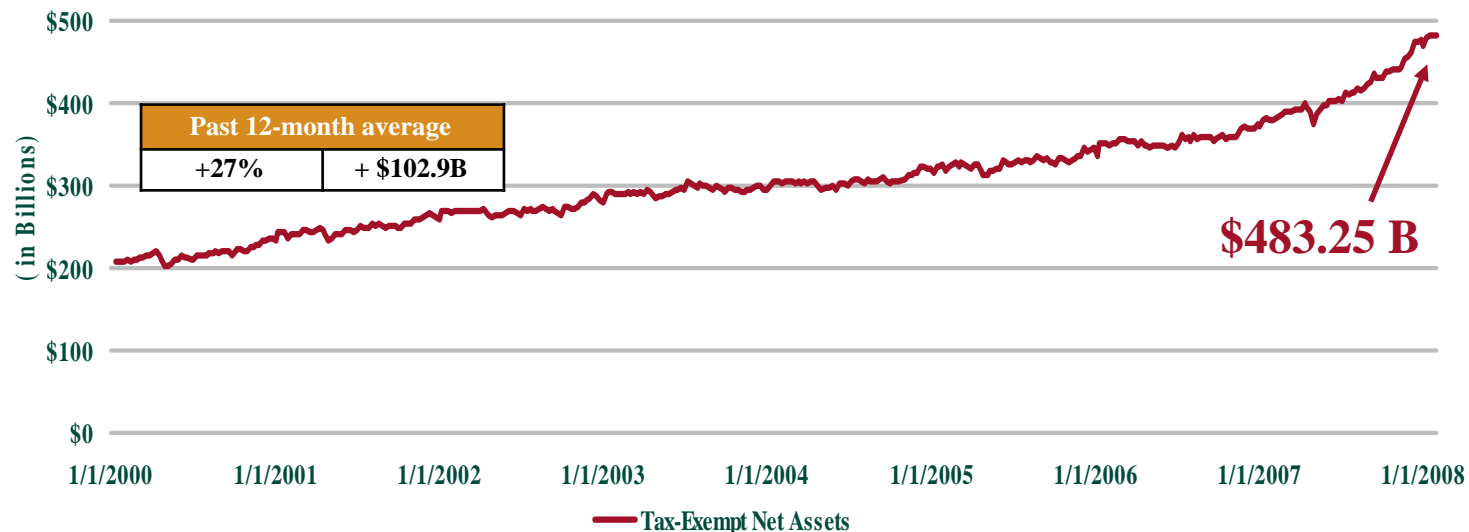


Variable Rate Bond Issuance Has Increased Over Time

Variable Rate as a Percentage of All New Issues



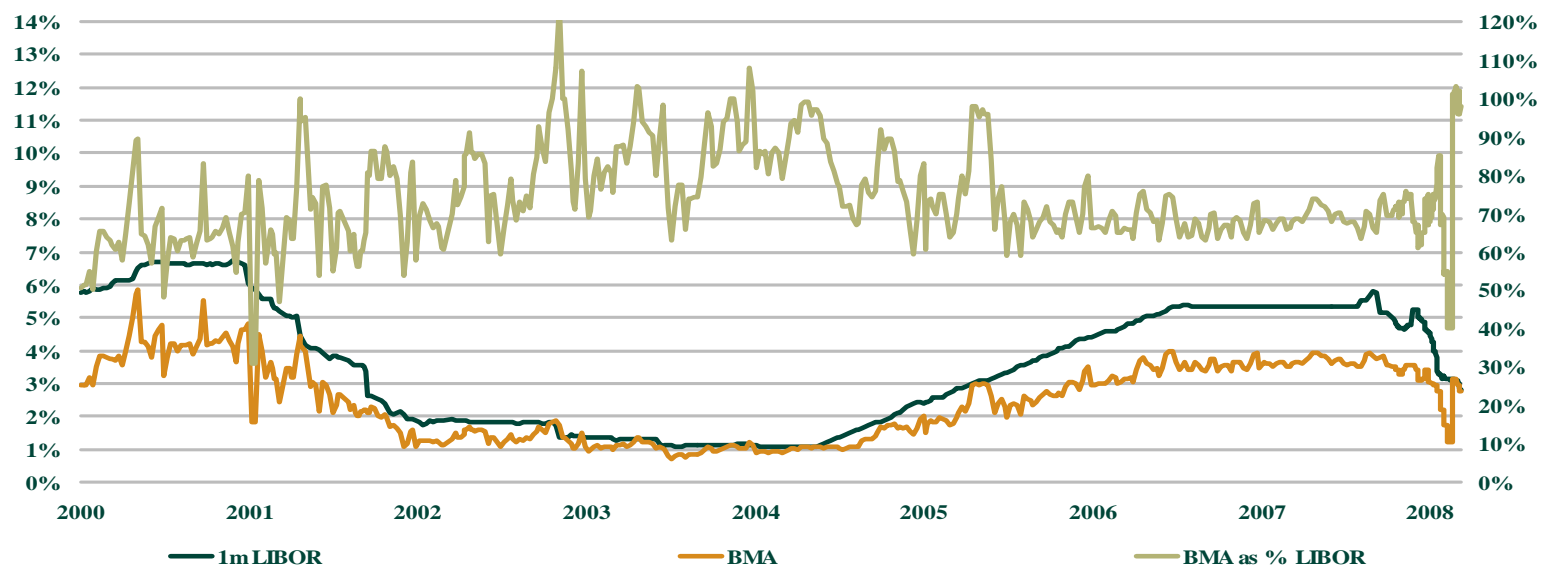
National Tax-Exempt Money Funds Net Assets



Municipal Variable Rate Market Update

Key Indices Show Variable Rate Market Performance

BMA/SIFMA and LIBOR Rates



<i>Index Averages</i>	2001	2002	2003	2004	2005	2006	2007	3/12/08
1 month LIBOR	3.84%	1.76%	1.21%	1.50%	3.36%	5.08%	5.25%	2.86%
BMA/SIFMA*	2.61%	1.38%	1.01%	1.22%	2.46%	3.44%	3.63%	2.75%
BMA/SIFMA as % of LIBOR	68.14%	78.55%	83.51%	81.23%	73.18%	67.66%	69.06%	96.12%

- The Securities Industry and Financial Markets Association Municipal Swap Index is a 7-day high-grade short-term market index comprised of tax-exempt VRDOs.
- The Index is comprised of actual issues as participating dealers report rates. The number of issues in the Index will vary in time as issues are called, converted, mature or are newly issued. In addition, if changes occur which violate the criteria or calculation methods, an issue will be dropped. The Index typically has 650 issues in any given week.
- The Index serves as a benchmark floating rate in swap transactions, explaining the significance of the above ratios.

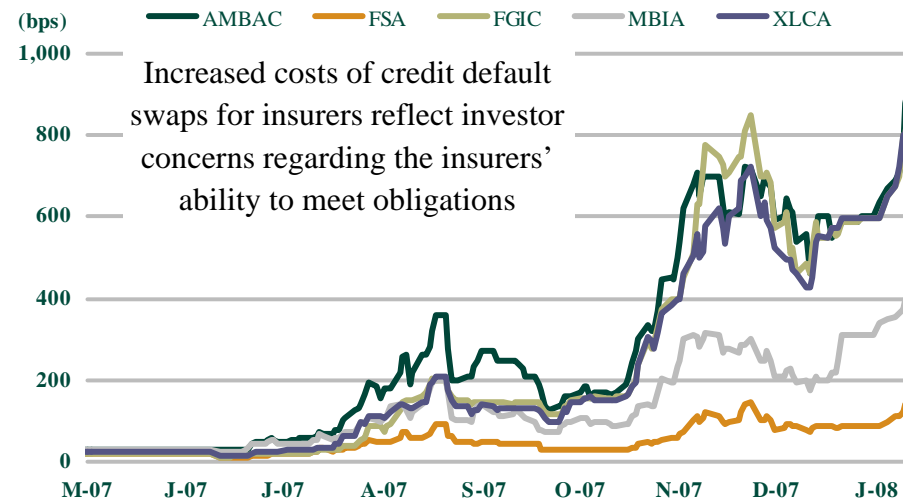
*Note: The BMA Index has been renamed the SIFMA Municipal Swap Index

Monolines and the Making of a Credit Crunch

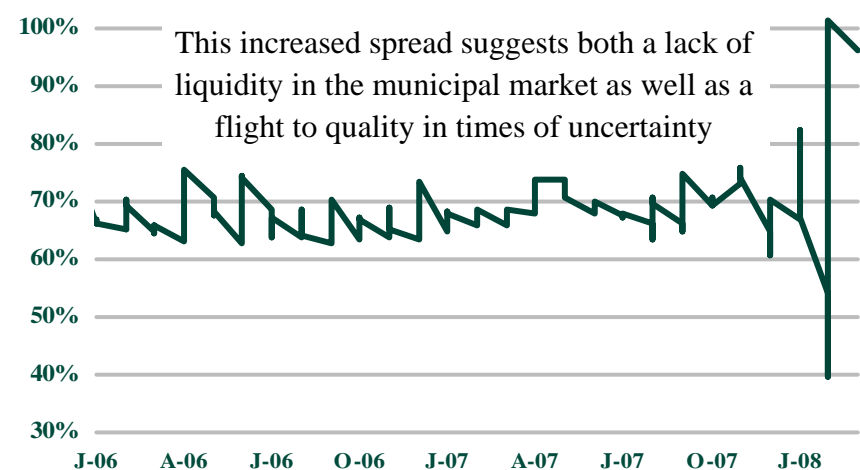
Insurer financial conditions have deteriorated as a result of sub-prime exposure – full extent of solutions remains unknown

- ◆ Recent turmoil from mounting foreclosures and write-downs on structures tied to mortgage loans has put pressure on the monoline insurers that have guaranteed such securities
 - This has resulted in notable widening of credit spreads
 - Even as some monolines have been actively raising capital, total need remains unknown
- ◆ Approximately half of the municipal market is insured by one of the AAA monoline insurance companies, with the future bringing significant activity to restructure insured variable rate securities
 - Trends may result in relatively high exposure to FSA-insured paper on part of investors (FSA insured 53% of issues in the most recent quarter)

5-Year Credit Default Swap Spreads (Protection Cost)



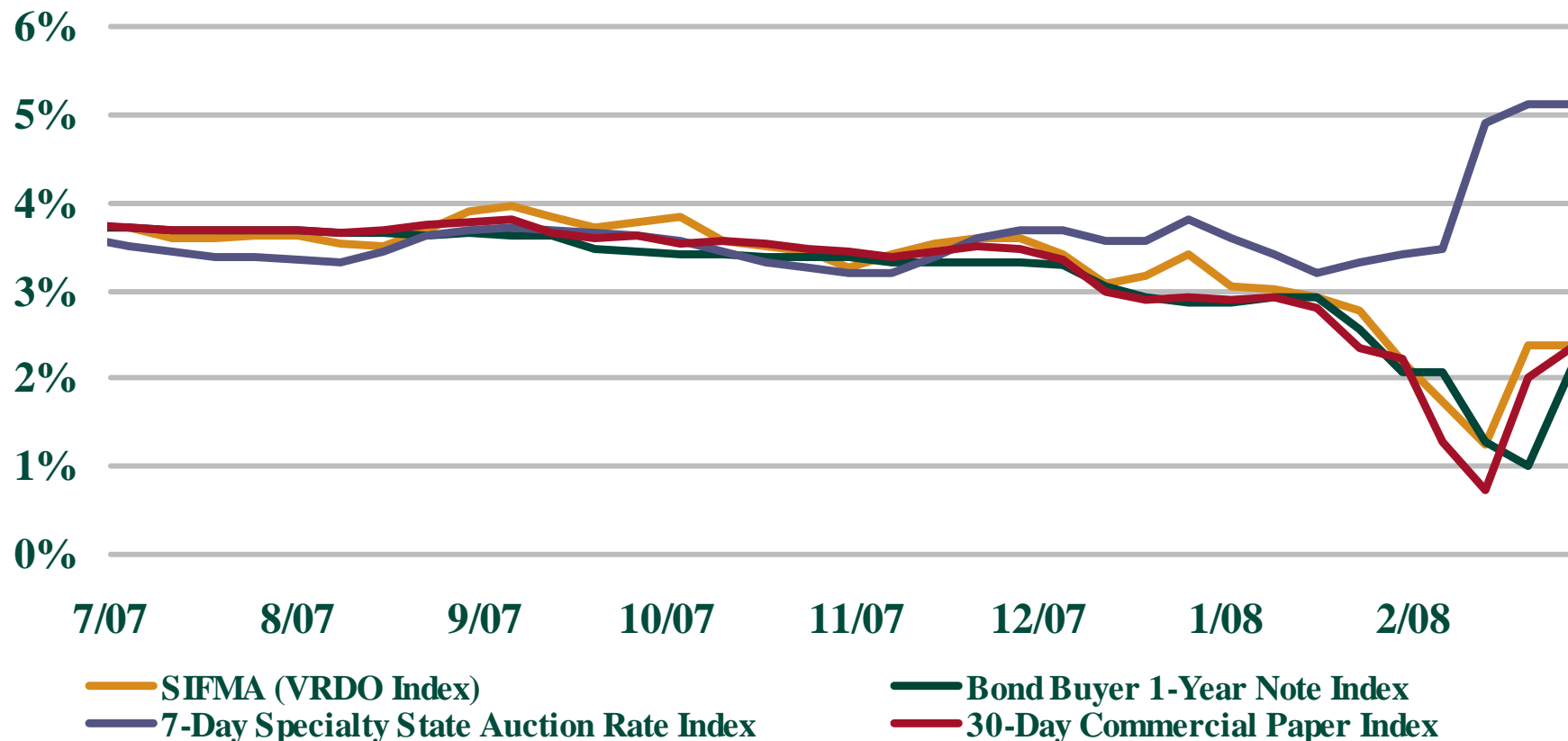
BMA / SIFMA as a Percentage of 1-Month LIBOR



Market Dislocation is Focused *Primarily* in ARS Market

Current dislocation in the ARS market may continue in the near- and medium-term, if not longer

Short-Term Product Indices



Possible Solutions

Issuers have pursued multiple strategies to mitigate recent problems

- ◆ Long-auction or “Put Bond” mode (1-3 years)
- ◆ Incremental amendments to liquidity facility to bypass insurer ratings in favor of issuer ratings
- ◆ Restructure to direct pay letter of credit (bond insurance provides obstacles)
- ◆ Use Commercial Paper to “take out” insured variable rate bonds
- ◆ Private Placement
- ◆ Special “Trust” or other structured solutions
- ◆ Fixed Rate Refunding (may include termination of variable-to-fixed swaps)

Lessons Learned

Structural differences led to different impacts from the insurer crisis

- ◆ Impact of bond insurer downgrades can be severe
 - Lack of highest short-term ratings = no longer money market eligible
- ◆ Lack of investors may lead to failed remarketing
 - Investor tenders increased, as did draws on bank facilities
- ◆ Consequences of “Bank Bonds”
 - Rate reset at “Bank Rate” (Differing Bank Rate definitions can lead to vastly different economic results)
 - “Term-out” requirements can trigger significant amortization changes
- ◆ Bank facility “Termination Events”
 - Can be triggered by insurer downgrades
 - Cure periods may be important feature

Wrap Up and Q & A

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