

Special Comment

Moody's U.S. Public Finance

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Risks of Variable Rate Debt No Longer Hidden

College and University Debt Management Is Crucial
Amid Current Market Turmoil

Summary Opinion

In Moody's Special Comment "Impact of the Credit Crisis and A Weaker Economy on U.S. Higher Education" in October 2008, we discussed the recent unprecedented disruption in the credit markets, and highlighted the need for careful management of variable rate debt by colleges and universities. Monitoring an institution's management of its variable rate debt portfolio has long been an important part of Moody's credit analysis for higher education¹, and has become increasingly crucial over the past several years as colleges and universities have become more frequent users of variable rate debt, heightening their exposure to short-term risks associated with this type of debt structure. In this report, we review the key risks associated with variable rate debt and the main factors we consider when incorporating these risks into our credit analysis. We conclude that proactive and sound management and oversight of an institution's debt structure is critical, particularly for lower rated organizations (Baa-rating and below) with limited levels of liquidity.

- No two counterparty agreements are the same and there is a wide variety of payment terms negotiated with counterparties in liquidity facilities and swap agreements.
- Management's understanding of the detailed terms of counterparty agreements is critical to successfully managing the risks associated with variable rate debt.
- Moody's credit analysis of institution's with variable rate debt focuses on four main areas: 1. Budgeting and Cash Flow, 2. Balance Sheet Liquidity, 3. Terms of Bank Liquidity Agreements, and 4. Management's Assessment of Debt Structure Risks.
- Rating transitions associated with variable rate debt risks have the potential to be rapid, should unlikely events, such as the requirement to immediately repay bank bonds or post collateral to a liquidity provider, occur. Moody's believes rapid rating transition is more likely to occur among credits rated Baa and below with low levels of liquidity.
- Moody's will continue to fully discuss the risks associated with variable rate debt and may reflect the risk of more rapid rating transition in lower ratings or outlook changes when appropriate.

Table of Contents:

Summary Opinion	1
Key Statistics	2
Incorporating Risks of Variable Rate Debt into Moody's Credit Ratings	3
Key Risks of Variable Rate Debt	5
Rating Transitions Associated with Variable Rate Debt Risks	6
Conclusion	6
Moody's Related Research	7

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¹ As an example, please see our report dated March 2004, "Hidden Risks of Variable Rate Debt" (Report Number 81480)



Risks of Variable Rate Debt No Longer Hidden

Over the past few months, disruptions to the credit markets and municipal bond market have demonstrated the risks that colleges and universities assume when they utilize variable rate debt structures, including volatile interest rates, failed remarketings, and unwillingness of banks to extend liquidity. In the current difficult credit market, many higher education variable rate demand bonds that were tendered by the holders could not be successfully remarketed. Therefore, short-term investors received immediate payment from the bank providing third-party liquidity support under the terms of a letter of credit or standby bond purchase agreement. In a few cases, the investors received payment directly from college and university debt issuers who pledge to use their own internal funds to provide liquidity for their variable rate bonds. These issuers had to liquidate investments to provide support for the purchase price of tendered bonds that could not be remarketed.

Key Statistics

Percent of Rated Private Colleges and Universities with Variable Rate Debt (FY 2007)	73%
Percent of Rated Private Colleges and Universities with over 50% Variable Rate Debt (FY 2007)	29%
Median Percent Variable Rate Debt for Private Colleges and Universities (FY 2007)	37%
Approximate Number of Moody's Rated LOC Transactions for Higher Education and Not-for-Profits (YTD 2008) (1)	762
Approximate Dollar Amount of Moody's Rated LOC Debt for Higher Education and Not-for-Profits (YTD 2008)	\$19 billion

(1) These data are based on all of the Moody's rated LOC transactions in the Higher Education and Not-for-Profit sector for 2008 to date. The data cover transactions for which an underlying Moody's rating has been assigned, as well as those that carried no underlying rating.

Source: Moody's Investors Service

In general, when tendered variable rate bonds cannot be remarketed and are purchased by the bank from investors, they become "bank bonds" held by the bank. In these situations, the remarketing agent will try to remarket the bonds to new investors hoping that market conditions will improve. However, if remarketing is not possible, the college or university must soon begin to repay the bank over a period of time, known as the "term out" period, in order to retire the bonds. The term out period is based on the individual agreement negotiated between the institution and the bank; it is typically one to three years, but can be as short as a few days². In some cases, there is a three to six month grace period before the term out period begins, allowing for some additional time for the remarketing agent to attempt to place the bonds with investors. In addition, the interest rate on bank bonds is typically higher than the variable rate the issuer was previously paying, potentially adding additional stress on cash flow.

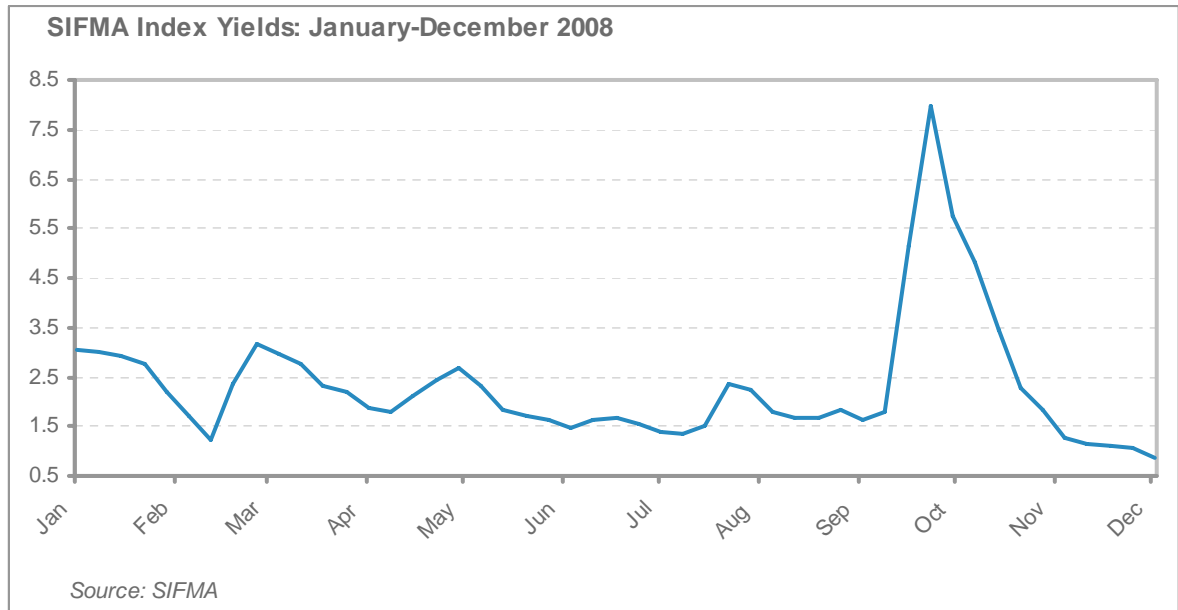
While the term out repayment period is far more rapid than the typical thirty year amortization schedule of the bonds, colleges generally do not expect to repay their debt over this accelerated period. Rather, they expect to be able to either remarket the bonds in the near term to repay the bank, or to refinance into a different debt structure. Due to the unusual weakness in the long-term municipal market, these options have become less available and fixed rate financings have been difficult to achieve or more costly than in the past, especially for Baa and below rated issuers. In addition, if the issuer has swaps that hedge the variable rate debt, refinancing to a different debt structure could be expensive if a termination payment is required or if the issuer chooses to maintain the swap without an effective hedge. If market uncertainties persist, institutions may be required to begin paying bank bond amortizations under term out provisions. This payout could strain some colleges and universities with moderate to low levels of liquidity.

We have recently seen dramatic improvement in the short-term credit markets, which likely bodes well for more successful remarketings. Recent SIFMA Index yields have recently fallen to 0.85% from a high of 7.96% in September. This level is lower than even the favorable levels achieved prior to the September spike.

² In most cases, bank bond repayments are not only required under the bank agreements, but are also special mandatory redemptions under the Bond Indenture.

Risks of Variable Rate Debt No Longer Hidden

However, recent experience teaches that rates are highly sensitive to investor confidence and could spike again in response to market events.



Incorporating Risks of Variable Rate Debt into Moody's Credit Ratings

Monitoring the risks associated with variable rate debt has long been a part of Moody's overall credit analysis for higher education institutions. However, the current market conditions have led us to intensify our focus on these risks, especially for issuers with limited liquidity and large amounts of variable rate debt. Most of these are concentrated in the Baa-rating category and below. Later in the report, we highlight the key risks associated with variable rate debt structures, such as counterparty risk, interest rate risk, liquidity risk, and rollover risk.

Management Role is Critical

Sound management and oversight of an institution's debt structure is more important now than ever, given current market conditions and the uncertain ability of many borrowers to access the credit markets. Forward looking management teams who are keenly aware of the risks associated with variable rate debt and the ways to mitigate these risks will more likely be able to manage through these difficult times with little impact on the overall financial health of the institution.

Some higher education management teams, including some that may have fully outsourced their debt structuring decisions, are less aware of the risks associated with variable rate debt and third party liquidity agreements, and are therefore more prone to experiencing significant disruptions in liquidity during periods of market turbulence.

Risks of Variable Rate Debt No Longer Hidden

Moody's monitors its higher education ratings on a recurring basis and will take rating actions in cases where an issuer's overall credit profile has the potential to be negatively affected by demands on liquidity related to variable rate debt. When issuers have exposure to variable rate debt, Moody's analysis focuses on the following:

- **Budgeting and Cash Flow:** review operating cushion imbedded in budget assumptions and ability to reduce expenses to accommodate spikes in variable rate debt service (including when it is swapped to a fixed rate)
- **Balance Sheet Liquidity:** assess balance sheet liquidity of the institution and its ability to deal with unexpected spikes in interest rates as well as the need to make accelerated debt service principal payments (i.e. bank bonds, termination of LOC agreement because of covenant breach or other Event of Default, inability to rollover bank liquidity agreement, collateral posting requirement)
- **Terms of Bank Liquidity Agreements (LOC's and SBPA's):** carefully review financial covenants, length of term-out period for bank bonds, Events of Default, Representations and Warranties, and the bank's ability to accelerate the bonds or demand collateral from the institution for reasons that may be outside of the institution's direct control (i.e. Material Adverse Change clause, inclusion of unrealized investment gains and losses in a debt service coverage covenant, or a rating covenant linked either to the institution's own rating or a financial guarantor's rating)
- **Management's Assessment of Debt Structure Risks:** identify steps colleges and universities are taking to deal with risks. We sometimes find that management is unaware of the terms of the bank liquidity agreements and the liquidity risks associated with variable rate debt and swaps. Management does not often participate in the negotiations with banks regarding the liquidity facilities, and as a result may be less aware that every agreement is individually crafted and that there are large differences among agreements in the length of term out periods and covenants. This typically occurs at small and medium-size institutions that have excessively outsourced decision-making about their debt policies and structures with little critical questioning of these proposed debt structures.

For several reasons, we believe that the majority of U.S. rated colleges and universities are well positioned to manage the risks of some amount of variable rate debt. First, these institutions typically employ conservative budgeting assumptions for interest costs of variable rate debt, including budgeting at some spread above the fixed swap rate. Second, the predictable nature of a college's cash flow generally provides institutions with some flexibility to manage higher than expected interest rate costs for an abbreviated period of time. Tuition payments rarely fluctuate by more than 5% in a year, and annual cash flow and expenses are usually highly predictable at the outset of the fiscal year. Third, given universities' generally strong balance sheets and access to quasi-endowment funds (which vary in liquidity), we believe that many institutions will be able to weather both unexpected spikes in interest costs and periods of more rapid repayment of debt if they are not disproportionately invested in illiquid private investments.

In some cases, colleges face potential stress created by their debt structures. The most vulnerable colleges include thinly resourced institutions or those with weak cash flow, typically in the Baa-rating category and below, that may have a more difficult time dealing with the higher interest rates and potentially more rapid amortization.

As colleges have restructured their variable rate debt and sought liquidity providers, many have agreed to consolidate banking relationships and liquidity provider arrangements with one bank. While this can enhance access to loans and services from the bank, colleges then become increasingly reliant on a single financial institution. With banks reducing their liquidity exposure in the current market environment, Moody's has seen examples of banks being unwilling to renew liquidity facilities or renew the agreements at a significantly higher price structure. Colleges that are able to maintain multiple, but significant, relationships with banking institutions may be better protected from the impact of a negative event at a single bank.

Risks of Variable Rate Debt No Longer Hidden

Key Risks of Variable Rate Debt³

When analyzing a college's variable rate debt, Moody's focuses on the following four risks:

- **Counterparty Risk:** risks to the college of events occurring to a financial partner.

While the most common example of counterparty risk is that of a swap counterparty, we view counterparty risk as a broader issue, including exposure to negative events occurring to letter of credit providers, line of credit providers, custodians, insurers, etc. In some cases, downgrades or credit pressure on a third-party can drive dramatic increases in the interest rates on a college's bonds. In addition, as some financial institutions have faced pressure to raise or protect capital, we have seen significant changes in the availability of credit, causing some colleges to scramble to find new banking relationships.

- **Interest Rate Risk:** risk of unexpected or protracted rise in the interest cost of variable rate debt.

While many issuers entered into interest rate swaps as a mitigant to some of the interest rate risk associated with variable rate debt, these swaps can also leave institutions exposed to large swings in interest rates caused by market disruptions. When market disruptions occur, historical relationships between rates (ie. the relationship between LIBOR and SIFMA) as well as credit spreads and the intricacies of how closely a particular issuer's bonds track to indices, can vary widely. Since many institutions receive swap payments based on a percent of LIBOR, the hedges proved to be largely ineffective over the past several months as SIFMA reached a high of 7.96% in September 2008 as compared to 3-month LIBOR of 3.12%.

- **Liquidity Risk:** risk of having to repay variable rate demand bonds on an accelerated basis or needing to post collateral or make a termination payment when swaps are out of the money.

Unlike auction rate debt that does not have a tender feature, variable rate demand bond structures give investors the right to put the bonds back to the institution on every interest rate reset date (often daily or weekly) and demand repayment from the issuer. During normal market conditions, the bonds are typically remarketed and no draws on the liquidity facility are required. Recently amid the market disruptions, many colleges have seen failed remarketings of variable rate demand bonds leading to draws on the liquidity facility and the presence of bank bonds. In cases when bank bonds cannot be remarketed, the Reimbursement Agreement to the Letter of Credit provider (or other liquidity facility) typically stipulates that the issuer must repay the liquidity provider over a certain number of years (often in the range of one to three years, but occasionally as short as a few months). Under this scenario, colleges and universities that are unable to access the capital markets to refinance the bonds would be faced with an abbreviated period over which to repay bonds that they anticipated would be due over a much longer timeframe (usually 30 years). In addition, if an issuer breaches certain covenants of the liquidity agreement, it could trigger an Event of Default, which may give the bank the right to accelerate the bonds and demand immediate repayment from the college or university or require the institution to post collateral equal to the commitment under the liquidity facility.

In addition, institutions may be required to post collateral or make a termination payment on swaps when they are out of the money. This could occur for a number of reasons, including the valuation of the swap reaching a certain threshold that requires the posting of collateral or the occurrence of an Event of Default under a swap agreement that necessitates a termination payment to a counterparty. The payments could have a material impact on liquidity depending on the specific terms of the swap agreement and the current valuation of the swap.

- **Rollover Risk:** risk of a bank liquidity agreement expiring without the institution being able to extend the agreement or find another liquidity provider.

Liquidity facilities are typically entered into for a period of one to three years. As banks have sought to protect capital, we are seeing banks limit terms to one year so as not to lock themselves into longer-term liquidity agreements. While in the past, most rated institutions did not have difficulty rolling over liquidity agreements prior to expiration or finding an alternative provider, we are cautious about rollover risk in the

³ For a more complete discussion of these risks individually, please see our report dated January 2008, "Bank Liquidity Support and Variable Rate Financings Can Impact Underlying Long-Term Credit Ratings" (Report Number 107262)

Risks of Variable Rate Debt No Longer Hidden

next one to two years as banks may decide to limit their exposure to the sector or decide to exit the LOC or SBPA business as a whole. In addition, the number of providers in the market has contracted given mergers of banks at the same time that a high volume of issuers converted or refunded auction rate debt into variable rate demand bonds requiring liquidity support. This may lead to high costs or the unavailability of liquidity facilities for some institutions when a present facility expires.

Rating Transitions Associated with Variable Rate Debt Risks

A troubling characteristic of most of the risks described above is the severity of the impact should the event occur. For example, the need to fully repay a liquidity bank for bank bonds due to a covenant violation may be unlikely, but if needed, the credit quality of a Baa-rated college could deteriorate rapidly--essentially overnight--and lead to a multi-notch downgrade. In our analysis, Moody's has and will continue to fully discuss the potential for these rapid rating transitions in our credit reports and, when appropriate, reflect the risk of more rapid rating transition through a lower rating or negative outlook.

Conclusion

The risks associated with variable rate debt have been highlighted during the market disruptions that have occurred over the past few months. We continue to emphasize that proactive management and oversight of an institution's variable rate debt structure is critical at all rating levels, especially for lower rated organizations (Baa-rating and below) with limited levels of liquidity. Moody's continues to monitor institutions with exposure to variable rate debt and incorporate the risks associated with this debt structure into our credit analysis.

Risks of Variable Rate Debt No Longer Hidden

Moody's Related Research

Special Comments

- Hidden Risks of Variable Rate Debt, March 2004 (81480)
- Impact of the Credit Crisis and A Weaker Economy on U.S. Higher Education, October 2008 (111958)
- Bank Liquidity Support and Variable Rate Financings Can Impact Underlying Long-Term Credit Ratings, January 2008 (107262)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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