National Association of Health and Educational Facilities Finance Authorities

NAHEFFA

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September 2015

The Value of Variable Rates In a Low-Rate World

by Jeffrey B. Sahrbeck, Managing Director, Ponder & Co.

After a post financial crisis shift away from risk, health systems should re-examine capital portfolio diversification and create a framework that rationally determines their use of both fixed and variable-rate debt.

In February of 2008, the municipal industry (and specifically not-for-profit healthcare) found itself at the epicenter of the credit crisis, with auction bond failures, sizable investment losses and derivative causing massive collateral posting requirements. As the industry scrambled to refinance hundreds of billions in debt and rebalance portfolios, the crisis caused health systems across the country to "de-risk" balance sheets in response. However, the pendulum swung so far toward fixed-rate debt that health systems are effectively betting on a rate increase, while losing billions in cash flow each year and not necessarily gaining the security they seek.

No one wants to forget the lessons of the past, but for those health systems interested in charting a lower risk, lower cost path forward, optimizing a capital structure can be accomplished by understanding:

- The value and risk of variable rates
- The importance of examining the entire balance sheet when evaluating interest rate risk (including specifically debt structures, investment portfolios and pensions)
- The importance significance of diversification in minimizing risk

Why Act Amid Low Rates?

With 30-year municipal market data (MMD—the municipal industry's "AAA" benchmark) hitting a 2014 low of 2.75 percent in October, it is not surprising that the preponderance of municipal issuance in 2014 was fixed-rate debt. The general market expectation is that the Federal Reserve is poised to raise short-term interest rates sometime this year, and long-term interest rates should follow. So why shouldn't health systems borrow at an average current 30-year rate of 4.00 percent? Examining both analytics and history can provide a reasoned and objective perspective.

The first step in reviewing borrowing options is to determine the true cost of each one. Fixed-rate debt appears simple, but the nature of the municipal

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Future NAHEFFA Conferences

April 6-7, 2016
Scottsdale, AZ
Scottsdale Plaza Resort

September 28-30, 2016
Chicago, IL
Wyndham Grand Chicago Riverfront

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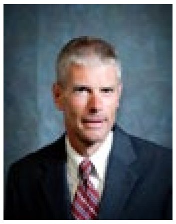
NAHEFFA President's Message

by Michael J. Stanard, Executive Director
Missouri Health and Educational Facilities Authority



Mike Stanard

Happy fall everyone! I hope your summer was good and if you still are a school/college-age parent, it is off to a great start. It was great seeing so many of you at the NAHEFFA Fall Conference last week in beautiful Seattle. The sessions, speakers and materials all were very beneficial. Thank you to the Washington Higher Education Facilities Authority and the Washington Health Care Facilities Authority for your work hosting the conference. Once again I thank the sponsors for their valuable support of NAHEFFA conferences and the tax-exempt bond community.

As we get closer to the 2016 election and various potential changes it will bring, we are reminded of the threats and opportunities facing us on many fronts. Tax reform looms in various forms depending on how control of the Presidency, Senate and House develops. Unsettled regulatory actions also will play a big part in how our industry evolves over the next 18 months. NAHEFFA is dedicated to maintaining and increasing our role in these discussions as we move forward. As always, for more detail on the legislative and regulatory scene in Washington, D.C. see Chuck Samuels article in this newsletter.

So far in 2015 NAHEFFA welcomes four new executive directors to long-time member authorities. Mary Martin of the Michigan Finance Authority and Jeanette Weldon of the Connecticut Health and Educational Facilities Authority were appointed earlier in the year. Gerrard Bushell of the Dormitory Authority of the State of New York took over mid-year and Diane Stanton of the California Health Facilities Financing Authority was appointed last month. We look forward to working with each of them in the future. As always, NAHEFFA is looking for qualified new members. Please contact me if anyone knows of potential qualified issuers that might want to join NAHEFFA.

Finally, please mark your calendars for 2016. The Spring Conference will be held April 5-7, 2016 in Scottsdale, Arizona and hosted by the Arizona Health Facilities Authority. The Fall Conference will be hosted by the Illinois Finance Authority in Chicago September 28-30, 2016. They each promise to be great events. Information regarding sponsorship of the conferences will be available in the next few months.

Hopefully your organization is busy. Current market volatility and continued discussion of potential interest rate swings certainly make it interesting. However, it is good to see health and education institutions able to take advantage of favorable rates. Have a great fall. ■

2016 Spring Conference

April 6-7, 2016
Scottsdale, AZ
Scottsdale Plaza Resort

Come join us for informative panel sessions, networking opportunities and peer interaction and collaboration.

More Information Coming Soon!

WASHINGTON REPORT

by Charles A. Samuels, Mintz Levin
General Counsel, NAHEFFA

Chuck Samuels

It's always a shock to travel from our dysfunctional nation's capital to a place like Seattle where people actually want to get things done and do. I hope attendees enjoyed our advocacy panel in which I was joined by Mike Nicholas from BDA and Liz Clark from NACUBO. The audience got good background from Liz on the issues of concern for higher education and from Mike on the formation and activities of BDA as an important new force in Washington DC public finance circles.

As I write this, DC is in the middle of Pope frenzy and all the gridlock and security consciousness that comes with it. It will be followed immediately by the Chinese President Xi Jinping's visit (who following our trail is stopping off first in Seattle.) Washington knows how to handle these events.

Meanwhile, in the dysfunctional Washington we appear to be on the verge of another government shutdown, not because of economic issues but because of the highly partisan issue of federal funding of Planned Parenthood. Somehow and at some point a deal will be made and it may or may not impact other mission-critical issues such as the lapsing highway bill, the need to increase the debt ceiling and the interest in dealing with all the tax extenders

How the resignation of Speaker Boehner will affect these events is a total crap shoot. Likely successor Kevin McCarthy of California has not focused much, if at all, on munis. (Kudos though to Nebraska's finest, Linda Beaver, for predicting in Seattle that this would happen. She wuz right and I wuz wrong).

The nightmare scenario is that somehow in that mix of mega bills there will be a grab for revenue raisers, which could include tax exempt bonds and such options as limiting hospital bonds, for example, which has been bruited about. This is unlikely but we will be vigilant.

More importantly, the time between now and the election – recognizing that after election there surely will be tax reform legislation seriously considered – is to build and firm up our networks and alliances with congressional delegations, borrowers and the myriad public finance groups in Washington. It's hard to start from zero when we get into a crisis. Now is the time to establish, maintain, and expand relationships when you're not asking for anything. For example, we will continue to build on our good relations with and NABL and BDA and get integrated into HFMA's activities.

It's pretty active in the regulatory sector. Our sector is still absorbing the implications of the new municipal advisor rule and requirements and there is still a great deal of turmoil over the SEC's MCDC initiative. We expect more settlement agreements with dealers and ultimately with issuers and borrowers. So far, none of the settlement agreements that have been announced are situations in which it appeared anyone lost money and some of them seem to involve fairly minor failures to comply with continuing disclosure agreements. Add to that the cheerful refusal of the SEC to provide guidance on materiality and one wonders what will be accomplished by this activity other than lots of notches in the SEC's belt at a time when it is embarrassed about its inability to prosecute financial crimes related to the recession. Improving disclosure practices is a salutary objective but whether it needs to be done through this blunderbuss approach is questionable.

Finally, everyone wants to know about the presidential election and which candidates will or will not be good for municipal bonds. First, those of us inside the Beltway have no more idea about who will be president than you do. Second, the easy assumption is that governors or more liberal, infrastructure oriented politicians will be better for tax exempt bonds. Don't count on that. There was an activist governor in Arkansas many years ago who aggressively used his IDB authority to issue a number of bonds for state projects and even out of state projects. It was thought that when he became president munis would be in great shape with an advocate at the very top. President Bill Clinton proved on municipal finance to be pretty much a zero whatever else you think about him. So, don't assume that either background or campaign platforms mean a whole lot. Circumstances and second and third tier players make the decisions. But it's fun to talk about while we wait for Congress to do something and the federal government to open or close.

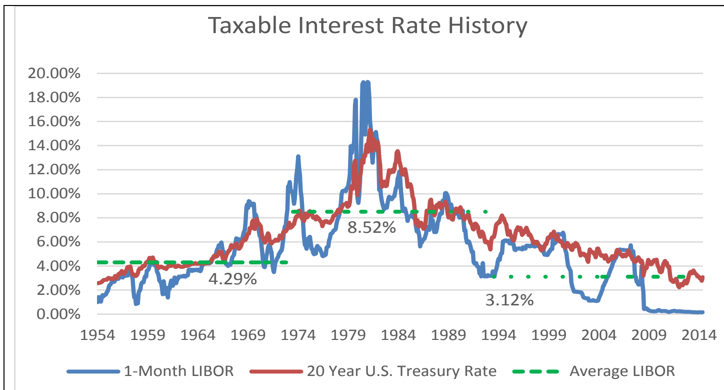
industry requires slightly more analysis than taking rates at face value. Unlike the taxable world, where coupons generally equal yield, most tax-exempt fixed-rate bonds are currently sold with a 5.00 percent coupon and a 10-year par call. The result is that the 4.00 percent market rate is calculated on a yield-to-worst methodology for the investor to the 10-year call. Better said, if a hospital refunds its 30-year bond after 10 years, its true cost is 4.00 percent. However, if interest rates rise and the bond stays outstanding to maturity, the cost is approximately 4.50 percent (4.00 percent to the call and 5.00 percent thereafter). This yield may still be attractive from a historical perspective, but it is higher than originally advertised.

This analysis points to the bottom line question: How attractive is the 4.50 percent rate? A comparison of this rate with historical fixed rates since 1994 shows the rate is approximately 1.00 percent lower than an average historical rate of 5.50 percent. Thus, from a historical perspective, rates are relatively low and attractive.

The equation changes when the fixed cost is compared with a variable rate issue at a current cost of 0.75 percent, which assumes a SIFMA [Securities Industry and Financial Markets Association] tax-exempt seven-day benchmark of 0.05 percent + 0.70 percent of fees. By issuing fixed rate, a hospital is effectively paying an additional 3.75 percent in the near term (4.50 percent versus 0.75 percent) to potentially gain 1.00 percent in the long-term (4.50 percent versus 5.50 percent). Depending on how long variable rates stay low, that appears to be a pretty hefty price to pay.

Period	Average Tax-Exempt Rate	Benefit to Current Fixed Rates	*Comments*
1954 – 1974	3.70%	0.80%	*Post war boom time, with accommodative FED policy*
1974 – 1994	6.50%	(2.00%)	*FED fights stagflation with tight monetary policy*
1994 – 2014	2.90%	1.70%	*Periods of accommodative FED policy*

The average tax-exempt rate was calculated from 1986 to 2014 based on the SIFMA Index + 0.70% in fees, and at 70% of the FED Funds rate +0.90% in fees from 1954 to 1986 as no tax-exempt indices exist.



Source: Federal Reserve System (pre-1986, the FED funds rate + 0.20% was substituted for LIBOR)

Depending on the time perspective, current fixed rates may not be as low as they appear. Variable rates have consistently averaged lower than current fixed rates over time. Taxable rates have been used above as tax-exempt data does not go back historically. "A" rated tax-exempt borrowing cost was calculated by taking 70% of the taxable averages and adding 70 bps of credit cost.

A comparison of the 4.50 percent rate with a longer term variable rate average shows that, on an annual basis, the 4.50 percent fixed rate would have outperformed variable rates only 40 percent of the time since 1954. Thus, fixed rates may seem low now, but the preponderance of data (both recent and long-term) indicates that variable rates will average lower than even current fixed rates over time.

Determining the Optimal Capital Structure

When a hospital attempts to minimize risk, it will often maintain a conservative investment portfolio (with a high percent cash and fixed income) and a conservative debt portfolio (nearly all fixed-rate debt). This strategy has effectively caused the system to bet on interest rates rising considerably (especially if combined with a pension). However, historical data indicates this trend is not a forgone conclusion. If rates stay low—not necessarily as low as they have been in recent years but in a lower range—investment returns suffer, debt is expensive, and pension obligations remain high at a time when the healthcare industry is being squeezed on all sides. Health systems therefore should follow the following key steps to optimize their capital structures.

Examine the risk on the existing balance sheet. An analysis of all balance sheet components will show that some naturally act as hedges to variable-rate debt. The most obvious are cash and shorter term fixed-income investments. If rates rise, increasing investment returns offset rising debt payments. Rising rates will also lower pension obligations due to the discount rate change, while investment returns improve. Future funding requirements will be smaller, improving cash flow at the same time variable-rate debt cost increases. Each component will react in its own way, but only by reviewing the effect of interest rates on the entire balance sheet can a system get a clear picture of its aggregate interest rate risk.

Determine the organization's risk tolerance and set goals. Assuming a static investment portfolio or pension, determining the appropriate amount of variable rate debt will depend on a number of factors, including:

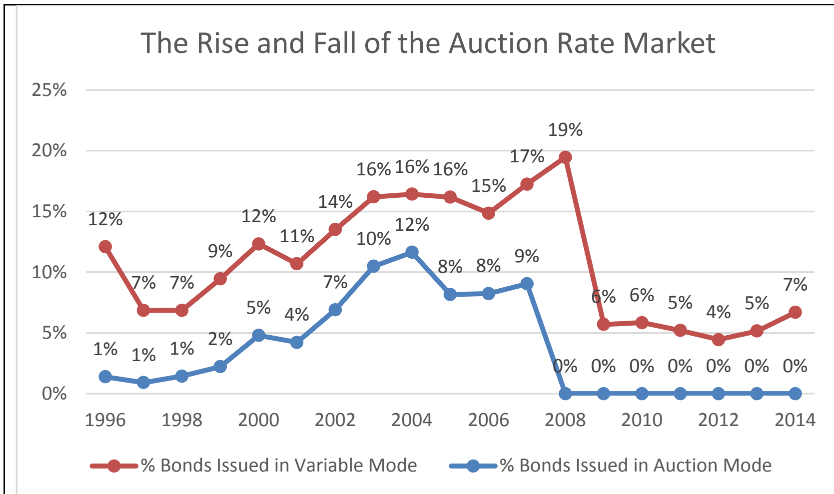
- Market position
- Operating performance
- Balance sheet strength
- Organization risk tolerance
- Comparison to peers

Involving an outside party may be useful but is not always necessary, depending on internal expertise and capacity. More important is the use of an educated and objective process for determining the appropriate amount of variable debt, followed by reevaluating the goals every few years or as the system evolves.

Adhere to any parameters that are established. "Sticking to a plan" does not necessarily mean issuing fixed rate-debt if rates spike to 10.00 percent temporarily. The established parameters and existing capital structure should allow for enough flexibility to take into account some level of market timing. However, when a system is significantly outside its established parameters, it should strive to return to them quickly, even if that diverges with the market consensus. By definition, the market is never high or low on a prospective basis, and the thousands of day traders who try to beat the market and fail each year prove that point. Health systems should avoid entering the business of interest-rate speculation. They need not be rate-agnostic, and given the nature of their business, we would not advocate such an approach. Nevertheless, a health system should understand its risk position, develop an impartial plan, and adhere to it.

Optimizing Variable Rate Portfolios

Once parameters are established, how does a system optimize its variable-rate portfolio? In one word: diversity. A look at the history of the variable rate market from 1998 to 2007 shows that virtually all of the increase in municipal variable rate bonds during that time was related to new auction bonds. All other variable rate issuance remained at historical levels, while new auctions issuance went from 1 percent in 1998 to 9 percent in 2008. This concentration—coupled with the auction market's inherent flaw of being more risky to investors than more traditional variable rate structures, which generally have additional credit support—proved fatal. When the insurers were downgraded and the true market risks emerged, investors panicked.



Source: Securities Industry and Financial Markets Association

The increase in municipal variable rate issuance in the early 2000's can be tied almost solely to the rise of auction rate bond issuance.

The amazing fact, in some ways, is that the auction market actually quickly regained its footing (albeit with a much smaller size) and that there are still health systems today with auction bonds outstanding. The problem was that too many health systems had most or all of their debt in an auction mode and couldn't handle even a temporary (albeit substantial) increase in rates. Thus, the real lesson of 2008 was not that variable rates are risky, but that over-concentration in a single product without a full understanding of the product risks can be catastrophic.

Today, variable-rate product offerings are more diverse than before the financial crisis, and each has a different risk profile. Letter-of-credit-backed VRDNs and direct bank placements are the most common forms of variable rate debt, but other products—such as Windows, RFLOATs and total return structures —may be viable options. To determine which product or portfolio of products is right for a health system, it is essential to understand the risks of each and how much of each risk the health system can handle. No amount of planning can remove all risk, but given the significant historical cost benefit of variable-rate debt, it is possible to establish a diversified portfolio of debt that benefits from lower rates within established risk parameters.

Understanding Future Rates

The preponderance of evidence suggests rates will rise from their current low levels, but the extent of increase is

Greetings from the NAHEFFA Sponsorship Committee

On behalf of the member authorities of NAHEFFA, we wish to express our gratitude and thank our sponsors for their continued support of our organization. The NAHEFFA 2015 Conferences were a great success because of you.

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NAHEFFA would like to thank Donna Murr for her tireless efforts as Chair of the Sponsorship Committee over the last few years. Your professionalism and persistance has continued to make this committee successful. Shannon Govia will be the new Chair of this committee and we look forward to working with him to enhance and expand on this program.

Planning is underway for the 2016 NAHEFFA conferences. The Sponsorship Committee will be reaching out to our sponsor community soon to discuss opportunities for the 2016 Spring and Fall Conferences.

Best Regards,
2015 Sponsorship Committee Members

The Value of Variable Rates In a Low-Rate World, *continued from page 5*

impossible to predict. One huge factor that will weigh heavily on future interest rates is the aggregate debt of the federal government, which includes $12 trillion in debt held by the public or $17 trillion when factoring in intra-governmental debt. The government is the largest and most powerful creditor in the world and has a significant vested interest in keeping interest rates low. In fact, if rates were to rise to the levels of the early 1980s, the entire economic system likely would verge of collapse.

For instance, financing $12 trillion of debt at 10 percent would equate to $1.2 trillion in interest a year, or more than 33 percent of all current federal spending, instead of the current 6 percent of federal spending. A repeat of the 1980s period of extremely high interest rates therefore seems unlikely (without other serious ramifications), which makes variable rates look even more attractive on a long-term basis—even when compared with today's low fixed rates.

Although each healthcare system must determine for itself the risk-reward trade off of variable-rate debt, it should, at a minimum, understand its comprehensive portfolio of interest-rate-sensitive components, develop a plan based on acceptable risk parameters, and adhere to its plan.

NAHEFFA Notes

NAHEFFA Welcomes Several New Executive Directors in 2015

Mary Martin has been with the Michigan Department of Treasury since 2003 and now serves as the Director of the Bureau of State and Authority Finance and Executive Director Michigan Finance Authority. She received a Bachelor of Business Administration Degree with an accounting concentration from the University of Michigan-Flint and is a Certified Public Accountant.

Jeanette Weldon was announced as the Executive Director of the Connecticut Health and Educational Facilities Authority (CHEFA) effective on July 1, 2015, following the retirement of Jeffrey Asher. Jeanette joined CHEFA six years ago as Managing Director and has prior experience as a financial advisor, investment banker, and rating agency analyst.

Gerrard Bushell is the new President and Chief Executive Officer of the Dormitory Authority of the State of New York (DASNY) effective in June. Gerrard takes over for Paul Williams, a previous NAHEFFA Vice President. Gerrard was an accomplished investment advisor and has experience working in New York State Government. He is a graduate of Columbia University, where he received a B.A., M.A. and Ph.D. in Political Sciences.

Diane Stanton is the new Executive Director of the California Health Facilities Financing Authority. Those of you who attended the Fall Conference in Seattle had a chance to meet Diane. Diane most recently worked for the California's Health Benefit Exchange or Covered California where she served as Deputy Director of the External Affairs Division before moving to the Outreach and Sales Division. She has degrees in political science and economics from Oregon State University.

NAHEFFA welcomed Mark Heller, Executive Director of the Colorado Educational and Cultural Facilities Authority in the March Newsletter as we wished good luck Jo Ann Soker on her retirement.

NAHEFFA welcomes you all to our membership and looks forward to working closely with you in the future.

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