the value of variable rates in a world of low rates

After a post-financial-crisis shift away from risk, health systems should reexamine 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 health care) found itself at the epicenter of the credit crisis, with auction bond failures, sizable investment losses, and derivatives causing massive collateral-posting requirements. As the industry scrambled to refinance hundreds of billions of dollars 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 (specifically including debt structures, investment portfolios, and pensions)
- The 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 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 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 percent coupon and a 10-year par call. The result is that the 4 percent market rate is calculated on a yield-to-worst methodology for the investor to the 10-year call. The true cost is 4 percent. However, if interest rates rise and the bond stays outstanding to maturity, the cost is approximately 4.5 percent (4 percent to the call and 5 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 4.5 percent rate? A comparison of this rate with historical fixed rates since 1994 shows the rate is approximately 1 percent lower than an average historical rate of 5.5 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 + 0.7 percent of fees. By issuing fixed rate, a hospital is effectively paying an additional 3.75 percent in the near term (4.5 percent versus 0.75 percent) to potentially gain 1 percent in the long-term (4.5 percent versus 5.5 percent). Depending on how long variable rates stay low, that appears to be a pretty hefty price to pay.

A comparison of the 4.5 percent rate with a longer term variable-rate average shows that, on an annual basis, the 4.5 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) indicate 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 often will maintain a conservative investment portfolio (with a high percentage of 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 indicate 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 also will 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

### Table of Rates

<table>
<thead>
<tr>
<th>Period</th>
<th>Average Tax-Exempt Rate*</th>
<th>Benefit to Current Fixed Rates</th>
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<tbody>
<tr>
<td>1954–74</td>
<td>3.7%</td>
<td>0.8%</td>
<td>Postwar boom time, with accommodative Federal Reserve (Fed) policy</td>
</tr>
<tr>
<td>1974–94</td>
<td>6.5%</td>
<td>(2%)</td>
<td>Fed fights stagflation with tight monetary policy</td>
</tr>
<tr>
<td>1994–2014</td>
<td>2.9%</td>
<td>1.7%</td>
<td>Periods of accommodative Fed policy</td>
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* The average tax-exempt rate was calculated from 1986 to 2014 based on the SIFMA Index + 0.7 percent in fees, and at 70 percent of the federal funds rate + 0.9 percent in fees from 1954 to 1986 (no tax-exempt indices exist).
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
> Organizational 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 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 that generally have additional credit support—proved fatal. When the insurers were downgraded and the true market risks emerged, investors panicked.

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 overconcentration 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 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 and $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 on 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.

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