Regional Hospital makes Strategic Decision to fund Pension Plan using Long-Term Assets

THE ORGANIZATION
A regional hospital providing a wide array of services, employing over 200 physicians and 1,600 clinical and administrative personnel. Management oversees multiple asset pools, including a long-term investment account, a frozen pension plan, and a foundation—just under $200 million in all. The pension plan represents about half of the total investible assets.

The challenge
An underfunded pension plan was creating multiple problems for the hospital. While asset returns for the plan had been very good since the global financial crisis, interest rates had dropped significantly, causing plan liabilities to grow rapidly. The resulting drop in funded status led to unexpected required contributions to the plan, causing management concern about possible impact to the hospital’s credit rating.

Managing the underfunded plan had also become quite expensive, with PBGC premiums set to increase over the next few years. While the investment committee was hopeful that interest rates would rise in the future, causing some of the balance sheet liability to disappear, they decided to evaluate making a large contribution as a way to a) shore up the funding of the plan, and b) allow them to begin a pension de-risking strategy.

A strategic solution
The finance committee sought Russell’s recommendations on how to best make this large contribution. In particular they wanted advice on:

1. How large should the contribution be?
2. What assets should the committee sell to transfer into the pension plan?
3. How should the committee allocate the contribution once it is in the plan?
4. When should the committee make this contribution?

This hospital and longtime Russell client was able to quickly rebound from the global financial crisis of 2008. Operating revenue had steadily increased over the past few years and the hospital enjoyed more days of cash on hand than many others in their peer group. While the hospital was an early adopter of a liability driven investing (LDI) approach, the plan still maintained about 60% of their pension portfolio...
in equities, as the plan had yet to reach the funding status levels that the committee had established as the triggers for reducing exposure to market risk.

Russell helped the committee realize that making a lump sum contribution created a good opportunity to revisit the hospital’s entire investment strategy—an exercise that would provide clear answers to the committee’s questions and position their total investment program for the future. After conducting an asset/liability study, Russell recommended the implementation of a dynamic de-risking strategy for the pension plan called Liability Responsive Asset Allocation (LRAA).

Under the LRAA schedule Russell developed, the plan’s liability hedge ratio target and allocation to fixed income increases as funded status improves, given that the plan has less incentive to take interest rate risk. However, since the liabilities are only partially hedged, any unexpected rise in interest rates would still benefit the plan and improve funded status. The schedule below shows the fixed income allocation for the pension assets (with the remainder allocated to return seeking strategies) and an interest rate hedge ratio target at each funded status.

### EXHIBIT 1: LIABILITY RESPONSIVE ASSET ALLOCATION (LRAA) SCHEDULE

<table>
<thead>
<tr>
<th>FUNDED STATUS</th>
<th>FIXED INCOME ALLOCATION (% OF TOTAL ASSETS)</th>
<th>HEDGE RATIO TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;70%</td>
<td>40%</td>
<td>28%</td>
</tr>
<tr>
<td>75%</td>
<td>45%</td>
<td>34%</td>
</tr>
<tr>
<td>80%</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>85%</td>
<td>55%</td>
<td>47%</td>
</tr>
<tr>
<td>90%</td>
<td>60%</td>
<td>54%</td>
</tr>
<tr>
<td>95%</td>
<td>65%</td>
<td>62%</td>
</tr>
<tr>
<td>100%</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>105%</td>
<td>75%</td>
<td>79%</td>
</tr>
<tr>
<td>&gt;110%</td>
<td>80%</td>
<td>88%</td>
</tr>
</tbody>
</table>

Using this approach lowered the expected pension contributions in adverse market scenarios, helping address the committee’s concerns regarding their ability to make pension contributions in a market downturn that would also negatively impact long-term assets and the overall financial health of the hospital.

The large allocation to fixed income also had the benefit of positioning the plan for a risk transfer strategy if the sponsor decided to transfer the pension liabilities to an insurance company in the future. The hospital decided to adopt this revised asset allocation strategy and incorporated it into their investment policy statement.

### Specific Answers to the Committee’s Funding Questions

In our role as co-fiduciary, Russell worked closely with the hospital’s investment committee, finance committee, and the plan’s actuary to answer each of the following questions:

1. **HOW LARGE SHOULD THE CONTRIBUTION BE?**
   Russell advised the client to put enough assets into the plan to reach the next funded status trigger on their LRAA schedule. This would reduce the hospital’s days of cash on hand to a level more in line with their peer group and still provide for ongoing financial flexibility. To materially impact the amount of PBGC premiums payable, the contribution had to be of significant size. The finance committee approved a contribution that increased the plan’s funded status from 64% to nearly 76%, and reduced the assets of the long-term pool by 11%.

2. **WHAT ASSETS SHOULD THE COMMITTEE SELL TO TRANSFER INTO THE PENSION PLAN?**
   The finance committee was particularly concerned about realizing losses in their long-term assets since any realized losses would flow through to the hospital’s financials, with potentially negative impacts on their credit rating and debt covenants. Russell conducted a thorough analysis and concluded that a pro-rata liquidation of assets in the long-term asset pool would lead to a realized gain and would not impact the hospitals’ credit rating or debt covenants. This pro-rata withdrawal approach had the added benefit of maintaining the overall risk and return profile of the long-term pool.
3. **HOW SHOULD THE COMMITTEE ALLOCATE THE CONTRIBUTION ONCE IT IS IN THE PLAN?**

With a large enough contribution to impact funded status and reach a different threshold on the LRAA schedule, an increased hedge ratio and allocation to fixed income was called for. Russell recommended that the committee invest almost all of the contribution in Russell Target Duration Fixed Income funds.

Using the Target Duration LDI funds enabled Russell to effectively match the duration, convexity and curve coverage of the liabilities while achieving the desired target hedge ratio, enabling the client to “lock-in” the funded status gain from the contribution. Ultimately, the contribution lowered the plan’s overall interest rate risk without increasing the overall portfolio’s market/equity risk.

Investing directly in the Target Duration LDI funds also helped reduce transaction costs, avoiding a two-step process of first investing pro-rata and then moving to the new allocation outlined by the LRAA schedule.

4. **WHEN SHOULD THE COMMITTEE MAKE THIS CONTRIBUTION?**

The committee considered two strategies regarding the timing of the contribution: dollar cost averaging over several months vs. making the entire contribution at once. After a careful evaluation of the advantages and disadvantages of both approaches, Russell recommended that the investment committee make the contribution all at once in order to reduce the interest rate risk as quickly as possible.

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**Results**

By implementing three key changes, the hospital was able to reduce the likelihood and frequency of future unexpected pension contributions, along with their potential negative impact on the overall financial health of the hospital.

- Making a one-time contribution from long-term assets took significant risk off the table and reduced future PBGC premiums.
- Adopting an LRAA schedule helped further reduce expected contributions by approximately 3%.
- Incorporating the Russell LDI Target Duration Fixed Income funds enabled a better match between the pension assets and liabilities.

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Call Russell at 866-739-7979 or visit www.russell.com/healthcare
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Russell has helped hospitals and healthcare system clients navigate challenges and meet goals since 1983. We work with each of our clients to fully understand their asset pools and unique investment needs. The comprehensive fiduciary solutions we design for our clients are tailored to meet each organization’s specific goals and incorporate Russell’s award winning advice, investment strategy and implementation.

Important information

This case study is for that of an individual Russell Health Care client, and is provided to illustrate Russell’s capability and experience with this service. Individual actions and results will vary.

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Diversification and strategic asset allocation do not assure profit or protect against loss in declining markets.

Liability Driven Investment (LDI) strategies contain certain risks that prospective investors should evaluate and understand prior to making a decision to invest. These risks may include, but are not limited to; interest rate risk, counter party risk, liquidity risk and leverage risk. Interest rate risk is the possibility of a reduction in the value of a security, especially a bond or swap, resulting from a rise in interest rates. Counter party risk is the risk that either the principal or an unrecognized gain is not paid by the counter party of a security or swap. Liquidity risk is the risk that a security or swap cannot be purchased or sold at the time and amount desired. Leverage is deliberately used by the fund to create a highly interest rate sensitive portfolio. Leverage risk means that the portfolio will lose more in the event of rising interest rates than it would otherwise with a portfolio of physical bonds with similar characteristics.

Bond investors should carefully consider risks such as interest rate, credit, repurchase and reverse repurchase transaction risks. Greater risk, such as increased volatility, limited liquidity, prepayment, non-payment and increased default risk, is inherent in portfolios that invest in high yield ("junk") bonds or mortgage backed securities, especially mortgage backed securities with exposure to sub-prime mortgages.

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Healthcare system reduces complexity, reduces volatility, improves pension funded status

THE ORGANIZATION
A non-profit healthcare system providing a wide array of services including several hospitals, an ambulatory care center, and multiple community health and long-term care centers. Management oversees multiple asset pools, including board designated assets, a frozen pension plan and a foundation. The System is financially strong and is considering acquisitions. Management and the Investment Committee realize the need to align investment strategy of their multiple asset pools with the overall financial goals of the System.

Challenge 1: Volatility
The healthcare system’s primary investment challenge in recent years has been market volatility. Volatility within the board designated assets had negatively impacted the balance sheet. Market and interest rate volatility in the pension plan also created an unexpected level of unfunded liabilities. The uncertainty resulting from the volatile market environment created multiple challenges in managing the balance sheet and debt-coverage ratios.

Prior to the global financial crisis, the healthcare system managed its board designated, pension, and foundation assets to a total return target across all asset pools. This resulted in investment portfolios that were nearly identical across all three pools.

Managed in this “one size fits all” manner, the investment portfolios produced attractive investment returns, but the board designated assets experienced more volatility than the investment committee desired, and without a liability-driven investment program, the pension plan’s assets did not move in concert with plan liabilities.

Challenge 2: Complexity
The complexity of establishing multiple objectives for individual asset pools (and then managing to those objectives) was daunting, even as a means of reducing overall portfolio volatility. Delegating many of the operational tasks to a co-fiduciary (Russell Investments) allowed the healthcare system to simultaneously increase the sophistication of their investment program and ease management’s administrative burden. Delegated tasks included portfolio analysis, manager research and oversight, investment implementation, and performance reporting, to name a few.
With the program’s operational and administrative complexity reduced through delegation to Russell, the healthcare system was able to focus on establishing the following objectives for the individual asset pools:

<table>
<thead>
<tr>
<th>ASSET POOL</th>
<th>OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LONG-TERM POOLS</td>
<td>› Manage volatility and maintain credit rating</td>
</tr>
<tr>
<td></td>
<td>› Ensure ability to fund short-term and long-term projects</td>
</tr>
<tr>
<td></td>
<td>› Achieve investment returns to meet or exceed cost of capital</td>
</tr>
<tr>
<td>PENSION PLAN</td>
<td>› Improve funded status of pension plans</td>
</tr>
<tr>
<td></td>
<td>› Understand pension within context of plan sponsor financials</td>
</tr>
<tr>
<td></td>
<td>› Manage volatility of funded status and contributions</td>
</tr>
<tr>
<td>FOUNDATION</td>
<td>› Support non-profit mission and operating budget</td>
</tr>
<tr>
<td></td>
<td>› Meet spending requirements and manage liquidity</td>
</tr>
<tr>
<td></td>
<td>› Manage volatility and maintain purchasing power</td>
</tr>
</tbody>
</table>

Investment solutions – A new approach
Long-term pools: board designated assets

With new investment objectives now clearly defined for the Board Designated asset pool, Russell and the investment committee targeted minimizing volatility of the assets to create a return stream that would be more in line with the net cost of capital for the healthcare system. Together, we explored several strategies for reducing the portfolio’s investment risk, including:

1. **INCREASED DIVERSIFICATION** of asset classes, including reduced home country bias and an increased allocation to hedge funds, high yield bonds, and real estate strategies
2. **REDUCED EXPOSURE TO “RISKY” ASSETS** through an increased allocation fixed income and other less volatile assets
3. **REDUCED VOLATILITY OF “RISKY” ASSETS** through the addition of investment strategies with better downside protection characteristics, such as defensive equity
4. **THE ADDITION OF DYNAMIC RISK-HEDGING STRATEGIES** that can more effectively adapt to rapidly shifting risk-on/risk-off market environments

After extensive analysis, the committee settled on two primary options for consideration. The first portfolio (Portfolio A) was designed to reduce volatility without sacrificing return. Portfolio A reduced the volatility by 30%, from 9.9% to 7.4%, while matching the current expected return as can be seen in Exhibit 1. The second option (Portfolio B) that the committee considered reduced volatility even further at the expense of some growth, but was still designed to achieve an investment return that would cover the net cost of capital, plus 50 basis points (0.5%) of cushion. Portfolio B had an expected return of 6%, but further reduced the expected volatility to 5.9%. In addition, both Portfolio A and Portfolio B reduced the one year, one in twenty downside scenario (95% VaR) by 41% and 56% respectively (from nearly 13% to 7.6% and 5.7%) as can be seen in Exhibit 2.

Please note that the analyses shown in Exhibits 1 - 3 are based on Russell’s published capital markets assumptions (10-year forecast horizon) as of 12/31/2012. Forecasting represents predictions of market prices and/or volume patterns utilizing varying analytical data. There is no guarantee that the stated results will occur.
Pension assets

With the investment objectives of the pension plan now clearly identified, the committee and Russell worked to implement portfolio changes with the intent of improving funded status and minimizing the duration mismatch between pension plan assets and liabilities. We identified key steps of a pension de-risking strategy designed to reduce both market risk and interest rate risk as funded status improves.

Our eventual strategy consisted of three primary steps which were integrated into a single seamless solution:

1. EXTEND DURATION of the fixed income portfolio to minimize the impact of interest rate changes on the plan’s funded status
2. ADOPT A LIABILITY RESPONSIVE ASSET ALLOCATION (LRAA) STRATEGY to dynamically shift the portfolio from equities to fixed income strategies as the pension plan’s funded status improves
3. OPTIMIZE THE PORTFOLIO’S GROWTH ASSETS to target long-term growth and manage short-term volatility

By combining these steps and adopting a de-risking strategy, the system was able to reduce cumulative expected pension contributions by more than 8%, or roughly $10 million as shown in Exhibit 3. In addition, the plans’ expected surplus volatility going forward was reduced by 17%. In just two years since implementation of the new pension strategy, funded status has improved by 3% over the system’s original legacy portfolio.

MORE ON DELEGATION AND OUTSOURCING

By delegating selected tasks and discretion to Russell, the healthcare system gained an experienced co-fiduciary with extensive resources and clear accountability for the investment management process. This approach allowed the investment committee and board to leverage Russell’s capabilities and resources, which acted like an extension of their own staff.

With the Russell team handling many of the day-to-day implementation details, the committee was able to shift their focus to top level issues:
- strategic oversight
- governance matters
- objective setting
- performance monitoring

Hiring a proven provider with a broad range of capabilities under one roof was a key step in advancing the healthcare system’s investment programs.

EXHIBIT 3: DISTRIBUTION OF 10 YEAR CUMULATIVE PENSION CONTRIBUTIONS
Foundation

The key objective for the system’s foundation is to maintain the purchasing power of the assets into perpetuity to support the foundation’s mission: improving the health and education of the community. Given the foundation’s required spending rate and need to generate real returns above inflation, the system’s original total return-based investment strategy was actually well-suited to the new goals identified for the foundation. While no significant portfolio changes were deemed necessary for this pool, the periodic review of goals and strategies was a valuable exercise for the investment committee (and co-fiduciary Russell) in demonstrating their due diligence and prudent fiduciary care.

Results

Working together, the system’s investment committee and co-fiduciary Russell were able to develop an appropriate investment program for each asset pool and feel comfortable that they were implementing state of the art investment programs across all their portfolios, positioning each investment program appropriately for its unique investment objectives:

› The board designated pool achieved a much lower level of expected volatility, while still being positioned to produce the returns needed to meet their cost of capital.
› The duration of assets within the pension plan was brought more in line with liabilities, resulting in a reduction of surplus volatility and expected contributions.
› The goals and strategies of the foundation were subjected to a much needed review, and the existing return-based investment strategy was confirmed as appropriate to meet expected spending needs.

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