

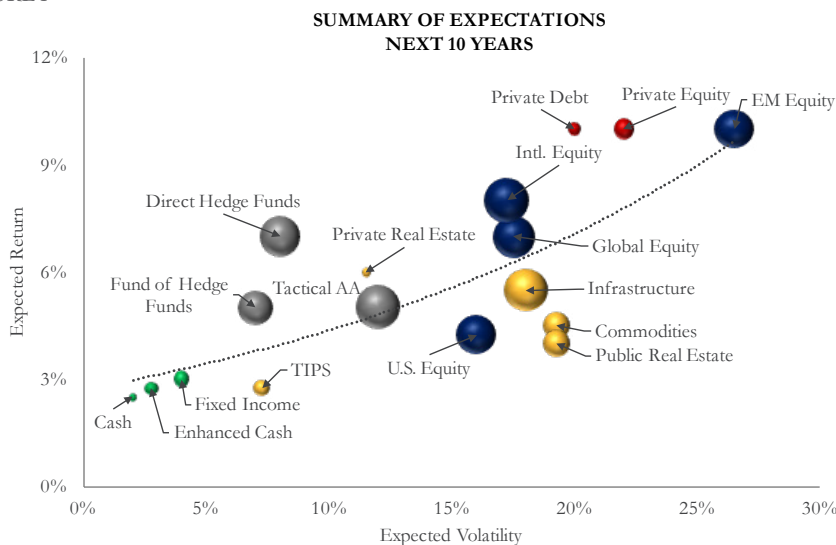
CATCH-22: BALANCING PORTFOLIO LIQUIDITY IN A LOW RETURNING WORLD

In the famous satirical novel *Catch-22* by Joseph Heller, the title character, a World War II pilot, wants to get out of flying missions by claiming insanity. However, by doing so, he shows rational concern for his own life and safety, thereby proving him sane and fit to fly. This quandary is called a “catch-22,” an unenviable situation from which there is no escape because of conflicting rules of the road. Today’s not-for-profit (“NFP”) healthcare organizations are also facing a similar catch-22 dilemma with their operating portfolios. This is due to their need to increase expected returns in a low-return world, while being forced to maintain ample portfolio liquidity to satisfy multiple portfolio demands.

Ever since the global financial crisis, the world has been mired in a “*Triple L* Environment” of *low* growth and *low* yields for a *long* time. The low yields are a symptom of the slower growth driven by both businesses and consumers repairing their balance sheet, which has increased savings resulting in a lack of demand. The central bank’s response to the lack of demand was to keep pushing yields even lower through unprecedented, accommodative monetary policy. These actions resulted in many unintended consequences. Recently we witnessed investors’ desire for income in a world with minimal yield drive a “yield-seeking” fervor (reference previous paper entitled *Newton’s 1st Law and Yield Seeking Behavior*). Investors who have historically owned treasuries and investment-grade bonds have had to move out on the risk spectrum to non-investment-grade bonds and bond-like equities to obtain higher yields. Underlying fundamentals no longer mattered to most. Yield ruled the day.

In response to the low-return environment, the market finds ways to create new asset classes and strategies to combat this low-return world and enable investors to meet their long-term goals. However, with some of these “new and improved” strategies come “risk and uncertainty.”

FIGURE 1



SOURCE: HIGHLAND ASSOCIATES

NOTE: EACH SET OF COLORED CIRCLES CORRESPONDS TO AN ASSET CLASS GROUP (E.G., GREEN = CASH + FIXED INCOME; SIZE OF THE BUBBLE REPRESENTS THE CORRELATION TO OTHER ASSET CLASSES. THE LARGER THE CIRCLE, THE HIGHER THE CORRELATION.



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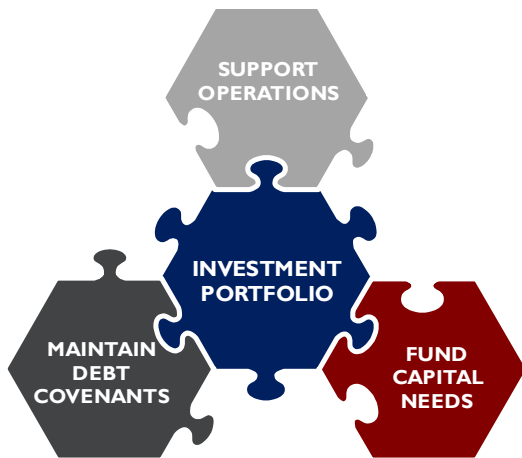
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It is no secret that traditional asset classes have bested alternative strategies over the last eight years. However, investing based on past returns is dangerous. As shown in **Figure 1**, our return expectations for traditional asset classes are predominantly lower than alternative strategies such as direct hedge funds, private real estate, and private equity/debt. With the realization that bonds and equities offer lower future returns, institutional investors have increased their allocation to alternative investments, foregoing liquidity while seeking enhanced returns.

WHY HEALTHCARE IS DIFFERENT FROM THE TYPICAL ENDOWMENT MODEL

NFP healthcare investors have not been immune to the predicament of shrinking return prospects in their investment portfolios. The NFP healthcare space represents a unique set of institutional investors. Nowhere is that more apparent than within their operating portfolios. For NFP healthcare investors, operating assets have multiple investment objectives and are charged with the distinctive goal of delivering quality healthcare within their communities. The multifaceted nature of NFP hospital portfolios is illustrated below in **Figure 2**.

FIGURE 2



SOURCE: HIGHLAND ASSOCIATES

NFP healthcare operating portfolios generally require a greater level of liquidity given the multiple aspects they must serve. While endowments/foundations (“E&F”) and defined benefit plans typically have predictable cash flows based on predetermined spending policies and actuarial studies, healthcare operating portfolios largely have somewhat erratic spending requirements. In the event of a drawdown in the investment portfolio of an E&F, they are in the enviable position of accessing funds through a strong

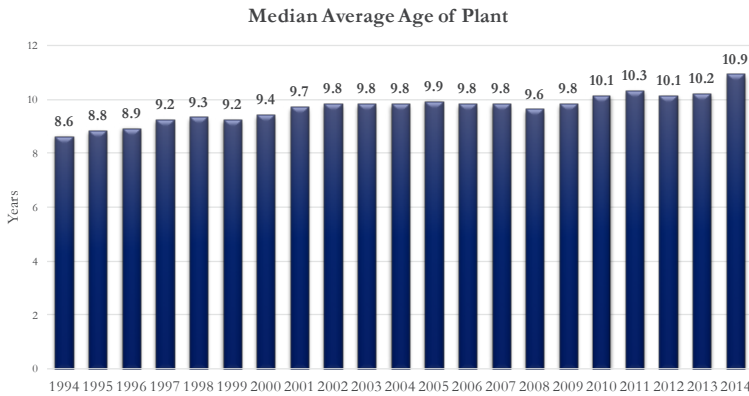
donor network. NFP healthcare portfolios are more susceptible to market volatility, meaning there is no quick fix if the organization finds itself in a liquidity bind. The ramifications of this are far reaching, as a gap in liquidity impacts daily operations and could risk an organization’s access to the credit market or even violate debt covenants.

WHAT ARE THE UNIQUE DEMANDS ON OPERATING PORTFOLIOS?

The NFP healthcare space has always been challenged from an operational standpoint due to a concentrated, government-influenced or private insurance revenue base that does not fully reimburse the full cost to provide healthcare. According to Moody’s most recent NFP healthcare outlook, reimbursement and margin pressures are beginning to develop for many systems due to investments in population health, increasing exposure to government insurance and the continuing evolution of insurance markets. Additionally, pension costs are a growing expense as Pension Benefit Guaranty Corporation (PBGC) premiums are set to rise over the next several years. Both Moody’s and Standard & Poor’s note that many hospitals saw an increase in bad debts in late 2015 and into 2016. This is likely the result of more patients using high-deductible insurance policies and/or facing higher copays. Following the recent election, significant uncertainty remains over the future of the Affordable Care Act. Given the demanding nature and the uncertainty of the overall outlook for the healthcare industry, operating portfolios will likely be called on to further supplement day-to-day activities. For hospitals where portfolios serve as a “plug” for their operating results, the ability to take on illiquid investments is very low.

NFP operating portfolios serve as the primary funding source for future capital expenditures. Healthcare entities are capital-intensive institutions with extensive investments in property, plant, and equipment (PPE). With the challenging operating environment and operating cash flow pressures, management has delayed replacing aging plant and equipment as noted in a recent paper entitled, "[A Hospital's Balancing Act: Operations, Investments and Inflation](#)" and in **Figure 3**.

FIGURE 3



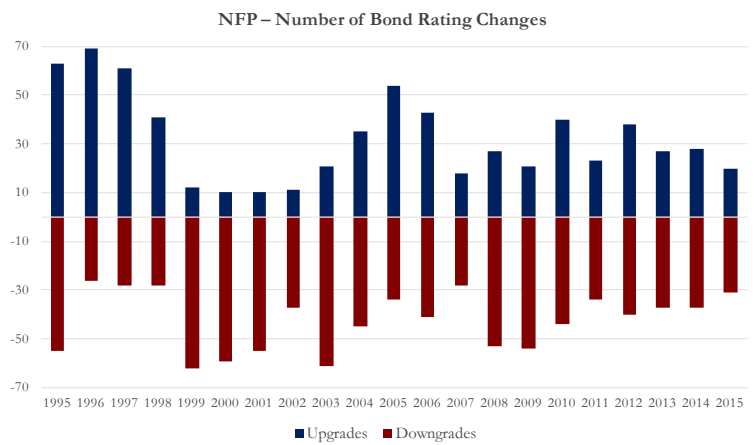
SOURCES: OPTUM, ALMANAC OF HOSPITAL FINANCIAL AND OPERATING INDICATORS, 2005, 2008, 2009, 2010, 2011, 2013, 2014, 2015, AND 2016 AND CHIP, THE ALMANAC OF HOSPITAL AND FINANCIAL OPERATING INDICATORS, 1994 AND 1996-7; HIGHLAND ASSOCIATES

Hospitals typically fund PPE through a combination of debt and investable assets (which include operating portfolios). With plant age at all-time highs, it becomes increasingly difficult for NFP healthcare investors to take on illiquid strategies that may lock-up capital for 5-10 years in some cases.

CREDIT RATING CONSIDERATIONS

According to a recent Cerulli report, credit ratings are the biggest driver for NFP healthcare system’s preference for greater liquidity within operating portfolios. Following the 2008 financial crisis, NFP healthcare systems were impacted not only on the asset side of the balance sheet (investment portfolios, for instance), but also on the liability side as well. With NFP hospitals being large issuers of debt, they were impacted by the significant changes in the marked-to-market value of interest rate swaps, resulting collateral posting requirements, and the failure of the auction rate debt market. This “perfect storm” environment created an extreme mismatch between assets and liabilities. This also came at a time when operating performance for healthcare systems declined immensely and most investment portfolios saw significant drawdowns. Many systems’ investment portfolios were called upon to help support operations and to serve as collateral for interest rate swaps. The result for numerous health systems was a material decline in liquidity, which led many to breach bond covenants. During the 2008-2009 period, more than 100 NFP healthcare systems were downgraded by Moody’s, driven primarily by material liquidity declines (associated with the above factors) and weak operating performance (see **Figure 4**).

FIGURE 4



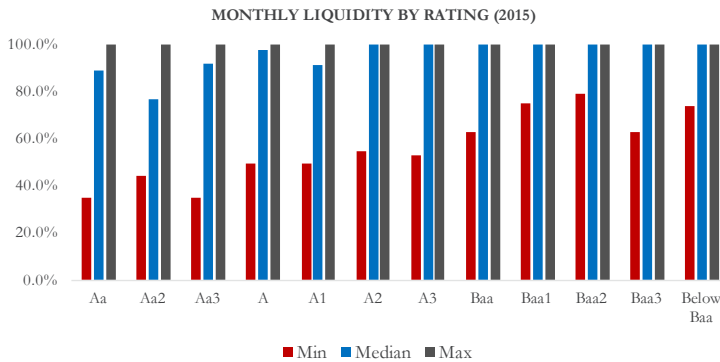
SOURCES: MOODY’S; AMERICAN HOSPITAL ASSOCIATION; NUMBER OF BOND RATING UPGRADES AND DOWNGRADES, NOT-FOR-PROFIT HEALTHCARE

For credit rating agencies, these events highlighted the importance of assessing and understanding the liquidity of NFP organizations that are borrowing in capital markets. Financial statements and disclosures may not give one a complete sense of the true liquidity profile of an organization. For example, an asset class labeled as “fixed income” would lead most investors or rating agencies to assume these investments were very liquid (inside a month at minimum). However, if these investments are in an LLC (limited liability corporation) or LP (limited partnership) structure, they could have liquidity restraints greater than one month.

In the aftermath of 2008, rating agencies increased their level of scrutiny with regards to each system’s liquidity profile. In 2009 Moody’s debuted their liquidity worksheet. The goal was to paint a detailed picture of what the overall liquidity profile of the NFP healthcare industry looks like across issuers. The results of the first run of the liquidity worksheets illustrated the large amounts of cash many systems had on their balance sheets as a reaction to the Financial Crisis. The worksheets captured the extreme reversal in liquidity tolerance as systems worked their way out of asset liability mismatches.

In 2012, balance sheets and the overall operating environment showed significant signs of improvement, and the investment pendulum swung back to favoring illiquid strategies. **Figure 5** displays monthly or better NFP healthcare liquidity by credit rating based on 2015 Moody’s information (for those NFP hospitals rated by Moody’s). The median level of monthly or better liquidity for these NFP healthcare portfolios ranges from 76% to 100%. These measures include operating cash, so actual portfolio liquidity is lower than the medians shown below.

FIGURE 5



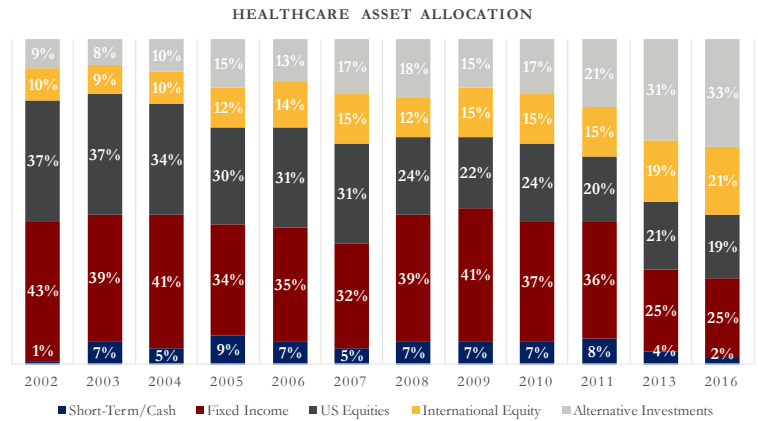
SOURCES: MOODY'S; HIGHLAND ASSOCIATES

One trend highlighted by the Moody's data is that higher-rated systems typically have lower levels of liquidity. For instance, Aa- and Aa2-rated systems have monthly liquidity medians of 88% and 76%, respectively, while lower-rated credits have medians from 91% to 100%. Stronger organizations are typically able to take on and communicate higher levels of illiquidity within their investment portfolios.

NFP HEALTHCARE ASSET ALLOCATION TRENDS

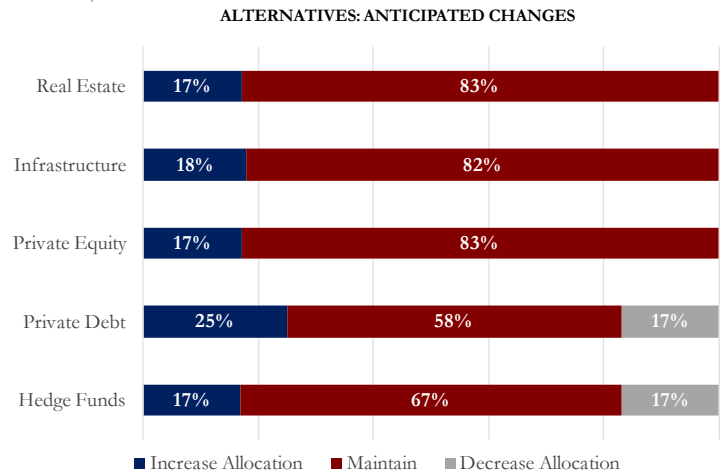
As hospital organizations navigate the lower returning environment and look for ways to meet return objectives, they have once again turned toward less liquid investments. According to a study by the CommonFund, although healthcare organizations' asset allocations remain conservative relative to their E&F peers, their risk profile is evolving due to increased exposure to alternative investments (see **Figure 6**). Alternative investments (includes Private Equity, Hedge Funds, Energy and Natural Resources, etc.) have risen from 17% in 2010 to 33% as of the latest reading while cash and fixed income have declined from 44% to 27% during that same time period. Hospitals are eschewing the safety of fixed income for more alternatives exposure. Cerulli noted that 17% of its survey respondents expect to increase Private Equity, Hedge Funds, and Real Estate (see **Figure 7**).

FIGURE 6



SOURCES: 2005-2013: COMMONFUND BENCHMARK STUDY OF HEALTHCARE ORGANIZATIONS; 2016: "THE CERULLI EDGE," CERULLI ASSOCIATES; LAZARD ASSET MANAGEMENT

FIGURE 7



SOURCES: CERULLI ASSOCIATES; HIGHLAND ASSOCIATES

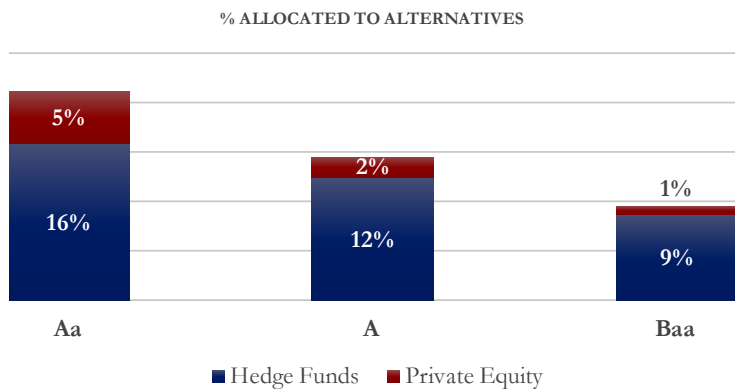
As the economic and operating environments have improved, hospitals have exhibited a willingness to take on additional liquidity risk and higher volatility for greater return potential. It is important to note that there is a tradeoff between profit margin pressure and the amount of asset volatility that management can withstand. As operating margins weaken, the tolerance for investment portfolio volatility declines and thus fixed income should have a higher allocation. However, alternative assets are expected to generate higher returns, especially when compared to fixed income, making the reward worth the risk for healthy organizations.

According to Moody's, the higher-rated credits allocate more to alternatives (see **Figure 8**). Moody's notes that the biggest factors

as to which hospitals allocate to alternatives are the following:

- Size of the investment portfolio
- Credit rating
- Sophistication and tolerance of the Board
- Management’s ability to articulate the rationale behind the investment program

FIGURE 8

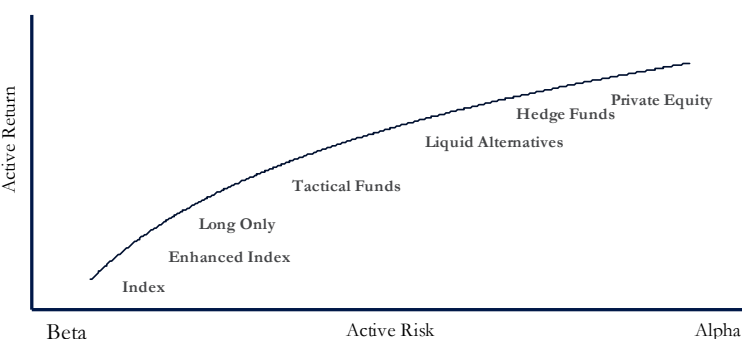


SOURCES: MOODY’S, HIGHLAND ASSOCIATES

From our discussions with Moody’s, when monthly available liquidity approaches 75%, they begin to more closely scrutinize the investment portfolio and the role it plays within the organization.

Alternative investments bring additional risks in manager performance, as the dispersion of returns is so much wider than traditional asset classes. This is because manager skill is typically the largest determinant of the returns, as opposed to the market (see **Figure 9**). Private equity is Highland’s highest expected returning asset class; however it is potentially the riskiest asset class due to the wide dispersion of returns. The difference between a top quartile manager and a bottom quartile manager for Private Equity is 35%, whereas U.S. Fixed Income is 0.60% and Large Cap U.S. Equity is 3%.

FIGURE 9



SOURCES: HIGHLAND ASSOCIATES

Within private equity, it is very important to understand the drivers of each strategy, how the manager adds value, and which professionals were the ones that drove the value. From a macro perspective, the amount of dry powder, or cash that has been committed but not put to use, in private equity is at an all-time high. Valuations are also close to all-time highs, and the amount of debt they can use in transactions is lower. This means private equity managers overall must focus on operational improvement instead of levered returns and a healthy exit environment to generate returns. Nonetheless, Highland continues to allocate client capital in illiquid alternative investments (where appropriate), such as Private Equity. We favor strategies where there is a scarcity of capital and thus an opportunity to achieve higher returns through market dislocation or adding value through investment complexity and execution. However, it is important to scrutinize each strategy and manager to ensure that the expected return is high enough to overcome the loss in liquidity.

Alternative investments also involve more patience than traditional investments. Some of these strategies can take years to reap the rewards. It is this long tail associated with some of these investments that makes management’s understanding of the strategies and why they are in the portfolio crucial. Management must be able to clearly articulate why they are investing in these strategies and how it intertwines with the hospital’s goals.

HIGHLAND’S VIEW: AN INTEGRATED APPROACH

There is no one-size-fits-all approach for asset allocation, especially with NFP healthcare organizations. Each client has different time horizons and liquidity needs based on their operating model. It is important to understand and account for any special circumstances of clients, such as payor mix challenges or whether management needs the operating portfolio to support operations. We pay special attention to how the market or decisions affecting the investment portfolio can impact the financial health of the organization.

In order to gauge the comfort level of liquidity for our clients, we stress test-and-perform scenario analyses on the portfolios to determine how metrics such as Days Cash on Hand would be impacted. We review whether this could trip any debt covenants or cause an issue with the rating agencies. This approach allows management to better understand how much illiquidity they can take and still be covered in a stressed environment. This also enables us to gain insight into how much risk management

is willing to take. We then evaluate the specific liquidity needs of the organization and tailor a program that capitalizes on the dynamic opportunities in the market.

Each investment pool has different objectives, and all of these contribute to the overall health of the organization. Our investment philosophy involves designing investment programs that support operations, fund capital needs, and maintain debt covenants, thereby achieving long-term success. With traditional assets expected to deliver lower than average returns going forward and the need for investors to meet their long-term objectives, investors are forced to balance between taking on additional volatility and illiquidity - or lowering portfolio expectations and maintaining higher liquidity. This is the catch-22 for NFP healthcare organizations, as you can have one or the other, but not both. These questions must be considered from an enterprise risk management perspective and will differ for each client based on their specific needs.

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