PAVILION

Pavilion Advisory Group™

Q2 2013

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A MESSAGE FROM J. KEITH MOTE JR., CFA

MANAGING DIRECTOR OF PAVILION ADVISORY GROUP

"Roll out those lazy, hazy, crazy days of summer"

Nat King Cole certainly had it right with the wish that summer could always be here. Though the song is 50 years old (it peaked on the Billboard chart at No. 6 in 1963), the message is timeless - summer is meant to be enjoyed!

With many in the midst of or perhaps looking forward to a much-needed vacation, this issue of *Insights* provides you with some interesting reading, whether you tackle it at the office or at the beach.

Chicago Consultant Lucas Mansberger is back this issue with more on sustainable and responsible investment strategies. He attended the annual conference of the Council on Foundations where some of the most prominent practitioners in the field of impact investing were featured. The various speakers provided insights on the "learning" return generated by impact investing, the resources required to build an investment program, and the legal and governance challenges many investors face. If you missed the conference, Lucas' article provides a comprehensive summary of the impact investing sessions.

Pavilion's CIO, Implemented Solutions, Anton Loukine, takes a look at whether an allocation to Real Assets can be used by investors to protect their capital against the erosion of purchasing power, unexpected changes in interest rate term structure and inflation. Anton explains the market segments that fit within Real Assets. He also looks at how a Liquid Real Assets portfolio, implemented with the same mix of investments in both Canada and the United States, would have performed, historically.

Finally, Rich Marra, our recently recruited Senior Consultant with extensive healthcare experience, teams up with Tom Dodd, Pavilion's Senior VP Consulting for North America, to explore the strategic asset allocation of investable healthcare assets. The duo outline how a comprehensive asset allocation can provide healthcare CFOs with a solid building block necessary to construct a sound investment policy aligned with financial strategy.

And don't miss the back pages with a take on the best financial books of 2013.

Long live summer!

Keith

kmote@pavilioncorp.com

IMPACT INVESTING:

Highlights from the Council on Foundations 2013 Annual Conference

by Lucas Mansberger, CFA, CAIA, Consultant

Pavilion Advisory Group has a long history of assisting clients with their sustainable and responsible investing efforts. Recently, there has been a notable increase in interest among our foundation and faith-based clients regarding the potential to further their missions through impact investing. In April, we attended the 2013 annual conference of the Council on Foundations where some of the most prominent practitioners in the field provided insights on impact investing. What follows are highlights from the sessions that we hope will serve as a useful guide to institutions that are just beginning to explore impact investing.

Impact investing defined

The Global Impact Investors Network defines impact investments as follows:

Impact investments are investments made into companies, organizations, and funds with the intention to generate measurable social and environmental impact alongside a financial return. Impact investments can be made in both emerging and developed markets, and target a range of returns from below market to market rate, depending upon the circumstances.

Historically, most impact investments have been made via private deals rather than through public instruments. The deals have been dominated largely by loans to non-profit entities with clear social or environmental purposes or that operate in underserved communities. Additionally, many impact investments have been made in the form of program-related investments (PRI), which are made by private foundations and typically offer rates of return that are below the going market rate for similar investments. Largely because they further charitable purposes, PRIs count against private foundations' legally-mandated annual payout.

In recent years, many investors have begun to implement impact investing across their portfolios more broadly, seeking to generate positive impact via different asset classes and types of instruments as well as through investments in for-profit companies. In the case of foundations or other organizations with clearly delineated missions, non-PRI impact investments that are designed to advance the investors' charitable aims have become known as mission-related (or mission-driven) investments (MRIs).

Luther Ragin, the CEO of the Global Impact Investing Network, offered a simple rule of thumb for classifying impact investments: the degree of financial subsidy that an impact investment requires – in other words, the extent to which the investor accepts below-market rate returns or makes other investment concessions in favor of the expected social or environmental outcomes of an investment – determines whether the investment should be considered a PRI or a MRI.

The benefits of impact investing go beyond financial and social returns

Learning and organizational development are key components of the value proposition of impact investing. Though the initial commitment of organizational resources can seem large relative to the explicit social and environmental impacts of a young impact investing program, such a commitment is easier to rationalize when taking into account the broader programmatic and organizational goals such a program can further for the investor and the investee, alike. Sterling Speirn, the President and CEO of the W.K. Kellogg Foundation, an independent, private foundation that works with communities to create better conditions for vulnerable children, emphasized that in addition to the financial and social returns, impact investing has generated a strong "learning" return for Kellogg. As an example, one particular investment with a local community development financial institution gave the Foundation a seat on the board of the institution. Through its board membership, Kellogg was able to gain information and

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Unless otherwise noted, all content is written by Pavilion employees. Inquiries or comments concerning this newsletter may be addressed to dallen@pavilioncorp.com.

CHICAGO OFFICE

Pavilion Advisory Group Inc.
500 West Madison Street, Suite 2740
Chicago, Illinois 60661

MONTREAL OFFICE

Pavilion Advisory Group Ltd.
1250 Rene-Levesque West
Suite 4030
Montreal, Quebec
H3B 4W8

WINNIPEG OFFICE

Pavilion Advisory Group Ltd.
1001 Corydon Avenue,
Suite 300
Winnipeg, Manitoba
R3M 0B6

www.pavilioncorp.com

EDITOR
Deanna Allen, VP, Marketing & Communications
Pavilion Financial Corporation

DESIGN
Marie-Michelle Dumas
Coordinator, Marketing & Communications
Pavilion Financial Corporation

insights that it wouldn't have otherwise, and this experience has informed its subsequent grant making.

An additional benefit of impact investing is the possibility for rejuvenated relationships with grantees and partners as conversations regarding market mechanisms and impact stimulate creative thinking and lead to new ways of tackling issues. Some institutions also believe that impact investing helps to engage donors.

Impact investing is more than just program-related investments, but PRIs are still critical

Christa Velasquez, an independent impact investing consultant, highlighted the growth in the field of impact investing and discussed the full spectrum of possibilities across a portfolio. While opportunities have expanded beyond PRIs, Ms. Velasquez emphasized that PRI-type investments are those likely to yield the greatest social or environmental impact. For example, Ms. Velasquez said that impact investors willing to invest on a concessionary basis can fill a capital vacuum at critical early stages in the lifecycle of a social enterprise, offering a financial subsidy and assuming more risk than a purely profit-oriented investor might in order to move promising companies to a stage where they can attract non-impact investment capital.

Building a systematic impact investment program can be challenging

Mr. Speirn indicated that many individual impact investments are time consuming and resource intensive to implement. At many foundations, deal flow comes from the program staff and opportunities are customized, opportunistic, and relationship-driven. Such deals can take between 40 to 50 hours to develop, research and structure, with as much as 18 months spent in evaluation of a deal. As a result, deal flow can be spotty or chunky, and it can be difficult to organize impact investing opportunities into a systematic program.

In recent years, many philanthropic advisors have assumed the role of advising institutional investors on impact investing and have helped to reduce the barriers to entry. Additionally, a number of online platforms such as Microplace, a brokerage platform where U.S. individuals invest in companies creating positive social impact in the U.S. and abroad and earn a financial return, connect impact investors with investment opportunities. Despite these developments, it can be difficult to source impact investing opportunities that focus on an individual investor's specific mission or regional focus, and for larger institutions, it can be difficult to do so at scale.

Legal documentation and other due diligence may impose burdens

It can be challenging and costly for institutions to navigate the heightened administrative and legal requirements that accompany many forms of impact investing, especially for PRIs. According to Ms. Velasquez, the Annie E. Casey Foundation, a prominent impact investor, typically pays $35,000 in legal fees per program-related investment for evaluation and structuring services. However, Janice Rodgers, an attorney with Quarles & Brady, indicated there is increasing use of standard documentation that makes it easier and more cost-effective to make common PRIs.

Ms. Rodgers indicated that while the laws and rules defining PRIs are fairly clearly delineated, those that allow for MRIs are not, making mission-related investing more difficult from a legal standpoint. In particular, for tax-exempt entities, impact investments need to be structured and implemented in a way that ensures they will not be viewed as imprudent investments that jeopardize the ability of the investor to carry out its tax-exempt purposes. Ms. Rodgers offered a tip on implementing MRIs in a foundation corpus: the greater the give-up in expected return for a prospective impact investment versus comparable non-impact investments, the stronger the ties must be between the expected impact and a specific, IRS-recognized, exempt purpose that the foundation, by charter, wishes to further. Such ties must be documented extensively, and Ms. Rodgers recommended that boards of directors adopt clear policies for the evaluation of potential MRIs that include criteria for establishing satisfactory links between the investor's mission and investments made to further that mission.

Governance of impact investing needs special attention

Governance structures at many institutions are inadequate to handle impact investing decisions. Many impact investing opportunities are driven by program staff but are expected to be implemented using dollars overseen by the investment staff. Without an established sourcing, evaluation and decision-making framework, it can be difficult to determine who within an organization has final authority over MRIs and who is responsible for conducting various aspects of the due diligence and research on a given investment opportunity. This can compound the innate difficulty of coming to agreement on an appropriate balance of financial return, social return, and risk of available impact investment opportunities relative to the goals of the investor.

The W.K. Kellogg Foundation created a dedicated MRI committee that has authority over the foundation's MRIs. This committee includes program officers, investment

personnel and outside experts on impact investing. In addition to creating a clear mechanism for oversight of its impact investment portfolio and a source of accountability for the investments, the Foundation believes that having a dedicated committee allows for quicker and more efficient evaluation of potential impact opportunities.

Inquiries or comments concerning this article may be addressed to:

Lucas Mansberger, CFA, CAIA,
Consultant
lmansberger@pavilioncorp.com

PUBLIC PRIVATE PARTNERSHIPS

The 2013 annual conference of the Council on Foundations also provided interesting information on foundations and their involvement with Public Private Partnerships (PPPs). A key presentation in this regard was "Foundations as Civic Actors: Redefining Partnerships with Government"

Public Private Partnerships are contractual agreements between public agencies and private entities to deliver a public service or facility.

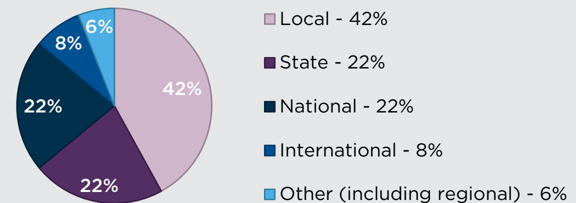
PPPs have increased in prominence in recent years largely as a result of the 2008 financial crisis impact on government budgets. Government officials have turned to private funders to offset program cuts at the federal, state and local level.

These partnerships are new and foundations, while keen on making impactful grants and investment decisions, are confronted with a number of questions and issues:

- Whether support of these government programs sanctions a permanent offloading of governmental responsibilities onto philanthropy;
- How such partnerships affect philanthropy's commitment to the values of independence and non-partisanship;
- How to align the long-term horizon of foundations with the sometimes cyclical public interest in certain policy issues;
- How to handle divergent operating cultures; and
- How to measure impact.

The Obama Administration's efforts to encourage social entrepreneurship and bring innovative, community-based programs to scale led to the establishment of several high-profile PPPs - the Social Innovation Fund and the Department of Education's Investing in Innovation (i3) fund. While these partnerships introduced novel roles for philanthropy, there is ambivalence among foundation leaders toward federal-level PPPs. This ambivalence stems from the belief that the administration favors large, urban foundations to the disadvantage of small, rural ones, which cannot bear the significant regulatory and administrative burdens of the partnerships. The regulations and funding guidelines associated with the federal partnerships can be excessively onerous. Consequently, most of the collaboration between foundations and governments is taking place at the local level:

How are foundations and government collaborating?



Despite the concerns, it is believed that PPPs will become increasingly important, as further budget cuts appear likely. Foundations and governments are still in learning mode, and while the speakers shared their concerns, they also shared insights.

The best of these came from speaker Jeremy Johnson, Philanthropic Liaison at City of Newark. He shared his insight into working with government: "Go where the traction is, where you have a champion of an issue inside government, and glom on to those folks". This insight was underscored by others who offered additional advice including: "Offer prizes as a way to pay for success. Inspire risk taking. Come up with ideas to engage government. Define the problem, find other foundation partners, and then draw on government resources."

A final statement was that "Foundations should be cold-blooded on relationships and measuring impact. After all, PPPs are a value proposition and both sides must benefit."

by Susan McDermott, CFA
Chief Investment Officer, Institutional Advisory

LIQUID REAL ASSETS

by Anton Loukine, CFA, CAIA, Chief Investment Officer, Implemented Solutions

Introduction

With interest rates in most of the developed countries near zero in nominal terms and negative in real terms, investors are increasingly looking for ways to protect their capital against the erosion of purchasing power as well as unexpected changes in interest rate term structure and inflation. One approach that may help to accomplish this objective is increasing the allocation to Real Assets.

Real Assets are often associated with long-term, illiquid investments in physical assets. Illiquid forms of investments may offer an additional illiquidity premium and appear to be less volatile due to appraisal-based valuations and return smoothing. However, due to minimum investment sizes, high transaction costs, and long lock-up periods, they are suitable only for large institutional investors with a long time horizon, no major liquidity needs and no concerns over the inability to rebalance this portion of the portfolio. When investment lumpiness and liquidity concerns do matter, it is still possible to construct a portfolio of liquid instruments that help to achieve the desired characteristics and outcomes.

What are Real Assets?

There are two main definitions of Real Assets:

- Real assets are economic resources that directly generate consumption.
- Real assets are goods that are independent from variations in the value of money.

The first definition emphasizes tangible and physical attributes of the assets, while the second one contrasts them to investments generating nominal returns. There is substantial overlap between investments that fit these definitions; however, the latter one is the focus of this paper as it is broader and more inclusive.

Compared to traditional investments in fixed income and equities, Real Assets have certain characteristics that help to improve overall investment experience and outcomes for investors:

- Distinct return drivers: benefit from increasing scarcity of product inputs (e.g., land and resources);
- Inflation protection: benefit from increasing input prices and interest rates;
- Potential for capital appreciation and stable income: lower sensitivity to business cycles and market fluctuations can lead to "fixed-income-like" cash flows and strong total returns;
- Portfolio diversification: low to moderate correlations to traditional asset classes.

Given that the focus of this paper is Liquid Real Assets, the desired investments must also offer daily liquidity. In general, while illiquid forms of investments may offer an additional illiquidity premium and appear to be less volatile and less correlated with general market movements due to appraisal-based valuations and return smoothing, investing through publicly traded investment vehicles offers a number of advantages as well:

- daily liquidity and pricing transparency;
- better alignment of interests between management and investors;
- access to larger projects and deal sizes;
- ability to diversify across sectors and locations with minimum investment amounts.

The following market segments fit the desired profile, and are examined in detail in subsequent sections:

Market Segment	Liquid Investments	Illiquid Investments
Real estate	REITs	Direct real estate
Infrastructure	Listed infrastructure	Direct infrastructure
Inflation-linked bonds	Real-return bonds, TIPS	N/A
Floating-rate debt	Senior bank loans, FRNs	N/A
Commodities	Futures, ETFs, commodity stocks	Physical commodities
Timberland	Timber REITs	Timber Investment Management Organizations (TIMOs)
Farmland	Select public companies	Limited partnerships

Real Estate

Real estate investing involves the purchase, ownership, management, rental and/or sale of real estate for profit. It offers several unique benefits such as stable income combined with the potential for natural appreciation in value; valuable depreciation tax shields; and the ability to influence performance through initiatives that improve a property and increase its value.

Purchasing Real Estate Investment Trusts (REITs) is the easiest way to invest in real estate. Only equity REITs – entities with 75% of assets invested in the equity of real estate deals – should be included in the Liquid Real Assets universe. Mortgage REITs, which predominantly invest in debt instruments, and by extension hybrid REITs, are not likely to produce the desired return characteristics of this asset class. Looking at the long-term history (see figure 1), FTSE NAREIT Mortgage REIT Index substantially underperformed FTSE NAREIT Equity REIT Index over the 1972-2012 period (5.1% vs 12.1% per annum) with higher annualized volatility (20.5% vs 17.3%). Moreover, mortgage REITs only managed to beat U.S. inflation in 25 out of 41 calendar years compared to the track record of equity REITs, which beat U.S. inflation in 32 of 41 calendar years.

Even within equity REITs, companies are highly heterogeneous and, depending on their property characteristics, may exhibit different behavior. For example, properties that have high occupancy rates and long-term non-cancelable lease commitments are going to behave more like long-term corporate nominal bonds and thus not have the desired characteristics of Liquid Real Assets. On the other hand, properties with less than full occupancy and shorter-term leases as well as the ability to adjust rent payments in line with inflation are more likely to generate the desired outcomes.

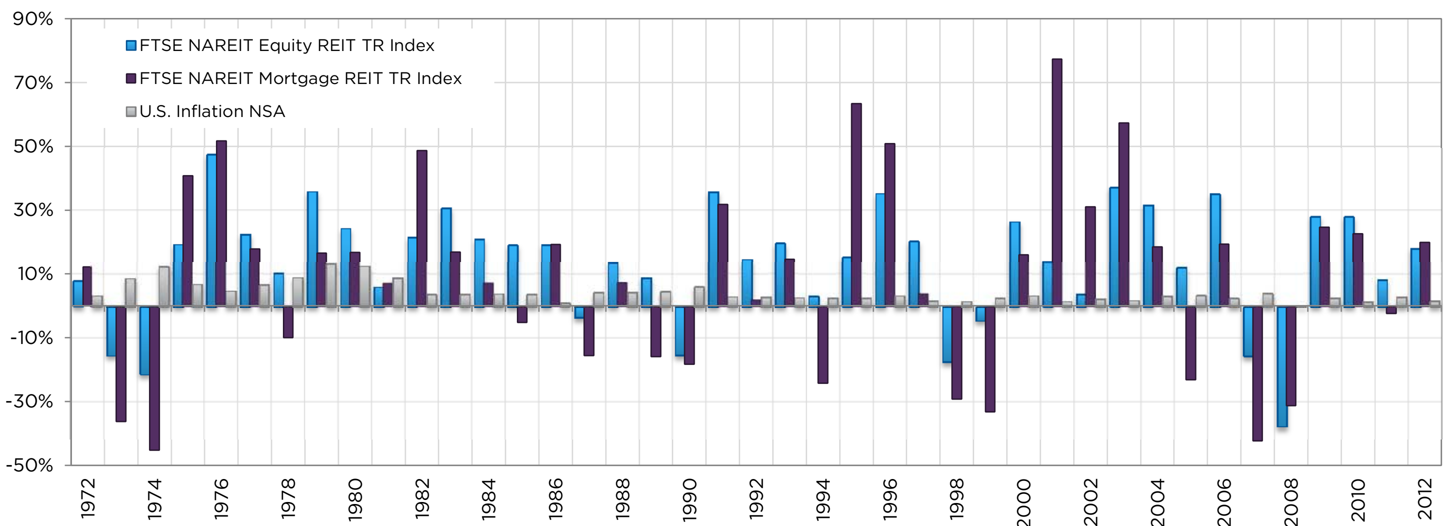
Infrastructure

Infrastructure includes fundamental assets and systems that facilitate functions essential to the well-being of an economy. Infrastructure investing generally produces high and stable cash flows due to inelasticity of demand for essential services and high barriers to entry. The universe of global investable opportunities has grown considerably as a result of privatization.

Listed infrastructure as an asset class is very heterogeneous. The types of companies included in various global infrastructure indices range from hard infrastructure such as utilities and airports to soft or social infrastructure such as companies providing educational services over the Internet. Generally, listed infrastructure can be divided into three main categories[1]:

- **Pure-Play:** Companies that own or operate infrastructure assets in industries with high barriers to entry, relatively inelastic demand, and stable long-term income derived from usage fees.
- **Core:** Companies that exhibit some fundamental infrastructure characteristics by virtue of regulation or contractual agreement but have lower margins and are typically not as capital intensive.
- **Broad:** Companies that own infrastructure-related businesses and do not exhibit relatively stable cash flows.

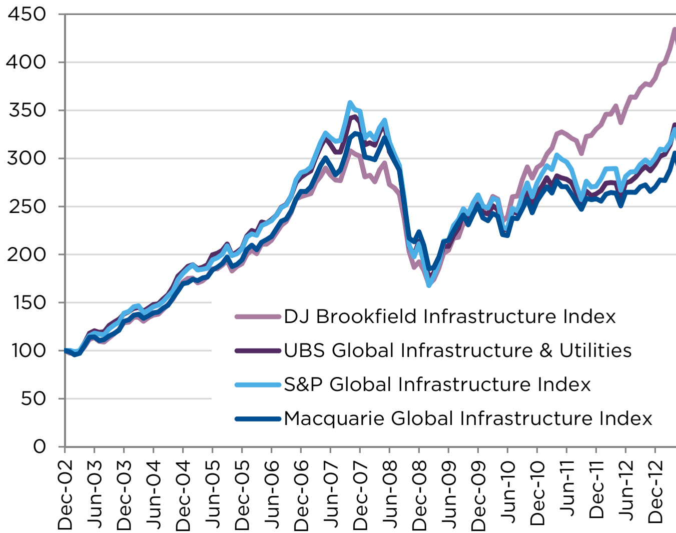
Figure 1



Source: Pavilion, Bloomberg; returns are in USD

1 - RREEF Research, A Compelling Investment Opportunity: The Case for Global Listed Infrastructure Revisited, July 2011.

Compared to other infrastructure indices, DJ Brookfield Infrastructure Index – the only index containing exclusively pure-play companies – had the best historical return and the lowest volatility since its inception on December 31, 2002:



Source: Pavilion, Bloomberg; returns are net total returns in USD, except for Macquarie where gross total returns are used.

Only pure-play infrastructure companies, which most closely resemble the unlisted infrastructure universe, qualify for inclusion in Liquid Real Assets. These companies have more than 70% of cash flows derived from pure-play infrastructure lines of business, and they typically fall into one or more of these industries: Oil & Gas Storage & Transportation; Electricity Transmission & Distribution; Communications (Towers/Satellites); Water Utilities; Toll Roads and Railtracks; and Airports and Marine Ports.

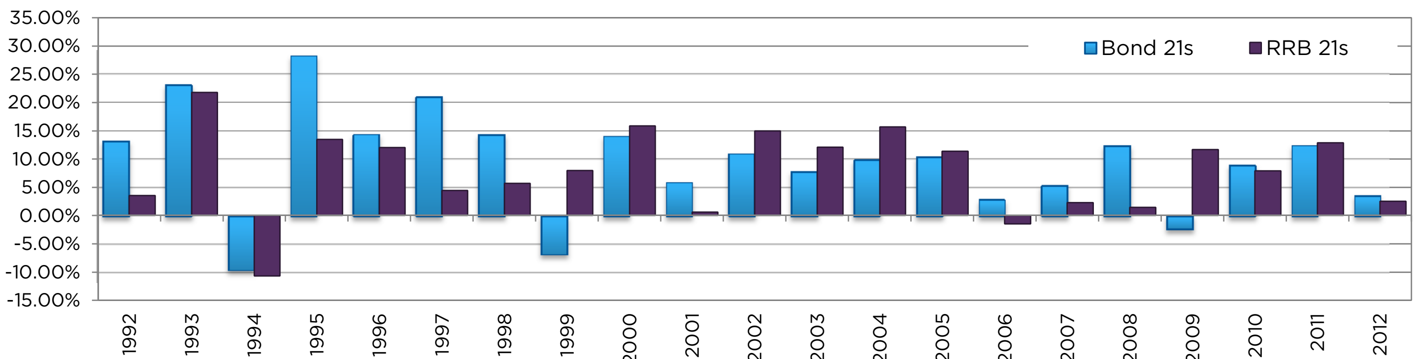
Inflation-Linked Bonds (ILBs)

ILBs (or real-return bonds) are bonds whose principal and coupon payments are indexed to the Consumer Price Index (CPI). In contrast to other instruments, their cash flows are explicitly linked to inflation. Moreover, certain ILBs (e.g., U.S. TIPS) also come with an embedded deflation protection of the maturity value. While it seems like ILBs offer the best of two worlds, in the long run they are expected to underperform nominal bonds under normal market conditions. After all, the yield on a nominal bond comprises the real yield, expected inflation and a premium for the risk that realized inflation exceeds expected inflation. As a result, ILBs are only expected to outperform when realized inflation substantially exceeds expectations.

Canada has a longer history of issuing ILBs than the United States, and the first Canadian ILB is still in existence. Figure 2 below compares historical returns of real-return bond CAN 4.25% 12/21 and nominal bond CAN 9.75% 6/21.

Over the 21-year period, the nominal bond outperformed the real-return bond. Compared to nominal bonds, real-return bonds failed to offer protection during crises because they are not as liquid as nominal bonds and thus do not benefit from the flight to quality. Nevertheless, real-return bonds did produce returns with lower annual volatility (9.1% vs 7.4%) and really shined in 1999 and 2009 – the years when inflation rose unexpectedly. With current break-even inflation spreads lower than the historical average in both Canada and the United States, they are a great addition to Liquid Real Assets.

Figure 2



Source: Pavilion, Bloomberg

Senior Bank Loans

Senior bank loans are extensions of credit to primarily non-investment grade companies, secured by borrowers' assets and having a senior lien, or priority claim on these assets. Unlike most traditional debt investments with fixed coupon payments, these loans generate floating-rate cash flows, linked to LIBOR. As a result, senior loans, especially those with a low or no LIBOR floor, should benefit if interest rates rise.

First-lien loans rank higher in the capital structure compared to high-yield bonds and offer several advantages such as stricter covenants and higher recovery rates post bankruptcies. For instance, according to data from Credit Suisse, the average recovery rate between 1995 and 2010 is 70% for first-lien loans and only 43% for high-yield bonds[2]. Because senior loans are traded and settled differently from bonds and have higher back-office, administration and compliance requirements, they also may offer an additional premium that is unrelated to bearing financial risks – the so-called complexity premium. These factors allow senior loans to provide better compensation for bearing credit risk as well as the desired hedge against inflation and rising interest rates. See figure 3.

While the liquidity crisis of 2008 caused loan prices to be marked down substantially, fundamentals were still good and patient "buy-and-hold" investors earned a net return of about 8% over the two years (2008-2009). Credit losses due to defaults were only ~1.5% of the value of the portfolio in 2008.

The highest ever default rate and lowest ever recovery rate actually occurred in 2009 (loss of ~5% of the value of the portfolio), which didn't preclude the asset class from regaining lost ground. See figure 4.

Commodities

Commodities typically include agricultural, energy and mining products. Investing in commodities may offer diversification benefits because commodity prices are:

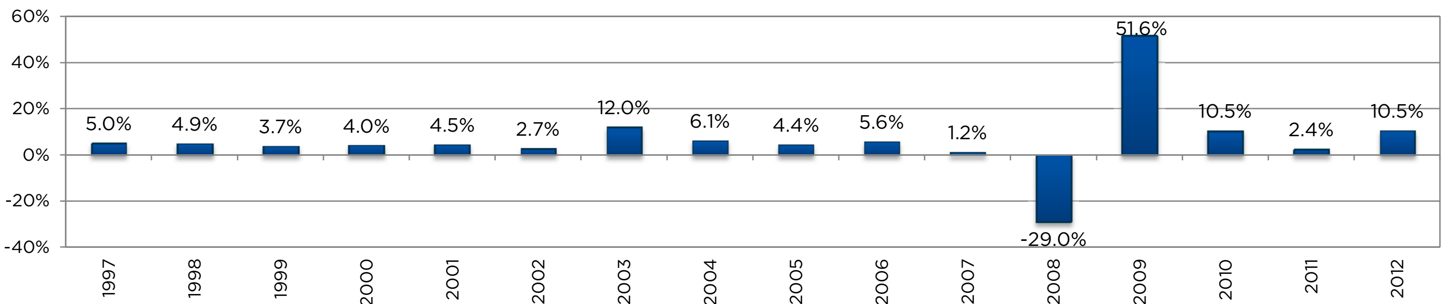
- driven by supply and demand, not by the discounted value of future cash flows;
- positively correlated with inflation;
- based on the current state of the economy as opposed to anticipations; and

Figure 3

	Yield	Compensation for Interest Rate Risk	Compensation for Credit Risk	Annual Default Rate	Loss Given Default	Net Compensation for Credit Risk
5-Year BBB Bond	2.5%	0.7%	1.8%	0.3%	60%	1.6%
5-Year HY Bond	5.5%	0.7%	4.8%	4.5%	60%	2.1%
5-Year Senior Loan	5.5%	0.3%	5.2%	4.5%	30%	3.8%

Source: Pavilion, Bloomberg, Merrill Lynch BBB U.S. Corporate Index, S&P/LSTA U.S. Leveraged Loan 100 Index, Markit iBoxx USD Liquid High-Yield Index, Credit Suisse, S&P / Capital IQ; data as of January 2013.

Figure 4



Source: Pavilion, S&P/LSTA U.S. Leveraged Loan TR Index; returns are hedged to CAD.

2 - Source: Credit Suisse, data from 1995 - 2010

• input costs to most companies and, as they soar, corporate profits decline.

The easiest and most liquid way to invest in commodities is through futures; however, passive long-term investments in commodities through futures may be disadvantageous. First of all, futures need to be rolled periodically. Moreover, the return is eroded due to negative convenience yield as entities that have productive use of the commodity find it more beneficial to hold physical inventories to protect themselves against disruptive supply shocks. Finally, investing in futures contracts can have punitive tax implications for taxable clients (especially in Canada, where all gains on futures contracts are taxed on the account of income).

Investing in commodities through public equities has its challenges as well. Most energy and materials companies hedge out the desired commodity exposure to a certain extent. Moreover, many companies do it opportunistically, making it difficult to assess whether they have the desired exposure at any given point in time.

Canadian investors also may find that adding additional exposure to commodities in Liquid Real Assets is unnecessary because of an already high exposure to this segment through Canadian equity home bias.

Timberland

Timberland is the investment in existing forest land for long-term harvesting of wood. It's a perpetual renewable resource with an interesting distinctive benefit of harvest timing flexibility: investors can accelerate or delay harvesting based on market conditions.

Large institutional investors have been investing in timberland through timber investment management organizations (TIMOs). In 1999 it became possible to invest in this asset class through a liquid instrument -- Plum Creek Timber REIT. While the number of publicly-traded timber REITs has subsequently grown to four, not all of them are ideal candidates for inclusion in Liquid Real Assets. For example, Weyerhaeuser – the newest and by far the largest timber REIT – derives about 70% of revenues from manufacturing wood products and cellulose fibers[3]. High manufacturing exposure makes timber REITs highly volatile and more tied to cyclical industries. While a couple of timber REITs can be included in Liquid Real Assets, there is still not enough depth to make a meaningful allocation in the portfolio.

Farmland

Farmland is the investment in arable land with an option on generating a renewable stream of cash flows from crop income. Investing in farmland is also a play on the growing global population and demand for biofuel as well as the premise that the amount of arable farmland is constantly shrinking. While the investment has idiosyncratic risks of poor harvests, the crop income generated is tied to inflation as food is one of the main ingredients of CPI.

Investments in farmland are typically done through illiquid vehicles (e.g., limited partnerships). However, even in a pooled structure, the objective is quite challenging as in many parts of the world, including parts of North America, farmland ownership by non-individuals is restricted. Some investment funds get around this restriction by investing in farmland mortgages instead. However, similar to mortgage REITs, such investments do not produce the desired exposure. Moreover, buying farmland with the purpose of renting it to farmers doesn't allow the capture of crop income and is quite challenging because the arable land is valuable only to the farmers living nearby.

Among liquid investments, the ideal candidates for inclusion in Liquid Real Assets are publicly traded companies with a significant and diversified farmland ownership on their balance sheets as well as productive agricultural use of this land. Adecoagro (NYSE:AGRO), for example, fits this profile. It owns 286 thousand hectares of farmland in fertile regions of Brazil, Argentina, and Uruguay and uses this land to produce corn, wheat, soybeans, rice, dairy and other agricultural products. Unfortunately, as with Timber REITs, the universe of ideal stocks is somewhat limited.

3 - Weyerhaeuser's 2012 annual report

Implementation and Historical Analysis

Four of the building blocks identified earlier have publicly available indices with a fairly long history and a large enough opportunity set to make a meaningful allocation within Liquid Real Assets: equity REITs, listed infrastructure, inflation-linked bonds, and senior loans. In this next section, we look at how a Liquid Real Assets portfolio, implemented with the same mix of investments in both Canada and the United States, would have performed historically.

1. Canadian Perspective

In the subsequent analysis, Liquid Real Assets is defined as the mix in the following table. All statistics are for the 18-year period from January 1995 to December 2012. All returns in this section are in Canadian dollars, and the currency exposure of senior bank loans is fully hedged to CAD.

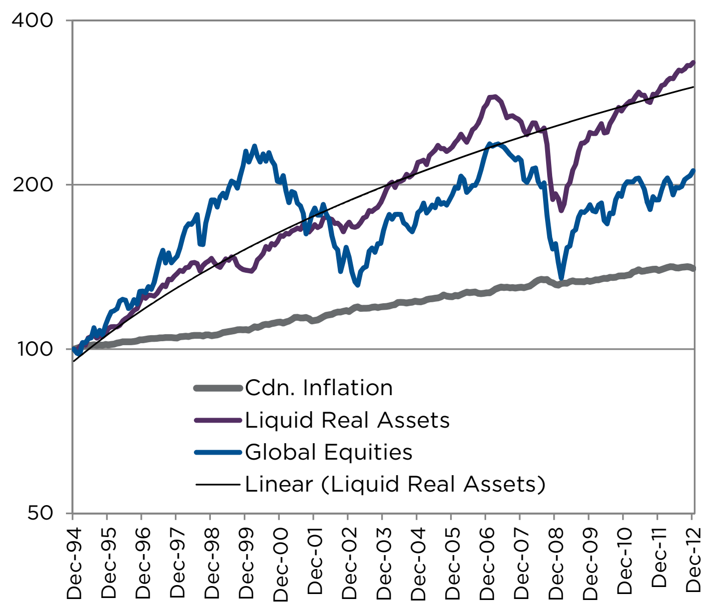
Component	Time Period	Historical Return Proxy	Weight
Global REITs	Jan 2001 - Dec 2012	S&P Global REIT TR Index (Net)	30%
	Jan 1995 - Dec 2000	S&P Global REIT TR Index (Gross)	
Global Listed Infrastructure	Jan 2003 - Dec 2012	DJ Brookfield Global Infrastructure TR Index (Net)	20%
	Jan 1995 - Dec 2002	UBS Global Infrastructure & Utilities 50-50 TR Index (Net)	
Inflation-Linked Bonds	Jan 1996 - Dec 2012	ML Canada Inflation-Linked Government Index	10%
	Jan 1995 - Dec 1995	CAN 4.25% 12/01/2021 bond	
Senior Bank Loans	Jan 1997 - Dec 2012	S&P/LSTA Leveraged Loan TR Index	40%
	Jan 1995 - Dec 1996	CSFB Leveraged Loan Plus TR Index	

The following table summarizes correlation coefficients between traditional asset classes and the underlying components of Liquid Real Assets:

Component	Global REITs	Global Listed Infrastructure	Inflation-Linked Bonds	Senior Bank Loans	Liquid Real Assets
Cdn. Fixed Income[4]	0.10	0.11	0.58	(0.07)	0.13
Cdn. Equities[5]	0.36	0.31	0.24	0.42	0.47
Global Equities[6]	0.50	0.57	0.15	0.35	0.59

Since 50% of the Liquid Real Assets portfolio is effectively invested in global equities, the correlation between them has been moderately high. Moreover, senior bank loans, which had almost no statistically significant correlation with equities prior to 2008, became highly correlated with equities during the liquidity crisis. During the period from November 2007 to February 2009, Liquid Real Assets experienced a drawdown of 32.5%, compared to 39.2% for Global Equities. While the lost value was fully recovered within three years since the beginning of this drawdown period, the downside risk can be substantial over short time horizons.

While Canadian inflation eroded more than 40% of the purchasing power, Liquid Real Assets outperformed Canadian Inflation in 14 out of the last 18 calendar years (exceptions: 1999, 2002, 2007, and 2008) – more consistently than global equities.



Source: Pavilion, Bloomberg; returns are in CAD.

To assess the impact of including Liquid Real Assets in a portfolio of traditional stocks and bonds, the following three mixes are used. The equity portion is split equally between domestic and global equities.

Asset Mix	Cdn. Fixed Income	Cdn. Equities	Global Equities	Liquid Real Assets	Annualized	
					Return	Volatility
Portfolio 1	30.0%	35.0%	35.0%	-	7.04%	9.48%
Portfolio 2	50.0%	25.0%	25.0%	-	7.29%	7.08%
Portfolio 3	70.0%	15.0%	15.0%	-	7.46%	5.02%

4 - DEX Universe Bond Index
5 - S&P/TSX Composite Total Return Index
6 - MSCI ACWI IMI Total Return Index

With Canadian fixed income outperforming global equities on both an absolute and risk-adjusted basis over the 18-year period, substituting a portion of it with another asset class is unlikely to produce superior results when looking in the rear-view mirror only. Nevertheless, adding Liquid Real Assets at 25% of the equity weight in each of these portfolios and funding the allocation by taking equally from both equities and fixed income would have produced substantially identical returns with marginally lower volatility.

Asset Mix	Cdn. Fixed Income	Cdn. Equities	Global Equities	Liquid Real Assets	Annualized	
					Return	Volatility
Portfolio 1	21.3%	30.6%	30.6%	17.5%	7.03%	9.06%
Portfolio 2	43.8%	21.9%	21.9%	12.5%	7.28%	6.76%
Portfolio 3	66.3%	13.1%	13.1%	7.5%	7.44%	4.82%

2. U.S. Perspective

In the subsequent analysis, Liquid Real Assets is defined as the mix in the following table. Since the first ILB in the United States was issued in 1997, the subsequent analysis is performed for the 15-year period from January 1998 to December 2012. All returns in this section are in U.S. dollars.

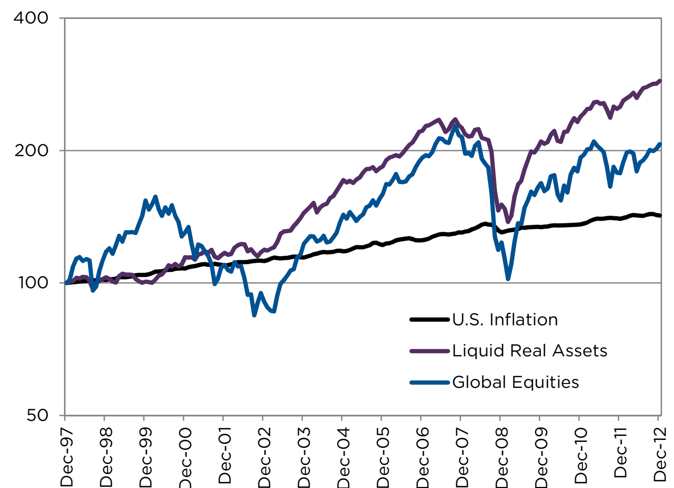
Component	Time Period	Historical Return Proxy	Weight
Global REITs	Jan 2001 - Dec 2012 Jan 1998 - Dec 2000	S&P Global REIT TR Index (Net) S&P Global REIT TR Index (Gross)	30%
Global Listed Infrastructure	Jan 2003 - Dec 2012 Jan 1998 - Dec 2002	DJ Brookfield Global Infrastructure TR Index (Net) UBS Global Infrastructure & Utilities 50-50 TR Index (Net)	20%
Inflation-Linked Bonds	Jan 1998 - Dec 2012	ML United States Inflation-Linked Government Index	10%
Senior Bank Loans	Jan 1998 - Dec 2012	S&P/LSTA Leveraged Loan TR Index	40%

The following table summarizes correlation coefficients between traditional asset classes and the underlying components of Liquid Real Assets.

Component	Global REITs	Global Listed Infrastructure	Inflation-Linked Bonds	Senior Bank Loans	Liquid Real Assets
U.S. Fixed Income[7]	0.15	0.10	0.76	(0.05)	0.15
U.S. Equities[8]	0.67	0.70	0.02	0.46	0.71
Non-U.S. Equities[9]	0.67	0.77	0.10	0.51	0.75

Since 50% of the Liquid Real Assets portfolio comprises global equities and slightly more than a quarter of the portfolio is in U.S. equities, some of the historical correlation coefficients have been fairly high. Moreover, senior bank loans, which had almost no statistically significant correlation with U.S. equities prior to 2008, became highly correlated with equities during the liquidity crisis. During the period from November 2007 to February 2009, Liquid Real Assets experienced a drawdown of 41.6%, compared to 55.1% for Global Equities. While the lost value was fully recovered within three years since the beginning of this drawdown period, the downside risk can be substantial over short time horizons.

While U.S. inflation eroded 42% of the purchasing power over the last 15 calendar years, Liquid Real Assets outperformed U.S. inflation in 11 of these 15 years (exceptions: 1999, 2002, 2007 and 2008). For comparison, both domestic and global equities managed to beat inflation in 10 out of the last 15 years.



Source: Pavilion, Bloomberg; returns are in USD.

To assess the impact of including Liquid Real Assets in a portfolio of traditional stocks and bonds, the following three mixes are used. 55% of the equity portion is allocated to U.S. equities and 45% of the equity portion is allocated to non-U.S. equities. Domestic equities are overweighted relative to their weight in MSCI ACWI due to a home bias.

Asset Mix	U.S. Fixed Income	U.S. Equities	Non-U.S. Equities	Liquid Real Assets	Annualized	
					Return	Volatility
Portfolio 1	30.0%	38.5%	31.5%	-	5.85%	11.89%
Portfolio 2	50.0%	27.5%	22.5%	-	6.05%	8.58%
Portfolio 3	70.0%	16.5%	13.5%	-	6.11%	5.52%

7 - Barclays U.S. Aggregate Total Return Index
8 - Russell 3000 Total Return Index
9 - MSCI ACWI ex USA IMI Total Return Index (Net)

With U.S. fixed income outperforming domestic and global equities on both an absolute and risk-adjusted basis over the 15-year period, substituting a portion of it with another asset class is unlikely to produce superior historical results. Indeed, adding Liquid Real Assets at 25% of the equity weight in each of these portfolios and funding the allocation by taking equally from both equities and fixed income would have produced marginally better returns with substantially similar volatility.

Asset Mix	U.S. Fixed Income	U.S. Equities	Non-U.S. Equities	Liquid Real Assets	Annualized	
					Return	Volatility
Portfolio 1	21.3%	33.7%	27.6%	17.5%	6.10%	11.78%
Portfolio 2	43.8%	24.1%	19.7%	12.5%	6.23%	8.50%
Portfolio 3	66.3%	14.4%	11.8%	7.5%	6.22%	5.48%

While the benefits of including Liquid Real Assets appear to be marginal based on historical analysis, there is a general consensus among investors that there is more risk than upside with holding nominal fixed income in the current environment, and history is becoming less and less likely to repeat itself.

Conclusion

Inflation can be a substantial drag on portfolio performance, and the current environment of near-zero nominal and negative real interest rates is unsustainable in the long run. However, the magnitude and timing of future changes in realized inflation and interest rate term structure are difficult to predict. Adding Liquid Real Assets to clients' portfolios would enhance diversification, introduce additional sources of return, and help protect the capital against the erosion of purchasing power without significantly changing the risk/return profile of the portfolio based on historical analysis. While not being at a disadvantage even if the status quo is maintained, a portfolio with an allocation to Liquid Real Assets would be better positioned for future unexpected changes in inflation and/or interest rates.

Inquiries or comments concerning this article may be addressed to:

Anton Loukine, CFA, CAIA
Chief Investment Officer, Implemented Solutions
aloukine@pavilioncorp.com

PAVILION ADVISORY GROUP RECRUITS LEADING NOT-FOR-PROFIT HEALTHCARE CONSULTANT

Pavilion Advisory Group announced that Richard P. Marra, former not-for-profit healthcare segment leader for Mercer Investment Consulting and Principal at Hammond Associates, has joined the team. Mr. Marra will work with Pavilion's not-for-profit healthcare, foundation, endowment and retirement plan clients. He is currently based in St. Louis, Missouri.

"A specialty of Pavilion is our work with healthcare organizations," said Mr. Mote. "We understand their unique requirements and the multiple investment pools they manage. Rich is an excellent fit with our team as he, too, understands the competitive pressures that healthcare systems face. He will provide valuable thought leadership on healthcare and retirement plan issues to our team and our clients."

Pavilion applies a proprietary strategic modeling process to assist healthcare systems in the efficient allocation of capital resources. This analysis integrates projected income and balance sheet data into traditional asset/liability management, using both stochastic and deterministic models, and is helpful in determining asset allocation, understanding the likelihood of violating bond covenants and gauging projected financial ratios versus median ratios published by bond rating agencies.

"I am excited to join Pavilion and contribute to expanding its world class, multi-national investment advisory business," said Mr. Marra. "Among other things, I was attracted by Pavilion's focus on customized client solutions and the employee-ownership model which closely aligns our interests with those of our clients."

THE STRATEGIC ALLOCATION OF INVESTABLE ASSETS FOR HEALTHCARE SYSTEMS

by Thomas H. Dodd, CFA, CAIA, FSA, Senior VP Consulting, North America & Richard P. Marra, Senior Consultant

Pavilion Advisory Group notes several material trends that are having a substantial influence across the not-for-profit healthcare industry:

1. Increasing Federal budget deficits and their impact on Medicare and Medicaid;
2. Rising costs due to an aging population;
3. Continuing affiliations, mergers and acquisitions of not-for-profit healthcare systems;
4. Declining hospital utilization as the Patient Protection and Affordable Care Act rewards quality care strategies at the expense of volume-based strategies; and
5. The increasing role of philanthropy.

Managing these trends will be a formidable task for any healthcare Chief Financial Officer.

Fortunately, the capital markets have been favorable since 2009, strengthening balance sheets and providing much needed support to income statements. Modest economic growth and favorable monetary policies by the Federal Reserve and other global central banks have driven equity markets higher and interest rates lower. Equity markets are trading at valuations in line with historical averages, but are no longer cheap. Debt markets may be over-valued as nominal U.S. Treasury bonds have negative real yields while corporate high yield bonds are at historically low levels.

At a time when healthcare systems are facing increased demands to lower costs, the investment outlook is more perplexing than usual. This demands a new and dynamic approach to asset allocation to support the financial strategy and community mission of medical centers throughout the country. Large multi-state healthcare systems and mid-size standalone hospitals alike can benefit from a comprehensive strategic allocation of investable assets.

The Evolution of Operating Assets

Historically, operating assets have been the primary source of financial resources to fund medical center operations. Traditionally, managing the assets was fairly straightforward: the system CFO, in conjunction with the investment committee or finance committee, determined whether the asset allocation of the operating assets continued to be appropriate or whether changes in the capital markets warranted a review of the asset mix.

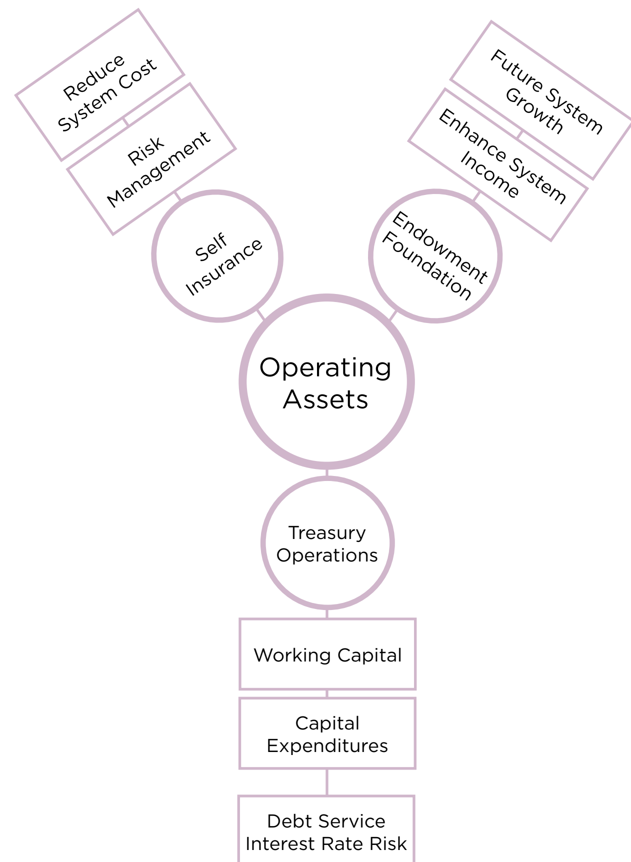
Today, however, operating assets have advanced into strategic pools of investable assets with specific goals, enabling the funds to benefit from a better matched and enhanced risk/reward tradeoff. In contrast to the traditional approach, this evolution has made the management of these funds more complex, necessitating in some cases fresh intellectual capital, specific expertise and implementation support.

In general, the thoughtful approach to separating operating assets into various pools could look like Figure 1.

Figure 1: Oversight of Operating Assets

Traditional approach: single fund, multiple risk/reward compromises

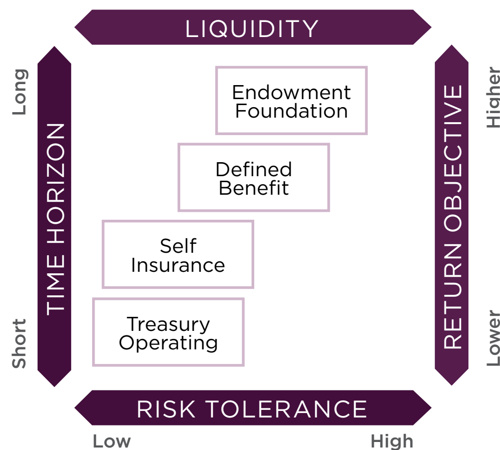
Strategic approach: multiple funds, risk/reward alignment



Asset Allocation Strategy

How should a healthcare system go about establishing a strategic and comprehensive asset allocation that aligns investment policy with financial strategy and is compatible with the system's community mission? Defining and selecting objectives will establish the initial steps in producing the appropriate portfolio. While the healthcare system may have a well-defined financial strategy, translating it for investment policy purposes requires the detailed analysis of multiple criteria. Combining the art of qualitative judgment with the science of quantitative analysis will drive the process. Figure 2 demonstrates the complexity of the issue.

Figure 2: Healthcare System Investable Assets



In order to set strategy, certain issues must be considered:

- The time horizon of each pool;
- The return objective of each pool;
- The system's current debt rating;
- The preference for balance sheet strength or increased investment income;
- The system's tolerance for the following risks:
  - Failure to meet stated investment goals,
  - Variability of investment returns,
  - Volatility of interest rates,
  - Defined benefit plan funded status volatility,
  - Unpredictable defined benefit plan contributions,
  - Illiquidity of investment structures;
- Do current financial metrics and bond ratings support the use of illiquid investment structures?
- What are the capital expenditure plans over the next three-five years and how will they be funded?
  - New debt,
  - Endowment/operating account draw, or both.

Once the objectives and constraints have been reviewed, discussed and approved, an asset allocation study of the investable assets is fairly straightforward. If properly designed, the asset allocation study can model the impact of adverse market environments on key financial metrics. In addition to providing guidance with respect to asset allocation strategy, the study can be used:

- as a budgeting tool;
- to stress-test a system's ability to withstand adverse investment and operating environments;
- to complement debt structure analysis; and
- during a rating agency review.

Model Scenarios

The use of simulations to test model portfolios creates an assessment of the usefulness of the investment policy relative to the overall financial strategy over appropriate time horizons and market environments. The simulations can examine the interaction between asset allocation strategy and financial objectives and translate portfolio characteristics and financial metrics into relevant criteria for key decision makers. The critical inputs to elevate the asset allocation study into a strategic investable asset analysis are the healthcare system's financial statement projections, asset class risk and return expectations and defined financial metrics.

Financial Statement Projections Ten-year financial statement forecasts or budgets are optimal, but many systems have completed three-year to five-year projections. Shorter-term forecasts can be extended; however, careful consideration of the long-term "drift" of forecast versus actual is warranted.

Asset Class Risk and Return Expectations The number of asset classes included in the study may be extensive. Many systems already have allocations to U.S. large-cap equities, small-cap equities, international equities and investment-grade fixed income. Also, it is common for the fixed income allocation to be broken into several tranches based on maturity, including a short maturity tranche, an intermediate maturity tranche, and a long duration tranche. Including alternative asset classes such as hedge funds, private equity, commodities and real estate can enhance the diversification benefit to the portfolio. Each asset class is treated as a separate allocation with its own set of capital market assumptions. The decision as to which asset classes to include is based on the system's comfort with the risk, reward and the liquidity characteristics of each class. If the healthcare system has little experience with certain asset

classes, an education session may be useful to determine compatibility with the system's investment goals, financial objectives, culture and philosophy.

Determine Financial Metrics to Model Proprietary models can calculate almost any financial metric, however, these five are the most commonly used:

- portfolio fund balance;
- investment income or loss;
- days cash on hand;
- debt service coverage; and
- debt to capitalization.

(See Figure 3)

The model is stochastic (probabilistic) and simulates portfolio investment returns for each year during the projection period, typically around 10 years. (See Figure 4.) The simulation uses a Monte Carlo method and the results are expressed in confidence intervals, for example:

- days cash on hand in 2018 has a 25% probability of falling below 122 days in ALT E.
- fund balance in 2018 has a 50% probability of exceeding $280 million in ALT B.

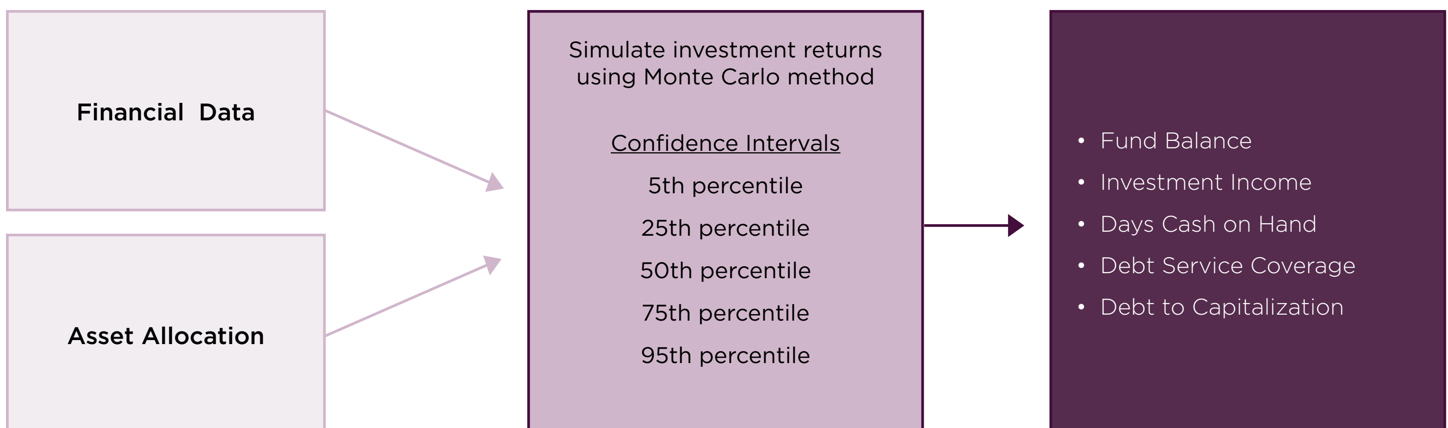
What is the optimal allocation?

It depends! The following are some points to consider:

- Are you comfortable with the asset classes included in the allocation? This is often a qualitative decision.
- Focus on the unfavorable investment outcomes, for example the 75th and 95th percentiles. Since the good times will take care of themselves, the real purpose of the study is to understand the downside of certain allocations and reduce the downside risk of the portfolios.
- Look for allocations that not only improve returns at the 50th percentile, but also improve returns at the 95th percentile. Adding equities to improve returns will look great at the 25th and 50th percentiles, but will stress the portfolio in poor market environments. Adding asset classes with low correlations to equities and bonds will likely improve returns at the 75th and 95th percentiles.
- Shift from a probabilistic to a deterministic approach, using a pre-determined set of return assumptions during the projection period. You might use the actual market returns during the last inflationary period of the 1970's or perhaps the market environment of the first decade of the 21st century, which includes the financial crisis of 2007-2008. Such stress testing adds a real-world element to any decision.
- Re-run the model using negative operating results from the system. If the projected operating margin used in the study was 3%, consider re-running the model using 1% or 2%, or scale the margins down to 0% during the projection period and then scale back to the baseline.
- Re-run the model using different capital expenditures or bond issuance and repayment schedules.

The asset allocation can be stress-tested in any number of ways so that management and the investment or finance committees gain confidence in the contemplated strategy. In the end, the allocation needs to (1) be appropriate during both favorable and difficult capital or operating environments, with more emphasis on the difficult environments; (2) fit within the financial objectives

Figure 3: Strategic Financial Asset Model



and risk tolerance of the system; and (3) complement the overall mission of the system.

Conclusion

The only constant in the not-for-profit healthcare sector is change. The long-term trends will continue to pressure operating margins and balance sheet strength, forcing financial leadership to develop creative and evolutionary ideas to solve tomorrow's issues. Elevating the asset allocation study into a strategic analysis of investable assets is a valuable tool for management. The use of stochastic and deterministic forecasts combines the art and science of developing the appropriate investment policy. Ultimately a comprehensive asset allocation provides one of the building blocks necessary for constructing sound investment policy that is aligned with an organization's financial strategy. Additional building blocks include streamlined governance models, swift implementation of investment ideas into action, comprehensive fee and transition analysis and sound risk management techniques for defined benefit plans, endowment assets, interest rates and liquidity. Which one would you like to tackle next?

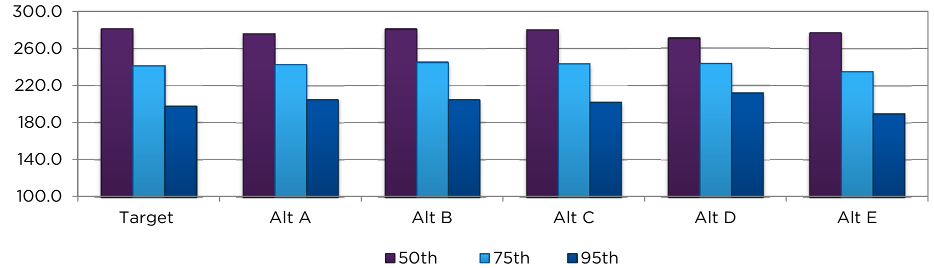
Inquiries or comments concerning this article may be addressed to:

Thomas H. Dodd, CFA, CAIA, FSA
Senior VP Consulting, North America
tdodd@pavilioncorp.com

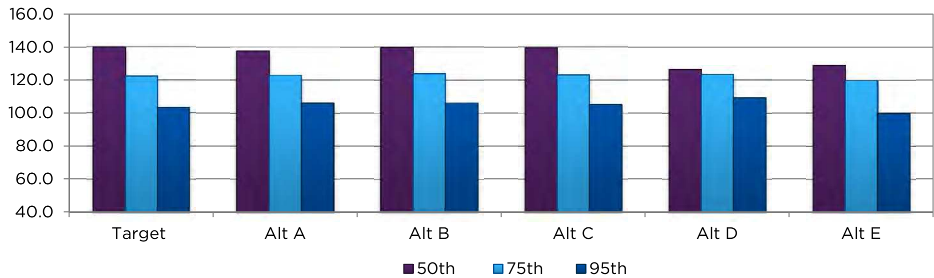
Richard P. Marra
Senior Consultant
r*marra@pavilioncorp.com*

Figure 4 - Modeling allocations scenarios, year 2018

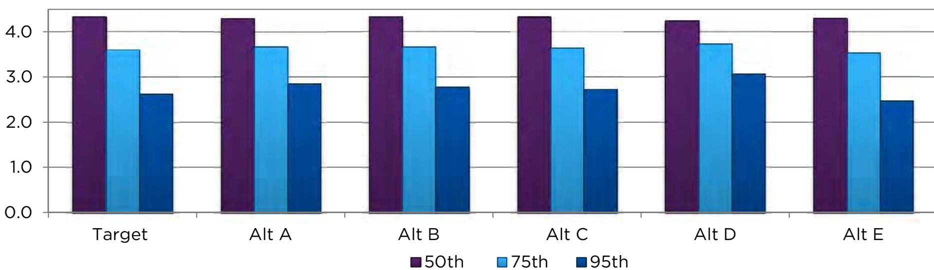
Total fund balance ($ millions)



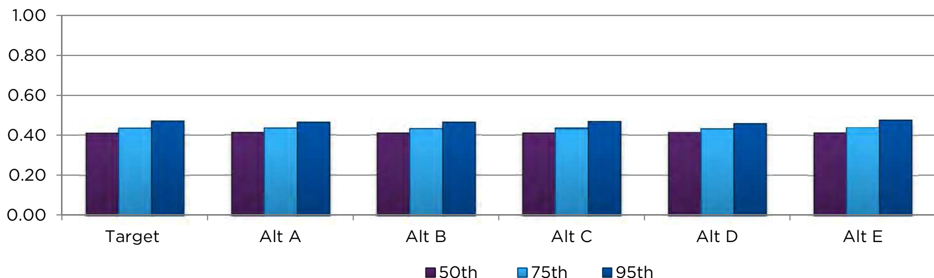
Days cash on hand



Debt service coverage



Debt to capitalization ratio



PAVILION GLOBAL MARKETS' TRANSITION MANAGEMENT SURVEY RESULTS

Industry survey reveals strong results for Pavilion Global Markets' transition management service: transparency, accuracy and overall client satisfaction highly scored

Clients have high praise for Pavilion Global Markets Ltd. when it comes to transition management. In an industry survey conducted by aiCIO magazine last month, clients awarded high marks to the firm for its transparency (disclosure of track record information) and accuracy (cost performance vs. estimate). As a result, overall client satisfaction with Pavilion's transition management expertise is strong.

"A successful transition is when our client's portfolio is moved efficiently between investment mandates, whether to address a change in investment manager or asset allocation. These survey results validate our long-held belief that the foundation for success relies heavily on the pre-transition planning and preparation," said Mario Choueiri, Head of Pavilion's transition management team.

In the aiCIO survey released earlier this week, Pavilion ranked No. 1 in cost performance vs. estimate against some of the industry's largest transition management providers, an endorsement from clients that Pavilion was the best at matching, on average, its pre-trade estimate. Other high rankings included Pavilion's disclosure of track record information, a category in which Pavilion ranked No. 2.

"Pavilion Global Markets executes its transition trades on an agency basis," said Shauna Hewitt Lambright, Pavilion's Director of Transition Management USA. "Our fees are fully transparent, including FX and fixed income transitions, and clients certainly appreciate that."

On overall client satisfaction, Pavilion scored 4.45 out of possible 5.0 in a tightly grouped list of top providers. Pavilion was rated on 59 transitions, the third largest number of transitions. The survey captured data from 285 global asset owners on the portfolio transitions they mandated and the managers they used in 2012. Approximately 80 per cent of the respondents represented funds with $1billion or more.

Click here for the full survey results.

Overall Service Rating (unweighted) (1 = poor; 5 = excellent)	
Abel Noser	4.71
Russell	4.59
Citi	4.58
Northern Trust	4.54
Pavilion Global Markets	4.45
BlackRock	4.38
State Street	4.28
BNY Mellon	4.07

Cost performance vs. estimate (1 = always missed; 5 = consistently beat)	
Pavilion Global Markets	3.32
BlackRock	3.38
Russell	3.57
Citi	3.67
State Street	3.67
BNY Mellon	3.71
Northern Trust	3.92
Abel Noser	4.00

Level of Track Record Disclosure (1 = none; 5 = complete disclosure)	
Abel Noser	4.83
Pavilion Global Markets	4.52
Russell	4.32
State Street	4.29
BlackRock	4.23
Citi	4.08
Northern Trust	4.00
BNY Mellon	3.93

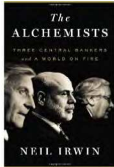
NEW HIRE

Our sister company, Pavilion Global Markets Ltd., recruited **Shauna Hewitt Lambright** to its transition management team. Ms. Lambright is Director, Transition Management USA.

Ms. Lambright has over 15 years of extensive transition management experience in the U.S. market working most recently at Loop Capital, a Chicago-based investment bank, brokerage and investment management firm. She also worked at Knight Capital, holding the position of Managing Director and Head of Knight Transition Management, after it acquired her own firm, Lambright Financial Solutions. Shauna's role will be to develop client relationships and sell TM services to U.S. clients and prospects, as well as cross sell other Pavilion services where opportunities may exist.

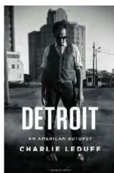
BOOKS FOR THE BEACH 2013 *by Jamie McKeough, Pavilion Global Markets Ltd.*

Just in time for the beach, below are 10 summer reads that should prime you to think about the social and political trends that ultimately impact financial markets.



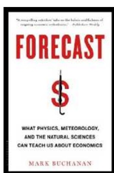
The Alchemists: Three Central Bankers and a World on Fire

While *Too Big to Fail* by Andrew Ross Sorkin continues to be my gold standard for Great Crisis books, author Neil Irwin has skilfully exploited the benefits of having more history on his side. If you're time-challenged or well-versed in central banking lore, you can probably breeze through the first four chapters of historical context (although his story of the hapless Rudolf von Havenstein and his Reichsbank debacle is particularly well told). Irwin, who's day job is being an economics reporter for the Washington Post, has very good sources within central banks and governments. His focus on Fed Chairman Bernanke, ECB President Trichet and Bank of England Governor King is functionally solid. One of the key takeaways from the book is that we continue to exist in a sort of counterfactual no-man's land. "The faint praise of a catastrophe avoided" is how Irwin describes the emerging consensus on Bernanke....for now.



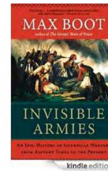
Detroit: An American Autopsy

Author Charlie Leduff is a masterful storyteller and his prose flows with tragedy, dark humor and shame. As the philosopher George Santayana once said, Americans don't solve their problems, they leave them behind. Well, Detroit has been left behind with all of them: crime, racism, corruption, uncompetitive industries, dysfunctional schools and a decaying infrastructure. Leduff's book captures an example of irrational thinking in one miserable sweep. Detroit doesn't need an autopsy because the reasons for its death are abundantly clear. What Detroit needs is a wake and a eulogy from a gifted writer like LeDuff.



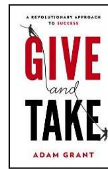
Forecast: What Physics, Meteorology, and the Natural Sciences Can Teach Us About Economics

Mark Buchanan has followed up on *Ubiquity: Why Catastrophes Happen* with a book that expands upon his concept of critical states. While I have no problem with his argument that traditional economic theories have been largely discredited after recurring cycles of bubbles and crashes, this is not exactly new thinking. But I think you'll get more value from his explanations about power laws in collective behavior, metastability and triggering events. Moreover, his debunking of the 'wisdom of crowds' thesis (in financial markets) is one takeaway that might be worth the whole book.



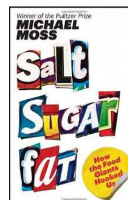
Invisible Armies: An Epic History of Guerrilla Warfare from Ancient Times to the Present

Military historian Max Boot provides a masterful look at the history of guerrilla warfare and the insurgencies that drive them. I lost track of how many times I thought 'why didn't Rumsfeld or McNamara understand the intractable nature of invisible foes?' Combine this book with Tuchman's *Guns of August*, Wohlstetter's *Pearl Harbor*, Halberstam's *The Best and The Brightest* and McMaster's *Dereliction of Duty* and you'll realize that *Invisible Armies* is the sort of history book that transcends specific wars and serves a broader purpose of providing both lessons and warnings.



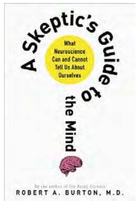
Give and Take: A Revolutionary Approach to Success

Maybe you're thinking, I need help but not a self-help book. I can assure that the book is basically Dr. Phil-free. The author is a professor of organizational psychology who can write clearly using unique stories to explain his core thesis, which is that embracing an attitude of selfless giving – sharing expertise, making introductions, being genuinely interested in another person's well-being and success – is a wise business decision. Largely jargon-free, I found that understanding his thinking also provided useful insights into group behaviour, specifically when teams are working together (eg. investment committees).



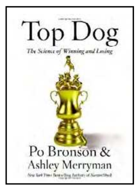
Salt Sugar Fat: How the Food Giants Hooked Us

If an industry or politician can get inside my head, I want to understand why and how. The human brain is the common platform when we react to all forms of influence (biological or social), and this makes me appreciate the crossover value from books like Salt Sugar Fat. Food manufacturers (and fast food restaurants for that matter) skilfully exploit biology. But they also understand how to manipulate your emotions with product positioning. I didn't come away with the feeling that people are being hopelessly manipulated by evil Big Food. Rather, my key takeaway is that the author was able to exploit, in a good way, a weakness of mine, which is a bias towards writers who can clearly explain the psychology of why certain social groups can be so effectively influenced.



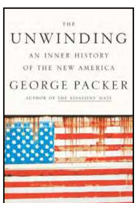
A Skeptic's Guide to the Mind: What Neuroscience Can and Cannot Tell Us About Ourselves

I had lunch with the author, Dr. Robert Burton, when I was in San Francisco a couple of weeks ago. I can tell you that he's a fascinating guy, full of stories that range from evolving thinking in neurology to playing poker. "Our failure to acknowledge the biologically imposed limits on a mind examining itself will only result in further….excesses". Using neuroscience to explain how we think and make decisions is getting out of hand. The term 'hard- wired' is being used to provide a neurobiological foundation for behavioral outcomes that are more likely learned vs. being truly innate. Behavioral economics (and its latest iteration, neuroeconomics) are particularly vulnerable to this kind of reasoning. The book is also a good primer on the basics of neuroscience.



Top Dog: The Science of Winning and Losing

Author's Po Bronson and Ashley Merryman earn, in my opinion, a spot in the top ranking of 'understanding the science of talent' books, along with *The Talent Code* by Daniel Coyle, *Talent is Overrated* by Geoff Colvin and *Outliers* by Malcolm Gladwell. Bronson and Merryman previously worked together on *Nurture Shock*, which brought readable scientific thinking to the informational chaos that surrounds the topic of raising children. They use a similar template in this book, as they blend science (in simple language) with stories that resonate. Personal development books have a mixed track record, as they're often long on happiness sound bites and short on the clinical evidence that we need in order to change our thinking. Bronson differentiates this book, however, by concentrating on making the case that in "any competitive situation…the ability to avoid being paralyzed by fear, and the capacity to focus attention" is what distinguishes top performers.



The Unwinding: An Inner History of the New America

Author George Packer modelled *The Unwinding* on the works of depression-era writer John Dos Passos. Although I have not read these books, Packer clearly has a broader agenda than just telling stories. Rather than populate his book with predictable data points (like income inequality, manufacturing job losses and Wall Street bonuses), Packer focuses on narratives that are defined by the journeys of real-life people. Packer's stories about people who are part of this transformation can be depressing. Poverty is a doom loop. But connecting this human misery to Reagan's tax cuts, the housing boom / bust and, of course, Wall Street greed is not fresh thinking. To his credit, Packer doesn't even bother to present some contrarian arguments; the other side would just get in the way of very good stories. Honestly, I find this refreshing. After nearly six years since the financial crisis, followed by a Great Recession and now the pain of anemic global growth, writers who claim to be making a fair case that's also new and compelling are disingenuous. The *Unwinding* could become a modern day *Grapes of Wrath* for the media elites, and, like Patton said of Rommel, you might want to read the book that will guide them.

Who Owns the Future?

My appetite for futuristic, big thinking tomes by egomaniacal, Silicon-Valley-centric, Davos-visiting authors is pretty limited. But a trusted source prodded me towards Jaron Lanier's latest book. Who is Jaron Lanier? If you see a picture of him, you won't forget the visual: picture a guy with Bob Marley dreds who has been a pioneering technologist (in virtual reality computing) and research scholar at Microsoft, among other things. The beach is probably not the best venue for this book; save it for when you can pause and think in relative peace. In the meantime, here's one example of a paragraph that made me blurt out "Exactly!"

"People naturally seek the benefits of society, meaning the accommodation of strangers, while avoiding direct vulnerabilities to specific others as much as possible. This is a clichéd criticism of the online culture for the moment. People have thousands of 'friends' and yet stare at a little screen when in the proximity of other people".

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