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Investing in a low return world…mission impossible?

Challenges and some possible solutions for Nonprofits

Most not-for-profit enterprises rely on pools of capital for their long-term health and success. We anticipate a challenging expected return environment in the years ahead, which will make spending policy and asset allocation ever more important.

The portfolio architecture we employ seeks to build in layers of assets that provide capital for grants or operating budgets, even in times of market volatility. We aim to help clients stay the course during choppy markets and avoid the temptation of market timing.

In the past two decades, missing just 40 days would have reduced US equity returns from +7.2% to -2.7%[1]. Investors enjoyed a higher risk adjusted return with a combination of equities and fixed income, and we see this remaining the case despite higher valuations in both asset classes.

Given the current market, we've chosen to elevate risk management above enhancing returns. We believe that maintaining a risk-focused portfolio management process helps to improve the odds that long-term pools of capital will be able to help nonprofits achieve their mission goals.

[1] Citi Private Bank's Global Strategy Quadrant, July 2019

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• NOT GOVERNMENT INSURED • NO BANK GUARANTEE • MAY LOSE VALUE

We do not view market timing as an appropriate strategy for perpetual asset pools such as endowments.

Conservative does not necessarily equate to prudent with regard to nonprofits' investment portfolios.

North Americans are among the most philanthropic people on Earth. Whether through donations of their time, possessions or capital, charitable giving is a key activity for most of our clients. Many of our clients serve non-profit entities, either as principals of their own foundations or trustees of other charitable organizations such as non-profits or endowments. Most of these enterprises rely on pools of capital for their long-term health and success, and the return on their portfolios comprises a vital source of funds for annual spending needs in support of their mission.

We believe the coming decade will pose challenges for trustees who oversee these non-profits, as spending needs from the portfolio collide with a compressed return outlook and an expectation of increased volatility. This requires that board members understand portfolio risks and react appropriately during times of market stress. Our analysis shows that maintaining key portfolio management disciplines such as systematic rebalancing and tactical shifts leads to better investment outcomes over the long term, as opposed to making binary risk-on or risk-off decisions (or "market timing"). Understanding how a portfolio is constructed (its portfolio architecture, if you will), can play an important role in helping stay the course in difficult markets.

Let's try to illustrate this with a hypothetical private foundation in the United States (though the thought experiment is valid for a variety of non-profits which draw from their portfolios). To oversimplify a bit, a private foundation must distribute 5% of its assets each year in order to maintain its tax-advantaged status under US tax law. Most of these entities are intended to serve their philanthropic mission for generations, so being able to keep up with inflation and expenses is important so that future grantees receive the same real value of grants as those receiving money today (a concept known as intergenerational equity). To meet its granting requirements and keep up with inflation and expenses, our foundation portfolio would need to earn in the neighborhood of 7.5% (5% spending, 2% inflation and 0.50% expenses).

Rewind a couple of decades, and this return might have been achieved with what appeared to be a moderate portfolio allocation (see Appendix I for return information). Bond rates may have gotten an investment committee close to their goal, and adding some moderate degree of equity or hedge fund exposure would have likely solved for the rest. Such a portfolio today would fall well short of the minimum return needed, in our view. In today's post-Global Financial Crisis world, the trustees who oversee these vast pools of capital have a much, much more difficult job. Additional levers such as illiquidity and duration must be prudently pulled, meaning trustees' understanding of more complex instruments such as private equity and private real estate is necessary. As portfolio complexity increases, the importance of thoughtful, professional advice rises[1].

[1] 2018 NACUBO-TIAA Study of Endowments® (NTSE), January 31, 2019

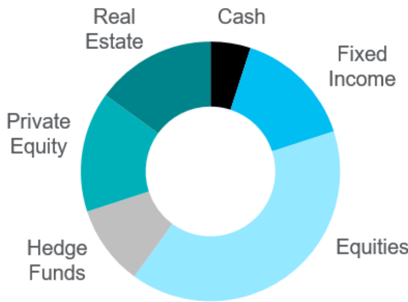
On average, US Endowments with assets over $1B allocate 58% of their portfolio to alternative investments.*

Portfolio Architecture

Multi-asset class portfolios typically form the cornerstone of our strategies for nonprofit clients. Each asset class within these portfolios plays a vital role in helping these capital pools target their investing goals. We like to hold cash and cash equivalents sufficient to meet annual spending needs – this offers the confidence that cash will be available when needed for grants.

One need look back no further than the fourth quarter of 2018 to understand why such an approach is useful. Equity markets dropped nearly 20% during that timeframe, and if an investor had instead held the year's grant money in equities rather than cash, they would have had less to give away than holding that in cash and not taking the incremental risk.

Multi-asset class portfolios form the cornerstone of our strategies, with each asset class playing a role.



Cash & Cash Equivalents	Ensures liquidity is available to meet one year's distribution requirement or spending policy
Fixed Income	Serves as a reserve for distributions and capital protection in periods of equity volatility
Equities	Drives the portfolio's long-term growth
Hedge Funds	Provides diversification of risk and return through tailored strategies specifically for Endowments, Foundations & Nonprofits portfolios
Private Equity & Real Estate	Utilizes the perpetual investment horizon and tolerance for illiquidity to add growth to the portfolio

Our fixed income portfolios provide a reserve for distributions as well as the expected benefit of capital protection in periods of equity market volatility. We like to size our fixed income portfolios in such a way that we have another three to four years' worth of grants in this part of the portfolio. We expect equities to be core, long-term holdings and view them as vital drivers of a portfolio's growth over time, while also contributing heavily to a portfolio's mark-to-market volatility.

*Alternative investments include private equity, hedge funds, real estate, managed futures, etc).

Source: National Association of College and University Business Officers as of July 2018, Private Bank Endowments, Foundations & Nonprofits Team.

Diversification does not ensure against loss. Investors must determine the suitability of each investment product based on their unique investment objectives and risk tolerances. In addition, all products and services discussed herein may have eligibility requirements that must be met prior to investing. Please see appendix for definitions.

In addition to cash, fixed income and public equities, we look to hedge funds to provide diversification of risk and return through tailored strategies specifically for our Foundation, Endowment and Non-profit portfolios. Finally, where appropriate, we employ private equity and private real estate to take advantage of the very long investment time horizon and tolerance for illiquidity that most non-profit entity portfolios possess. We believe that each of these asset classes and strategies play important roles in helping non-profits to meet their investing goals over the long term.

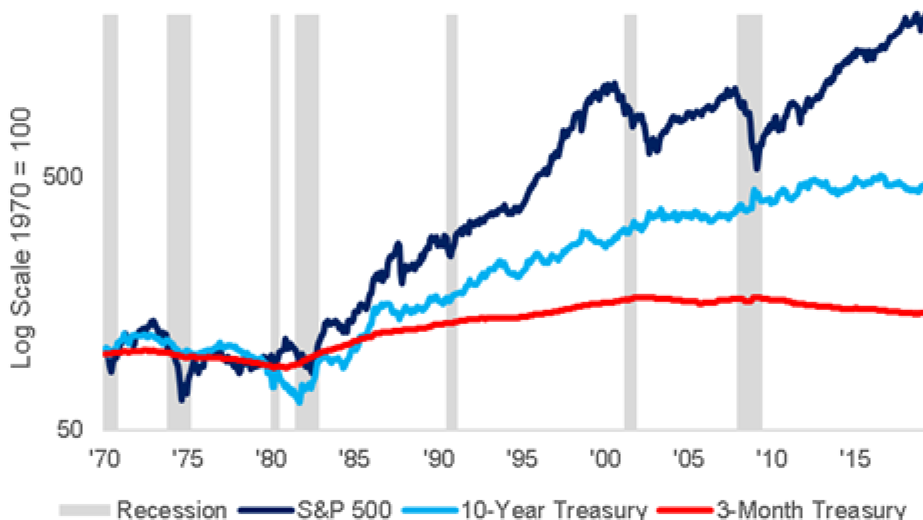
Our expectation of increased market volatility means that the mark-to-market value of the portfolio could swing quite a bit in any given year. Since non-profit boards consist of human beings, and since human beings are inherently emotional, this can be an issue in maintaining portfolio management discipline in challenging markets. And yet, we believe that this is one of the most important aspects of being a successful long-term investor.

In an effort to help trustees and board members be more comfortable with managing portfolios through volatile times, we ask those charged with overseeing these pools of capital to add another perspective to their investment decision making. The portfolio architecture we employ seeks to build in layers of assets that provide capital for grants or operating budgets, even in times of market volatility and helps avoid the temptation of market timing. This then, we hope, will help clients stay the course during choppy markets, leading to a better probability of success and broadening their ability to benefit grantees.

Pitfalls of Market Timing

As figure 1 shows, among public market assets, the long-term return stream of equities is the highest, but most volatile. Amazingly, in the past two decades, missing just 40 days would have reduced US equity returns from +7.2% to -2.7%! Less volatile forms of fixed income offer a lower, but far more steady, return (if allocated mostly to high-quality borrowers).

Figure 1: Inflation-Adjusted Total Return of US Stocks, Bonds and Cash Equivalents



Sources: Haver as of June 28, 2019 Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

At a now higher valuation for both asset classes (measured most broadly), future returns will be lower. But it is still true that putting both together improves returns per unit of risk (see figure 2). Worries over the valuation of stocks and bonds does not change the need for both. As Figure 1 showed, it will not make cash returns any higher. As we will explain below, switching in a dramatic way between cash and other investments risks falling even below a cash return.

Figure 2: Risk Adjusted Return (Sharpe Ratio)

	US Stocks	US IG Bonds	Global Asset Allocation	Key Challenge of Decade
1950s	1.45	-0.51	1.95	Post WWII Adjustment, Korean Conflict
1960s	0.30	-0.39	0.24	US Allies/Soviet Cold War escalation, Vietnam
1970s	-0.04	-0.06	0.17	OPEC embargo, accelerating inflation
1980s	0.51	0.32	0.78	Early Decade recessions, currency adjustments
1990s	0.99	0.45	0.66	Asian Crisis, US Tech bubble/bust
2000s	-0.23	0.44	0.07	Housing Bubble/bust
2010s	0.98	0.46	0.87	Post GFC adjustments, EU crisis, political divide
Avg	0.57	0.10	0.68	

Source: Citi Private Bank's Office of the Chief Investment Strategist, CPB Quantitative Research and Asset Allocation, Bloomberg as of July 1, 2019. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

What the valuation of US shares shows now, is that future returns will be somewhat below average; not close to the extremes of the equity bubble's bust, or the tremendous bargain that the Global Financial Crisis left behind (see figures 3 and 4). History drives this forecast, and this history includes 1-2 recessions per decade. It thus drives realistically conservative return assumptions. Recession in the future will not be a "surprise" to make this return estimate lower.

Figure 3: US Cyclically Adjusted Price to Earnings and 10-Year Annualized Total Return

Figure 4: Emerging Market Cyclically Adjusted Price to Earnings and 10-Year Annualized Total Return

Source: Haver as of June 28, 2019
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The record discount in valuation of shares outside the US - taken as a whole - points to slightly higher than average long-term returns measured in US dollars (see figures 5-9).

Figure 5: Asset Class Strategic Return Estimates and Historical Returns

Asset Class	Strategic Return Estimate	Historical Returns (last 10 years)
Global Developed Market Equity	5.3%	11.2%
Global Emerging Market Equity	11.4%	8.3%
Global Developed Investment Grade Fixed Income	3.4%	4.8%
Global High Yield Fixed Income	4.8%	11.7%
Global Emerging Fixed Income	5.6%	9.0%
Cash	3.2%	0.3%
Hedge Funds	7.4%	4.7%
Private Equity	11.6%	20.0%
Real Estate	10.6%	10.8%
Commodities	2.2%	1.1%

Our strategic asset allocation framework avoids extrapolating forward past returns indefinitely, as most others do.

Source: Citi Private Bank Quantitative Research and Asset Allocation Team. SREs for 2019 and historical returns over last 10 years are based on data as of Oct 31, 2018. Returns estimated in US Dollars; All estimates are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Strategic Return Estimates are no guarantee of future performance. Past performance is no guarantee of future returns. AVS provides SREs and asset allocations profiles for multiple currency and geographic preferences. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Figure 6: US Share of Global Equity Market Capitalization vs Trade Weighted Dollar

Figure 7: World Ex-US Premium/Discount to US CAPE

Source: Factset and Haver as of June 28, 2019
Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

As described in our Mid-Year Outlook, our unique Strategic Asset Allocation framework (our Adaptive Valuation Strategies methodology, or "AVS") uses valuation to help avoid mistakes that can be made by simply extrapolating the past forward, as so many do. This helps to avoid allocating the highest share of a portfolio to the most overvalued asset, which can come from unsustainably strong performance for particular asset classes.

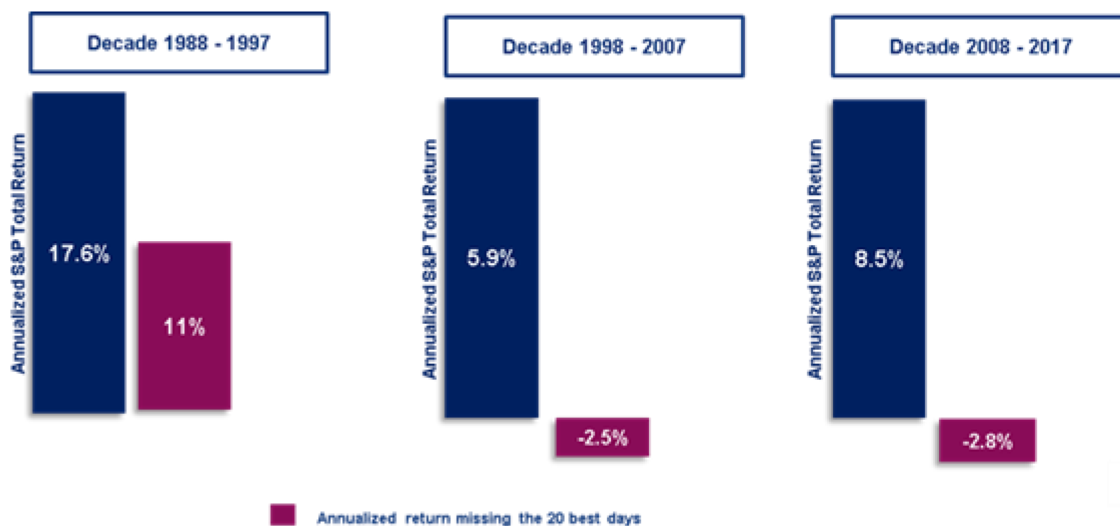
Global equity portfolios are typically less volatile than single-region portfolios. When will this really show a benefit for those who invest more broadly than the US market? As figure 6 suggests, it seems likely to occur when currencies strengthen against the USD. In the present setting, this could be when the Federal Reserve both eases monetary policy, and sustains the easing. Though the Fed recently cut rates, strong questions remain over whether this will be followed up with sustained easing in the near term. The performance of the US and world economy cannot be ignored to focus solely on the Fed's influence.

With Discipline, Stay the Course

Will the US economic expansion last indefinitely? Certainly not. Will the next recession mirror the crisis of 2008-2009? With roughly equal certainty, it will probably not. But investors who liquidated their entire portfolios in December in the belief that losses could be avoided likely instead did their returns long-term harm.

As figure 8 shows, simply missing the best two days of equity market performance per year on average during the past two decades would have driven returns in the US market from +7.2% down to -2.7%. Is it easy to identify these best and worst days? If you look, they are clustered very close together, compounding the difficulty (see figure 9).

Figure 8: S&P 500 Total Returns, and Returns Missing the 20 Best Days



Source: Facset as of June 28, 2019

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Moreover, the hard core market timer risks missing dividend payments, which constitute more than half of total returns when reinvested over 20- or 30-year holding periods in the case of US shares (see figure 10).

Figure 9: S&P 500 Daily Percent Change

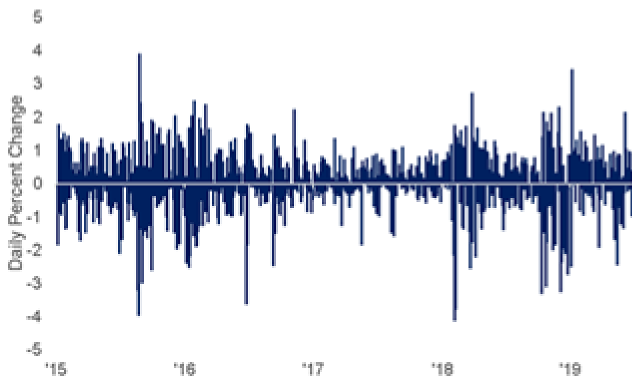


Figure 10: S&P 500 Price and Total Return

Source: Factset and Haver as of June 28, 2019
Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

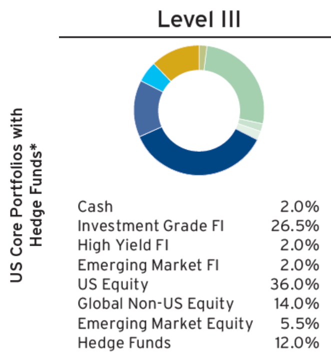
Conclusion

We've chosen to elevate risk management above enhancing returns at the moment. As noted in Quadrant, we believe that the current market setting lends best to hedging tools, but otherwise with tactical asset allocation. This is done at the margin, and we do not believe truly extreme negative market returns are likely. The goal is to manage risk as we have reduced confidence and visibility with political drivers rising in importance in the near-term. While we don't rely on hope, we can allow ourselves to hope that this represents an abundance of caution. We believe that maintaining a risk-focused portfolio management process in good times and bad helps to improve the odds that long-term pools of capital will be able to help nonprofits achieve their mission goals.

Appendix I – Level III Multi-Asset Class Solutions US Returns

Growth and Income Portfolio Level III seeks a balance of income and moderate capital appreciation and has a 4-6 year investment horizon

TRAILING PERFORMANCE US CORE PORTFOLIOS WITH HEDGE FUNDS AS OF JUNE 30, 2019



Annualized Trailing Returns

(Gross of Fees)	10 Year
Level III Portfolios	7.58%

*Investment Grade Fixed Income can be implemented via taxable or tax-exempt securities; allocations may vary.
Allocation percentages are indicative of strategic benchmark weights and may vary over time. Percentages shown may be slightly different from the sum of the totals shown due to rounding.

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Bond credit quality ratings		**Rating agencies**	
Credit risk	**Moody's[1]**	**Standard and Poor's[2]**	**Fitch Ratings[2]**
Investment Grade			
Highest quality	Aaa	AAA	AAA
High quality (very strong)	Aa	AA	AA
Upper medium grade (Strong)	A	A	A
Medium grade	Baa	BBB	BBB
Not Investment Grade			
Lower medium grade (somewhat speculative)	Ba	BB	BB
Low grade (speculative)	B	B	B
Poor quality (may default)	Caa	CCC	CCC
Most speculative	Ca	CC	CC
No interest being paid or bankruptcy petition filed	C	D	C
In default	C	D	D

1 The ratings from Aa to Ca by Moody's may be modified by the addition of a 1, 2, or 3 to show relative standing within the category.
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