THE ALTERNATIVE ROUTE: A SMOOTHER RIDE FOR DEFINED CONTRIBUTION PLANS

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Introduction

In an October 2008 issue of *PIMCO DC Dialogue* titled, "Smooth Ride Ahead", NEPC was interviewed about the evolving investment structure of defined contribution (DC) plans and the use of alternative investments. Then, as now, adding alternatives raises questions with fiduciaries about what they are, where they belong on a fund menu, and how to implement them.

The intent of this paper is to advance the dialogue, and reintroduce alternatives. We believe alternatives are an essential part of a diversified portfolio, and as we look ahead at subdued returns for traditional stock and bond investments, we believe that now more than ever, alternative asset classes and strategies are deserving of a place in DC plans.

We have organized the paper to address the following:

- Build a foundational understanding of alternatives, i.e. what constitutes an alternative investment in the context of a defined contribution plan
- Provide risk and return expectations for DC core and alternative investments
- Address the usage and prevalence of alternative investments within DC plans

What constitutes a DC alternative?

Today, in DC plans, alternatives refer to less traditional asset classes. In this paper when we mention DC alternatives, we are referring to investment options that are not typically offered in a core investment menu for participants.

These investment options broadly fall into two types of alternatives: "asset classes", e.g. commodities, real estate and REITs, Treasury inflation protected securities (TIPS), private equity and hedge funds; and "strategies", e.g. products run by skilled asset managers such as global asset allocation, risk parity, absolute return, long/short equity, low volatility, etc. By definition, strategies are all actively-managed and cannot be accessed through index funds.

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At this point in the DC evolution there's still a bit of trial and error as plan fiduciaries consider whether new asset classes and strategies are additive to the core menu. Conventional wisdom holds that it is difficult to help participants understand these investments, particularly if they don't have a fundamental understanding of the behavior of stocks and bonds to begin with. There is very little data to refute this belief, however, in the cases where sponsors have decided to introduce a DC alternative to a core menu, it has typically been a very thoughtful addition. Take for example a TIPS fund, as over the past five years, this has been the most prevalent DC alternative added to core menus. Implementation has varied, with some fiduciaries adding index or quasi-index TIPS funds, while others have added multi-asset or real return funds that combine TIPS with REITs, natural resource stocks, commodities and/or other investments. The approach has been thoughtful and considerate, yet despite the best efforts of fiduciaries, total participant assets invested in a TIPS fund has failed to top 2.5% of plan assets[1].

Risk and return expectations for DC core and alternative investments

If plan sponsors and participants are to move beyond traditional stocks and bonds, the question remains, why? In 2008 we said it was to improve return potential and smooth the ride for participants. That core belief hasn't changed. Alternatives are essential to institutional portfolios, and within a participant's portfolio they can improve expected outcomes to and through retirement.

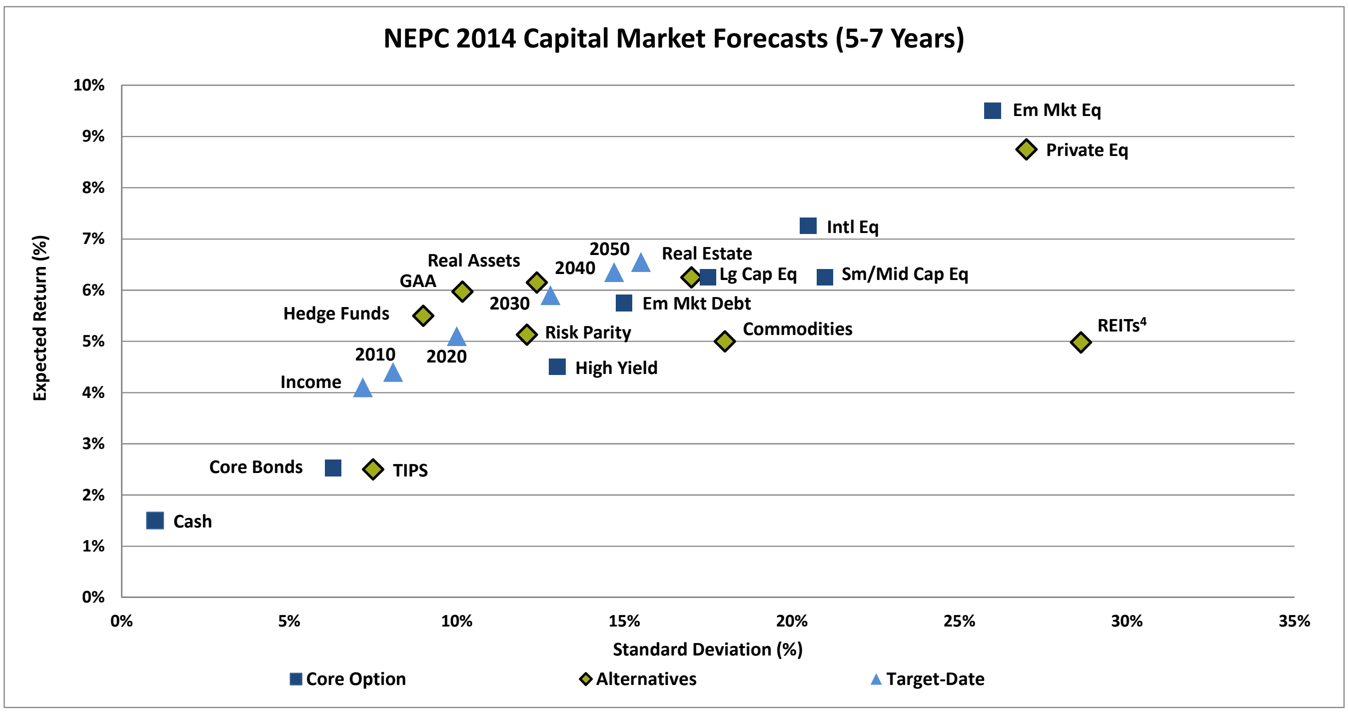
Exhibit 1 below displays our forward-looking Capital Market assumptions for 5-7 year annualized returns for both core menu and DC alternative asset classes and asset management strategies.

At first glance, it is easy to dismiss any asset class or strategy that lies to the right of the target-date portfolios as being sub-optimal. However, it is essential to note that the target-date portfolios exhibit the risk and return characteristics they do as a result of the efficient combination of a variety of the other asset classes and strategies listed. Today, many DC investor's portfolios do not make efficient use of these asset classes, thus inhibiting them from reaching their most efficient asset allocation.

Take for instance the average target-date fund in Morningstar's US Open-Ended 2046-2050 universe[2], which according to NEPC's 2014 assumptions has an expected return of 6.6%, expected risk of 15.5%, and a Sharpe ratio of 0.3. When you add an alternatives allocation[3] to this portfolio, the overall expected portfolio rises to 6.8% and the risk actually drops to 14.9%, with an expected Sharpe ratio of 0.4, indicating more efficient returns.

While 20 basis points of added return may not seem like much, consider a 25 year old employee with $10,000 in assets today. In 40 years, a 20 basis point difference in return results in a 8% larger asset balance when they retire at age 65. This figure also does not give consideration to the expected reduction in portfolio risk from adding the alternatives allocation, which has the potential to increase the ending wealth differential by even more.

Exhibit 1



[1] 2012 & 2013 NEPC Fee Survey Data
[2] Asset Allocation data sourced from Morningstar Direct using average allocations for the US Open-Ended Target-Date 2046-2050 category. Assumed US equity allocation split between large cap and small cap equity is 60% and 40% respectively. "Other" allocation was modeled as Global Asset Allocation.
[3] Assumes 5% allocation to each of the following: Private Real Estate, Hedge Funds and Private Equity.
[4] NEPC does not publish risk/return assumptions for REITs as an asset class. Shown are historical annualized seven year return and standard deviation figures of the Wilshire US REIT Total Return Index as of December 31, 2013.
Source: Morningstar Direct

Usage and prevalence of alternative investments within defined contribution plans

Perhaps no question is more commonly asked of us than what is the prevalence of alternatives in plans today? As shown in Exhibit 2 below, DC alternatives, aside from TIPS funds, still have yet to make it into DC investment menus in any significant manner.

GAINING A BETTER UNDERSTANDING OF THE CHARACTERISTICS OF ALTERNATIVES IS A CRUCIAL STEP IN PLAN FIDUCIARIES BEING ABLE TO ANALYZE WHETHER DC ALTERNATIVES FIT WITH THEIR FUND

Exhibit 2 below takes this process a step further and highlights the practicality of implementing each asset class by showing the prevalence of each asset class in the institutional marketplace and their liquidity and valuation traits.

Terms and terminology, definitions of selected DC alternatives that are trending

Gaining a better understanding of the characteristics of alternatives is a crucial step in plan sponsors being able to effectively analyze whether DC alternatives fit into their fund menus. Sponsors can't determine which strategy to use or how to use it without first having a fundamental understanding of what each asset class and strategy is and how they behave. The following descriptions are designed to provide a quick overview of each of the asset classes and strategies we deem as

Exhibit 2

	Core Options	Non-Core Options					
Asset Class	**Usage**	**Usage**	**Prevalence of Product**	**Valuation/Liquidity**	**AUM (Billions) (Liquid Strategies)**	**Sharpe Ratio**	**Primary/Most Widely Used Benchmark**
Hedge Funds	Low	Low	High	Daily w/ limits	$174	0.44	HFRI Composite Hedge Fund Index *or* Credit Suisse Hedge Fund Index
REITs[4]	Medium	High	High	Daily	$152	0.35	Wilshire US REIT Index *or* FTSE EPRA/NAREIT Global Real Estate Index
Real Estate	Low	Medium	Low	Daily w/ limits	$6.5	0.28	NCREIF Fund Index - Open End Diversified Core Equity *or* NCREIF Property Index
Private Equity	Low	Low	Low	Daily w/ limits	$0	0.27	Thomson Reuters Global Index
Commodities	Low	Medium	Medium	Daily	$172	0.19	S&P Goldman Sachs Commodity Index *or* Dow Jones UBS Commodity Index
TIPS	Medium	High	High	Daily	$188	0.13	Barclays US TIPS Index
Strategies							
Global Asset Allocation[5]	Low	Low	Medium	Daily	$348[6]	0.40	60% MSCI World/40% Citi World Government Bond Index
Real Assets	Medium	Medium	Medium	Daily	$213	0.38	CPI
Risk Parity[5]	Low	Low	Low	Daily	$348[6]	0.30	60% MSCI World/40% Citi World Government Bond Index

[4] NEPC does not publish risk/return assumptions for REITs as an asset class. Shown are historical figures of the Wilshire US REIT Total Return Index as of December 31, 2013.

[5] Figures are comprised of a blend of three of NEPC's preferred managers.

[6] Global Asset Allocation and Risk Parity asset values constitute a combination of certain screened investments from Morningstar's Global and Global Flexible Allocation institutional category universes.

Source: Morningstar Direct & NEPC's 5-7 Year Assumptions 'alternatives' in order to establish what we consider is a baseline definition of DC alternatives.

DC Alternatives: Asset Classes

- TIPS: Treasury Inflation Protected Securities are debt securities issued by the US Treasury with principal payments that are adjusted annually according to the previous year's level of inflation as measured by the All Urban Consumer Price Index (CPI-U). The coupon rate of the security remains constant over its life, while the principal that the coupon payments are based on adjusts for inflation. These bonds are very low-risk (but not low volatility) as they are backed by the US Government. As a result, their yield and volatility is similar to US Treasury debt securities.

- Commodities: These are physical resources, such as gold, oil, gas and corn, or, derivatives based on those resources. They are interchangeable regardless of the geographic or financial market location. Generally, they have a low or negative correlation to stocks and bonds. They carry a risk and return profile broadly falling between stocks and bonds.

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- Hedge funds: Typically constructed as limited liability partnerships, hedge funds are investment strategies that rely on a highly skilled manager. Investment styles can vary significantly from manager to manager. Examples of hedge fund strategies include equity long/short, market neutral, event-driven, fixed income arbitrage and merger arbitrage. Hedge funds typically employ the use of financial leverage to magnify return potential and/or mitigate portfolio risk. Volatility and return profiles for the different styles cover a broad range; most hedge fund styles exhibit a low correlation to stocks and bonds.

- Real estate: Direct real estate is broadly defined as private investments in office buildings, apartments, shopping centers and industrial buildings. These investments may be classified as "core", which generate returns primarily from rental income, or "value-add", where returns are expected to come from both income and capital appreciation, or "opportunistic", which focus on capital appreciation. Typically, DC-focused products will use a combination of the first two styles. Historically, real estate has exhibited a low correlation to stocks and bonds, and we are projecting a risk and return profile similar to domestic large cap stocks.

- REITs: Real Estate Investment Trusts are publicly traded companies that invest directly in either real estate or mortgages. They are a liquid means of investing in real estate. Most equity REITs specialize in one property type only, such as apartments, shopping centers, health care facilities, hotels, office space, timberland, warehouses, etc. Mortgage REITS invest primarily in mortgage bonds but trade like stocks. As a group, REITs usually have a higher degree of correlation to other public equity securities, with an expected level of volatility and return also similar to equities.

- Private equity: This category is broadly split between two main styles of investing, that is, venture capital (VC) and private equity (PE). VC focuses on providing startup capital and management expertise to businesses that are in the initial stages of development. PE typically focuses on investing in the non-publicly traded equity and debt of more developed companies. VC and PE tend to have a higher long-term risk and return profile than publicly traded stocks, underscoring the illiquidity premium stemming from the longer lock-up period for capital before cash flows are realized. PE and VC cover a wide range of styles, each with their unique risk and return characteristics.

DC Alternatives, Asset Management Strategies

- Real assets: This strategy uses a combination of inflation-sensitive asset classes such as commodities, TIPS, REITs and real estate, with the goal of preserving the purchasing power of assets. The specific asset classes and allocations vary among managers. Typically, real asset strategies are less volatile than equities and more volatile than bonds, with an expected return falling between the two.

- Global asset allocation (GAA): This strategy relies on manager skill to tactically rotate between asset classes and securities to take advantage of perceived temporary market mispricing. A broad range of assets classes may be used, through individual securities, indexes and/or derivatives, to gain market exposures as needed. GAA strategies display a moderate level of correlation to global equity and bonds with a risk and return profile that falls between the two.

- Risk parity: This strategy attempts to balance the contribution of different sources of capital market risk, such as equity, interest rate, inflation and credit, in investment portfolios. In doing so, it seeks to mitigate the effects of a disproportionately large amount of the overall portfolio risk coming from any one source. Strategies vary greatly, as does the amount of active tilting of risk exposures and the amount of leverage employed, which may be accomplished through the use of derivatives. From a risk and return perspective, risk parity strategies can have a long-term expected return similar to equities, with a lower level of volatility.

Conclusion

The investment structure of defined contribution plans will continue to evolve. Over the past several years we have helped plan sponsors and fiduciaries consider the inclusion of certain types of alternative investments into their programs, and many of them have done so, particularly within custom funds.

Including alternatives in an asset mix (whether it is done within custom funds, target date funds, or by a participant building their own diversified portfolio), can help reduce risk by incorporating uncorrelated return streams and permitting diversification away from equity-centric portfolios. Alternatives present a unique opportunity set and an ability to increase the efficiency of returns in an investment portfolio and help smooth the ride for participants to and through retirement.

NEPC, LLC is an employee owned, full service investment consulting firm. Founded in 1986, NEPC is one of the largest independent firms in the industry. We are headquartered in Boston, Massachusetts and have additional offices in Detroit, Michigan; Charlotte, North Carolina; Las Vegas, Nevada; Chicago, Illinois; Atlanta, Georgia; and San Francisco, California.

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