

PIMCO DC Dialogue

Smooth ride ahead.

October 2008



This issue's featured interview is with Ross A. Bremen, CFA, Partner, and Rob J. Fishman, CFA, Partner, NEPC

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In this PIMCO DC Dialogue, Ross Bremen and Rob Fishman talk with us about the evolving investment structure of defined contribution plans. They confirm the continued movement toward three investment tiers, including target-date strategies, core strategies, and a brokerage window. They then discuss what's new with core strategies and target-date asset allocations, with diversification beyond U.S. stocks and bonds at the heart of the discussion. They note that the addition of emerging market investments, Treasury inflation-protected securities (TIPS), commodities, real-estate investment trusts and other diversifiers is becoming mainstream. They also discuss the use of illiquid alternatives such as private equity, real estate and other strategies. In closing, they suggest that we can blend non-traditional and alternative assets into core and custom strategies in an effort to improve return potential and smooth the ride for participants.

DC Dialogue: Thank you for joining us for PIMCO DC Dialogue. How are defined contribution plan investment choices evolving?

NEPC: In general, a three-tier structure has become the optimal design, including target-date strategies, a simplified core lineup, and a brokerage window for choice. As the 'DB-ification' of DC plans continues, more plan sponsors also are looking for ways to take investment ideas from their DB plans and incorporate them into their DC offerings.

> Plan sponsors are considering the addition of TIPS and other real assets including commodities and direct investment in real estate. Sponsors also are considering less-constrained approaches that allow the manager to seek the best opportunities globally, such as global asset-allocation strategies and absolute-return strategies.

> Including these 'less traditional' strategies in an asset allocation mix can help reduce risk by incorporating additional uncorrelated asset classes and permitting diversification away from equity-centric portfolios. We bring a similar approach to non-DC clients, recommending 50-percent or below equity exposure based on a riskbudgeting analysis. The goal is to weight sources of risk more equally. In a typical pension plan with a 60-percent equity allocation, 90 percent of the risk comes from equities. The high-equity structure places a significant portfolio bet on the equity markets delivering strong returns. An optimal risk-return profile should help improve a participant's probability of hitting income-replacement goals, as well as reduce volatility, and mitigate longevity risk.

When sponsors consider which investments to offer participants does the presence of more DB-like strategies suggest that sponsors have shifted focus?

The world has changed quite a bit in the last several years. Sponsors have moved away from the desire to fill out style boxes and add a particular period's hot funds, or those that have shown great recent performance. As DC plans have become the primary retirement vehicle for more and more participants, everyone is focused on generating sufficient income replacement for retirees and on the tools that participants need to get to the appropriate destination.

With the Pension Protection Act of 2006 and the final qualified default investment alternative regulations, people are acknowledging that participants need help and that, in order to save properly for retirement, participants need to invest in vehicles that meet their specific needs. So that creates a greater interest in investments that more closely resemble defined benefit plans.

Let's think about the inclusion of real assets and Global Asset Allocation (GAA) in a DC context, for example. These investments are not hot, knock-the-cover-off-the-ball funds. They don't play that role.

"An optimal risk-return profile should help improve a participant's probability of hitting income-replacement goals, as well as reduce volatility, and mitigate longevity risk."

DCD:

NEPC:

As a participant ages, she or he has much lower tolerance for loss of principal and the impact of inflation. These less-traditional asset classes are able to smooth the ride, offer inflation protection, and – if we select the right managers – offer alpha potential as well. The asset-class and fund-selection exercise now moves well beyond simple performance comparisons. So, clearly, the world has changed.

Importantly, given the challenge of helping participants use investments appropriately, most of the less-traditional asset classes currently being considered by sponsors are actually more suitable for inclusion in diversified target-date strategies.

DCD: Within target-date strategies you see broader asset diversification, including inflation protection in particular, as well as broader mandates using less-correlated assets. Is there also a trend toward custom strategies?

NEPC: Yes. With larger plan sponsors – those with \$750 million or more in assets – there's definitely more interest in at least considering custom target-date strategies. "Less-traditional asset classes are able to smooth the ride, offer inflation protection, and offer alpha potential as well."





Estimated income-replacement rates for each glide path are calculated by multiplying assumed retirement savings (portfolio wealth at age 65) by the spending rate (5%) and then dividing by the final salary.

Source: NEPC

Figure 1

Hypothetical example for illustrative purposes only.

Reflects NEPC's 2008 Capital Market assumptions. 100% Equities reflects a static allocation to the S&P 500 Index. Simple 60/40 reflects a static 60% allocation to the S&P 500 Index and 40% allocation to the Lehman Aggregate Index. Diversified 60/40 reflects a static allocation to the diversified equity and bond portfolios we use within our Glide Path recommendations. NEPC Glide Path no alternatives starts at a 90% equity content and moves down immediately, reaching a 50% equity weight at age 65. NEPC Glide Path with Alternatives holds a static 75% equity/ 25% alternatives portfolio until age 49, then moves down, reaching a 40% equity weight at age 65. NEPC Diversified 60/40 and the Glide Path portfolios diversify the equity content to 46% large cap equity, 20% smid cap equity, 24% international equity, 5% international small cap and 5% emerging markets, and assume the bonds are invested 80% in investment grade bonds and 20% in high yield. No portfolios assume active management or fees.



If sponsors have taken the time to build a well-diversified core lineup of best-in-class investment options with low fees, it makes perfect sense that they'd want to construct target-date strategies with the same philosophy. The core options serve as the initial building blocks that then can be complemented with less-traditional asset classes. Many record keepers give sponsors the ability to blend asset classes into custom target-date strategies without offering the asset classes as standalone offerings.

DCD: How many core investment options does this new world offer?

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Clients should offer at least five core choices, including a short-term offering, core-plus fixed income with high-yield and foreign bonds, a large-cap core equity index, small-cap equity, and an international choice that gives the manager the ability to invest opportunistically in emerging-market equity. Sponsors who want to give participants more choice and the ability to style-tilt portfolios might then consider offering large-cap growth and large-cap value equity sleeves.

At this point in DC evolution there's a bit of trial and error as sponsors add new asset classes to the core. Some offer a GAA strategy, high yield, emerging markets, REITs or TIPS as core options. Others may blend these strategies into their target-date strategies, which we prefer. After the number of investment options increased for so many years through the '90s and into this decade, the bloated lineups and number of options now have flattened out. Were it not for the fact that we have so many plans offering target-date strategies in five-year increments, we'd see no increase overall in the number of options across plans.

A balanced fund is missing from your list. Should companies with target-date strategies remove the balanced fund or target-risk set of funds from their core lineups?

Yes. It's challenging to communicate the differences between balanced, target-risk and target-date offerings. The target-date structure's advantage is that its risk profile changes over time. Typically, sponsors move traditional balanced-fund assets to the target-date strategies so participants have the advantage of the managed asset allocation and aren't confused with other multi-asset-class options.

If you use a balanced fund, we prefer a dynamic asset-allocation vehicle like GAA. However, a big challenge with adding a strategy such as GAA, for example, is helping participants understand what it is and how to use it properly.

DCD: If a sponsor adds a GAA, TIPS, or other less-traditional asset class, how does the sponsor bring the strategy into its lineup and communicate the option?

> Frequently they communicate a GAA strategy as a world-allocation or global-balanced option. Generally the strategy gives you something on the risk spectrum between stocks and bonds, and much greater

"After the number of investment options increased for so many years through the '90s and into this decade, the bloated lineups and number of options now have flattened out." diversification than equity alone. They explain TIPS to participants as a vehicle that helps manage inflation risk, especially as an individual nears retirement. On a risk-return schematic TIPS come before core bonds because TIPS have inflationary risk management. GAA is in the middle of the spectrum.

Whenever you introduce anything non-traditional, it's a challenge to communicate. It's difficult to help people understand these investment vehicles, particularly when individuals don't even have a fundamental understanding of the behavior of stocks and bonds.

When sponsors have rolled them out as part of the core lineup, it's been a very thoughtful addition driven by finance or treasury personnel. The sponsor typically offers these products based on experience with the DB plan and, thus, does it for the correct reasons. These certainly are not hot funds or knock-the-cover-off-the-ball performers.

In most cases, the actual communication of these options is handled in a way that's very similar to other options. The communication materials provide a general description of the product, risk characteristics, and fund characteristics.

The challenges associated with communicating less-traditional or 'alternative' investments and the difficulty of helping participants to use them properly indicates that these products are more suitable within target-date funds. Sponsors can use less-traditional options appropriately, in the right proportions, as part of a diversified portfolio and component of target-date strategies. Diversified, professionally managed target-date funds can help protect participants from themselves and, with that in mind, less-traditional products can fit well within target-date strategies.

DCD: How are sponsors using less-traditional, alternative investments within DC plans?

NEPC: First, let's define the different product types, and then discuss when and how it's appropriate to use them. We'll also look at how these types fit within the framework as potential standalone options. If we consider alternatives in the non-DC sense – say, within a DB plan – we automatically think hedge funds and private equity. The marketplace tends to associate alternatives with high fees, low liquidity, and low transparency.

Today, in DC plans, alternatives refer to less-traditional core offerings. So we could be referring to emerging-market equity, emergingmarket debt, commodities, TIPS, GAA, and real estate. These typically are products that are valued daily, offer daily liquidity, and diversify broadly across multiple strategies. In order to identify the roles different types of products play, when we consider alternatives in the DC sense, we often break the category down into two camps: equity alternatives and bond alternatives. "Diversified, professionally managed targetdate funds can help protect participants from themselves and, with that in mind, less traditional products can fit well within targetdate strategies."

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Equity alternatives include GAA strategies and unconstrained equity strategies. Bond alternatives include real-return assets such as TIPS and real estate. We should note, however, that while products may fall generally into these broad categories, products can vary greatly and there are many exceptions to the general themes. While GAA typically might fit in the equity-alternative category, for example, a GAA strategy might look to outperform inflation or a cash benchmark rather than a global equity/fixed benchmark.

Alternative strategies can help improve the risk-versus-return profile. Equity alternatives include many strategies designed to provide equity-like returns with more bond-like risk levels, which is attractive



Reflects NEPC's 2008 Capital Market assumptions. The left-hand side charts show the impact on volatility (top) or return (bottom) when 10% allocations of equity alternatives are combined with the S&P 500 over time. (from left to right it starts with 0% equity alternatives and 100% S&P 500 ending with 100% equities alternatives and 0% S&P 500). The right-hand side charts show the impact on volatility (top) or return (bottom) when 10% allocations of bond alternatives are combined with the Lehman Brothers Aggregate Bond Index over time. (from left to right it starts with 0% bond alternatives and 100% Lehman Brothers Aggregate Bond Index ending with 100% bond alternatives and 0% Lehman Brothers Aggregate Bond Index). No portfolios assume active management or fees.

for a DC plan. Investing in these alternatives gives us a tool to help reduce the traditional equity exposure and improve diversification for participants without sacrificing return potential. We can achieve this particularly well in target-date strategies. But we can't simply instruct DC participants to do it themselves.

Today, the number of alternative products available in the DC world isn't limitless and many DC alternative offerings are expensive. But we also see more competitively priced strategies. While we're willing to pay for liquidity, there's a limit to how high the fees can go before the cost outweighs the benefit.

DCD: As we consider the typical DC investment lineup, what type of non-traditional investment strategy do we add first?

NEPC: In general, we prefer to see TIPS, high yield, emerging markets and REITs included as part of a core mandate in which the manager can invest opportunistically, rather than offering these asset classes as standalone core investments.

If we ask whether it makes more sense to offer, say, TIPS before GAA as a standalone option or GAA before TIPS, we're more comfortable introducing TIPS first. TIPS are becoming more widely known, and they serve a very specific purpose as an inflation hedge. Participants don't understand GAA easily. Many managers can have large tactical swings from equity to fixed, and vice versa. This is a potentially challenging situation for plan participants unaware that it can happen.

Understanding the hurdles that exist with these different strategies helps put these strategies in the proper context when discussing the core. Sponsors continue to use GAA most effectively as a part of target-date strategies.

DCD: How might a plan sponsor diversify each of the core options?

NEPC: Though this fact isn't known widely, managers already are doing a number of things within traditional core offerings. One wellknown large-cap value manager, for example invests in natural-gas partnerships. Portable-alpha constructs also are available in a stocks-plus format.

> Interestingly, some things happening in the stable-value world help illustrate the types of things that sponsors can do more broadly. Historically, plan sponsors have been willing to take different degrees of risk with a supposedly riskless option. Many sponsors have been willing to assume additional duration risk, say, moving from a short to an intermediate fixed-income fund within the stable-value structure. Today, some stable-value products introduce illiquid securities, which in theory is no different than offering illiquid securities as part of other core options or a diversified target-date strategy.

"TIPS are becoming more widely known, and they serve a very specific purpose as an inflation hedge."

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At a high level, a stable-value fund manager can include an illiquid private mortgage portfolio that consists of securities priced via proxy or securities that maintain stale prices – prices that aren't marked to market daily. So as long as no one needs to buy or sell these securities - there's a sufficiently large liquidity buffer - these securities can be managed because the securities aren't needed to meet daily liquidity needs. This isn't a commentary on the investments' creditworthiness, which is a different issue.

The pricing mechanism works particularly well with stable value because the insurance wrapper helps mitigate the swings and pricing of the liquid securities, and because the crediting rate helps smooth performance over the fund's duration. So even if someone misprices the illiquid securities, it's mitigated because - whether it's high or low - the insurance wrapper moderates out- and under-performance. Managers typically keep illiquid exposure within the stable-value fund at 15 percent or less. We don't know whether insurance companies will continue to offer stable-value wrappers on illiquid exposure, given the current environment.

Are options becoming more prevalent which blend high-yield and foreign bonds into core fixed income?

Yes. Less-constrained global bond strategies are becoming more commonplace. Fewer constraints make sense because a professional investment manager rather than the participant handles the decisionmaking process. Broader mandates let the manager determine the right time to include investment-grade or below-investment-grade credits. A manager also can assess the attractiveness of foreign bonds and/or emerging-market debt. Some managers use TIPS when they see compelling break-even rates - when the inflation rate puts TIPS on a level with nominal Treasury yields.

We don't want to force the investment manager to hedge to the dollar because foreign-bond exposure also is partially a currency play. We want to leave opportunities open for the manager.

The bond fund is typically our second most-conservative option in the core lineup. So while we want to give our core-plus managers flexibility, we aren't looking for managers necessarily to load up their below-investment-grade exposure on triple-C and non-rated securities. We want bond managers to act opportunistically, but within the context of improving the fund's risk-versus-return profile and without taking undue risks.

DCD: How might managers diversify large-cap, small-cap and international-investments more broadly?

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NEPC: Each manager in the core lineup shouldn't be given complete flexibility necessarily. The large- and small-cap managers should remain true to their mandates and styles. While many of our non-DC

"Fewer constraints make sense because a professional investment manager rather than the participant handles the decision-making process."

clients implement portable alpha in the large-cap space, the opportunity set is limited in DC, coupled with the challenge of communicating such an approach to participants.

It makes sense to use a similar approach for international equity strategies as with core fixed income. We suggest using a diversified international equity strategy which lets the investment manager make the allocation decisions. This structure lets us add more-volatile asset classes such as emerging-market equity and international small cap, which are great diversifiers as long as they're used appropriately. But we should let the manager make the call on whether to be in, out or overweight in an asset class, as well as when to cut back exposure. Behavioral studies and industry research show that participants aren't adept at making these decisions.

DCD: Should exposure to non-traditional or alternative investments occur only within the blended strategies, either global bond or equity, or in the target-date strategies? Can a core option featuring non-traditional strategies stand alone?

NEPC: Limit the amount of danger into which participants can get themselves. With core investments that means leaving it to the manager who runs a diversified portfolio to take advantage of opportunities that represent a small- to medium-sized piece of the portfolio.

> With target-date strategies, the less-traditional options are blended into well-diversified portfolios; we believe it's important to include both diversifiers and return enhancers in their target strategies. Remember, we're trying to build something that makes sense theoretically and practically and yet is palatable for sponsors. So we're adding a couple of sleeves of alternatives as part of target-date strategies – say, up to 10 percent or 15 percent for equity alternatives. Once we get close to the retirement years, we might boost it to 30 percent in bond alternatives, or more if we include TIPS as part of the bucket.

> For sponsors committed to offering alternative strategies as standalone offerings, we could create a diversified portfolio of less-liquid or illiquid strategies using two, three, or even four managers, while trying to get equity-like returns with lower volatility than a traditional equity strategy. The optimal GAA portfolio is a fund-of-fund structure with allocations to global tactical asset allocation, risk parity and absolute return. This structure should provide both equity-like returns as well as broad diversification with the potential for greater inflation protection.

> We can build fund-of-fund structures for GAA, direct real estate, or long-short equity, for example. Depending on illiquid security exposure, we may need a heavy allocation to cash to permit daily liquidity for participant trading and withdrawals. Some non-traditional assets such as REITs, commodities and TIPS offer liquidity and we can group them for diversification and inflation benefits.

"The optimal GAA portfolio is a fundof-fund structure with allocations to global tactical asset allocation, risk parity and absolute return."

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DCD: If we look at a Pensions & Investments study, 5.5 percent of DB plans are in alternatives, which they define as hedge funds, venture capital, portable alpha, buyouts, distressed debt, other private equity/real estate, and infrastructure. Will custom strategies for DC funds or DC plans approach that level in alternative investments?

NEPC: Whether we reach that level may depend on the valuation frequency of the plans. Currently, nearly all DC plans are valued daily. They don't have to be valued this often but it's the norm. If a plan sponsor shifts its valuation from daily to monthly, it may open the door to more alternatives, although it'd be a huge change for a sponsor to make. While participants generally have no need to day-trade their portfolios, participants might view it as a major take-away. Though preferable from an investment standpoint, it's highly unlikely that sponsors will do it.

> Alternatives in the DB sense are illiquid, so they raise a lot of operational, disclosure, legal, and communication issues for DC plans. Auditors also ask many more questions about these types of strategies. So it increases the disclosure requirements as well as the time that plan sponsors must spend addressing an auditor's questions.

> There are operations questions as well. How do you price illiquid assets? Do you use a proxy? Do you use a stale price? While the operational hurdles may be manageable, it depends on strategy type. It's not always a straightforward answer. In some cases a stale price may need to be carried for nearly a quarter. However, if plans move from daily valuation to monthly or quarterly, opportunities open up and many of the issues disappear.

Private equity makes sense from a modern-portfolio-theory perspective. However, illiquidity and the impact of the J-curve pose issues. With the J-curve, participants who invest from inception in the custom strategy bear higher costs, while those who invest five or six years after the initial commitment period may reap the potential returns.

As companies opt to add certain types of alternatives, how do they select and monitor the strategies?

strategies the manager runs. Have they delivered alpha consistently? Considering what's out there, most DC plan sponsors would say that

When monitoring, select a benchmark or two – either a beta-based, global equity-fixed, CPI-plus or cash-plus-type benchmark. Also look at peer-group comparisons versus other equity and bond alternatives.

It's somewhat analogous to lifecycle products in that many are new. When selecting managers, look at the experience of the management team, as well as the structure and track record of similar types of

the opportunities are somewhat limited.

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"If a plan sponsor shifts its valuation from daily to monthly, it may open the door to more alternatives, although it'd be a huge change for a sponsor to make."

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DCD: How do you consider the risk?

- NEPC: Typically we look at tracking error relative to the benchmark and the targeted information ratio or Sharpe ratio. We also want to understand composition and how it fits into overall plan structure, specifically within the context of custom target-date strategies.
- DCD: Can a DC plan invest in the DB plan? Since a DB plan has a broad range of assets and a certain level of alternatives, is it possible to unitize the entire DB structure and include it as an option?
- NEPC: Yes, and we've seen many variations on this theme. It's fine if the pension holds no illiquid securities or alternative investments. The recordkeeping isn't necessarily as simple as for, say, a mutual fund, but it's certainly less complex than keeping records for a pension structure that includes illiquid securities. Again, less-frequent plan valuation removes this concern largely. Some plan sponsors offer their DB plans, which allocate up to 20 percent in illiquid securities in a daily valued environment.

DCD: What will happen with DC plans over the next five or 10 years?

NEPC: Target-date strategies will likely take the majority of DC plan assets. These strategies are plans' top choice as qualified plan default. Providing a broad investment lineup and giving participants the option to manage their own money hasn't been as successful as originally expected. The industry's driving force is going to be DC-plan automation with plan sponsors taking much more control.

> That means keeping simplified, yet globally diversified, core lineups and custom strategies. We'll focus on target-date asset allocation and try to bring many DB or alternative types of approaches into these strategies. The diversification will aim both to increase the probability of meeting target retirement-income-replacement ratios, as well as to smooth the ride so that participants are less prone to make bad decisions at the wrong time.

We'll also see annuities evolve, with more competitively priced offerings. Helping participants better manage their asset allocations and retirement incomes are entirely different challenges.

In the alternative space we'll see companies introduce more products, including those that operate in a daily valued and liquidity space. If we can construct target-date strategies that perform well in different market cycles, have favorable risk-reward qualities, generate sufficient income replacement at the point of retirement, and provide a smooth post-retirement ride, that's ideal considering where DC plans have been historically.

DCD: This is very helpful. Thank you both.

NEPC: Thanks. It's been our pleasure.

"If we can construct target-date strategies that perform well in different market cycles, have favorable risk-reward qualities, generate sufficient income replacement at the point of retirement, and provide a smooth post-retirement ride, that's ideal."

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If you have questions about PIMCO DC Dialogue or a topic you'd like to discuss, please contact your PIMCO representative or email us at **pimcodcpractice@pimco.com**. We're interested in your ideas and feedback!



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