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Unlocked Potential: Enhancing DC Outcomes With Private Equity

The private equity asset class has long been recognized for its appealing risk/return characteristics. However, inclusion in defined contribution plans has often been limited by structural considerations, including regulation, liquidity and other factors. As product innovations reduce such barriers, however, we believe it's time for DC plan sponsors to take a fresh look at the asset class. In this white paper, we present a hypothetical study to illustrate the potential impact of including private equity in a multi-asset solution, both on asset accumulation and income generation at retirement. In this case we used a target date fund, but the outcome is relevant to other retirement multi-asset solutions such as target risk funds and managed accounts.

Defined contribution (DC) plan sponsors have over the years looked for ways to increase participation, enhance investment choices and help participants reach better retirement outcomes. However, one area that has at times proved a struggle is introducing investments that can meaningfully enhance diversification beyond traditional equities, fixed income and cash. Private equity, which has historically provided an attractive risk/reward relationship in the context of defined benefit plans, has been an enticing but elusive category when it comes to the DC world, where inclusion has been limited by structural impediments of illiquidity, limited transparency, regulation and fees. However, with structural improvements on all these fronts, we believe that reluctance on the part of plan fiduciaries should gradually give way to greater openness to considering the addition of private equity, particularly when it comes to its use within target date funds. That said, the hurdle of inclusion sometimes remains high given regulatory uncertainty and the intellectual commitment required to gain confidence in an asset class with meaningfully distinct investment characteristics.

That is where this short paper comes in. Leaving aside the above practical considerations, we believe it is crucial for DC plan sponsors to recognize that evaluating the suitability of private equity for DC plans is indeed “worth the effort.” To that purpose, we provide an analysis that considers the hypothetical impact of moderate private equity allocations to target date fund (TDF) portfolio outcomes, and then to income streams potentially provided to “typical” retired participants through annuity payouts. Our return assumptions are based on forward-looking estimates of index results, while fees are roughly in line with industry averages. The net result is a meaningful improvement of potential retirement outcomes for participants, as described on the following pages.

Key Takeaways¹

- We modeled two hypothetical TDF portfolios with a 40-year glide path.
- One portfolio included only traditional equities, while the other substituted a sleeve of private equity within the traditional equity allocation.
- The higher return profile and lower volatility of private equity investments improved not only mean return, but also, in a Monte Carlo simulation, the range of hypothetical portfolio returns.
- These potential advantages more than overcame the increased fees associated with the addition of private equities.
- The resulting higher level of wealth accumulation allowed for the purchase of a larger annuity stream, increasing potential retirement income.

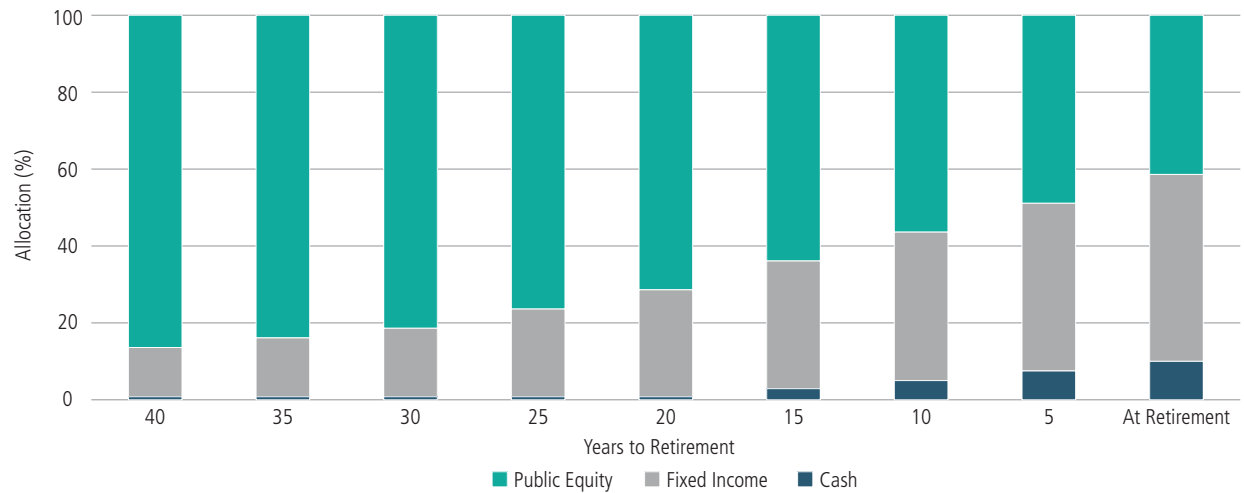
Portfolio Construction

In our study, we created a glide path of allocation, which gradually shifts growth assets to fixed income and cash as the retirement date approaches. We considered two hypothetical model portfolios, one with an allocation to traditional equities and the other where a portion of that equity allocation (10% at the outset, gradually declining to 6.8% at retirement) is devoted to private equity. This is roughly in line with industry standards and the assumptions applied in CEM Benchmarking’s research paper, “Has the Lack of Asset Diversification in DC Retirement Plans Been a Costly Missed Opportunity?”, published in June 2023 by the Georgetown University School of Public Policy, Center for Retirement Initiatives. We assumed that, at retirement, the fund could remain in relatively illiquid private equity at retirement because, typically, assets remain invested rather than fully distributed at that time (for example, with the retiree allocating to a TDF with a longer time horizon). In the cases of both public and private equity, we employed forward-looking return assumptions based on benchmark indices to calculate returns for actively managed portfolios.

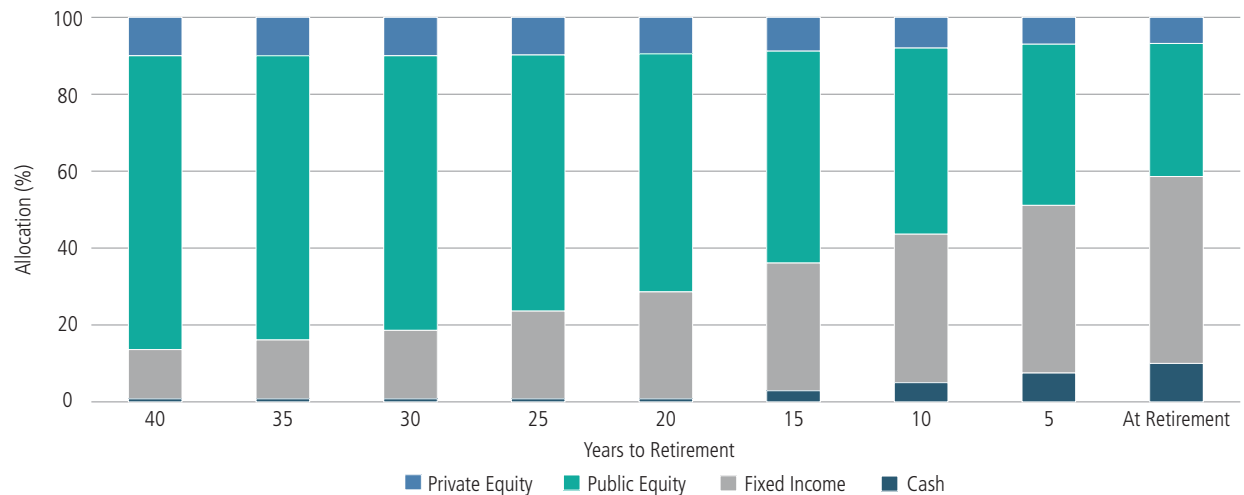
¹ Assumptions are for modeling purposes only and alternative assumptions may result in significant or complete loss of capital. There can be no assurance that comparable results can be achieved, that targeted diversification or asset allocations will be met, or that we will be able to or will ultimately elect to implement the assumptive approach described in the model.

GLIDE PATHS FOR HYPOTHETICAL TARGET DATE FUND PORTFOLIOS

No Private Equity¹



With Private Equity²



¹ Constructed based on 2011 – 2020 average TDF allocation in CEM Benchmarking's research paper, "Has the Lack of Asset Diversification in DC Retirement Plans Been a Costly Missed Opportunity?", published in June 2023 by the Georgetown University School of Public Policy, Center for Retirement Initiatives.

² Private equity replaces actively managed public equity proportionally across sub-asset classes.

Source: Neuberger Berman. For illustrative purposes only.

Fees and Their Impact

Management fees are a central issue for most DC plan sponsors, at times representing a stumbling block to the inclusion of private equity strategies in plan lineups. As part of our study, we wanted to show the potential benefits of private equity in terms of return and diversification relative to their higher costs. Our analysis considered the impact of management fees on asset class returns and portfolio accumulation, with the following assumptions:

- Cash and short-term, 10 basis points (bps)
- Fixed income, 25bps
- Passively managed public equity, 10bps
- Actively managed public equity, 60bps
- Private equity, 200bps for both fees and carry

For private equity fees, we assumed the use of a co-investment strategy given what we consider the category's advantages for use in multi-asset solutions by mitigating the uneven cash flows experienced by other private vehicles, providing access to seasoned investments and eliminating the general-partner-level fees associated with traditional primary funds. This is in contrast to the Georgetown study noted above, which accounted for an array of fees applied to private asset exposures at defined benefit plans.²

In our study, shifting the allocation from actively managed public equity to private equity caused higher fees overall, but those additional fees were small relative to the return boost provided to the total hypothetical portfolio. Specifically, with a 10% reallocation, overall portfolio fees increased by 14bps, while the portfolio's annualized net return increased by 93bps. The change reduced the hypothetical TDF's overall volatility (even after de-smoothing the return series by removing autocorrelation), given private equity's lower volatility and low correlation to public equity.

PRIVATE EQUITY COST/BENEFIT TRADE-OFF

Portfolio fee is the estimated weighted average of asset class fees for all years through retirement	Portfolio fee decreases over time as allocation shifts away from growth assets	Depending on the allocation, PE typically raises annual fees by nine to 14bps, but increases overall portfolio net returns by 63 to 93bps.
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	Years to Retirement	40 yrs	35 yrs	30 yrs	25 yrs	20 yrs	15 yrs	10 yrs	5 yrs	At Retirement
No Private Equity	1-Year Estimated Net Return	5.81%	5.77%	5.72%	5.62%	5.52%	5.37%	5.22%	5.07%	4.91%
	Fee (bps)	46.5	45.9	45.2	44.0	42.7	40.5	38.3	36.1	33.8
Includes Private Equity	1-Year Estimated Net Return	6.75%	6.70%	6.65%	6.53%	6.41%	6.19%	5.96%	5.72%	5.55%
	Fee (bps)	60.5	59.9	59.2	57.7	56.0	52.9	49.5	45.9	43.4
Difference	1-Year Estimated Net Return (bps)	93.2	93.2	93.2	91.3	88.5	82.0	74.6	65.2	63.4
	Fee (bps)	14.0	14.0	14.0	13.7	13.3	12.3	11.2	9.8	9.5

Source: Neuberger Berman. For illustrative purposes only. Assumes the glidepath noted above, and the returns and correlations provided at the end of this paper. Estimated returns and estimated volatility (risk) shown are hypothetical and are for illustrative and discussion purposes only. They are not intended to represent, and should not be construed to represent, predictions of future rates of return or volatility. Actual returns and volatility may vary significantly. Unlike actual investment performance, hypothetical model results do not represent actual trading and accordingly they may not reflect the impact that material economic and market factors might have had on decision making if assets were actually managed during the relevant period. Investing entails risks, including possible loss of principal. Indexes are unmanaged and are not available for direct investment. **Past performance is no guarantee of future results.** See additional disclosures at the end of this paper.

Participant Savings: Steady Contributions Over Time

Thus far, we have considered the issue of private equity inclusion at the TDF portfolio level. Now, it's time to bring in a hypothetical investor to determine the potential individual impacts of an allocation decision around private equity. In the study, we simulated retirement savings for a hypothetical person from age 25 to 65, with an initial annual salary of \$26,600 that grows by 3.22% per year, or roughly a 1.1% real growth rate (over inflation).³ The participant contributes 10% of salary annually, with 5% from earnings and 5% from an employer match. The accumulation of these contributions is tracked below. Note that the contribution amounts are below the maximums, which is consistent with the savings patterns of many participants.

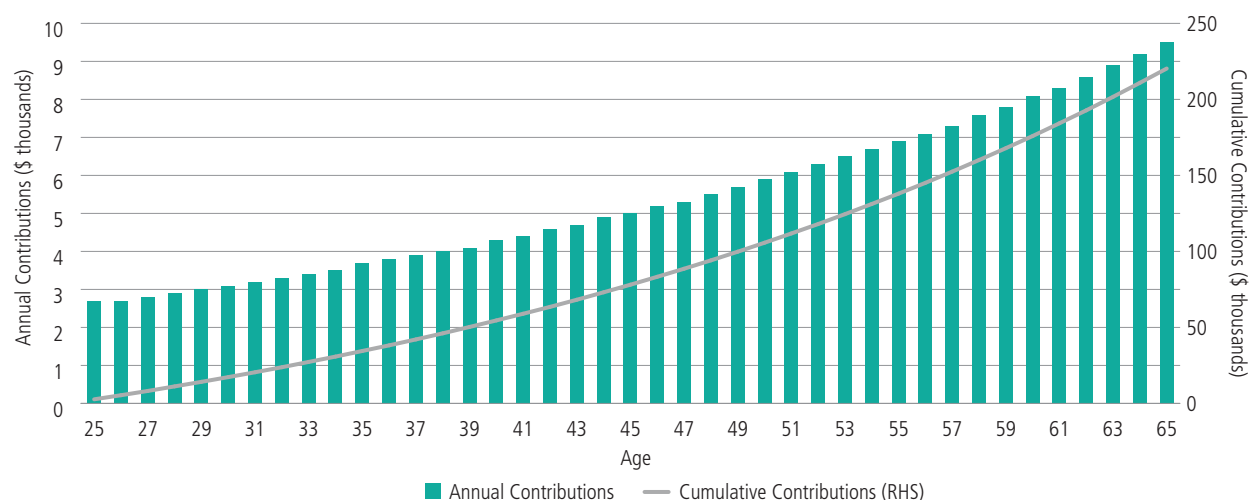
² The Georgetown study's performance analysis used the returns of defined benefit plans in private equity and real assets after deducting all costs associated with the portfolio: manager fees, commitment fees, transaction costs, carried interest, performance fees, asset class-specific consulting costs, fund-of-fund manager fees, internal staff costs for those who oversee fund selection or make co-investments or direct investments, and allocations of overhead and support costs for those internal staff.

³ Salary level and increase are drawn from those set forth in the Vanguard paper, "A systematic method for validating TDF glide paths," January 2021.

ANNUAL AND CUMULATIVE CONTRIBUTIONS

Initial salary: \$26,600 (grows by 3.2% each year thereafter)

Annual contribution: 10% of salary (5% from earnings, 5% from employer match)



Source: Neuberger Berman and Vanguard. Salary growth equals 1.1% real growth plus 30-year breakeven inflation rate of 2.15%, as of August 2024.

Enhanced Range of Outcomes

Given that retirement investing success is a probabilistic exercise, we wanted to run our hypothetical through a Monte Carlo simulation to see how the addition of private equity could perform in a range of possible outcomes. In other words, would devoting a portion of equity exposure to private markets, even if providing an advantage in average scenarios, increase risk of underperformance across more difficult environments?

We calculated 10,000 different hypothetical return scenarios for the portfolio and ranked the results. In the chart, the median result (or 50th percentile) is represented in green for the portfolio without private equity and blue for the portfolio that includes private equity, while the 10th and 90th percentile outcomes are shown with dotted lines. Given the lower volatility and diversification benefits of private equity, its addition elevates the range of potential outcomes including downside scenarios, reflecting its ability to reduce portfolio risk even at extreme levels.

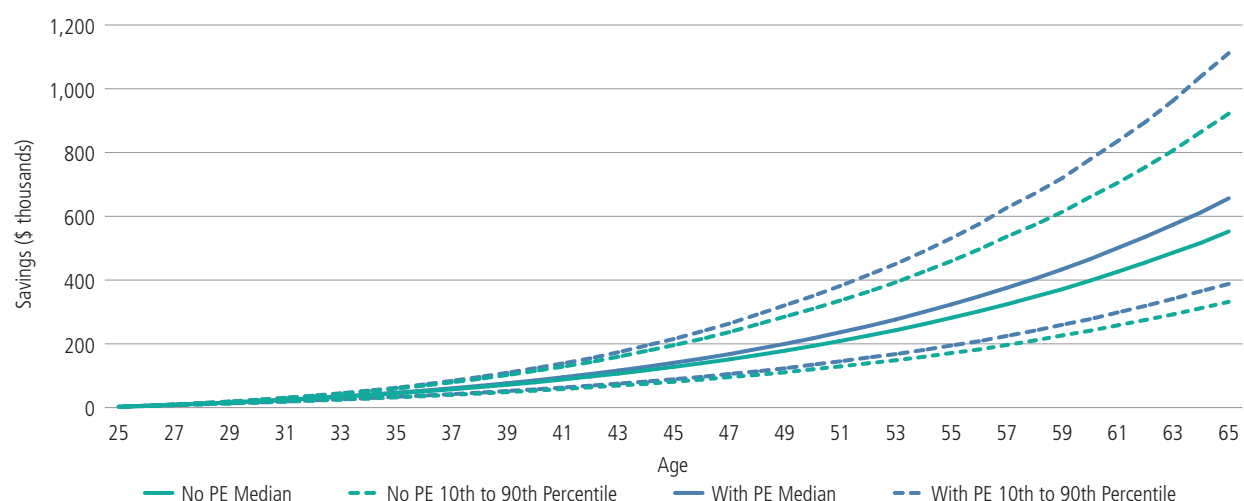
SCENARIO ANALYSIS: HYPOTHETICAL RETURN AND ASSET VALUE

No Private Equity

		By Age				
		30	35	45	55	65
IRR	10th Percentile	-3.87%	-1.42%	0.45%	1.65%	2.40%
	Median	5.72%	5.41%	5.18%	5.06%	4.96%
	90th Percentile	13.48%	11.08%	9.19%	8.04%	7.25%
Asset Amount (\$ thousands)	10th Percentile	16	32	81	171	332
	Median	20	45	128	282	552
	90th Percentile	24	60	196	459	922

Private Equity Included

		By Age				
		30	35	45	55	65
IRR	10th Percentile	-2.83%	-0.36%	1.46%	2.58%	3.23%
	Median	6.69%	6.33%	6.10%	5.93%	5.76%
	90th Percentile	14.35%	11.92%	10.05%	8.88%	8.04%
Asset Amount (\$ thousands)	10th Percentile	16	34	89	195	388
	Median	20	47	141	323	657
	90th Percentile	25	62	215	531	1,112



Source: Neuberger Berman. The projections or other information generated by this analysis regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. These hypothetical returns are used for discussion purposes only and are not intended to represent, and should not be construed to represent, predictions of future rates of return. Actual returns may vary significantly. Our assumptions are subject to change without notice. Please refer to the additional disclosures and index definitions which are a required part of this paper.

Translating Asset Growth Into Retirement Income

Although total portfolio assets provide valuable information about portfolio performance, it is typically less relevant to the plan investor than the retirement income it generates. To complete our study, therefore, we wanted to see the concrete impact that including private equity in portfolios could have on income during retirement. Specifically, we postulated that immediately upon retirement, participants would use all account proceeds to purchase a life annuity. Based on prevailing annuity pricing listed on Fidelity.com in October 2024, a \$1 million up-front payment would translate into a \$5,946 monthly annuity for life (at least 10 years). Using nominal numbers, the non-PE portfolio's ending value of \$552,000 would then generate \$3,285 in monthly income or 42% of the participant's pre-retirement income. Meanwhile, the PE-inclusive portfolio's \$657,000 ending value would translate into \$3,904 of monthly income, or 50% of pre-retirement income and 19% more than the non-PE alternative.

Of course, suitability will vary, and for traditional accounts, using the full proceeds would require payment of income taxes, although Roth dollars could be moved into the annuity on a one-to-one basis. However, the overall point is the potential for income generation in retirement. And regardless of the investment vehicle, the larger principle resulting from the inclusion of private equity has the potential to generate additional income—simply as a larger base from which to draw yield.

ANNUITY INCOME: NON-PRIVATE EQUITY PORTFOLIO VS. PE-INCLUDED PORTFOLIO

Assumptions/Definitions

The investor purchases a 10-year guaranteed annuity with all account assets at retirement

A \$1 million up-front payment can purchase a \$5,946 monthly payment for life (at least 10 years)¹

Income replacement ratio is an annuity's monthly payment divided by pre-retirement monthly salary

		Assets at Retirement (\$ thousands)		Monthly Payment (\$)		Income Replacement Ratio
		Nominal Value	Inflation- adjusted Value ²	Nominal Value	Inflation- adjusted Value ²	
No Private Equity	10th Percentile	332	143	1,972	852	25%
	Median	552	239	3,285	1,419	42%
	90th Percentile	922	398	5,482	2,369	70%
Includes Private Equity	10th Percentile	388	168	2,307	997	29%
	Median	657	284	3,904	1,687	50%
	90th Percentile	1,112	480	6,610	2,856	84%
Additional Benefits	10th Percentile	56	24	335	145	4%
	Median	104	45	619	267	8%
	90th Percentile	190	82	1,128	487	14%

¹ Source: Fidelity, as of October 15, 2024. Average quoted annuity rate.

² Discounted by 2.12% 30-year breakeven inflation rate as of August 2024.

Source: Neuberger Berman. The projections or other information generated by this analysis regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. These hypothetical returns are used for discussion purposes only and are not intended to represent, and should not be construed to represent, predictions of future rates of return. Actual returns may vary significantly. Our assumptions are subject to change without notice. Please refer to additional disclosures and index definitions which are a required part of this paper.

Conclusion

We believe the case for adding private equity remains compelling, extending from the large and growing universe of privately owned companies available for investment, enhanced performance potential and diversification. For many investors who may not qualify for traditional private markets vehicles or may be uncomfortable choosing among more retail-oriented products in the segment, their DC plan may provide the only opportunity to gain private equity exposure. Clearly, inclusion of private equity in DC plan target-date funds requires due diligence, the navigation of regulatory hurdles and satisfaction of liability concerns tied to introducing new or innovative asset classes. However, as we have noted in [previous publications](#), we believe such issues are surmountable, and ultimately less consequential than the potential advantages that private equity may offer for plan participants in seeking more favorable retirement outcomes.

APPENDIX

ASSET ALLOCATION DETAIL

No Private Equity¹

Years to Retirement	40 yrs	35 yrs	30 yrs	25 yrs	20 yrs	15 yrs	10 yrs	5 yrs	At Retirement
Cash & Short Term	0.80%	0.80%	0.80%	0.80%	0.80%	2.90%	5.00%	7.50%	10.00%
Fixed Income	12.80%	15.30%	17.80%	22.80%	27.80%	33.20%	38.60%	43.60%	48.60%
U.S. Large Cap	44.30%	43.00%	41.80%	39.20%	36.60%	32.80%	28.90%	25.10%	21.20%
U.S. Small Cap	7.10%	6.90%	6.70%	6.30%	5.90%	5.30%	4.60%	4.00%	3.40%
Developed Equity ex. U.S.	31.90%	31.00%	30.10%	28.20%	26.40%	23.60%	20.80%	18.10%	15.30%
Emerging Market Equity	3.00%	2.90%	2.90%	2.70%	2.50%	2.20%	2.00%	1.70%	1.50%
Private Equity	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1-Year Estimated Gross Return	6.28%	6.22%	6.17%	6.06%	5.95%	5.78%	5.60%	5.43%	5.25%
1-Year Estimated Net Return	5.81%	5.77%	5.72%	5.62%	5.52%	5.37%	5.22%	5.07%	4.91%
1-Year Asset Volatility	14.20%	13.80%	13.40%	12.70%	11.90%	10.80%	9.70%	8.60%	7.50%

With Private Equity²

Years to Retirement	40 yrs	35 yrs	30 yrs	25 yrs	20 yrs	15 yrs	10 yrs	5 yrs	At Retirement
Cash & Short Term	0.80%	0.80%	0.80%	0.80%	0.80%	2.90%	5.00%	7.50%	10.00%
Fixed Income	12.80%	15.30%	17.80%	22.80%	27.80%	33.20%	38.60%	43.60%	48.60%
U.S. Large Cap	39.20%	37.90%	36.60%	34.20%	31.80%	28.30%	24.80%	21.50%	17.70%
U.S. Small Cap	6.30%	6.10%	5.90%	5.50%	5.10%	4.50%	4.00%	3.50%	2.90%
Developed Equity ex. U.S.	28.20%	27.30%	26.40%	24.60%	22.90%	20.40%	17.90%	15.50%	12.80%
Emerging Market Equity	2.70%	2.60%	2.50%	2.30%	2.20%	1.90%	1.70%	1.50%	1.20%
Private Equity ¹	10.00%	10.00%	10.00%	9.80%	9.50%	8.80%	8.00%	7.00%	6.80%
1-Year Estimated Gross Return	7.35%	7.30%	7.24%	7.11%	6.97%	6.72%	6.46%	6.18%	5.98%
1-Year Estimated Net Return	6.75%	6.70%	6.65%	6.53%	6.41%	6.19%	5.96%	5.72%	5.55%
1-Year Asset Volatility	14.10%	13.70%	13.30%	12.60%	11.80%	10.70%	9.60%	8.50%	7.40%

¹ Constructed based on 2011 – 2020 average TDF allocation in CEM Benchmarking's research paper, "Has the Lack of Asset Diversification in DC Retirement Plans Been a Costly Missed Opportunity?", published in June 2023 by the Georgetown University School of Public Policy, Center for Retirement Initiatives.

² Private equity replaces actively managed public equity proportionally across sub-asset classes.

Source: Neuberger Berman. Estimated returns and estimated volatility (risk) shown are hypothetical and are for illustrative and discussion purposes only. They are not intended to represent, and should not be construed to represent, predictions of future rates of return or volatility. Actual returns and volatility may vary significantly. Unlike actual investment performance, hypothetical model results do not represent actual trading and accordingly they may not reflect the impact that material economic and market factors might have had on decision making if assets were actually managed during the relevant period. Investing entails risks, including possible loss of principal. Indexes are unmanaged and are not available for direct investment. **Past performance is no guarantee of future results.**

CAPITAL MARKET ASSUMPTIONS

Asset Class	Benchmark Index	Index Source	Est. Gross Return (%)	Fee (bps)	Est. Net Return (%)	Ann. Vol (%)
Cash & Short Term	Tbill	Bloomberg-Barclays	3.98	10	3.88	0.5
Fixed Income	U.S. Aggregate	Bloomberg-Barclays	4.38	25	4.13	4.3
U.S. Large Cap ¹	S&P 500	Bloomberg-Barclays	6.27	10 (for passive equity) 60 (for active equity)	5.77	15.7
U.S. Small Cap ¹	Russell 2000	Bloomberg-Barclays	7.07	10 (for passive equity) 60 (for active equity)	6.57	20.7
Developed Equity ex. U.S. ¹	MSCI EAFE	MSCI	6.84	10 (for passive equity) 60 (for active equity)	6.34	17.5
Emerging Market Equity ¹	MSCI EM	MSCI	7.27	10 (for passive equity) 60 (for active equity)	6.77	20.8
Private Equity	Burgiss Buyout	Burgiss	17.30	200	15.30	17.3

¹ Public equity is assumed to be composed of 80% active equity and 20% passive equity before adding private equity allocation.

Source: Neuberger Berman, Bloomberg-Barclays, Burgiss. Analytics are as of August 31, 2024; volatility is estimated based on the historical time series from January 2007 to August 2024. Estimated returns and estimated volatility (risk) shown are hypothetical and are for illustrative and discussion purposes only. They are not intended to represent, and should not be construed to represent, predictions of future rates of return or volatility. Actual returns and volatility may vary significantly. Unlike actual investment performance, hypothetical model results do not represent actual trading and accordingly they may not reflect the impact that material economic and market factors might have had on decision making if assets were actually managed during the relevant period.

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ASSET CLASS CORRELATION

	Cash & Short Term	Fixed Income	U.S. Large Cap	U.S. Small Cap	Developed Equity ex. U.S.	Emerging Market Equity	Private Equity
Cash & Short Term	1.00						
Fixed Income	0.07	1.00					
U.S. Large Cap	-0.01	0.24	1.00				
U.S. Small Cap	-0.05	0.17	0.89	1.00			
Developed Equity ex. U.S.	0.02	0.28	0.88	0.80	1.00		
Emerging Market Equity	0.01	0.27	0.75	0.69	0.86	1.00	
Private Equity	-0.11	0.00	0.83	0.79	0.85	0.86	1.00



Source: Neuberger Berman, Bloomberg-Barclays, Burgiss. Analytics are as of August 31, 2024; correlation is estimated based on the historical time series from January 2007 to August 2024. Estimated returns and estimated volatility (risk) shown are hypothetical and are for illustrative and discussion purposes only. They are not intended to represent, and should not be construed to represent, predictions of future rates of return or volatility. Actual returns and volatility may vary significantly. Unlike actual investment performance, hypothetical model results do not represent actual trading and accordingly they may not reflect the impact that material economic and market factors might have had on decision making if assets were actually managed during the relevant period. Investing entails risks, including possible loss of principal. Indexes are unmanaged and are not available for direct investment. **Past performance is no guarantee of future results.**

Index Definitions

T-bill Index: The Bloomberg U.S. Treasury Yield Curve Rate T Note Constant Maturity 3-Month Index is representative of 3-month Treasury bills and consists of an average of the last 3-month U.S. Treasury Bill issues.

Bloomberg U.S. Aggregate Bond Index: The Bloomberg U.S. Aggregate Bond Index represents securities that are SEC-registered, taxable and dollar-denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

S&P 500 Index: This is a float-adjusted market capitalization-weighted index comprised of 500 stocks chosen for market size, liquidity and industry group representation. The S&P 500 Index is constructed to represent a broad range of industry segments in the U.S. economy. The S&P 500 Index focuses on the large-cap segment of the market with approximately 80 coverage of U.S. equities. Criteria for inclusion include financial stability (minimize turnover in the index), screening of common shares to eliminate closely held companies, and trading activity indicative of ample liquidity and efficient share pricing. Companies in merger, acquisition, leveraged buyouts, bankruptcy (Chapter 11 filing or any shareholder approval of recapitalization which changes a company's debt to equity ratio), restructuring or lack of representation in their representative industry groups are eliminated from the index.

Russell 2000 Index: The Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index which is designed to represent approximately 98% of the investable U.S. equity market. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set.

MSCI EAFE Index: The MSCI EAFE Index is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the U.S. and Canada. The MSCI EAFE Index consisted of the following 21 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom.

MSCI EM Index: The MSCI EM Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 24 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

Burgiss Buyout Index: The MSCI Burgiss Buyout Index is a private equity index that represents private asset investing. It's part of the MSCI Burgiss Private Capital Indexes, a suite of indexes calculated based on MSCI's Burgiss Manager Universe, a comprehensive dataset of private capital funds, funds of funds and their holdings, dating back to 1978.

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