

# REAL ESTATE ALLOCATION WITHIN THE DEFINED CONTRIBUTION LIFECYCLE: A DYNAMIC APPROACH

DCREC WHITE PAPER  
FACT SHEET

## SUMMARY

Earlier research has confirmed the potential benefits of adding a real estate allocation to Defined Contribution (DC) plans. This study examines three approaches to the role that real estate can play in the DC accumulation life cycle, specifically considering deterministic asset allocation strategies (target-date and balance designs); dynamic asset allocations strategies (dynamic lifecycle funds); and sub-allocation strategies (varying exposures to public and private real estate over time). The paper confirms earlier conclusions about the benefits of real estate and highlights the importance of the asset class in helping DC plan participants navigate the critical “sequence of returns” issue.

## DCREC RESEARCH FACT SHEET

The Defined Contribution Real Estate Council (DCREC) commissioned an in-depth study examining the impact of an allocation to public and private real estate within the most commonly offered dynamic defined contribution portfolios. The research was conducted by Michael E. Drew, a professor of corporate finance at the Griffith Business School at Griffith University, and Adam N. Walk, a research fellow in the department of Accounting, Finance, and Economics at the Griffith Business School.

The study builds on earlier findings that a relatively modest allocation of as little as 10 percent to real estate can allow DC plan participants to achieve success to a similar extent as with a non-real estate investment portfolio but with a smoother path to success. It takes the view that retirement wealth accumulation and subsequent income generation is the true measure of success for DC plan participants.

The data examined covered a period from January 1978 through December 2015. The S&P 500 was used to represent U.S. stocks; the Barclays U.S. Aggregate Index was used for bonds; and three-month T-bills were used for cash. The FTSE NAREIT U.S. Real Estate Index was used for public real estate, and the NFI-ODCE Value-Weighted Index was used for private real estate.

Among other factors, the study’s authors looked at the historical correlation among these asset classes, and found that the long-term correlation of real estate – and in particular private real estate – to stocks is relatively low, providing further support for the addition of the asset class to portfolios as a diversification tool.

## KEY FINDINGS

### PUBLIC REAL ESTATE EARLY, PRIVATE REAL ESTATE LATE

In the report, the authors note the importance of sequencing risk in determining whether or not a plan participant achieves his or her desired outcome. This looms particularly large in the late accumulation and early retirement phases of the investment lifecycle, generally between ages 55 and 75, as a result of the portfolio size effect (i.e. bigger portfolios equal bigger absolute gains and losses). At this stage, low or negative returns can have a major impact on plan outcomes.

The study examines the impact of a 10 percent real estate allocation held steady across various portfolio strategies, with the public/private weighting adjusted. For most of the portfolios examined, adding real estate had a neutral to positive impact on performance but increased the likelihood of achieving the desired outcome, defined as the ability to replace 70 percent of a plan member's pre-retirement real income for life, the target established by the authors as representing accumulation phase success.

Significantly, managing the blend of public and private real estate over time was found to have a potentially positive impact on both terminal wealth and expected shortfall. With this approach, the maximum benefit was likely to be achieved by overweighting exposure to public real estate early in the accumulation cycle as a source of diversified growth, and then moving towards greater exposure to private real estate late in the cycle for downside protection.

### LACK OF POOLING TRANSFERS RISK TO PLAN PARTICIPANTS

A key element of DB plans is the pooling of assets, which provides diversification and greater stability for the asset pool over time. With DB plans, the sponsor is responsible for setting aside and investing sufficient assets to meet the needs of those covered. Because assets are pooled – and plan participants retire at different times – timing of returns is less of an issue.

In contrast, DC plan participants are responsible for accumulating and investing their own assets over a lifetime of employment, and for deploying those assets to generate income in retirement. DC plans both amplify sequence risk and transfer it to plan participants from plan sponsors, primarily by the lack of pooling. As such, they rely on plan participants to sustain a consistent investment posture over time, rather than react to transient market conditions.

Incorporating the investment characteristics of core, institutional-quality real estate in a dynamic, outcome-oriented approach to DC plan design can improve the retirement security of plan participants over time, in part by providing a smoother path to success and helping to avoid adverse responses to temporary market setbacks.

### EARLIER RESEARCH CONFIRMED

More broadly, the new research confirmed the primary benefits of adding public and private real estate to DC plan portfolios, including diversification, hedging against inflation, and stabilizing cash flows to the portfolio in the form of rental income. These benefits are further enhanced by a dynamic allocation within both the broader portfolio and the real estate sub-allocation.



***Risk for plan participants isn't what you think it is. Falling short of an appropriate, sustainable retirement income level is the key risk to be managed. The conversation needs to be changed to focus DC plan participants on this risk, rather than on less critical issues like standard deviation and quarterly performance versus peers.***

***Research has shown that not all returns are created equal. Because of the portfolio size effect – a function of the interplay of savings, returns, and compounding – real-world investors would prefer a -20% return early and a +7% return later in the savings journey rather than the other way around (whether they realize this or not).***

***Dynamic problems require dynamic solutions. Plan sponsors need to be mindful of the dynamism of human capital throughout the lifecycle, as well as the heterogeneity of participant needs and behaviors.***