



SUMMARY

Defined Contribution plans could have benefited from adding real estate to their portfolios, achieving similar performance and in some cases better results when compared to portfolios without real estate, while avoiding some of the pitfalls experienced by plan participants during serious market disruptions. Even a modest 10% allocation to listed and unlisted real estate can produce a stabilizing effect, according to the recent study.



DCREC RESEARCH 2

The Defined Contribution Research Council (DCREC), a not for profit association, commissioned an in-depth study examining the potential role of both public and private real estate in defined contribution (DC) portfolios. The research was conducted by Michael E. Drew PhD, a professor of finance at the Griffith Business School at Griffith University, Adam N. Walk PhD, a research fellow in the department of Accounting, Finance, and Economics at the Griffith Business School, and Jason M. West of Bond University.

The study investigates the potential investment case for real estate to protect against a shortfall in retirement funding, while simultaneously reducing volatility and enhancing performance relative to portfolios using only traditional equity/fixed income asset allocation strategies. The data examined covered a period from January 1978 to January 2014.

Employing a simulation approach utilizing historical index data, the study's authors tested a range of DC-style asset allocations (including target date and target risk glidepaths) that included an allocation to both listed and unlisted (or private) real estate versus comparable designs without real estate. A principal finding of the study was that portfolios with a relatively modest allocation (10%) to a real estate blend achieved similar expected outcomes and in some cases better performance with less tail risk and volatility than a conventional portfolio without a real estate allocation.



KEY FINDINGS 3

DC PORTFOLIOS WITH REAL ESTATE CAN IMPROVE ASSET-LIABILITY MISMATCH

In the report, the authors seek to provide a realistic metric with which DC plan participants and plan sponsors can measure success. Strategies ranging from 100 percent stocks, 100 percent bonds, and 100 percent real estate to various balanced strategies were examined. Target date and target risk glidepaths were also included. The authors concluded that DC investment portfolios with a relatively modest 10 percent allocation to an equally-weighted blend of listed and unlisted real estate achieved similar expected outcomes and in some cases better performance when compared to portfolios without real estate, while addressing the classic asset-liability mismatch in retirement (that is, the need to fund relatively short- and medium-term retirement spending needs with a longer term investment strategy).

PATH DEPENDENCY MATTERS

For many retirees, the prospect of outliving their assets is among their top concerns. The study notes that the odds of portfolio ruin in retirement are highly sensitive to the returns the investor earns decade by decade: path dependency matters greatly. Recent financial history has highlighted the risks associated with this mismatch by providing a living case study of the perils of retirees and near-retirees ignoring the mismatch between the durations of retirement assets and liabilities.

TARGET DATE, TARGET RISK PORTFOLIOS BOTH IMPROVED WITH REAL ESTATE

The study concluded that adding real estate assets to DC plans assists plan participants through the critical conversion phase – converting from savings (accumulation) to retirement income (spend down).

Target date and target risk portfolios are highly popular DC plan investment options, approaching \$1 trillion in assets. Adding a 10 percent allocation to a blend of listed and unlisted real estate was found to have improved the risk/return characteristics of both. Portfolios achieved a similar level of success as portfolios without real estate, but with a smoother path to that success, a key concern for DC plan sponsors. The authors note that a portfolio strategy that delivers a smoother transition to success contributes to improved long-term participant behavior, where it is possible to help DC investors avoid adverse responses to temporary market setbacks (e.g., switching out of risky assets; moving out of the market altogether after a significant market downturn). This gradual transition increases the likelihood that participants will "stay the course" and achieve a successful outcome.



KEY FINDINGS 4

OTHER BENEFITS OF REAL ESTATE

This study found strong support for allocations to real estate in DC plan designs, particularly a blended allocation using both listed and unlisted real estate. While listed real estate, represented by REITs, provides an easily implemented exposure to real estate due to its liquidity and valuation cycles that mirror stocks and bonds, it is also more highly correlated with equity markets, and is therefore likely to contribute less to path smoothing, when used independently. The authors point out that unlisted core real estate has a number of characteristics that could make it attractive to plan sponsors to add to their real estate exposure, including returns closer to that of bonds, but with significantly lower (reported) risk than stocks, regular income (making it a reasonable bond substitute), low (reported) volatility and low correlation to listed markets despite its more challenging operational considerations (expectations for daily valuations and liquidity in particular). Given the myriad of retirement risks faced by plan participants – not the least of which is the impact of inflation on cash flow in retirement – the study concludes that the diversifying characteristics of real estate can improve portfolio efficiency and retirement outcomes.



The momentum shift in the US pension system from defined benefit (DB) to defined contribution (DC) plans has focused attention on the ability (or otherwise) of current DC plans and their investment designs to meet the retirement income goals of plan participants.

While the virtues of investing in real estate are well known, the process for optimizing and allocating a portion of a DC plan's portfolio to real estate assets is less so. We consider performance from the perspective of the plan participant by reporting outcome-oriented measures of success.

We argue that private, core, unlisted real estate is a reasonable replacement for bonds because of its regular income, low (reported) volatility, low correlation to listed markets, and its (arguable) inflation hedging characteristics.

Author Statement and Acknowledgements

This research was supported by DCREC. The authors greatly benefited in this work by discussions with: David Skinner (Co-President, DCREC); Jason Frederick and Ian Matthew (Co-Chairs, DCREC Research & Content Committee) and Committee Members; and Mary Adams (DCREC Executive Director). The views expressed herein are those of the authors and are not necessarily those of DCREC.

