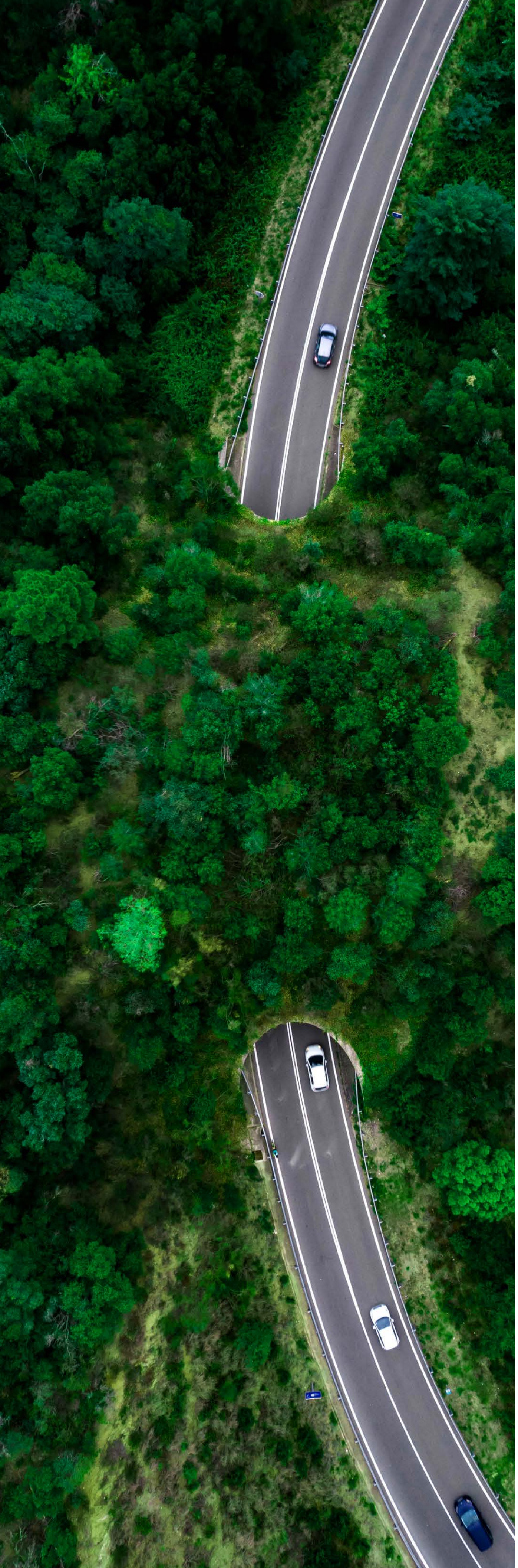

Manulife Investment Management

Whitepaper

Think big: smaller investors deserve diversification through alternative assets

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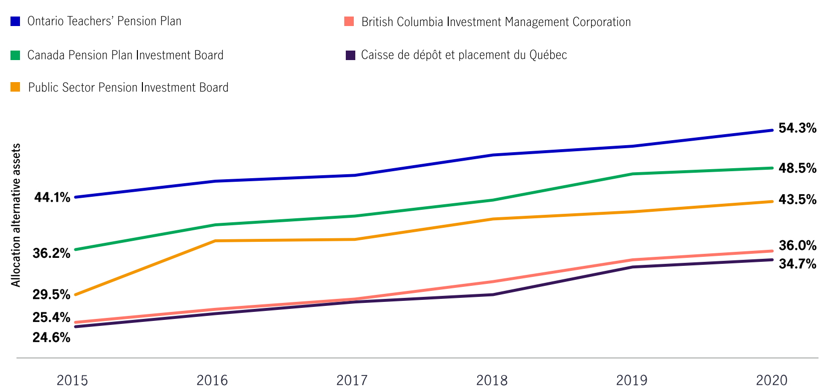
Key takeaways

- Alternative assets can provide significant diversification, risk, and return benefits for investors with a long-term view, particularly in the current low-yield environment.
- Until recently, access has been limited to very large players, meaning smaller institutions and HNW investors haven't much enjoyed the benefits.
- The ongoing democratization of finance means new strategies being launched are leveling the playing field.

What do London City Airport, Vancouver's Canada Line SkyTrain, and the Toronto Maple Leafs all have in common? They're all currently or formerly owned, at least in part, by a major Canadian pension plan.

This fact should come as no surprise to sophisticated investors. Canadian pension plans—some of the largest and most respected in the world—are renowned for their early and often adoption of alternative assets such as private equity, real estate, infrastructure, and natural resources.[1] This trend began in the early 1990s, but the continual decline in rates and the associated hunt for yield, along with the need to diversify portfolios away from traditional asset classes, have led to a significant increase in alternative assets' prominence among Canada's largest investors in recent years. Today, it's not uncommon for some of these investors to allocate half of their portfolios to nontraditional assets.

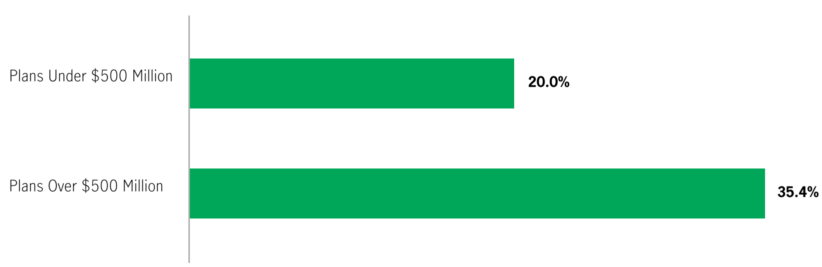
Largest Canadian pension plans' growing allocation to alternative assets



Source: Manulife Investment Management, as of Jan. 21, 2021. Data complied using each plan's latest annual reports (2019 for CDPQ & OTPP, 2020 for others). **Alternatives** generally includes private equity, infrastructure, real estate and natural resources. Due to difference in each plan's presentation of their assets, figures aren't necessarily comparable to each other.

It's not only pension plans with hundreds of billions of dollars that have turned to alternatives as a way of broadening their exposure; indeed, many medium-sized plans still have significant allocations. For example, as of September 2020, pension plans in Canada with over CAD$500 million in assets under management (AUM) had roughly 35% of their portfolio in alts. Where we begin to see a significant difference is among smaller pension plans; those with less than CAD$500 million in AUM had just a fifth of their portfolio allocated to alternatives.[2]

Canadian pension plans – Allocation to Alternatives Small vs Medium/Large plans



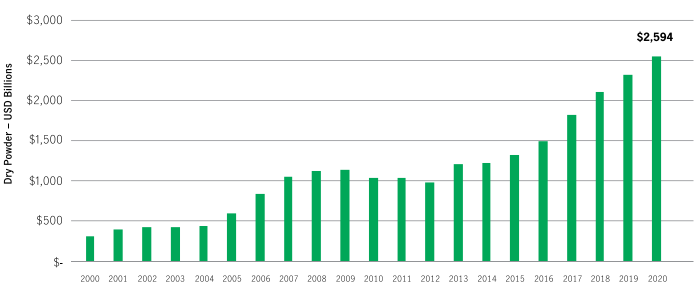
Source: Canada Institutional Investment Network. As of 09/04/2020. Alternatives includes: commoditis; hedge funds; private equity; real estate; infrastructure; derivatives; private debt; mortgages.

Smaller investors face larger obstacles

So what's preventing these smaller yet still capable institutions and high-net-worth (HNW) investors from allocating capital into alternative investments? We'd argue that two key roadblocks are accessibility and liquidity.

Regarding the former, there was a time when alternative asset managers, intent on growing their funds, would gladly accept capital allocations of all sizes. But with so many institutions seeking additional returns of late by adopting alts, we've reached the point of too much money chasing too few deals. Dry powder—yet-to-be-deployed cash in the hands of alternatives managers—continues to make new highs year after year, topping US $2.5 trillion at the end of 2020.[3] This means that alts managers that were in heavy fund-raising mode just a few years ago are now in the enviable position of being able to choose their clients and dictate fees. Smaller players may, therefore, be passed over or forced to pay higher fees for the "privilege" of investing their capital.

Alternatives dry powder continues to hit new highs



Source: Preqin Ltd., as January 19, 2021. Alternatives here include private equity, infrastructure, resources, and real estate.

"You've got a huge wall of money around the world looking for fixed-income, government-bond alternatives when you have zero-to-negative interest rates."—Mark Machin, CEO, Canada Pension Plan Investment Board[4]

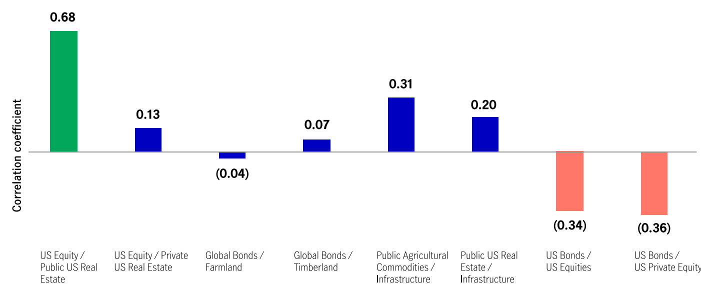
Liquidity—or lack thereof—is the second major impediment to smaller institutions and HNW investors increasing their presence in alts. Selling stocks and bonds to meet obligations can be done fairly easily, but selling bridges and wind farms can take months or years, so liquidity is always a concern when investing in private alternatives. This hurts smaller investors more than bigger ones, as the latter generally have significantly deeper cash reserves and/or lines of credit to meet payments to their depositors or clients or, in the case of HNW investors, to fund personal obligations.

Portfolio improvement becomes more inclusive

Facing hurdles that large firms may not have, smaller institutions and the HNW segment have a significant disadvantage in their ability to allocate capital to nontraditional assets. As a consequence, buy-side portfolio managers must make difficult decisions around the inclusion of alternatives. For example, with a limited amount of capital to invest and with alternative fund managers raising their minimum investments, these smaller investors may be forced into choosing between asset classes—they might decide to invest, perhaps, in timberland rather than real estate, even though both may be complementary and beneficial to the portfolio. This could result in less diversification than could be otherwise achieved by investing in multiple alternative assets.

The consequences of these difficult decisions can be highly detrimental to portfolios' risk/reward dynamics. By underallocating to alternative assets, or neglecting them entirely, smaller plans may be missing out on their significant diversification and returns potential. For example, a fund invested in both U.S. equities and public real estate (perhaps through real estate investment trusts) may consider itself diversified, but remember that these asset classes are fairly correlated, with a coefficient of about 0.68. Replacing a portion of the public real estate portfolio with private real estate investments could be highly beneficial—the latter's correlation with U.S. equities is significantly less, at 0.13. Or consider a manager holding U.S. bonds along with U.S. public equities—the two asset classes are negatively correlated, with a coefficient of –0.34. Certainly, that's a good thing, but the correlation between U.S. bonds and U.S. private equity is nearly identical, at –0.36. The difference here is that U.S. private equity's performance over long periods has been vastly superior to that of U.S. public equities, so by overlooking private equity, managers may be leaving money on the table.[5]

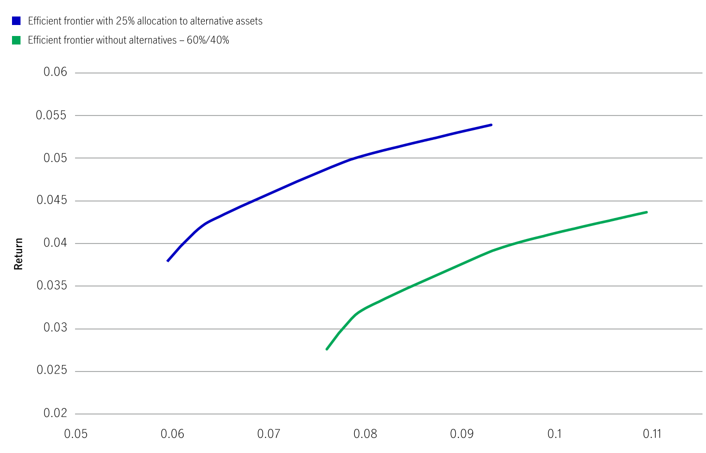
Selected historical correlations between various public and private asset classes



Source: Manulife Investment Management, as of Jan. 21, 2021. Indices: US Equity, S&P500 TR; Global Equities, MSCI ACWI Ex-USA NR; Public Real Estate, FTSE Nareit All Equity REITs TR; Global Bonds, Bloomberg Barclays Global Aggregate TR; US Bonds, Bloomberg Barclays US Aggregate Bond TR; Private US Real Estate, NCREIF Property Index; Farmland, NCREIF Farmland Index; Timberland, NCREIF Timberland Index; US Private Equity, Cambridge US Private Equity Index; Infrastructure, Cambridge Associates Core & Core Plus Index. All returns are in USD, quarterly data from Q1 2000 to Q3 2020 except due to data limitations: US Private Equity, Q1 2000 to 2020; Infrastructure, Q2 2003 to Q1 2020). Data via Morningstar or directly via index providers.

We can see the potential for improved risk or reward dynamics by comparing a hypothetical 60% equity/40% fixed-income portfolio's efficient frontier against the efficient frontier of the same portfolio but with a 25% allocation to alternative assets (i.e., 5% each to private equity, infrastructure, real estate, timberland, and farmland). The aforementioned diversification benefits and potential for improved long-term returns push the frontier up and left, meaning better potential reward for a given level of risk or reduced risk for a given level of expected returns.

Efficient frontiers – with and without alternatives



Source: Manulife Investment Management, as of Jan. 21, 2021. Indices: US Equity, S&P500TR; Global Equities, MSCI ACWI Ex-USA NR; Public US Real Estate, FTSE Nareit All Equity REITs TR; Global Bonds, Bloomberg Barclays Global Aggregate TR; US Bonds, Bloomberg Barclays US Aggregate Bond TR; Private US Real Estate, NCREIF Property Index; Farmland, NCREIF Farmland Index; Timberland, NCREIF Timberland Index; US Private Equity, Cambridge US Private Equity Index; Infrastructure, Cambridge Associates Core & Core Plus Index. All returns are in USD, quarterly data from Q2 2003 to Q1 2020. For Illustrative purposes only.

Of course, all of these benefits are a moot point for smaller institutions and HNW investors if they can't access these strategies, or if they choose not to out of liquidity concerns. Thankfully, there are much-needed changes and solutions on the horizon.

New all-in-one offerings can level the playing field

In recent years, managers of alternative assets have recognized the need to bring their strategies to smaller investors and have responded with new fund structures that are leveling the playing field for these smaller investors.

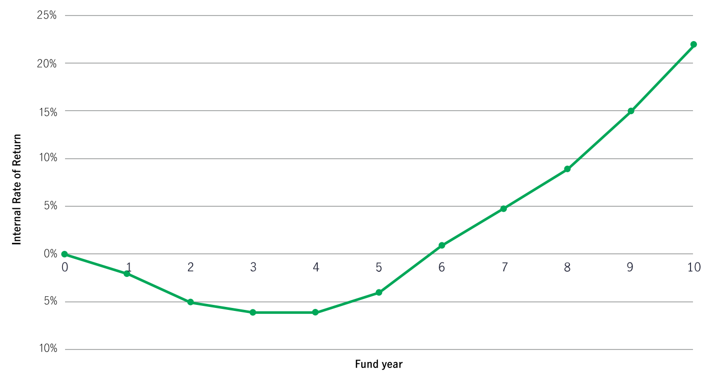
These new strategies incorporate multiple alternative asset classes into one investable fund. Built as open-ended funds of funds, they offer the ability to invest in several alternative assets under one umbrella and generally with lower minimum investments than fund managers would otherwise require, meaning that smaller investors don't have to choose one alternative asset class over another. This also improves diversification potential, as the asset allocator is able to invest in several different alternative assets at once, leveraging each one's different risk and return dynamics.

We caution with two caveats. First, this structure has additional costs of administration (e.g., the fund flows) and therefore has slightly higher fees than a similar stand-alone fund. Second, manager research and selection are absolutely critical, as performance and risk characteristics of the funds of funds (and of the underlying funds as well) can vary widely in the alternatives space—arguably, more so than in public markets. Still, for those investors who are unable to otherwise invest in alts, we believe the potential improvement in risk/reward dynamics far outweighs these additional fees.

Importantly, the open-ended structure of these funds means that the issue of liquidity can also be managed. Traditionally, many private alternative funds are closed ended, meaning that new investors can't enter the fund after it closes and current investors can't exit until the fund terminates and liquidates. Under an open-ended structure, liquidity windows can be offered to those current investors seeking it as new ones take up the slack. This can help ease investor concerns surrounding the need to meet their obligations.

Finally, open-ended funds that are managed wisely can also mitigate the J-curve effect. New entrants to the fund would benefit from a portfolio of investments (whether they be private companies, farms, bridges, or office buildings) that are already performing well, meaning the J-curve effect is diminished. At the same time, as the fund grows and fresh capital is deployed into new assets, investors also see return patterns associated with small but quickly growing assets. In other words, investors can benefit from return patterns associated with both greenfield investments (not yet profitable or income generating but with significant potential for capital appreciation) and brownfield investments (profitable and generating income but with less capital appreciation potential). Key to this is that new capital must be quickly and efficiently deployed; strategies that sit on cash for too long end up eating into investor returns, as fees are charged on committed capital. The responsibility is, therefore, on the portfolio manager to make sure that capital can be put to work quickly to further reduce the J-curve effect on end clients.

The J-Curve in alternative investments – illustration



Source: Manulife Investment Management. For illustrative purposes only.

The J-curve is a graphical representation of the return patterns of many alternative investment funds, particularly in private equity. It demonstrates that young portfolio companies may not be profitable for several years, meaning unrealized returns to end investors are lower (even negative) early on, before recovering and ramping up quickly thereafter. Fees on capital committed but not yet deployed also contribute to the J-curve effect. Both of these factors—young investments and fees—can be managed in a proper open-ended fund structure and, therefore, the J-curve effect can be diminished.

New structures mean new solutions

The increasing presence of alternative investments is undoubtedly a good thing for the financial community at large, but until recently, their benefits have been limited to the largest investors. Going forward, we expect HNW investors and smaller institutions to seriously consider new structures that are tailored to clients that can't meet traditionally large investment minimums but that provide the same diversification and returns benefits that larger investors enjoy. The ongoing democratization of alternative assets continues to progress —we'd suggest clients of all sizes keep a close eye and think big.

[1] For example, see https://www.economist.com/finance-and-economics/2012/03/03/maple-revolutionaries, 2012.

[2] Canadian Institutional Investment Network, as of September 4, 2020.

[3] Preqin Ltd., as of January 19, 2021. Alternatives here includes private equity, infrastructure, resources, and real estate.

[4] https://www.bloomberg.com/news/articles/2020-12-22/cppib-sees-wall-of-money-chasing-private-deals-in-frothy-times

[5] For example, in the 25 years to June 30, 2020, the Cambridge Associates US Private Equity Index returned 13.51%, annualized, to the S&P 500 Index's 8.54%. Those figures are made comparable to each other using Cambridge Associates Modified Public Market Equivalent. See www.cambridgeassociates.com/wp-content/uploads/2020/11/WEB-2020-Q2-Global-Private-Equity.pdf, June 30, 2020.

Efficient frontier disclosures

The efficient frontier model portfolio is unaudited. The results presented are hypothetical, are not based on the performance of actual portfolios, and are provided for informational purposes only to indicate historical performance of a model portfolio.

The results reflect performance of a portfolio not historically offered to investors and do not represent returns that any investor has actually attained.

Changes in these assumptions may have a material impact on the result presented. Certain assumptions have been made for modeling purposes and are unlikely to be realized. No representations are made as to the reasonableness of the assumptions, or that any portfolio that follows such assumption will or is likely to achieve profits or losses similar to those shown. This information is provided for illustrative purposes only.

Assumptions used:

Efficient frontier without alternatives:

All data compiled from 04/01/2003 to 03/01/2020

Asset Class	U.S. Equity	Global Equity	U.S. Bonds	Global Bonds
Index	**S&P 500 Index**	**MSCI ACWI Ex-USA Index**	**Bloomberg Barclays U.S. Aggregate Bond Index**	**Bloomberg Barclays Global Aggregate Bond index**
Return	3.92%	8.63%	0.57%	1.04%
Risk	14.22%	18.24%	3.32%	5.25%
Minimum allocation	30.00%	10.00%	20.95%	3.39%
Maximum allocation	40.00%	30.00%	40.00%	10.00%
Risk Free Rate	0.31%			

Efficient frontier with 25% alternatives

All data compiled from 04/01/2003 to 03/01/2020

Asset Class	US Equity	Global Equity	US Bonds	Global Bonds	U.S. Farmland	U.S. Timberland	Private Real Estate	U.S. Private Equity	Infrastructures
Index	**S&P 500 Index**	**MSCI ACWI Ex-USA Index**	**Bloomberg Barclays U.S. Aggregate Bond Index**	**Bloomberg Barclays Global Aggregate Bond Index**	**NCREIF Farmland**	**NCREIF Timberland**	**NCREIF Property Index**	**Cambridge US PE**	**Cambridge Infra**
Return	3.92%	8.63%	0.57%	1.04%	7.50%	7.50%	7.00%	8.50%	8.00%
Risk	14.22%	18.24%	3.32%	5.25%	6.16%	4.99%	6.51%	9.28%	11.75%
Minimum allocation	20.00%	5.00%	13.31%	2.06%	5.00%	5.00%	5.00%	5.00%	5.00%
Maximum allocation	30.00%	25.00%	32.50%	7.53%	5.00%	5.00%	5.00%	5.00%	5.00%
Risk Free Rate	0.31%								

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Eric's responsibilities include portfolio management and oversight of pension, outsourced chief investment officer (OCIO), model, and real asset solutions. He's also a member of the investment committees for Manulife's U.S. and Canadian employee defined benefit and defined contribution plans.

Previously, Eric was director of trading for John Hancock Financial Network, a retail broker-dealer for Manulife Financial. In that role, he was responsible for managing a team of traders and brokerage representatives trading equity, fixed-income, options, and mutual fund transactions for John Hancock's U.S. registered representative sales force.

Eric holds the Chartered Financial Analyst (CFA), Chartered Alternative Investment Analyst (CAIA), and Accredited Investment Fiduciary (AIF) designations, and is a member of the CFA Society Boston and the CFA Institute.

Manulife Investment Management

To learn more about Manulife Investment Management and investing in real assets, contact your advisor and visit **manulifeim.ca/mraif**.

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