



At a glance

- Traditional balanced portfolios comprised solely of equity and fixed income served investors well for many years; however, the fundamentals have changed, and an evolution in portfolio construction and asset allocation is warranted
- Higher inflation and volatility in economic data requires investors to look beyond traditional financial assets
- Alternative assets can be included in portfolio construction to improve risk adjusted returns, protect against inflation, and improve yield

When traveling, packing requirements can be very different depending on where the journey takes you. For a simple day at the beach, you may need little more than a towel and swim wear, but for a week of camping, significantly more gear is required to ensure a successful trip. The same can be said of your portfolio. As the investing

environment has become more complex, investors require more "gear" in the form of asset classes as portfolios evolve to meet the challenges of the investment landscape. This includes identifying the right mix of assets to ensure an enjoyable and successful journey.

Have investors been spoiled in recent times?

The past thirty years may have had their fair share of market volatility, but when compared to a much longer period, they were very favourable for financial assets. During this period, developed economies experienced stable growth, low inflation, and a persistent decline in interest rates. This supported strong bond and equity returns as well as strong diversification benefits.

More recently however, we are seeing much higher and more volatile levels of inflation and growth.

As mentioned in the earlier papers of this series, inflation harms fixed income returns and can dampen their diversification benefits. With a rockier landscape expected ahead, and lower return expectations for equities and fixed income, now can be the right time to broaden the variety of investments in a balanced portfolio.

Part 4 of the series

The first paper in our 5-part series discussed how the traditional 60/40 portfolio has served investors well in the past, how markets and economies have evolved since the theory's origins, and why portfolio evolution is needed now more than ever. Part 2 of the series highlighted how global central bank monetary policies have had a significant and potentially long-lasting impact on fixed income and its role as a "goalie" for a portfolio. The third paper discussed why equities

should remain a core allocation in investors' portfolios, the various risks to be mindful of and the particular types of equities investors should consider as part of their portfolio.

This, our fourth installment, will outline alternative assets that can be included in portfolio construction to improve risk adjusted returns in the current investment landscape.

The many public and private alternatives options

In the current landscape, what should investors "pack" in their portfolios to ensure a smoother journey with strong risk adjusted returns? There are several public

market and private market alternatives that investors should consider, all of which are increasingly becoming more accessible to the average investor.



Public market alternatives

Foreign exchange strategies – Foreign exchange markets (currencies) are the largest and most liquid markets on the planet. Investors, businesses, governments, and citizens all around the world use currency markets for transactions and trading.

Aside from being a medium of exchange, currencies have different investment properties, which can be used to help diversify a portfolio. For example, the Canadian Dollar tends to be highly correlated with the business cycle and equity markets, due to the Canadian economy's high reliance on commodities.

As a result, a Canadian dollar investor can hedge and diversify their portfolios by holding more defensive foreign currencies such as the U.S Dollar, Japanese Yen or Swiss Franc. Additionally, active foreign exhange

management can switch between various currencies based of fundamental and technical factors to generate returns. These strategies can help improve the riskadjusted returns of a stock and bond portfolio or be used as an overlay to improve returns.

Foreign exchange strategies – various currencies have different investment properties which can be used to help diversify a portfolio

Option strategies

Options are a derivative security, which means they derive their value from the price and performance of an underlying asset. Options are the right, but not the obligation to buy or sell an asset at a particular price at a particular time in the future. Because the pay-off of an option is determined by an uncertain future, a key input to their value is volatility. As a result, options turn volatility into an investible asset class.

There are three options strategies that can bring diversification to an investment portfolio: tail risk, protected equities and tactical option strategies.

Tail risk strategy – Options strategies can provide specific and reliable downside protection against equity market downturns. This is because they are linked to the underlying equity market and, in the case of a put option, can provide insurance if equities fall below a certain price.

Protected equity strategy – A protected equity strategy strives to enable investors to remain invested in the growth potential of equity investments while offering lower volatility and drawdowns. Buying protective options on the downside, while selling call options on the upside, can lessen the cost of protection. This "collar strategy" can create a smoother and more stable returns stream than outright equities.

Options strategies – can provide specific and reliable downside protection against equity market downturns

Tactical option strategies

- **Generate yield** In investment terms, uncertainty is called volatility and options allow a savvy investor to turn the specter of volatility into an opportunity by profiting from greed and fear. Investors can sell options when they deem volatility is too high to generate income. This can also allow investors to get paid to buy or sell an asset at a more attractive price.
- Capital efficient exposure Investors can combine various options positions to express a specific investment view. Since options generally only require a small premium outlay it can be much cheaper to get exposure than buying or selling the underlying asset outright.

Hybrids

There are several public investments that offer a unique risk and return profile that is a hybrid of equity and fixed income. They tend to offer stable yields and downside protection with the potential for equity participation. Two main hybrids include convertible securities and Special Purpose Acquisition Companies (SPACs).

Convertible securities – Convertible Bonds and Convertible Preferred Shares offer an investor the steady and stable yield of bond like coupons as well as a return of principal invested (assuming no default risk). In addition, they offer an investor the ability to benefit from upside equity participation, beyond a certain stock price, for the company that issued them. Combining stable income and downside protection, with the potential for equity upside participation creates better risk-adjusted returns than either asset alone.

SPACs – SPACs are investment vehicles traded on the stock exchange that accept investor capital to seek a private company to merge with and take public. An investor in a SPAC initial public offering will have their capital invested safely in short term treasury bills while

the management team has up to two years to search for a successful investment. Once an investment is found, investors in the SPAC get to vote on whether they would like their money returned in full or become investors in the new company.

SPAC investors therefore get the principal protection of cash, with the upside potential of innovative and attractive private equities. Further, SPACs offer both explicit and implicit income as some management teams offer investors extra cash or warrants for investing in the SPAC.

Hybrids – income is generally better than fixed income securities with the optionality to participate in equity upside without the downside

Commodities

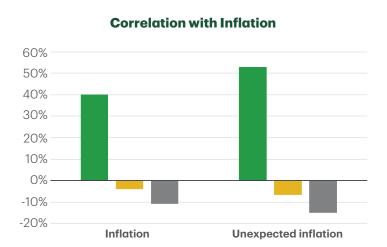
Commodities are key inputs to global production and form the building blocks of our society. The commodity futures market allows producers, consumers, and investors to lock in future purchase or selling prices or to speculate on the direction of commodity prices. A few of the key benefits for investors include inflation protection, diversification, and thematic tailwinds.

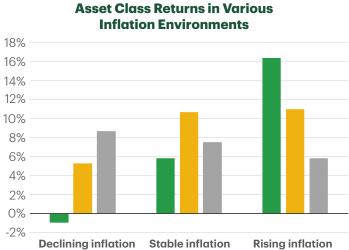
Commodities – are considered the best asset class in periods of high or unexpected inflation and provide low correlation to financial assets

Alternatives

Inflation protection – Commodities are a unique asset class because they are the primary inputs into real-world production and consumption. Commodities therefore can offer strong inflation-protection as they tend to rise with increasing cost of goods. Since inflation erodes fixed income returns and can harm equities if it is high and unexpected, commodities can offer a unique and valuable exposure for portfolios in changing investment regimes. Particularly in periods of weak growth and high inflation, commodities are usually one of the few asset classes that will perform.

Diversification – Commodities are not homogenous and span various types of products, including metals, gold, energy, and agriculture. These commodities perform differently according to unique supply demand conditions in each market and also due to macro factors. Because of this, these markets tend to "march to the beat of their own drum" and can provide a unique return stream compared to financial assets like stocks and bonds. Further, an active manager can exploit and profit from unique mispricing and opportunities in each of these markets.





Commodities
Equities
Fixed Income

Source: Bloomberg Finance L.P, FRED. Data from January 1977 to June 2021. All returns are annualized. Unanticipated inflation was calculated based on Michigan university inflation expectation. Equities are represented by the S&P 500 Index, Commodities are represented by the SPGSCI Total Return Index, Bonds are represented by the Barclays US Aggregate Bond Index.

Source: Bloomberg Finance L.P, FRED. Data from January 1977 to June 2021. All returns are annualized. Equities are represented by the S&P 500 Index, Commodities are represented by the SPGSCI Total Return Index, Bonds are represented by the Barclays US Aggregate Bond Index.

Thematic tailwinds – Commodities are subject to important secular tailwinds that should push prices higher. First, there is a global push from citizens, policy makers and investors to transition carbon intensive fuel sources and industries to renewable sources. This means that resources required for the transition such as industrial metals to build batteries and electricity transition will be in high demand. Additionally, there is a burgeoning market in carbon credits, which allows you to profit from higher carbon prices over time.

Traditional energy sources like oil will still be required for some time but will see little investment in new production. As a result, prices could rise due to constrained supply. Secondly, as the world continues to globalize, urbanize, and prosper there is a continuous need for more materials and fuel sources to power this growing economy.

Private market alternatives

We spend our days in offices, retail stores, and residential properties, all of which are powered or connected by various infrastructure assets such as utilities or toll roads. These private assets are also a highly attractive investible asset class that often offer critical services to our society or occupy soughtafter locations. As a result, they have secure and monopolistic positions that can offer attractive and stable returns.

Infrastructure, real estate and commercial mortgages – These alternatives are a strong portfolio complement, especially in light of ongoing and persistent fixed income challenges. They all offer attractive income streams, portfolio diversification and inflation protection. They also offer exposure to attractive long-term trends such as the green transition, urbanization, and infrastructure upgrades.

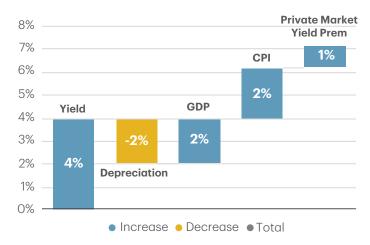
Predictable income streams – Infrastructure, real estate and commercial mortgages all receive contracted cash flows from their customers, lessors, or debtors. These long-term commitments are usually priced at attractive spreads to corporate fixed income and are often structured to grow with inflation or GDP. Using the example of infrastructure to the right, we see that infrastructure cash yields are priced to exceed government bonds by including a spread for inflation and an additional spread for the value they add to society.

We can see from the Canadian real estate chart on the following page, that despite some annual fluctuations of property values, the income portion of return to real estate investors has been very steady because of strong lease agreements.

Infrastructure, real estate, and commercial mortgages –

can offer low to no correlation with traditional assets and high income that generally keeps pace with inflation, with capital gains potential

Building Blocks for Infrastructure Returns

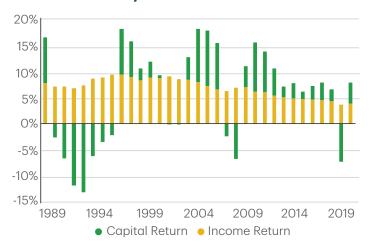


Source: TD Asset Management Inc., IMF Forecasts. Data as of As of September 2021. Infrastructure is represented by the MSCI Global Infrastructure Yield.

Low correlation to traditional assets – Because private assets are unique, they often have a low correlation to financial assets like stocks and bonds. Looking at the historic correlation of real assets we can see some powerful diversification potential:

- Commercial mortgages are negatively correlated with equities and offer protection in down markets.
 Despite their higher correlation with fixed income securities, they offer superior yields and inflation protection.
- Canadian real estate has a near zero correlation with stocks and bonds. This is the holy grail of diversification as it will not be as sensitive to shortterm market whims.
- Infrastructure is negatively correlated to fixed income and only slightly positively correlated to equities – a strong diversifier.

The Stability of Income from Real Estate



Source: MSCI/Realpac Canada Annual Property Index – All Assets performance as presented may not match the official publishes data as MSCI may have revised previous quarterly returns to reflect any corrections provided by index participants or MSCI itself. As at Dec 31, 2020.

	Index	Canadian Equities	Global Equities	Canadian Fixed Income	Real Return Bonds	Commercial Mortgages	Canadian Real Estate	Global Real Estate	Infrastructure
Canadian Equities	S&P/TSX Composite Index	1							
Global Equities	MSCI World	0.79	1						
Canadian Fixed Income	FTSE Canada Universe Bond Index	-0.13	-0.11	1					
Real Return Bonds	FTSE Canada Real Return Bond Index	0.18	0.01	0.61	1				
Commercial Mortgages	60% FTSE Canada Short-term Index + 40% FTSE Canada Mid-term Index + 0.5% on an annual basis	-0.26	-0.25	0.94	0.49	1			
Canadian Real Estate	MSCI/REALCAP Canada Annual Property Index – All Assets	0.08	-0.02	-0.07	-0.07	-0.14	1		
Global Real Estate	MSCI Global Annual Property Index	0.1	0.2	-0.07	-0.1	-0.24	0.77	1	
Infrastructure	Mercer Insight Median Australian Infrastructure Manager AUD	0.4	0.23	-0.17	0.24	-0.31	0.52	0.58	1

Source: Bloomberg Finance L.P, S&P/TSX Composite Index, MSCI World C\$, FTSE Canada Universe Bond Index, FTSE Canada Real Return Bond Index, 40% FTSE Canada Mid Term Overall Bond Index + 60% FTSE Short Term Overall Bond Index + 0.5% per annum, MSCI/REALPAC Canada Annual Property Index, MSCI Global Annual Property Index, TD Asset Management estimate.

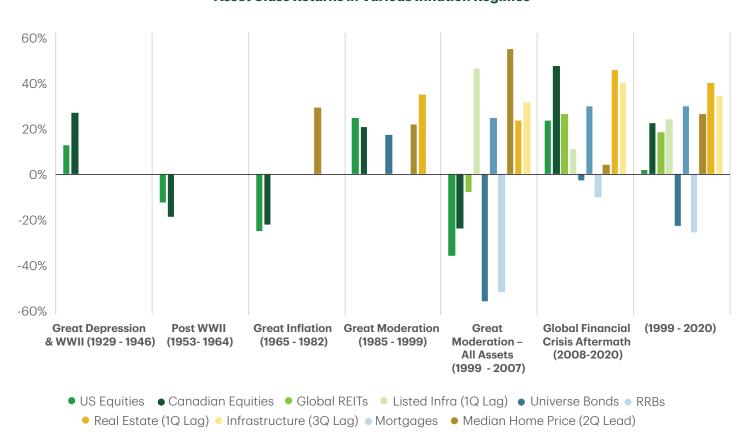
Correlation factors for public markets are calculated from historical quarterly returns of respective market indices for each asset class from December 31, 1998 to September 30, 2021. Correlation factors between public and private markets are calculated from historical annual returns of respective market indices for each asset class from December 31, 1998 to December 31, 2020. Annual returns allow correlation measurements to capture the appraisal value of alternative assets, while reducing valuation mismatches that quarterly returns present due to infrequent appraisals. ¹Unhedged returns in Canadian dollars.

Inflation hedging characteristics – Real assets offer strong inflation hedging characteristics as inflation is built into their income stream. Real estate leases often contain provisions that allow them to increase rents in line with inflation, while tenants often cover the cost of inflationary items such as utilities and upkeep. Infrastructure agreements also often include a component of return that includes inflation.

Additionally, as inflation rises, the replacement cost of infrastructure or real estate assets climbs which

is a component of their capital gains. Commercial mortgages are often variable meaning the interest received should adjust with inflation, they amortize so that income and principal can be invested at higher rates and they are often lower duration than fixed income indices. Because of these factors we can see in the chart below that these assets have performed better than financial assets in higher-inflation regimes.

Asset Class Returns in Various Inflation Regimes



Source: Bloomberg Finance L.P., MSCI, Mercer Insight, St. Louis Fed, US Census Bureau, U.S. Department of Housing and Urban Development, TD Asset Management. As of Sep 30, 2020.

Note: Inflation as represented by Canada Headline CPI. Correlation calculated using quarterly returns. Real Estate one quarter lag. Infrastructure three quarter lead. Canadian Equities coincident. Median Home Prices two quarter lead.

Putting it all together

Major institutional investors such as pension plans have steadily increased their allocation to alternative assets as they have realized the benefits of diversifying away from fixed income and equity investments. Now, with the ability of individual investors to allocate to alternatives through pooled funds, they can receive the benefits of this institutional approach.

This paper has outlined why portfolios should include more asset classes in their toolbox to prepare for a changing investment regime and weakening fixed income contributions. Combining these assets into a traditional portfolio generally improves return and lowers volatility – lifting risk adjusted returns. Best of all, it expands the efficient frontier meaning that for the same level of risk as traditional portfolios, investors may realize higher returns. The combination of diversification, downside protection, inflation protection and steady income make alternatives a strong addition to traditional balanced portfolios. As the landscape of the investment journey changes, it's important to pack the right gear for the path ahead.

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