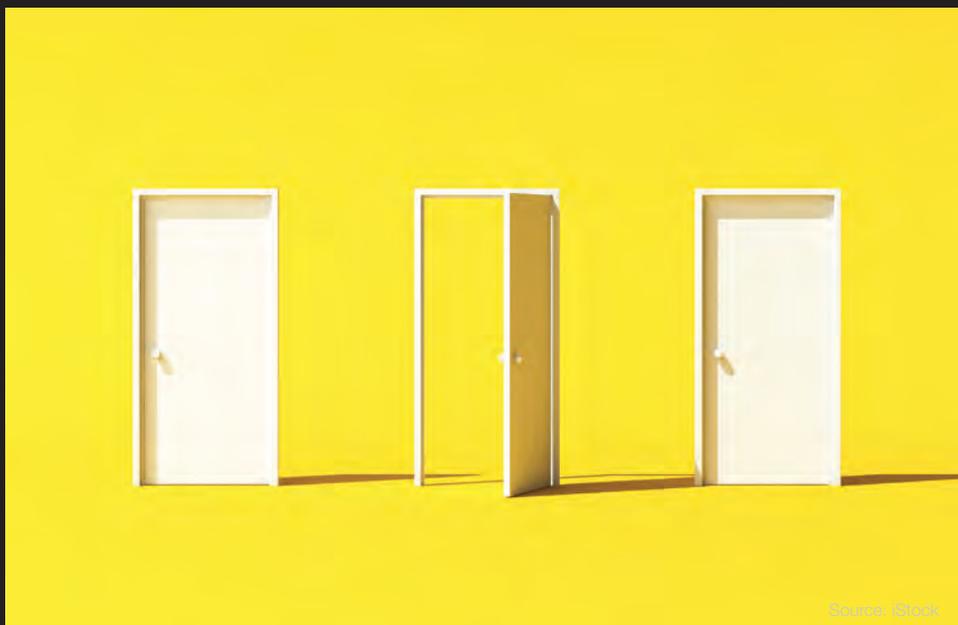


CIO Vantage Point



Source: iStock

Alternatives

Alternatives are rising

After years of easy monetary policy and low yields, investors are looking elsewhere to achieve higher returns and diversification.

Oasis of calm in private equity

The relative calm in the private equity universe amid the pandemic makes it an attractive asset class.

Search for yield in private debt

Good track record with manageable default rates in private debt markets present yield-seeking investors with a credible option.

Opportunities with hedge funds

The myriad of strategies within the hedge funds universe allows investors to achieve their targeted risk-return objectives.

INTRODUCTION

Alternatives

Dear valued clients,

It is common knowledge that a mix of equities and bonds defines a “well-diversified investment portfolio”. However, with bonds becoming increasingly correlated with risk assets and structurally low yields, we need to rethink and redefine what makes an investment portfolio truly diversified.

It is against this backdrop that Alternatives, as an asset class, has gained ground. In the past decade alone, assets under management for Alternatives grew from USD4.1t in 2010 to USD10.8t in 2019, as investors seek higher yields and greater diversification.

The growth potential is clear – with fewer regulatory burdens and more avenues for direct exposure, investors are seizing growth and income opportunities within the Alternatives asset class.

Versatility also makes the asset class compelling. For a start, in this CIO Vantage Point, we take a deep dive into the benefits and risks of private equity, private debt, hedge funds, global infrastructure, and gold.

With the added return and lowered risk, the time to include Alternatives in your portfolio is now. Lay the foundations for a well-diversified investment portfolio that is ready for the future. I hope you enjoy the read as we venture into this exciting universe!



Hou Wey Fook, CFA
Chief Investment Officer

The rising role of alternatives in asset allocation

Alternatives Snapshot

Introduction

Today, alternatives can no longer be perceived as a “satellite” investment given that its market size is broadly equivalent to the market capitalisation of Europe equities or Japan and UK equities combined. Alternatives should constitute a significant segment of strategic asset allocation.

Alternatives set to go mainstream

Momentum to stay strong in coming years as a 2018 survey showed that 84% of investors plan to increase exposure over the next five years.

Democratisation of PE investments

Access to private equity (PE) is changing from being dominated by large institutional investors to include other investors, through different investment channels.

Private debt returns eclipse public market debt

Even within the category of lowest risk in the domain of private debt investing, namely direct lending, we observe superior returns vis-à-vis public debt.

Hedge funds exhibit much lower return volatility

Over the past decade, hedge funds indices have outperformed the stock market during periods of significant declines, providing investors with loss protection.

Global infrastructure a secular theme to watch

Infrastructure needs continue to outpace the funding ability of governments, thus offering opportunities for attractive dividends.

Gold remains a staple in Alternatives

Multiple sources of demand for gold ensures price stability and diversification benefits.

Rising role of alternatives in asset allocation

DBS Chief
Investment Office

It has been years since the notion of alternatives as a mainstay of asset allocation gained acceptance in the investment world. Unsurprisingly so. Research has shown that alternatives help enhance returns, provide diversification and reduce risks.

Rising interest in alternatives among portfolio allocators has seen assets under management (AUM) grow from USD4.1t in 2010 to USD10.8t in 2019. And the robust momentum continues. According to Preqin, assets are slated to reach USD17.2t by 2025 as investors seek to venture beyond traditional asset classes.

Today, alternatives can no longer be perceived as a “satellite” investment given that its market size is broadly equivalent to the market cap of European equities or Japan/UK equities combined. Alternatives should, and will, constitute a significant segment of strategic asset allocation.

What is driving investors towards alternatives?

Years of monetary accommodation by global central banks, coupled with technological disruption globally, have resulted in bond yields staying structurally low. More importantly, bonds are also becoming increasingly correlated with risk assets. These factors suggest that bonds are no longer as effective for diversification as compared to yesteryears. This, inevitably, has resulted in investors looking for other avenues in the alternatives space.

According to the Callen Institute, a supposedly “well diversified” investment portfolio consisting of 60% equities and 40% bonds would possess 99.85% equity risk concentration. However, when alternatives like real estate, high yield bonds, and hedge funds are added, the equity risk concentration falls to 79%. These findings suggest traditional asset allocation no longer provides sufficient diversification for investors and an alternate approach is necessary.

What do investors look for in alternatives?

According to a survey conducted by InvestNews, the main reason for investors to allocate more assets to alternatives is for the purpose of diversification (at 66%). To incorporate alternatives into traditional asset allocation, a “factor approach” is utilised to analyse risk assets (both traditional and alternative) as this allows evaluation to be made on a common basis.

In general, investors allocate capital to alternatives for the following reasons:

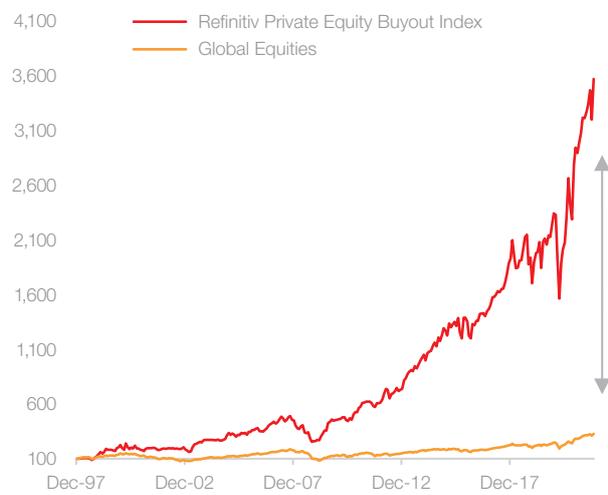
- Growth Enhancement
- Income Enhancement
- Diversification

Growth Enhancement

Assets in private markets tend to generate higher returns than those in public markets because owners of private business are: (a) Less constrained by regulatory burdens and possess greater control over their businesses, and (b) Not required to provide quarterly earnings and can hence adopt a longer-term view. The recent years of strong equity and corporate bonds markets have resulted in investors searching for other growth opportunities. In alternatives, this would entail taking on equity risks, such as private equity (PE) investing.

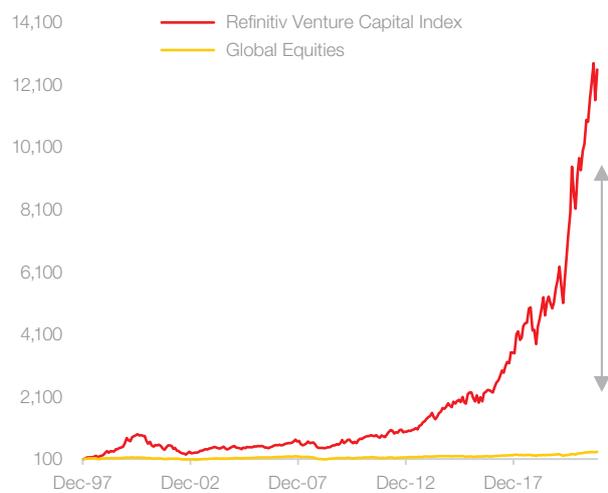
Within PE, the buyout and venture capital (VC) segments have seen robust performance over the years. Since 1998, the Refinitiv Private Equity Buyout Index has rallied 3,470% (vs gains of 228% for global equities) and this constitutes an outperformance of 3,242%. The performance for VC is even more stellar as the Refinitiv Venture Capital Index has surged 12,470%, vastly outperforming global equities.

PE Buyout strategy has vastly outperformed equities



Source: Bloomberg, DBS

VC strategy saw stellar outperformance over global equities



Source: Bloomberg, DBS

Income Enhancement

Aggressive quantitative easing (QE) by global central banks post-Subprime Crisis preceded the decade-long decline in global bond yields, and long-term yields are expected to stay structurally low. Above all, the Covid-19 pandemic has also seen companies cutting back on dividend payouts for capital conservation or to comply with regulatory requirements.

With these changes, unsurprisingly, investors are seeking income opportunities in the alternatives space which include: (a) Distressed debt, (b) Special situations, (c) Senior debt, (d) Mezzanine debt, (e) Structured credit, and (f) Specialty finance. Investors' interest in direct lending is particularly strong as the segment offers a higher spread pick-up. Moreover, direct lending also encapsulates lower default and higher recovery rates given greater safety cover from collaterals and loan documentations.

Diversification

One of the key purposes of asset allocation is for diversification and the reduction of risk concentration. However, the traditional notion of allocating 60/40 of your portfolio to equities and bonds has been called into question after the Subprime Crisis. Thanks to massive QE by major central banks, the correlation between equities and bonds has increased substantially over the years.

Between 2000 and 2008, global bonds and equities had a correlation of only 0.11 and this underlines bonds' effectiveness as an asset diversifier. However, since 2009, bonds have become increasingly correlated with equities as their correlation rose to 0.45 (an increase of 0.35). The same can be said for global real estate investment trusts (REITs) and global commodities, whose correlation with equities rose by 0.14 and 0.24 respectively during this period.

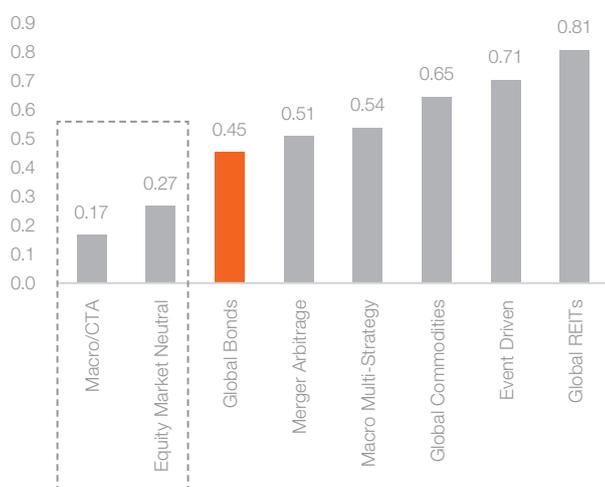
Correlation between hedge fund strategies and traditional assets (2009 till present)

	Global Equities	Global Bonds	Global REITs	Global Commodities	Equity Market Neutral	Macro Multi-Strategy	Macro/CTA	Merger Arbitrage	Event Driven
Global Equities	1.00	0.40	0.81	0.65	0.27	0.54	0.17	0.51	0.71
Global Bonds	0.45	1.00	0.55	0.35	-0.02	0.27	0.17	0.24	0.25
Global REITs	0.81	0.55	1.00	0.49	0.25	0.39	0.15	0.50	0.48
Global Commodities	0.65	0.35	0.49	1.00	0.32	0.36	0.02	0.42	0.53
Equity Market Neutral	0.27	-0.02	0.25	0.32	1.00	0.21	0.08	0.40	0.22
Macro Multi-Strategy	0.54	0.27	0.39	0.36	0.21	1.00	0.19	0.23	0.50
Macro/CTA	0.17	0.17	0.15	0.02	0.08	0.19	1.00	0.16	0.14
Merger Arbitrage	0.51	0.24	0.50	0.42	0.40	0.23	0.16	1.00	0.50
Event Driven	0.71	0.25	0.48	0.53	0.22	0.50	0.14	0.50	1.00

Source: Bloomberg

However, the reverse is happening for some hedge fund strategies. Macro/CTA, Merger Arbitrage, and Event Driven have seen a reduction in correlation with equities over this period. In fact, Macro/CTA (at 0.17) and Equity Market Neutral (at 0.27) possess lower correlation with equities as compared to bonds (at 0.45). This underlines the strong diversification merits for select hedge fund strategies.

Macro/CTA and Equity Market Neutral hedge fund strategies have lower correlation with equities (vis-à-vis bonds)



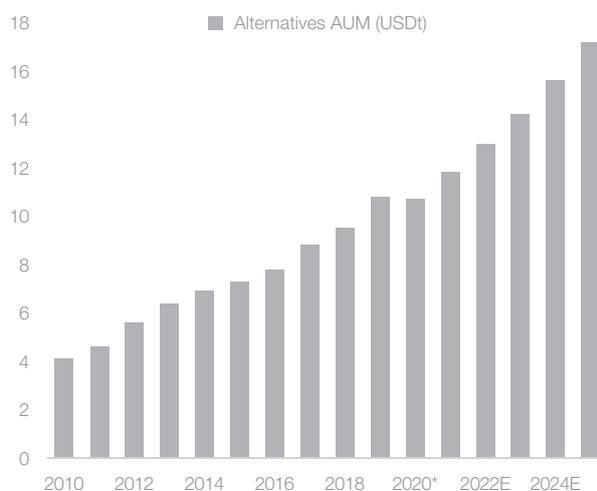
Source: Bloomberg, DBS

Strong growth potential ahead as alternatives go mainstream.

The alternatives industry has undergone robust growth over the years. In the early days, VC led the initial wave of success as investments in new technology took hold during the 1960s-70s. This was followed by the leveraged buyout boom in the 1980s. Today, the key growth driver for the alternatives space is the Emerging Markets (EM) – both as a source of capital as well as investment opportunities.

The demand for alternative assets is set to rise as the asset class goes mainstream. According to Preqin, the number of investors allocating funds to alternatives has grown from 3,500 in 2008 to 11,000 by 2018 – an increase of 214%. The momentum is slated to stay strong in coming years as a survey conducted in 2018 showed that 84% of investors plan to increase exposure to alternatives over the next five years.

Alternatives AUM to see strong momentum in coming years



Source: Preqin

*Based on annualised Jan-Oct data

Private Equity

An oasis of calm in a volatile world. Global risk assets underwent unprecedented disruption in 2020 as a result of the Covid-19 pandemic. The PE space, however, remained an oasis of calm given its low correlation with traditional asset classes. With the prevalence of ample liquidity and structurally low interest rates, global investors are increasing their exposure to PE in a bid to enhance portfolio returns. This is particularly evident among pension funds, sovereign wealth funds, and family offices.

Exposure to PE adds value to long-term portfolio returns by offering investment opportunities that are less commonly available in public markets. Despite possessing lower liquidity as compared to traditional asset classes, PE remains a credible investment instrument in portfolio construction, and investors participating in this space are prepared for long-term commitments of around three to eight years.

PE investment opportunities exist across almost the entire spectrum of a company's lifecycle. PE funds pool together capital from investors to invest in a portfolio of companies. Fund managers are expected to add value and support the growth of their portfolio companies, with the ultimate goal of reselling the fund's ownership stake at a profit. Investments are generally monetised via (a) Partial or full stake sale to strategic investors, or (b) Initial public offerings (IPOs) in the public markets.

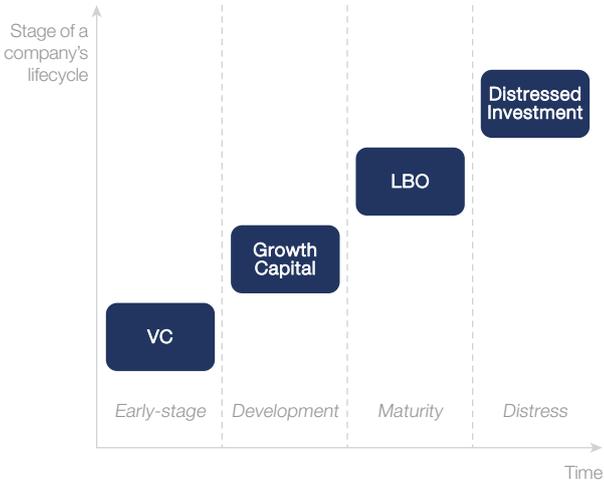
PE funds may engage in one or more investment strategies. The main types of PE investment strategies are:

1. Venture Capital (VC) – Investing in promising early-stage companies with unproven business models but high growth potential.
2. Growth Capital – Providing capital (often as a minority stake) to facilitate a company's growth through expansion, new markets, or merger and acquisitions (M&A) activity.
3. Leverage Buyout (LBO) – Acquiring a controlling stake in a company with proven cash flows. Such strategies often employ a significant amount of debt financing, and the acquired company's assets are staked as collateral for the loans.
4. Distressed Investment – Providing liquidity to financially distressed companies with the intention of gaining control of the company following a restructuring.

Despite the pandemic, global PE deal values have remained resilient. In 2020, for instance, nearly USD700b of deals were concluded globally. Geographically, Europe, the Middle East, and Africa (EMEA) accounted for the largest share, followed by the Americas. The Asia Pacific is gaining prominence and adding to the diversity of PE offerings made available to investors.

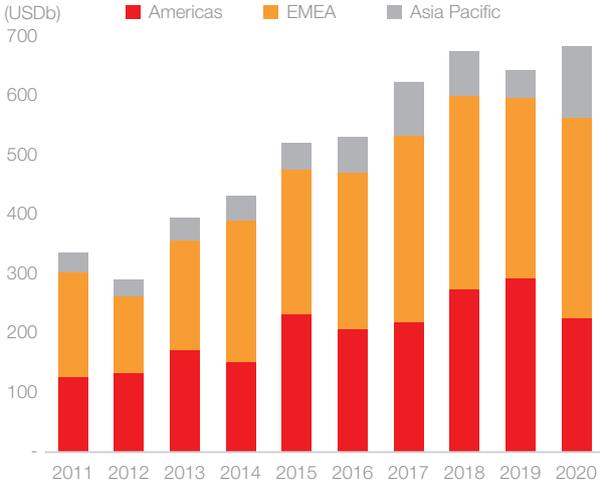
Democratisation of PE investments and the case for rising AUMs. PE focuses on non-public investments that allow investors to benefit from pricing disparities arising from inefficiencies in the private markets. PE as an asset class delivered strong returns in the last decade and this has, in turn, attracted rising AUM.

PE strategies across a company's lifecycle



Source: DBS

Value of annual PE deals



Source: Dealogic, Ernest & Young, DBS





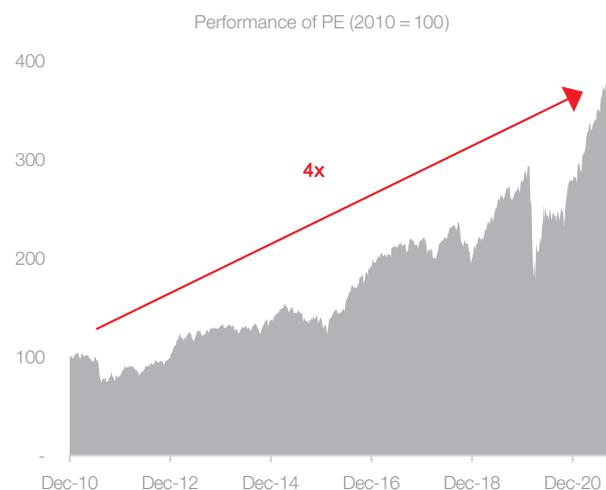
Sophisticated investors are particularly keen to seek new opportunities in PE to replicate the strong returns which they have enjoyed over the past decade. Traditionally, access to PE was dominated by large, sophisticated institutional investors. However, times have changed. With the strong returns of this asset class, there has been a push to make it more accessible. Today, other investors can also participate in PE deals through a variety of investment channels, further contributing to AUM growth. Indeed, total PE AUM has tripled since 2009 to hit USD4.7t in 2020 and this is projected to increase further to USD6t by 2025.

Meanwhile, the amount of “dry powder” (committed capital that is yet to be invested) sitting on the sidelines globally has increased to USD1.5t in 2020 (with Asia Pacific accounting for nearly half a trillion of this). Some mega fund-raising examples include KKR’s USD13.1b Asian Fund IV and Baring’s USD6.5b BPEA Fund VII. The timely combination of strong AUM inflow and robust deal-making will underpin the long-term momentum for global PE.

The rise in private funding and why it matters.

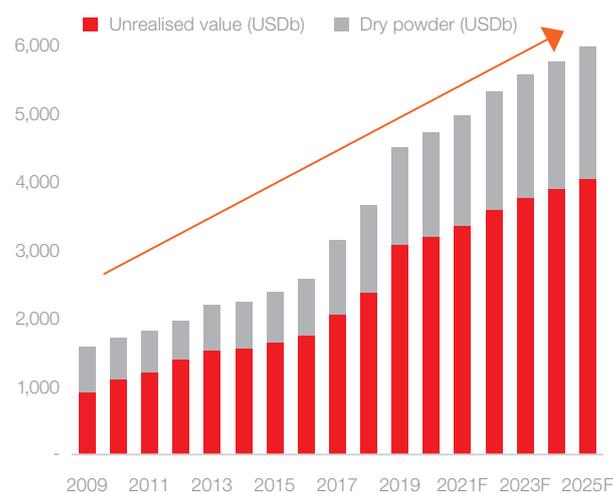
PE firms have improved their funding capabilities and reduced reliance on bank financing in PE deals over time. Previously, debt financing in PE deals was underwritten by financial institutions such as large banks. But of late, PE firms have started tapping on private lenders and investors for their funding needs. For instance, Thoma Bravo recently spent USD6.6b to acquire Stamps.com and the deal was funded by a combination of USD4b in cash and USD2.6b in debt from private lenders. The shift towards private funding reiterates the massive dry powder available in the hands of PE firms, with investors eager to put their money to work in the private markets.

Performance on a tear



Source: Bloomberg, DBS

Multi-trillion opportunities



Source: Deloitte, Preqin, S&P Capital IQ, IMF, DBS

Opportunities in PE. In addition to the possibility of attractive returns above that of listed equities, PE investing offers investors the following benefits:

1. Diversification – Investors gain exposure to a wider range of companies including smaller companies and companies that have delisted from public exchanges.
2. Management Involvement – Astute fund managers improve the value and performance of portfolio companies with management expertise, industry best practices, and connections. These translate to better returns for investors.
3. Availability of Leverage – The availability of debt financing creates an ample pool of funds available to leverage PE deals and amplify investment returns.

Risks in PE. Investors looking to include PE in their portfolio allocation would do well to familiarise themselves with the unique set of risks that this asset class entails:

1. Investment Horizon – Given the time required to manage and improve portfolio companies, PE investors must have the appetite to tolerate a lengthy investment gestation period before any returns are experienced.

2. Illiquidity – While there exists a secondary market for positions in PE funds, PE remains far more illiquid than public equities or ETFs which are readily traded.

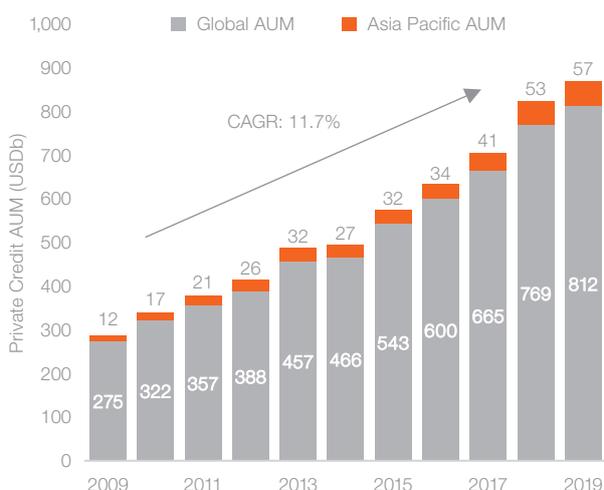
3. Fund Manager Selection – The selection, qualification, and governance of skilled managers are paramount. PE investment returns hinge heavily on a manager's ability to identify the right investment opportunities, value-add to portfolio companies, and successfully exit investments.

PE as important building block in portfolio construction. The unique combination of robust AUM growth, diversified funding sources, and attractive deal values have cemented the importance of PE as an important building block in portfolio construction. Furthermore, the move towards greater inclusivity in PE investing presents more channels for investors looking to gain exposure to this asset class.

Private Debt

Broadening the search for yield. The decade since the Global Financial Crisis (GFC) in 2008 has shown investors that unbelievably low yields can go lower still. This seemingly “no-exit” strategy of unconventional monetary policy around the world simultaneously creates a (i) Dearth of income-generating assets on top of (ii) Excessive amounts of financial liquidity, turning investors into scavengers looking far and wide in search for yield.

No stopping the (in)flow



Source: Preqin Pro, EY, Alternative Credit Council, DBS

The hunt has led many investors to warm up to the niche world of private debt – an alternative asset class that once drew caution due to its opacity. That is no longer the case. Private debt investments have since been able to produce a stellar performance track record, leading investors of all types – including perennially-conservative pension funds – to continue to allocate capital to this alternative with rising

enthusiasm. Most notably, the AUM of private debt has seen steady growth in the last decade, with a compound annual growth rate (CAGR) of 11.7% in the ten years since 2009.

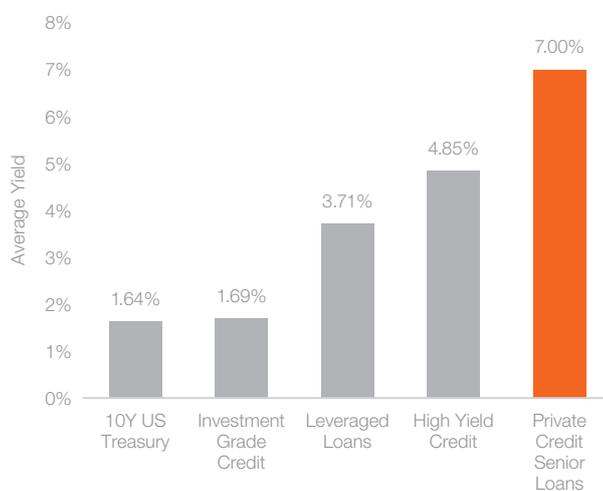
Debt in all its shapes and forms. Within the realm of private debt, investors are offered a variety of strategies that cater to specific risk preferences and opportunity sets. We sum up a few of the major categories of private debt below:

1. **Direct Lending** – Investors extend loans directly to companies (generally small and medium enterprises, or SMEs) and receive regular interest income throughout the term of the investment.
2. **Mezzanine Funds** – Investing in instruments that are generally subordinate to senior debt or working capital facilities but rank above equity. Investors may capture more upside than vanilla debt through structuring of convertible rights or embedded equity options.
3. **Distressed Debt** – Purchasing deeply discounted debt securities in a distressed scenario and generating returns through restructuring or negotiation.
4. **Special Situations** – Participating in a lending opportunity that arises due to specific events rather than company fundamentals (M&A, corporate restructuring, bridge financing etc.)
5. **Project Financing** – Investing in debt used for infrastructure development or acquisition of real estate.

6. Venture Debt – Providing loans to early-stage companies for financing of equipment, receivables, or other general forms of growth capital.

Returns that eclipse most forms of public market debt. As much as the above strategies span a wide range across the risk spectrum, it is worth noting that even within the category of lowest risk in the domain of private debt investing – namely in direct lending – we observe returns at a magnitude almost unheard of in the realm of public debt. These loans

Higher than High Yield



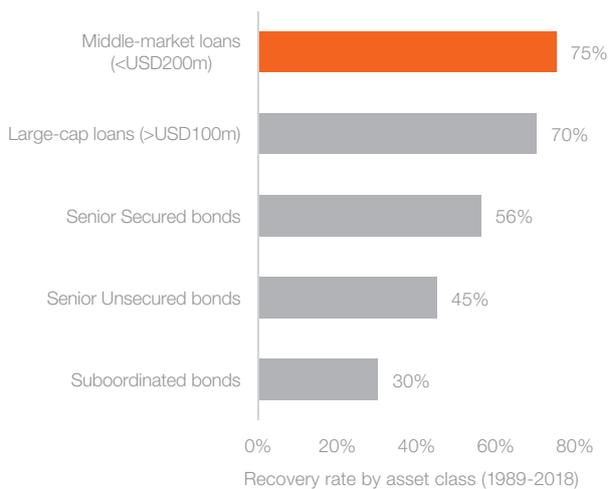
Source: Bloomberg, DBS

are consistently able to generate returns in the range of 6-8% per annum, more than 500 bps above Treasuries and Investment Grade credit, and more than 200 bps above High Yield credit and Leveraged Loans (some of the most risky classes of public-market debt today).

Higher returns were not made with excessive risk-taking. The experienced investor would look at such elevated yields and immediately wonder if there is inordinate exposure to insolvency risks in the underlying investments. However, an analysis of default trends shows otherwise – private debt default rates are surprisingly low. Even in 2020, a year devastated by both a coronavirus pandemic and an oil price shock, default rates in private debt did not rise above 3%. This is remarkable considering that defaults in global High Yield credit reached 6.7% and Leveraged Loans reached 4.2% in the same period.

Moreover, investors are often accorded significant protection in private debt even under a default scenario. More specifically in direct lending strategies, investors have stronger downside protection due to good asset collateralisation and higher ranking in the capital structure. This implies that lenders have the first claim on company assets such as cash, receivables, and equipment, ensuring that liquidation does not severely impair one's principal investment. The average recovery rate for US middle-market senior loans (1989-2018) was 75% – far higher than the 56% for senior secured bonds traded in public markets.

High recovery rates for direct lending



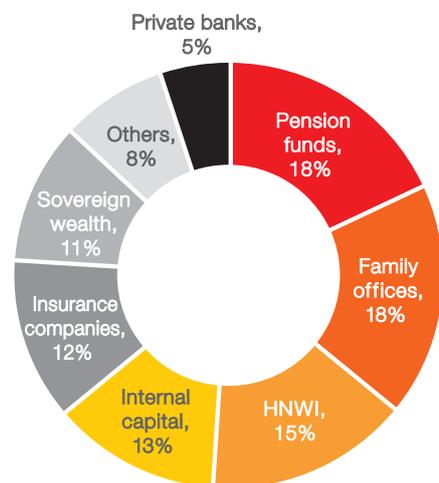
Source: S&P CreditPro, DBS

Private debt liquidity nearly crisis-proof. A large part of the steady performance of private debt in 2020 was the persistence of ample funding, unlike in public markets which ironically saw bond prices gap downwards on thin liquidity during the crisis. Global fundraising for private debt dipped merely 6.7% from 2019 levels, with commitments remaining above USD100b for the year.

What made up for the decline in direct lending (the largest portion of the private debt market), was the resurgence of the distressed and special-situations strategies. This was in part fuelled by “trigger funds”; funds where institutional investors pre-commit capital to a strategy that is triggered upon a market dislocation – one which a global pandemic would result in no shortage of. These strategies proved effective as dislocations generally turn out to be more short-lived than the market expects.

Inflows undergirded by structural trends. The continued success of such strategies, together with other long-term secular trends such as the (a) disintermediation of bank lending due to regulatory obligations following the Global Financial Crisis, as well as (b) sustained low interest rates from unconventional monetary policy, ensures that demand for private credit investments would continue on its rising trajectory for years to come. Even in Asia, where private credit remains a nascent segment of the global markets, AUM has more than doubled from USD27b in December 2014 to USD57b in June 2019.

Sources of capital for Asia Private Debt



Source: Preqin Pro, EY, Alternative Credit Council, DBS

Opportunities in private debt. Apart from the favourable risk-return profile described above, investors in private debt gain several other unique advantages:

1. Protection from rising rates – Loans in direct lending are generally structured with floating-rate coupon payments which rise with the interest rate environment. Additionally, these floating rate loans normally have contracted floors on the reference rates to protect against a decline, allowing both upside capture and downside protection at the same time.
2. More control – Investors are accorded better access to the company both before and after the deal inception; this allows for greater control over the terms and structure of the deal.
3. Lower volatility – Mark-to-market values of investments are not as volatile as publicly traded High Yield debt, resulting in favourable risk-adjusted return calculations.
4. Diversification benefits – Private debt is often lowly correlated with other asset classes, as well as the business environment in general due to its penchant for counter-cyclical deployment.

Risks in private debt. That said, investors would also do well to familiarise themselves with the unique prevailing risks pertaining to private debt investments:

1. Illiquidity – Unlike public debt markets, there is an absence of a liquid market to sell positions in private debt investments, implying that capital commitment may be required for extended periods.
2. Covenant-lite loans – The downside of large pools of funds chasing limited private debt assets is the relaxation of investor due diligence; loans increasingly issued with fewer borrower restrictions and lender protections.

From niche to mainstream. The aggressive actions of central banks in 2020 – despite rescuing markets from a tsunami of distress – did not eliminate defaults; they merely dispersed a giant wave into smaller ripples, creating plenty of distressed investing opportunities in the years to come. Combined with the maturation of the markets, private debt now boasts knowledgeable fund managers with observable and verifiable track records, making it easier to select managers in this asset class.

Investors now stand at a unique inflection point where opportunity meets expertise, making private debt an asset class that will be increasingly difficult to avoid for the discerning investor in the foreseeable future.





Hedge Funds

Unique characteristics distinguishing hedge funds from traditional investment vehicles.

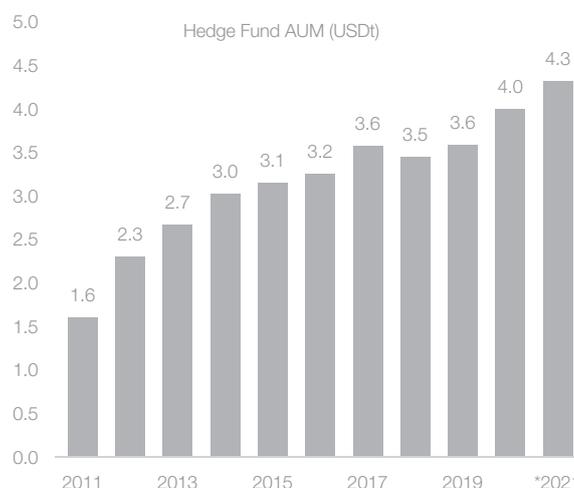
Hedge funds are private investment vehicles that get their name from their historic focus on hedging risk by simultaneously taking long and short positions. While early fund managers mostly adopted a long-short equity strategy, today, hedge funds have evolved to adopt a myriad of strategies exploiting different market opportunities. The following characteristics distinguish hedge funds from other investment vehicles:

1. Lower legal and regulatory constraints – Regulations on hedge funds are generally less strict than those imposed on other vehicles such as mutual funds. This gives them the liberty to adopt profitable strategies that are inherently risky.
2. Flexible investment mandates – Because of the lower regulatory restrictions, hedge fund mandates tend to be flexible, allowing fund managers the latitude to employ aggressive strategies across a wide investment universe, and agility to quickly respond to market changes and opportunities.
3. Active management – Through hedge funds, investors can tap on the expertise of the hedge fund managers. Fund performance depends closely on the fund manager's ability to identify opportunities and react accordingly. Naturally, this also comes with substantial fees to attract the top talent in the industry.

4. Exclusivity – Hedge funds are sophisticated products accessible exclusively by institutions and wealthy individuals. They elevate an investment portfolio by providing diversification benefits and enhancing returns.

Given their attractive features, hedge funds form the second largest alternative investment class, representing AUM of approximately USD4.3t globally with a CAGR of 10% over the past decade.

Hedge fund global AUM



Source: Preqin, DBS
*Based on September 2021 data

The main categories of hedge funds strategies.

Hedge funds can be categorised based on their risk exposures, underlying asset classes, and investment philosophy. Most strategies fall within the following broad categories:

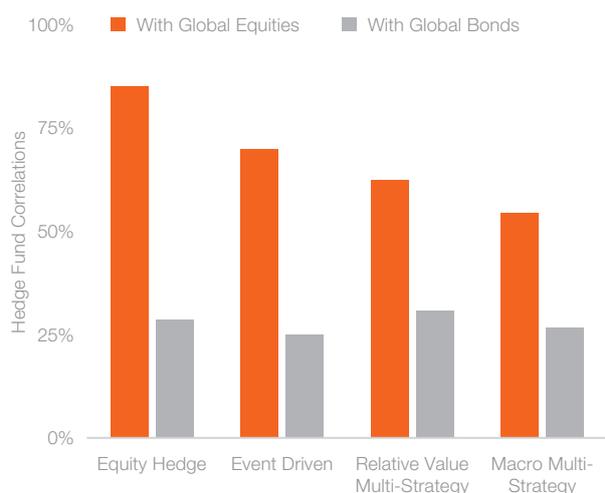
1. Equity Strategies – These are the most popular and oldest hedge fund strategies. Equity hedge funds take long positions in stocks believed to be undervalued, and short positions in overvalued stocks. Types of equity hedge funds include long-bias, short-bias, and market-neutral funds, each categorised according to the ratio between the fund's long and short positions. These lead to varying amounts of market exposure and risk.
2. Event-driven Strategies – These strategies involve company-specific exposure to exploit mispricing before or after an event such as an IPO, financial distress, restructuring, or M&A. When an M&A is announced, a hedge fund may take a long position on the expected target company while shorting the acquiring firm. The profits come from the target company trading below the acquisition price, but the fund is subject to the risk that the acquisition does not materialise.
3. Relative Value Strategies – These strategies aim to benefit from price differentials between highly correlated securities. Quantitative models may be adopted to identify arbitrage opportunities due to pricing inefficiencies. For example, a relative value trade may involve simultaneously taking long and short positions on relatively mispriced on-the-run and off-the-run Treasury Bills that have the same duration. Relative value strategies include fixed income arbitrage, capital structure arbitrage, and statistical arbitrage.
4. Macro Strategies – These strategies aim to profit from their view of market movements caused by events affecting global financial markets. Using derivatives and other financial instruments, macro funds take positions on factors such as commodity prices and currencies, based on their expectation of the market environment. These funds can profit in any economic environment, and can offer reduced portfolio volatility.
5. Specialist Strategies – These strategies are concentrated on niche areas such as real estate, insurance settlements, or cryptocurrencies.

In addition to these categories, there are also funds that employ multiple strategies:

1. Multi-strategy Funds – These funds seek to deliver consistently positive returns regardless of the directional movement in markets, and this is achieved by combining a variety of the above strategies to reduce volatility of returns.
2. Funds of Funds – These are funds that primarily invest in other hedge funds, with the aim to provide investors with a variety of fund categories wrapped in a single portfolio.

Each fund has different characteristics depending on its strategy. Investors seeking portfolio diversification should consider overlaps between the fund's strategy and their existing portfolios, seeking funds with minimal correlation to their portfolios.

Diversification benefits depend on strategy

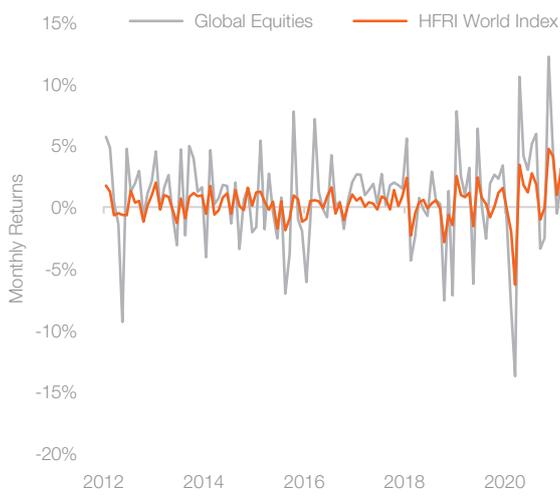


Source: Bloomberg, DBS

Benefits of hedge funds investing. With their proprietary strategies, agility, and diversification benefits, hedge funds bring with them various benefits when included in investment portfolios.

1. Management expertise – Investing in hedge funds gives one access to the top investment talent. The best hedge fund managers adroitly navigate across a wide universe of markets seeking trading opportunities. Investors in hedge funds can rely on these experts to be active in the market and take investment positions based on their convictions.
2. Attractive returns – Hedge funds have the flexibility to use short selling, derivatives, and amplify returns using leverage. While presenting inherent risks, these allow hedge funds to realise higher potential returns.
3. Profiting from volatility – Hedge funds are known to shine in volatility. Uncertain conditions and market movements create opportunities for relative value strategies. Global macro hedge funds can also capitalise on mispricing in macroeconomic shifts.
4. Diversification – Unlike mutual funds that invest in more conservative and traditional approaches, hedge funds also deploy capital to non-traditional assets. Because of the wider investment universe available, the inclusion of hedge funds to a traditional investment portfolio diversifies risks associated with the conventional equity and bond markets. This applies especially for funds that produce returns uncorrelated with traditional assets.
5. Loss reduction – Hedge funds increase the stability of portfolios. This feature is particularly beneficial in declining markets. Over the past decade, hedge fund indices have outperformed the stock market during periods of significant declines, illustrating how the addition of hedge fund exposure to a portfolio provides investors with loss protection.

Hedge funds exhibit much lower return volatility



Source: Bloomberg, DBS

Risks of hedge funds investing. While these benefits may seem alluring, investors must also be aware of the inherent risks before investing in hedge funds.

1. Manager selection – Returns vary widely across hedge funds as they are attributable to manager acumen. For this reason, the bulk of hedge fund AUM flows to the strongest managers, with more than 60% of AUM managed by the top 5% of managers. Selecting the right fund manager is essential, and investors should look out for experienced managers with consistent track records.
2. High fees – Given the importance of manager skill, hedge fund managers command significant fees. The most common compensation structure is the “2 and 20” arrangement – an asset management fee comprising 2% of assets, plus a performance fee of 20% of profits exceeding a high watermark. The performance fee incentivises managers to generate larger returns for investors. Before investing in a hedge fund, investors should understand the fund’s unique fee model and determine if they are willing incur these charges.
3. Potential for large losses – Some hedge fund strategies involve taking on concentrated risks, which amplify profits but also potential losses. In considering the returns of a hedge fund, investors should evaluate their portfolio holistically, bearing in mind other factors such as diversification benefits.
4. Restrictions on redemption – Hedge fund investors have limited opportunities to redeem their shares. This is because hedge funds impose lock-up periods, during which share redemption is not allowed. Fixed redemption schedules and redemption notice periods allow fund managers the flexibility to invest in illiquid securities without concern about maintaining excess cash on hand for anticipated redemptions.



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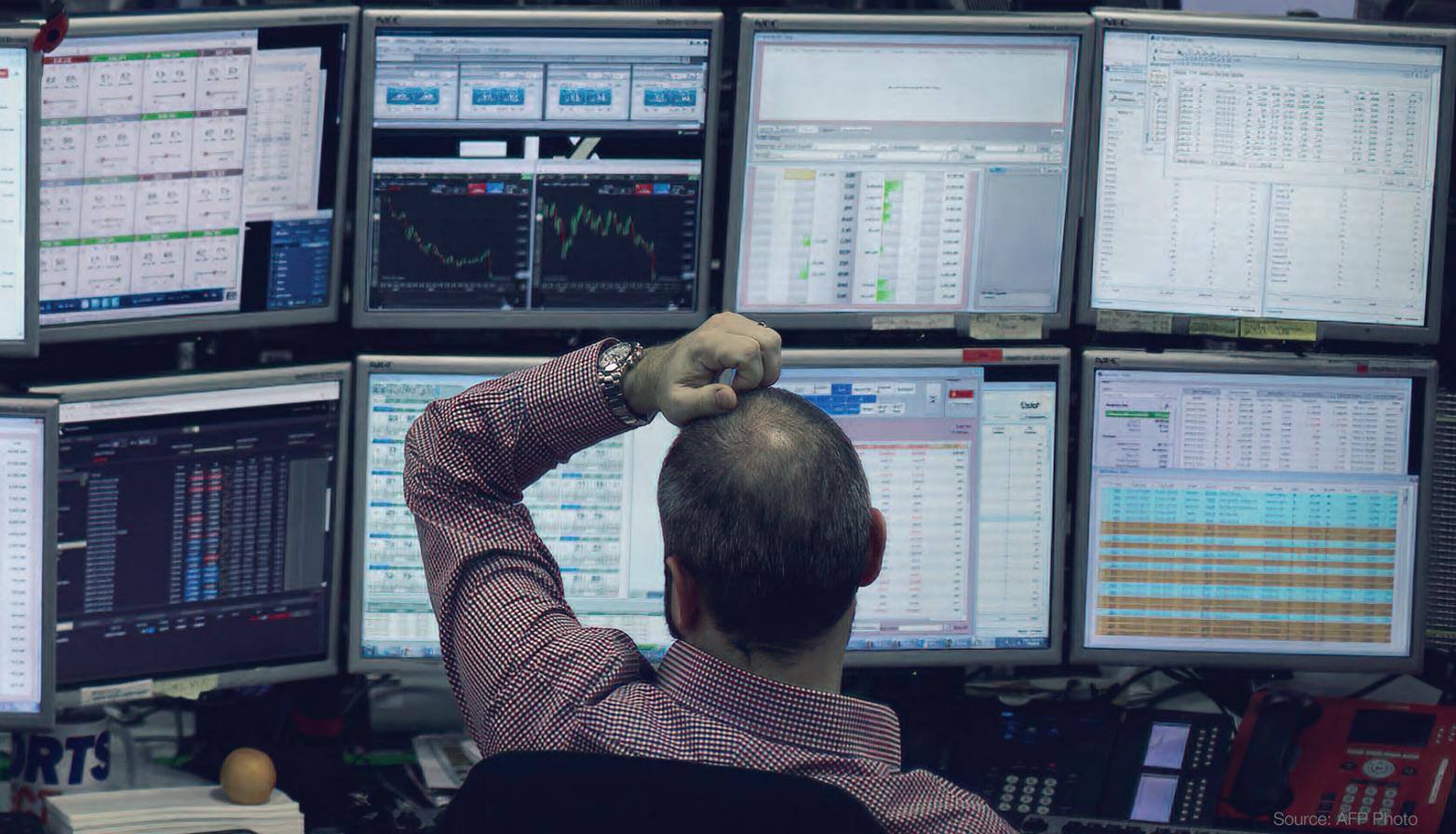


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Choosing the right fund. Hedge funds vary widely in philosophy, strategy, and performance. It is important for investors to analyse the suitability of a hedge fund. Given the crucial role of fund managers in driving performance, investors would do well to familiarise themselves with the manager's track record and expertise.

Of equal importance is understanding the fund's investment objectives, risk and return profile, what it invests in, and how the investments are valued. The fund's performance should be commensurate with its strategy and its purported risks. Fund managers should provide regular and comprehensive updates, allowing investors to monitor the fund for deviations from its purported strategy.

The benefits and drawbacks of hedge fund investing are often two sides of the same coin. By dedicating adequate resources to careful fund selection, investors can elevate their portfolios with the inclusion of the appropriate hedge fund exposure.



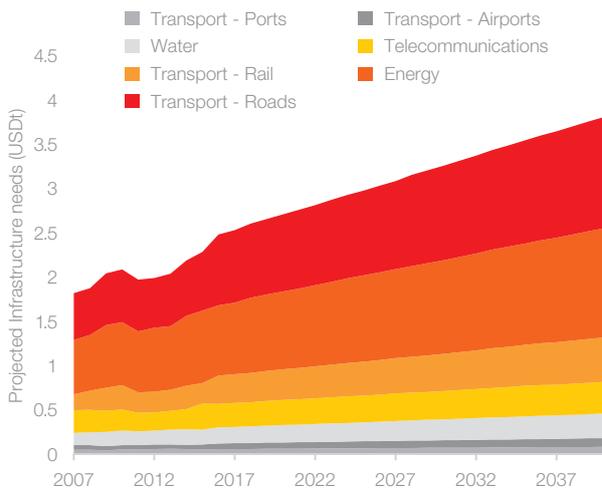
Urbanisation
begets
infrastructure
investment

Global Infrastructure

All roads lead to infrastructure. Globally, we have seen an increasing emphasis for a pipeline of future infrastructure from both developed and emerging economies, as the former has seen investments in this domain languish while the latter continues to see a growing need from rapid urbanisation. Governments around the world are becoming increasingly aware that the inability of existing infrastructure to provide for basic necessities can lead to tepid domestic growth, spark social unrest, and exacerbate inequality if left unchecked. These critical needs, along with many other evolving trends, are joining in the chorus calling for more to be done in the area of global infrastructure.

We elaborate on some of these trends in more detail below.

Urbanisation begets infrastructure investment



Source: Global Infrastructure Hub, DBS

Trend 1 – Urbanisation of the world. One megatrend that continues to find momentum is the urbanisation of the world. According to the World Bank, the world’s urban population percentage rose from 34% in 1960 to 55% in 2018, and is projected to double in size by 2050 where nearly 7 of 10 people in the world will live in cities . It is not difficult to connect the dots that rising urbanisation begets rising infrastructure needs. Echoing the trend, the Global Infrastructure Hub estimates that the world will face a cumulative USD15t investment gap in providing adequate global infrastructure by 2040.

Trend 2 – Diminishing Efficacy of Monetary Policy. The hallmark of the last decade for financial markets was undoubtedly the rise of QE as the de-facto policy tool for central banks to stimulate the economy. However, there is growing consensus that this has done for the real economy all but a fraction of what it did for asset prices.

More recently, central bank governors have encouraged the use of fiscal levers to drive economies forward, noting the limitations of monetary policy with rates close to their lower bounds and balance sheets already in excess. Such fiscal levers find support in the form of infrastructure spending. With interest rates near zero, the fiscal multiplier (the amount of growth resulting from every dollar of fiscal spending) is likely to be higher as the “crowding out” effect is diminished.

Based on US Congressional Budget Office estimates, transfer payments for infrastructure spending have some of the highest multiplier estimates, giving it much legitimacy as the fiscal lever to take some weight off monetary policy in stabilising a languishing economy.

Ranges for US Fiscal Multipliers



Source: US Congressional Budget Office, DBS

Developed Markets Gini Indices



Source: World Bank, Bloomberg, DBS

Trend 3 – Rising Inequality. One detriment of higher asset prices comes in the form of rising inequality. This is compounded in the US, where the Tax Cuts and Jobs Act of 2017 is perceived to have benefitted the wealthy at the expense of the lower and middle class. It is no coincidence that the Gini coefficient in the US, which measures inequality, is at some of the highest levels in history:

Infrastructure spending, in the form of education, health, sanitation, transport etc. remains an important mechanism by which wealth can be redistributed across society. This works in the form of facilitating social mobility, connecting labour to core economic activities, and easing information flow to disadvantaged individuals.

Opportunities in infrastructure investment. We have come to an interesting disequilibrium, where infrastructure needs are rapidly exceeding the means by which many governments are able to finance them. Given the difficulties faced by many governments

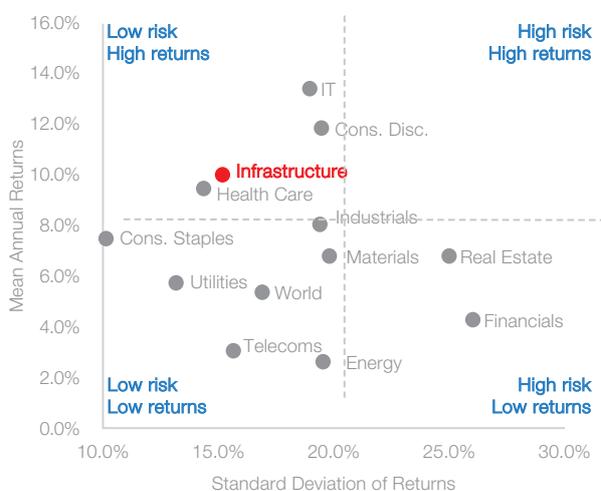
and municipalities in balancing their budgets, public indebtedness is on the rise, and there will inevitably be an increasing reliance on private capital to finance public infrastructure. This is not to say that footing the bill is a purely philanthropic gesture; there are several attractive qualities in infrastructure investment from a private capital standpoint:

1. High and sustainable dividend payouts – Infrastructure investments command a high level of cash flow visibility and certainty due to its long-term nature, regulated returns, and limited cyclicity.
2. Strong pricing power due to cost pass-through structures and limited competition – Infrastructure assets can increase prices of their services with consistency due to several factors such as inflation-indexed prices (particularly in Europe and Australia), high barriers to entry, and regulatory safeguards which make competition difficult. The stability of real cash flow streams

from infrastructure is unique to the asset class; one could call it a bond proxy with benefits.

3. Good risk-adjusted return profile of infrastructure – Looking over longer-term average returns and volatility of returns across various sub-sectors, infrastructure assets stand out as a class of its own. Few sectors can distinguish themselves by providing better-than-average mean returns while concurrently also seeing lower-than-average volatility over a longer horizon.

Infrastructure generates good risk-adjusted returns



Source: Bloomberg, DBS

4. Diversification benefits due to low correlations with other asset classes – Another key benefit of infrastructure investment is the ability to generate total returns that have low correlations to other traditional asset classes including equities, bonds, and real estate, effectively reducing overall portfolio volatility.

Risks of infrastructure investment. Investors should also be mindful of the risks that are more germane to infrastructure:

1. Political Risk – The shift in the political balance of power can see regime changes and new policies that could alter the viability of infrastructure projects. Invested capital can be very quickly put at risk in jurisdictions that are inherently unstable.
2. Technology Risk – Rapid innovation could lead to outmoded structures, and infrastructure is not exempt from disruption. The segments most at-risk will be energy and transport infrastructure; the former seeing renewable energy disrupt traditional fossil fuel-based infrastructure, and the latter being on the precipice of significant change with the shift towards electric vehicles and driverless cars – the necessity of vehicle-infrastructure integration may require significant reimagining of transportation structures.

The opportunity to invest in the foundations of our new world. Infrastructure investment is perhaps the closest thing to having your cake and eating it too; not only does it offer investors the opportunity to lay the bedrock upon which the new world is built, the investment offers both yield and diversification benefits sufficient to justify an allocation within any portfolio. Investment expressions are also varied, ranging from infrastructure-related mutual funds to PE funds and even direct investment in infrastructure projects.



Gold

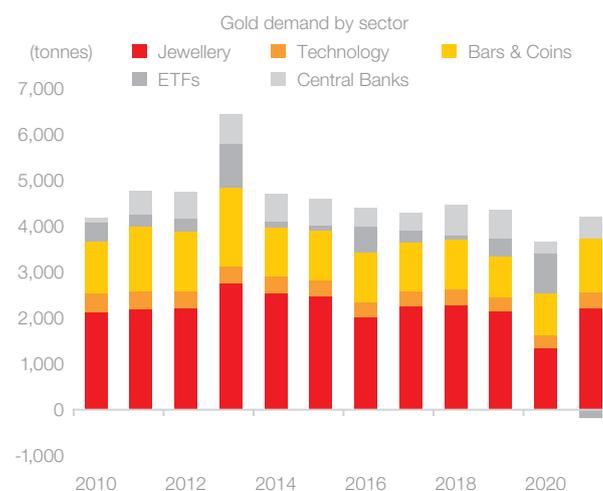
Gold is widely regarded as a hard but liquid asset with good store of value against inflation for the long term. Along with its low correlation with other asset classes, especially stocks, it is a sought-after alternative asset class to act as a hedge to defend tail risks of stock market meltdown.

Demand and supply dynamics support long term price stability. Gold is widely used as jewellery, investments, reserve assets, and high precision technology, and thus it benefits from long-term price stability. Demand for physical gold jewellery comprises about half of gold's total demand, primarily from Emerging Markets such as China and India.

Meanwhile, central banks which hold about one-third of total available gold supply is a key source of stable demand. Over the past 20 years, central banks have been increasing their gold holdings to diversify from concentrated currency risks. Lately, gold is seen as an alternative investment to the growing pile of negative interest rate debt.

Investment from exchange-traded funds (ETF) demand has been growing in the past 10 years and has become an important price driver. Although ETF investment has increased the volatility of gold as a result, the ease of investments has further increased gold's investment appeal, with more being allocated to portfolios with ETFs.

Gold's diverse sources of demand make the price relatively stable over the long term



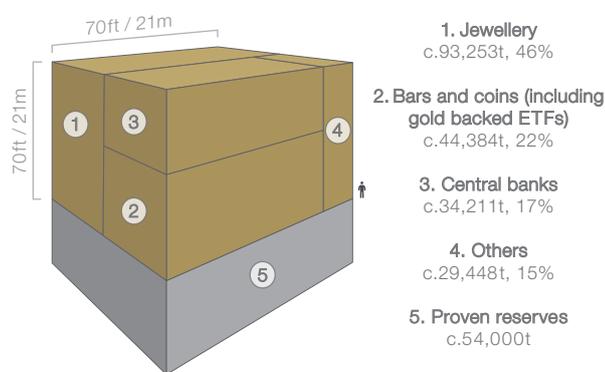
Source: World Gold Council, Metal Focus, Bloomberg

On the other hand, supply for gold remains tight. Based on estimates by the World Gold Council, the estimated amount of gold mined in history is about 200,000 tonnes which is held in the form of jewellery, investments in bars & coins, reserve holdings by central banks, and others. Coupled with known reserves underground at around 54,000 tonnes, the total amount is equivalent to less than three Olympic-sized swimming pools. What has made gold a rare precious commodity has not changed, and its value is further enhanced as interest rates continue to fall in the longer term.

Total gold supply can fit in just under three Olympic pools

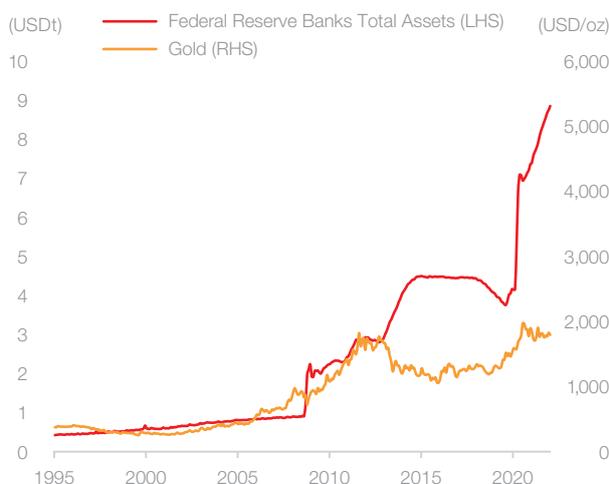
Limited Supply . . .

Total gold supply can fit in just under three Olympic pools



Source: World Gold Council

Fed balance sheet vs gold



Source: Bloomberg, DBS

QE world heralds gold demand. There has been much talk about the positive impact of QE on gold prices. The transmission mechanism of its impact is more profound than it seems. QE directly creates liquidity and is inflationary, but indirectly tempers Treasury yields and weakens the dollar. Fiat currencies are mainly losing their worth as money printing by central banks seems unstoppable.

As such, gold as a store of wealth and a hedge against systemic risk, currency devaluation, and inflation can become more relevant in strategic asset allocations.

Gold's correlation with other asset classes

1. Uncorrelated with equities – The correlation between gold and equities is almost zero in the long run. The relevance of gold is not only useful for investors in turbulent times, but it can also be positively correlated with stocks and other risk assets in positive markets. This dual benefit stems from the dual nature of gold as an investment and a luxury good.
2. Strong correlation with bonds – While the correlation between gold and equities is low and sometimes negative, the correlation with bond prices is high and rising. Unlike the past where cash deposit rates were high, there is minimal opportunity cost in holding gold today, given the ultra-low level of rates. Gold, which is more liquid and has no credit risk, is often used as an alternative to bonds in an overall portfolio construct due to its risk diversification attributes.

Gold’s dual benefit – negative correlation in negative markets, positive correlation in positive markets



Source: Bloomberg, DBS

Positive correlation with bonds and negative/low correlation with equities make gold a great risk diversifier



Source: Source: Bloomberg, DBS
*Calculated using rolling 5-year weekly returns

Gold tested through time as a “risk diversifier”. Historical data show that gold acts as a “risk diversifier” as it reduces risk and overall losses when stocks and bonds fall sharply. The following table shows how adding gold to a standard portfolio (split 50:50 between equities and bonds) would have affected the risk and reward across the last thirty years, and lately in the past five years. Risk,

as measured by the standard deviation of returns, is minimised without compromising too much on returns over time. The result is more obvious in the past five years as global markets have experienced heightened volatility. We believe this is due largely to uncertainties in US policies. An allocation of 5-10% in gold is considered healthy for an individual’s portfolio.

Correlation between hedge fund strategies and traditional assets (2009 till present)

	50 Eq/ 50 Bond	Gold	Portfolio performance with % Gold				
			@0%	@5%	@10%	@15%	@20%
30-year							
Standard Deviation	9.9	14.4	9.9	9.7	9.4	9.2	9.1
Average Return	7.1	5.5	7.1	7.1	7.0	6.9	6.8
5-year include YTD							
Standard Deviation	15.9	10.7	15.9	15.3	14.7	14.1	13.5
Average Return	0.9	6.7	0.9	1.1	1.4	1.7	2.0

Source: DBS

Direct methods of investing in gold. There are various ways for investors to get exposure to gold, such as buying and holding physical gold such as coins or bars, gold ETFs, gold accounts, or investing indirectly through gold mining stocks. Silver is a second precious metal of choice for investors, and generally does well in a positive gold price environment.

Short-term gold price fluctuations. There are many factors affecting gold prices in the short term, but we believe the long-term trend should be positive as persistent, stable demand from central banks and pension funds are very much in place. Primarily, our model for gold prices suggests its

sensitivity to the movements of bond yields (negative correlation), the dollar (DXY, negative correlation), and economic uncertainty (positive correlation). Gold should perform well if there is an increase in inflation while the Fed under-reacts, one which the market deems insufficient to cool inflation expectations.

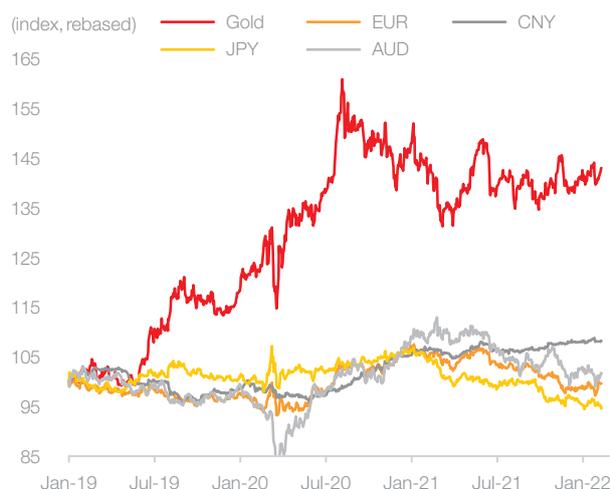
Since 2009, QE, the Eurozone debt crisis, declining interest rates, and volatile commodity prices have overwhelmed forex markets from time to time. Gold, if held as a currency proxy, would have outperformed all the major currencies since then. A low or negative interest rate environment should enhance the appeal of holding gold vs other currencies.

Commonly referred to as a non-yielding asset, gold's relative value rises when bond yields fall



Source: Bloomberg, DBS

Gold had outperformed most currencies and can be viewed as a currency proxy



Source: Bloomberg, DBS
* excludes compound interest

Gold is a hedge for inflation and hyperinflation.

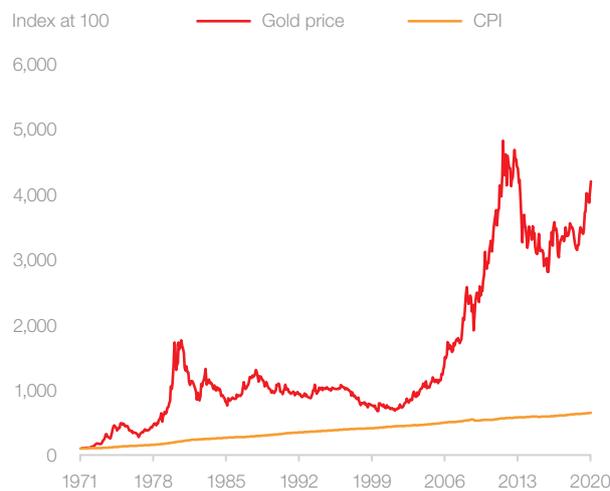
As a hard asset, gold has long been considered as a hedge for inflation. Indeed, gold, when measured against the consumer price index (CPI), had outperformed CPI on a long-term basis. Data also confirmed gold protects even better during periods of hyperinflation.

Statistically, gold may not serve its purpose as a portfolio hedge during periods of deflation. This is not intuitively wrong as typically, such periods

are characterised by reduced consumption and investment, all of which tend to reduce demand for gold as jewellery.

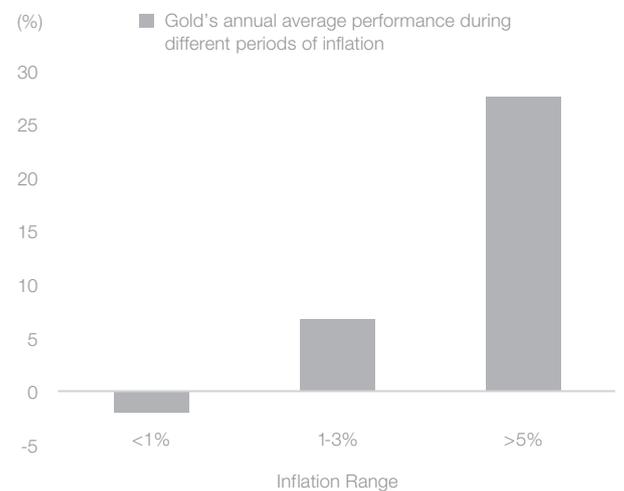
Summary. Gold as a store of wealth and a hedge against systemic risk, currency devaluation and inflation, can become more relevant in today's world. We believe there is a place for gold as an alternative asset class in one's portfolio, given its uncorrelated nature with other asset classes, especially equities.

Gold price outperforms inflation any time (Gold price vs CPI, indexed at 100 since 1971)



Source: Bloomberg, DBS

Gold's average performance during different periods of inflation



Source: Bloomberg, DBS



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