

The Portfolio Continuum: Rethinking Gold in Alternatives Investing



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Executive Summary

The rise of alternative assets in institutional portfolios has been driven by the pursuit of enhanced returns, broader diversification, and insulation from traditional market cycles. Yet, these benefits often come with trade-offs – limited liquidity, delayed valuations, and exposure to economic shocks that may not be fully priced in real-time.

Building on our previous research, this paper explores how gold can serve as a complementary asset within alternative allocations. While not always classified as an 'alternative', gold offers distinct advantages: it is highly liquid, lowly correlated to other asset classes, and tends to perform well during periods of systemic stress, with its inclusion in a portfolio acting as a shock absorber.

We also look into private credit, a fast-growing corner of alternatives. While fundamentals remain supportive and institutional investor interest strong, the asset class still carries familiar challenges around liquidity and valuation lags. Gold enhances downside resilience and provides capital flexibility across alternative asset strategies when distributions slow or exit timelines extend.

To investors, public and private markets exist along a continuum of liquidity, returns, and volatility. The difference is one of timing and access. Gold exists in this continuum, not because it mimics public or private assets, but because its attributes bridge across both.



Introduction

Alternative assets have reshaped modern portfolios. Assets under management (AUM) for alternative assets is projected to reach close to \$30 trillion by 2029, with private equity projected to double in AUM to \$12 trillion by then.¹ The premise for an allocation into alternative assets rests upon a few key ideas:

- Diversification
- Lower correlations to traditional assets
- Enhanced returns of existing portfolios

Building on our previous research that highlights gold as a foundational diversifier within alternative portfolios, we continue the discussion on gold's interplay with alternative strategies, including the growing role of private credit.

Gold's correlation dynamics with alternatives

While equity-bond correlations have by and large been negative over the past decade, it has turned positive since 2022.² Institutional investors have increasingly shifted their allocations into alternative assets to complement the traditional equity-bond framework for diversification.

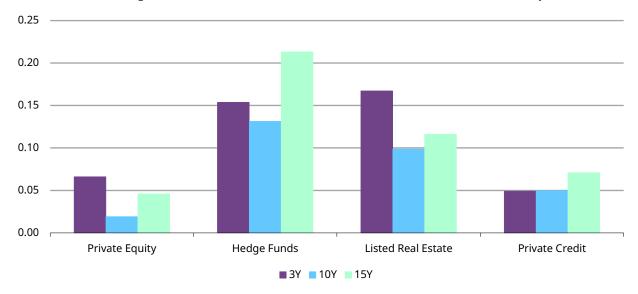
An asset class such as gold plays a role within this framework. Its historical status as a safe-haven asset and store of value offers a layer of diversification. Over the medium- to long-term horizon, gold tends to have a low correlation to alternative assets. (**Chart 1**). For hedge funds, we note an increasing correlation as the investment horizon increases. The reason for this, perhaps, is the liquidity profile of hedge funds. Hedge funds, particularly those with liquid trading strategies, generally have allocations into assets that can be manoeuvred as market conditions change.

Within hedge funds, global macro and trend-following commodity trading advisors (CTAs) increase gold exposure as its momentum strengthens. Private equity, listed real estate and private credit, on the contrary, have a very different return and liquidity profile to gold. For example, the performance of private credit is generally tied to yields and corporate health. Like most private investments, it comes with a long-term commitment and is less liquid.

Correlations between public and private equities have been high and have increased over the medium to long term due to the fund lifecycle. As the fund cycle matures, private equity valuations tend to align more closely with those of public markets. The underlying portfolio companies are revalued more frequently as exit strategies, such as IPOs, become clearer. As such, valuations align more with prevailing market conditions, pushing correlation higher around the 10-year mark—before easing slightly at 15 years as funds wind down and remaining assets become less market-sensitive (Chart 2)

Chart 1: Gold's correlation with alternatives remain low over time

A consistent diversifier, gold exhibits low correlation to most alternative asset across 3-,5- and 15-year horizons



Data as of 30 May 2025. Indices used S&P 500 Total Return Index, MSCI Emerging Markets Total Return Index, Refinitiv Private Equity Buyout Index, Bloomberg Global Aggregate Total Return Index, Credit Suisse Hedge Fund Index, FTSE NAREIT Equity REITs Total Return Index, ICE BofA 3-Month US Treasury Bill Index, LBMA Gold Price PM (USD/oz), S&P/LSTA Leveraged Loan Total Return Index
Source: Bloomberg, World Gold Council

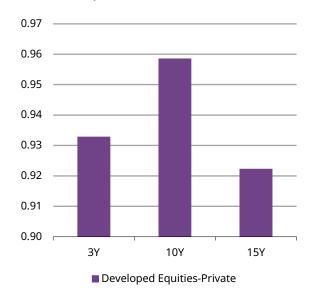
¹ Alternatives AUM tipped to cross US\$30 trillion by 2030 | The Asset

² Alternative diversifiers: Rethinking diversification in investment portfolios



Chart 2: Private equity becomes more correlated with public markets over time

As private equity funds mature, valuations reflect public market conditions, peaking in correlation around the 10-year mark



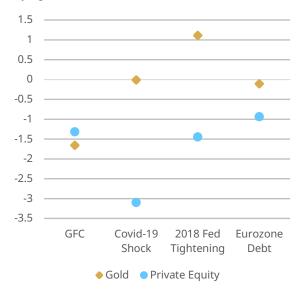
Data as of 30 May 2025. Indices used Refinitiv Private Equity Buyout Index, LBMA Gold Price PM (USD/oz)

Source: Bloomberg, World Gold Council.

Periods of market stress – like the Global Financial Crisis and COVID-19 pandemic – are when diversification is tested. A key attribute of gold is its role as liquidity insurance during times of crisis. Fundraising, deal activity, and exits all slow during these periods, putting pressure on private market cash flows. To manage this, General Partners (GPs) had to innovate — whether through secondary sales or continuation funds, to keep capital redistribution schedules on track. These structures help manage liquidity at the fund level but do not eliminate the underlying challenge: capital remains locked for longer, and access to cash is less predictable. Gold, by contrast, offers immediacy and flexibility — accessible even when other parts of the portfolio are illiquid.

Chart 3: Gold's resilience in market stress

Gold held up better during shocks, with returns staying within 1–2 standard deviations



Data as of 30 May 2025

Indices used Refinitiv Private Equity Buyout Index, LBMA Gold Price PM (USD/oz). Shock periods: Global Financial Crisis (1 Oct – 31 Dec 2008), COVID-19 (1 Jan – 31 Mar 2020), 2018 Fed Tightening (1 Oct – 31 Dec 2018), Eurozone Debt Crisis (1 Jul – 30 Sep 2011)

Source: Bloomberg, World Gold Council

We examined gold and private equity performance across four historical liquidity events: the 2008 Global Financial Crisis, the COVID shock in early 2020, the Q4 2018 credit squeeze, and the Eurozone debt crisis in 2011 (Chart 3In these four events, gold performance stayed within one to two standard deviations of its long-term distribution, indicating relatively contained downside risk. By contrast, private equity returns were impacted in all four events, with delayed losses due to valuation lags and limited liquidity. This comparison highlights gold's potential to respond more promptly and resiliently to market stress.

Gold: a complementary asset

The performance of alternative assets depends on several factors, including the deal and exit environment, leverage terms, and the redistribution schedules of Limited Partners (LPs). While their diversification benefits help mitigate portfolio volatility to some extent, they often come with liquidity constraints and valuation challenges, requiring a long-term commitment to fully capture their risk-adjusted return potential.

Table 1 shows a typical diversified portfolio³ optimised using Monte Carlo simulations (see Appendix for

³ Under an optimised portfolio, the allocation is as follows: 45% developed and emerging market equities, 24% alternatives, 23% fixed income and 8% gold. This portfolio consists of 5&P 500 Total Return Index, MSCI Emerging Market Total Return Index, Refinitiv Private Equity Buyout Index, Bloomberg Global Aggregate Total Return Index, Credit Suisse Hedge Fund Index, FTSE NAREIT Equity REITs Index Total Return, S&P Leveraged Loan Index, ICE BofA 3-month

US Treasury Bill Index, and LBMA Gold Price PM USD Index. Based on data from January 2000 to May 2025. Proportional reduction in allocation to other asset classes with increasing gold allocation.

methodology). Based on historical data of the past 20 years, the simulation indicates that the optimal allocation to gold rests between 5% and 8%. This would have helped improve risk-adjusted returns and reduce volatility. In this simulation, the alternative assets account for about one-quarter of the total portfolio.

Table 1: Adding gold improves portfolio efficiency across timeframes

		20 years		15 years		5 years
	No gold	With gold (8%)	No gold	With gold (8%)	No gold	With gold (8%)
Annualised return (%)	6.5	6.6	11.3	10.7	5.6	5.8
Annualised volatility (%)	11.7	10.9	12.1	11.3	11.7	10.8
Risk-adj return	0.56	0.61	0.93	0.94	0.48	0.54
Max drawdown (%)	-43.2	-38.8	-43.2	-38.8	-18.6	-16.6

Data as of 30 May 2025

Indices used S&P 500 Total Return Index, MSCI Emerging Markets Total Return Index, Refinitiv Private Equity Buyout Index, Bloomberg Global Aggregate Total Return Index, Credit Suisse Hedge Fund Index, FTSE NAREIT Equity REITS Total Return Index, ICE BofA 3-Month US Treasury Bill Index, LBMA Gold Price PM (USD/oz), S&P/LSTA Leveraged Loan Total Return Index.

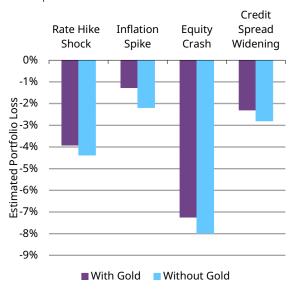
Source: Bloombera, World Gold Council.

We also tested our optimised portfolio under four macroeconomic stress scenarios⁴ – equity crash, inflation spike, rate hike shock, and credit spread widening – to evaluate its resilience across distinct sources of systemic risk (see Appendix). While no two investor portfolios are identical, this approach anchors our analysis in real-world dynamics by mapping historical relationships between asset classes and macro stress factors.

These assumptions are based on historical stress periods and market patterns. The simulated portfolio results highlight gold's potential as a risk mitigator across diverse macro shocks. In every scenario – be it a rate hike, inflation spike, equity crash or credit stress – adding gold reduced the portfolio's drawdown by 50 to 90 basis points. And while modest, this consistency underscores gold's role as a portfolio stabiliser, mainly when traditional and alternative assets come under simultaneous pressure.

Chart 4: How an allocation to gold cushions portfolios

In simulated scenarios, gold stems portfolio losses by 50-90bps



Data as of 30 May 2025

Indices used S&P 500 Total Return Index, MSCI Emerging Markets Total Return Index, Refinitiv Private Equity Buyout Index, Bloomberg Global Aggregate Total Return Index, Credit Suisse Hedge Fund Index, FTSE NAREIT Equity REITs Total Return Index, ICE BofA 3-Month US Treasury Bill Index, LBMA Gold Price PM (USD/oz), S&P/LSTA Leveraged Loan Total Return Index. Source: Bloomberg, World Gold Council.

Gold and credit strategies

An alternative asset class of recent interest is private credit, or lending strategies originating outside of traditional banking channels. Private credit strategies span a broad spectrum – from senior secured lending to opportunistic and distressed debt – allowing investors to tailor exposure based on return targets and risk tolerance. The trade-off, however, is illiquidity and less frequent revaluation, which can obscure and dampen volatility in times of stress.

The asset class has gained prominence—initially in the low-interest rate environment as investors searched for yield, and more recently amid ongoing regulatory shifts, as banks deleverage their balance sheets in response to Basel IV.⁵ What this means for private credit is the potential expansion of certain types of loans, which were previously parked under the banks' balance sheets; for instance, speciality finance, agriculture, and small-to-medium enterprise loans. As banks deleverage, private credit investors could scoop up these loans and negotiate favourable terms. And while this regulation may impact Europe in the mid-term,

⁴ Stress-scenario simulations are based on assumptions of how key asset classes might behave under different macroeconomic environments. Rate Hike Shock assumes a 100bps increase in interest rates, leading to broad declines in equities (-7%) and global bonds (-4%), while gold rises modestly (+2%). Inflation Spike models a 1-2% rise in y-o-y CPI, resulting in equity pullbacks (-3.5%), mild bond weakness (-2%), and a stronger gold response (+5%). Equity Crash simulates a -20% drop in equities, alongside a rally in sovereign bonds (+3%) and gold (+10%) on flight-to-safety demand. Credit Spread Widening reflects a broad risk-off move in

credit markets, with private equity (-4%), leveraged loans (-5%), and global aggregate bonds (-3%) under pressure as spreads widen, while gold gains (+2%) and cash outperforms. These assumptions are not forecasts but are used illustratively to test portfolio sensitivity under plausible macro conditions. Based on data from January 2000 to March 2025.

⁵ Growing investment opportunities amid bank deleveraging trend



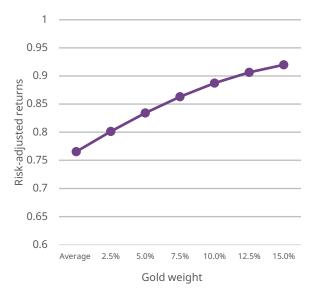
investors with global private credit mandates should continue to look at this asset class with interest.

Understanding underlying credit markets is essential, as private credit is fundamentally exposed to the same credit cycle dynamics⁶ – just with more opacity and lag. The ICE BofA US High Yield Bond Index returned 8% in 2024 while the LSTA Leveraged Loans Index returned 9% in the same year. Both are useful distant proxies for understanding private credit's risk-return dynamics. These indices reflect similar underlying borrower profiles – sub-investment grade corporates – and comparable exposure to credit and macro conditions, albeit in the public markets.

A typical private credit portfolio combines elements of capital preservation and yield enhancement—often through a mix of senior secured lending and opportunistic strategies. When gold is added to such a portfolio, risk-adjusted returns improve. Gold acts as a liquidity buffer and risk management tool, especially valuable during credit market dislocations when traditional hedges, like government bonds, may be less reliable (Chart 5).

Chart 5: Gold enhances the risk-return profile of private credit portfolios⁷

Gold allocation provides downside protection when credit markets come under pressure



Data as of 31 March 2025

Source: Bloomberg, World Gold Council

Signs of credit stress

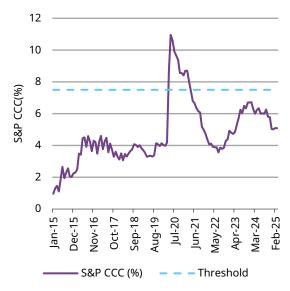
While investor appetite for private credit continues to grow, developments in the broader leveraged finance

market – particularly Collateralised Loan Obligations (CLOs) can offer a forward view into stress transmission that may eventually surface in private portfolios. This strengthens the case for holding liquid buffers, like gold, to manage funding needs and portfolio shocks when private asset valuations adjust with a lag.

While CLOs and private credit differ structurally, they share a similar borrower base. CLO signals – such as rising CCC-rated exposure or shrinking Junior Overcollateralization (OC) cushions – can serve as early-warning indicators for credit deterioration. These metrics are handy for private credit investors, where pricing lags and transparency are limited.

Chart 6: CLOs reveal early signs of credit stress through rising CCC exposures

CCC-rated loans breaching the 7.5% limit can signal credit stress ahead of private credit markdowns



Data as of 31 March 2025

Source: Bloomberg

In early 2020, as the COVID-19 shock roiled markets, CCC-rated exposures in CLOs spiked sharply. This triggered breaches in Junior Overcollateralisation tests and compressed subordination cushions, surfacing signs of credit stress well before they appeared in private credit valuations.

Pitchbook⁸ data showed private lending funds were down 6.2% in the first quarter of 2020 – the worst quarterly performance since the Global Financial Crisis – and performance remained flat in the second quarter. Yet, unlike public credit, these markdowns were contained, partly due to lagged quarterly Net Asset Value (NAV) reporting. The asset class eventually recovered in part due to central bank stimulus and

⁶ Howard Marks: Gimme Credit, March 2025

⁷ Portfolio constructed using publicly available proxies for private credit exposure: Leveraged Loans (SPBDAL Index), High Yield Bonds (ICE BofA HY Index), and Cash (G0O1 Index). Gold allocation varies from 0% to 15%, offset proportionally from leveraged loan exposure. All returns are monthly total

returns converted to log returns. Portfolio returns are calculated as a weighted sum of asset returns, with risk-adjusted performance measured by the Sharpe ratio (using 12-month rolling average)

⁸ PitchBook_2020_Annual_Global_Private_Debt_Report.pdf

active support from sponsors, including liquidity injections and operational support.

So where does gold fit in all this? It may not offer the outsized return potential of private credit – or any private market investment for that matter – but it brings a set of attributes that are increasingly hard to ignore:

A shock absorber, as seen in our stress-tested portfolio. Gold tends to respond immediately to market dislocations, preserving value when drawdowns in other assets, including private credit, take time to surface.

A source of liquidity, providing flexibility when capital calls spike or investor redemptions loom. It gives managers breathing room, allowing them to hold on to long-term positions without forced sales.

A diversification asset, especially in periods when traditional diversifiers, from hedge funds to real estate, exhibit rising correlations.

In short, gold complements private investments by addressing their blind spots.

What lies ahead

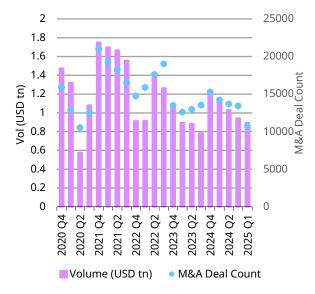
Deals and exits are the cornerstone of private markets – they determine where capital is put to work and how LPs realise return potential. **Charts 7 and 8** tell a consistent story: both deal counts and volumes are trending lower. Once a reliable path to liquidity (and returns), IPOs have lost momentum, contributing to slower exits. Subdued mergers and acquisitions (M&A) activity reflects a more challenging environment for deal-making.

Today, innovation is reshaping exit strategies. The emergence of continuation funds or GP-led secondaries reflects a need to generate liquidity, either via secondary sales or by rolling assets into new vehicles to provide an additional lifeline. In 2024, GP-led secondary volume accounted for 46% of total secondary market activity – almost on par with traditional LP-led secondary activity. For context, GP-led secondaries were at 24% back in 2016.9

In practice, investors do not view public and private markets as binary choices but as points along a continuum of liquidity, returns, and volatility. Gold exists in this continuum, not because it mimics public or private assets, but because its attributes cut across both. It trades with the liquidity of public markets yet behaves with the defensive stability investors often seek in private strategies. In portfolios balancing public and private allocations, gold becomes a natural bridge. As portfolios are tested across cycles, gold provides the quiet strength that holds the foundation in place.

Chart 7: Global M&A activity on the down trend¹⁰

Deal activity has slowed amid tighter credit and valuation uncertainty

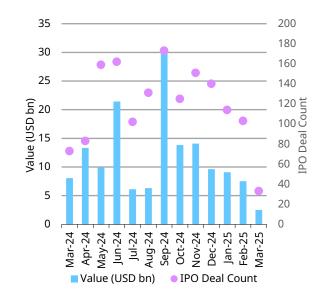


Data as of 31 March 2025

Source: Bloomberg

Chart 8: Last 12-month IPO signal cooling in exit momentum¹¹

IPO activity has declined over the past 12 months, contributing to the liquidity bottleneck in private markets



Data as of 31 March 2025

Source: Bloomberg



Appendix

Portfolio Simulation and Efficient Frontier

To evaluate the role of gold within a multi-asset portfolio, we conducted a Monte Carlo simulation comprising 10,000 portfolios. Each portfolio was constructed using monthly log return data from January 2000 to May 2025 across the following asset classes: developed and emerging market equities, private equity, hedge funds, REITs, leveraged loans, fixed income, gold, and cash.

Simulation Methodology

Portfolios were generated under the following allocation constraints:

Equities (Developed + Emerging): Capped at 45%

Alternatives via proxy (Private Equity, Hedge Funds, REITs, Loans): Capped at 25%

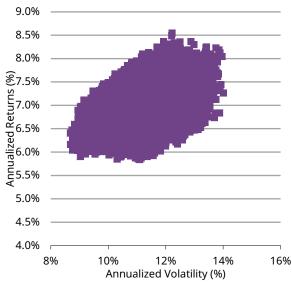
Fixed Income and Cash: Remaining allocation

Gold: Allowed to vary

No short positions were taken — all asset weights were constrained to be positive. This simplifies the analysis, and to some extent reflects long-only mandates, especially in asset owner portfolios.

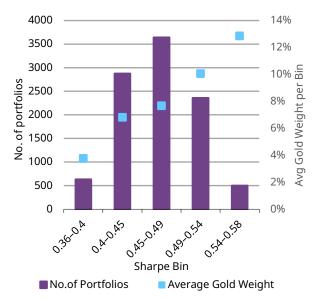
Each portfolio's annualised return, volatility, and Sharpe ratio were calculated. The efficient frontier below shows the resulting portfolios plotted by annualised return versus volatility. Although individual asset weights vary, higher Sharpe ratio portfolios tend to cluster around moderate volatility levels, reflecting a favourable risk-return trade-off.

Chart 9: Risk-adjusted returns on simulated portfolios



Source: Bloomberg, World Gold Council

Chart 10: Average gold weight per Sharpe ratio bucket



Data as of 30 May 2025. Indices used S&P 500 Total Return Index, MSCI Emerging Markets Total Return Index, Refinitiv Private Equity Buyout Index, Bloomberg Global Aggregate Total Return Index, Credit Suisse Hedge Fund Index, FTSE NAREIT Equity REITs Total Return Index, ICE BofA 3-Month US Treasury Bill Index, LBMA Gold Price PM (USD/oz), S&P/LSTA Leveraged Loan Total Return Index. Source: Bloomberg, World Gold Council.

Stress Testing the Portfolio

To complement the portfolio optimisation analysis, we conducted stress tests across four macroeconomic scenarios to evaluate the resilience of gold-inclusive portfolios under systemic shocks. The scenarios chosen reflect key risk environments relevant to both traditional and alternative asset classes.

We modelled four stress scenarios:

Rate Hike Shock – based on rapid policy tightening (e.g., 2022 Fed cycle)

Inflation Spike – based on post-COVID inflation surprises

Equity crash – referencing episodes like the COVID drawdown (Q1 2020)

Credit spread widening – mirroring HY market dislocations (e.g., late 2018)

Simplifying the analysis, this is a scenario-based first-order stress test - if event X happens (e.g., an equity crash), then the portfolio returns changes by Y (See 4 for list of shocks applied in the model).

We also assessed the portfolio's downside risk using historical Value-at-Risk (VaR). This estimates potential monthly loss in tail-risk events by examining actual historical returns distributions. We calculated historical VaR at 95% and 99% confidence levels for our optimised portfolio and a portfolio excluding gold by proportionally scaling up the weights of the remaining asset class to maintain a 100% allocation.

Table 2: Gold's inclusion lowered extreme monthly losses by 77bp at 95% VaR and 51bp at 99% VaR

Portfolio	95% VaR	99% VaR
With Gold (8%)	-4.70%	-7.99%
Without Gold	-5.47%	-8.50%

Data as of 30 May 2025. Indices used S&P 500 Total Return Index, MSCI Emerging Markets Total Return Index, Refinitiv Private Equity Buyout Index, Bloomberg Global Aggregate Total Return Index, Credit Suisse Hedge Fund Index, FTSE NAREIT Equity REITs Total Return Index, ICE BofA 3-Month US Treasury Bill Index, LBMA Gold Price PM (USD/oz), S&P/LSTA Leveraged Loan Total Return Index. Source: Bloomberg, World Gold Council.



World Gold Council

We are a membership organisation that champions the role gold plays as a strategic asset, shaping the future of a responsible and accessible gold supply chain. Our team of experts builds understanding of the use case and possibilities of gold through trusted research, analysis, commentary and insights.

We drive industry progress, shaping policy and setting the standards for a perpetual and sustainable gold market.

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Data sets and methodology visit: www.gold.org/goldhub

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