

Uncommon truths

Alternatives under the microscope 2024

Alternative assets were mixed in 2024, with Bitcoin and private equity at the top of the rankings, and direct real estate and wine at the bottom. I expect monetary easing and accelerating economies to help private equity in 2025. I also favour bank loans, MLPs and direct real estate.

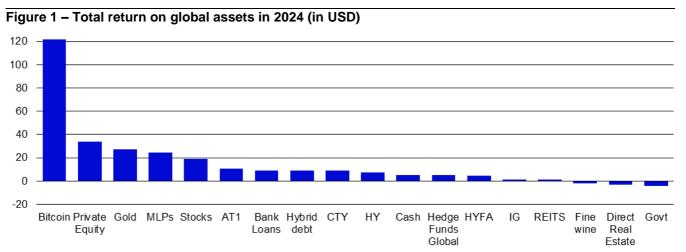
I am often asked for my views on alternative assets, which I assume means non-liquid assets that are usually beyond the reach of the average investor. Examples could include direct real estate, private equity and many hedge fund strategies (distressed assets, merger arbitrage etc.). Commodities may also fall into this category, given the difficulty of delivery and storage. I also include cryptocurrencies such as Bitcoin in this alternative basket. Many such assets have now become more accessible (REITs, private equity funds, publicly traded hedge funds, commodity funds and certificates etc.) but many investors still consider them to be non-conventional.

There is, of course, another category of alternatives which can best be described as collectibles: real assets that are often collected for reasons other than financial gain. However, they often rise in price over the long term. Examples include fine wines, rare stamps and coins, art, jewellery, baseball cards etc. Collectibles for the most part lack a liquid market and the worth of such assets is often judged by the most recent sale price of an equivalent.

Figure 1 shows how some alternative assets performed in 2024 and makes a comparison to some more conventional assets. It would appear that alternatives had a mixed year, with Bitcoin, private equity, gold and MLPs leading the way, while direct real estate and wine struggled. It was the second year in a row that Bitcoin topped the rankings (see Figure 4), with private equity, gold and MLPs again featuring in the top-five of our asset universe (this was the fourth year in a row that MLPs have generated strong returns). At the other end of the spectrum, direct real estate ("property" in Figure 4) suffered for the second year in a row, while wine experienced the third successive negative year.

As seen in **Figure 1**, Bitcoin dominated the rankings, with the second consecutive year of 100% plus returns. **Figure 4** suggests this is not unusual, with Bitcoin usually either at the top or the bottom of the rankings. The question now being whether 2025 will see another strong gain or one of those big downdrafts that seem to come along every three or four years. Private equity is also a high-beta version of publicly traded stocks and in recent years has inhabited the extremes of the rankings. Hedge funds are less volatile than private equity but have generated much lower returns over the long haul (see **Figure 2**). Indeed, hedge funds have tended to perform like government bonds but with less diversification potential due to higher correlation with other assets (see the size of the bubbles in **Figure 2**).

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Note: Past performance is no guarantee of future results. Based on total return indices in US dollars from 29 December 2023 to 31 December 2024, except Direct Real Estate and Fine Wine (from 30 September 2023 to 30 September 2024), unless stated otherwise: spot price of gold per ounce, ICE BofA 0-3 month US treasury index (Cash), spot price of Bitcoin in USD, ICE BofA Global Government Index (Govt), ICE BofA Global Corporate Index (IG), ICE BofA Global HY Index (HY), Credit Suisse Leveraged Loan Indices (Bank Loans, with the global index constructed by Invesco Global Market Strategy Office as a weighted average of the US and Western European indices), GPR General World Index (REITS), S&P GSCI index (CTY), MSCI World Index (Stocks), Hedge Fund Research Global Hedge Fund Index (Hedge Funds Global), LPX Major Market Listed Private Equity Index (Private Equity), US NCREIF Property Index (Direct Real Estate), Liv-ex Fine Wine 100 Index (Fine wine, price index converted from sterling to US dollars), Morningstar MLP Composite Index (MLPs), FTSE Time-Weighted US Fallen Angel Bond Select Index (HYFA), iBoxx USD Contingent Convertible Liquid Developed Market AT1 with 8.5% Issuer Cap (AT1), ICE BofA Global Hybrid Non-Financial Corporate Index (Hybrid debt).

Source: Bloomberg, LSEG Datastream, Credit Suisse/UBS, ICE BofA, MSCI, S&P GSCI, GPR, LPX, FHFA, Liv-ex, Hedge Fund Research, iBoxx, FTSE, Morningstar and Invesco Global Market Strategy Office



Figure 2 summarises the performance data since 2000 for those assets with a long enough data history. Bearing in mind that the size of the bubbles is in proportion to the average correlation with the other assets over the period shown, cash stands out as an asset with low returns, low volatility and low correlation to other assets. This is why I consider it to be a good diversifier. Indeed, if we were to calculate an efficient frontier based on the information shown in Figure 2, I think it would run from cash to private equity, with direct real estate and gold very close to the frontier.

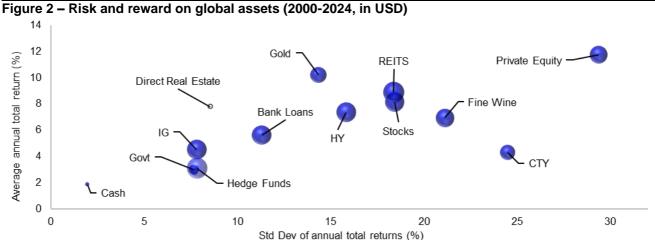
If stocks are considered to be the "go-to" asset for long term investors, a number of conclusions fall from Figure 2, if we assume the future will produce similar outcomes to the period shown: first, I would prefer stocks to commodities (CTY) and wine, which have generated lower returns and higher volatility; second, I would prefer direct real estate, REITS and gold to stocks (they have all produced higher returns with less volatility); third, private equity has produced higher returns than stocks but with more volatility, so the choice comes down to risk-preferences and, fourth, cash, government debt, investment grade credit (IG), high yield credit (HY), bank loans and hedge funds have produced lower returns than stocks but with less volatility, so again the choice depends upon risk appetite.

Though the data reported in **Figure 2** spans 25 years, we must guard against assuming that it shows a perfect template for the future. For example, I

wouldn't expect gold to always be near the efficient frontier. The price of gold was below \$300 at the start of 2000, which was close to a multi-decade low in real terms. It has since approached \$2800, which is well above the long-term historical average (since 1833) of around \$772 when expressed in today's prices and based on annual averages (or around \$1232 if we only count the period since 1971, when the price of gold was liberalised). As shown in the 21st Century Portfolio document (published in 2019), the positioning of gold within the risk-reward framework over the long-term is very similar to that of commodities in **Figure 2**.

Over the period considered in **Figure 2**, hedge funds could be grouped with fixed income assets such as cash, government debt and IG. However, they could be said to have been dominated by IG, which offered more return with less volatility. Nevertheless, hedge funds did offer an option versus cash – it is a matter of personal choice as to whether we prefer the higher returns of hedge funds, given that they come with higher volatility than cash.

Figure 2 doesn't seem very encouraging for hedge funds but it may be argued that it is possible to find individual funds or strategies with much better performance profiles. However, when we analyse different hedge fund strategies since 2000, the only one that is above the cash-stocks efficient frontier is merger arbitrage. This suggests it is hard to find strategies that perform consistently better than a mix of cash and stocks.



Note: Past performance is no guarantee of future results. Based on calendar year data from 2000 to 2024 (except Direct Real Estate and Fine Wine, for which the 2024 data is from 30 September 2023 to 30 September 2024). Area of bubbles is in proportion to average pairwise correlation with the other assets in the chart. Calculated using total return indices in US dollars unless stated otherwise: spot price of gold per ounce, ICE BofA 0-3 month US treasury index (Cash), ICE BofA Global Government Index (Govt), ICE BofA Global Corporate Index (IG), ICE BofA Global HY Index (HY), Credit Suisse Leveraged Loan Indices (Bank Loans, with the global index constructed by Invesco Global Market Strategy Office as a weighted average of the US and Western European indices), GPR General World Index (REITS), S&P GSCI index for commodities (CTY), MSCI World Index (Stocks), Hedge Fund Research Global Hedge Fund Index (Hedge Funds), LPX Major Market Listed Private Equity Index (Private Equity), US NCREIF Property Index (Direct Real Estate), Liv-ex Fine Wine 100 Index (Fine Wine, price index converted to US dollars). Source: Bloomberg, LSEG Datastream, Credit Suisse/UBS, ICE BofA, MSCI, S&P GSCI, GPR, LPX, FHFA, Liv-ex, Hedge Fund Research, Invesco Global Market Strategy Office



Looking at the performance of assets during 2023 and 2024, it would appear that riskier assets have outperformed more defensive options. I think this was due to the anticipation of both central bank easing and accelerating economies. The prolongation of these trends depends upon the ability of central banks to further ease and the performance of the global economy, in my view. I suspect that most central banks will continue to cut rates, though perhaps not as much as I had previously imagined in the US. With easing monetary conditions and real incomes on the rise (due to falling inflation in many countries), I believe that economic growth will be higher in 2025.

I think this will allow most assets to generate positive returns in the year ahead and that, in general, riskier assets will deliver the best returns. I also note that US assets have tended to generate healthy returns in the 12 months after both US elections and the first rate cut by the Fed (events which coincided in late 2024). As a result I boosted the allocation to riskier assets within my Model Asset Allocation in November 2024 (see **Figure 8**), by adding to commodities, REITs and HY, while reducing cash and government bonds. Bank loans remains my favoured asset class (see The Big Picture: 2025 Outlook).

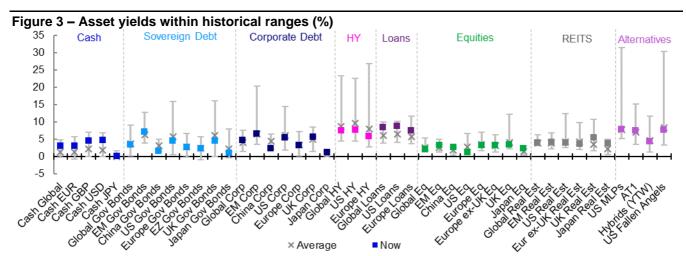
The problem is that after two years of strong returns, it could be argued that a lot of good news is already in the price. However, **Figure 3** suggests that few assets have yields much lower than historical norms (HY, Chinese bonds and US equities are examples). As is often the case, some of the highest yields are to be found in alternative categories (MLPs, AT1s and HY Fallen Angels), along with HY, bank loans and emerging market assets. Cash, bank loan and Chinese equity yields are above historical norms.

Given their volatility (as seen in Figures 2 and 4), Bitcoin and private equity are the most difficult assets from a tactical perspective. Timing is everything with these assets: when they go well, they go very well but when they go badly it is painful. With the new US president launching his own cryptocurrencies at the same time that he deregulates the industry, it may be imagined that Bitcoin will enjoy another strong year. However, I think a lot of this is in the price and suspect that 2025 could see a sell-off. I feel more comfortable with private equity as an asset to benefit from stronger growth and lower interest rates. Among other alternative assets, I favour bank loans, MLPs (on the assumption the oil price will rise) and direct real estate (property), on the assumption that stronger economies and falling interest rates could help.

There are, of course, ways to console oneself if things go wrong. **Figure 2** suggests that fine wine investments have performed somewhere between equities and commodities since 2000 (and have just suffered three negative years in a row). If delivery can be taken in kind, investment could turn to consumption, though we must then accept the disappointment of corked bottles (the vintners equivalent of default risk!).

In summary, 2024 was a very good year for some alternative assets but difficult for others. I expect cyclical assets to outperform over the course of 2025, and favour commodities within my Model Asset Allocation, along with the less volatile bank loans (see **Figure 8**). Among other alternative assets, I favour private equity, MLPs and direct real estate. Bitcoin and other cryptocurrencies could be supported by deregulation in the US but are too volatile for my liking.

All data as of 24 January 2025, unless stated otherwise.



Notes: Past performance is no guarantee of future results. As of 31 December 2024. US MLPs is based on the Morningstar MLP Composite Index (starting 15 June 2001). AT1 is based on Markit iBoxx USD Contingent Convertible Liquid Developed Market AT1 Index (starting 2 January 2014). Hybrids (YTW) is a yield-to-worst measure based on the ICE BofA Global Hybrid Non-Financial Corporate Index (starting 31 December 2001). US Fallen Angels is based on the FTSE Time-Weighted US Fallen Angel Bond Select Index (starting 2 January 2002). See appendices for definitions, methodology and disclaimers (especially for details of indices used for assets not mentioned above).

Source: ICE BofA, Bloomberg, Credit Suisse/UBS, FTSE, iBoxx, ICE, Morningstar, LSEG Datastream, Invesco Global Market Strategy Office



Figure 4 - Calendar year total returns (2008-2024, in USD)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Govt	MLPs	Priv Eq	Property	Bitcoin	Bitcoin	REITS	Bitcoin	Bitcoin	Bitcoin	Property	Bitcoin	Bitcoin	Priv Eq	MLPs	Bitcoin	Bitcoin
10.9% Gold	95.7% HYFA	41.1% MLPs	14.3% MLPs	214.5% Priv Ea	5429% Priv Eq	12.1% Property	34.2% Property	122.7% HYFA	1395% Stocks	6.7% Cash	94.1% Priv Eq	304.5% Gold	64.2% Bitcoin	32.3% CTY	153.5% Priv Eq	121.9% Priv Eq
3.1%	93.7%	38.8%	12.9%	29.2%	37.8%	11.8%	13.3%	36.7%	23.1%	1.8%	46.4%	24.8%	59.4%	26.0%	40.8%	33.8%
Cash	HY	Wine	Gold	REITS	MLPs	Priv Eq	Priv Eq	MLPs	AT1	Loans	Stocks	Stocks	CTY	Property	Stocks	Gold
1.7%	62.0%	36.2%	11.1%	27.3%	30.6%	9.9%	12.3%	29.6%	15.8%	1.6%	28.4%	16.5%	40.4%	5.5%	24.4%	27.1%
Property -6.5%	Priv Eq 52.3%	Gold 29.3%	Govt 6.8%	HYFA 19.7%	Stocks 27.4%	Hybrid 7.8%	AT1 7.9%	HY 14.8%	Wine 15.5%	Govt -0.3%	REITS 21.7%	HYFA 12.6%	MLPs 39.8%	Cash 1.5%	MLPs 20.1%	MLPs 24.5%
IG	Loans	HYFA	IG	HY	Property	HYFA	Loans	Priv Eq	REITS	Gold	AT1	IG	REITS	Gold	Gold	Stocks
-8.3%	46.1%	20.8%	4.5%	19.3%	11.0%	7.6%	0.2%	11.6%	13.9%	-1.7%	19.1%	10.3%	23.1%	-0.4%	13.8%	19.2%
Hybrid -13.1%	REITS 33.0%	REITS 18.6%	Hybrid 3.8%	Stocks 16.5%	HYFA 9.1%	Stocks 5.5%	REITS 0.1%	CTY 11.4%	Gold 12.6%	HY -3.3%	Gold 18.7%	Govt 9.2%	Stocks 22.3%	Loans -1.1%	Loans 13.4%	AT1 10.8%
H Fund -23.3%	Hybrid 31.2%	HY 13.9%	HY 2.6%	Hybrid 15.3%	HY 8.0%	AT1 5.3%	Cash 0.0%	Loans 9.6%	Priv Eq 12.0%	IG -3.5%	CTY 17.6%	AT1 8.7%	Wine 22.2%	H Fund -4.4%	HY 13.4%	Loans 9.3%
HY	Stocks	Property	HYFA	IG	Loans	1G	Stocks	Gold	HYFA	HYFA	HYFA	Wine	Property	Wine	HYFA	Hybrid
-27.9%	30.8%	13.1%	2.1%	11.1%	6.8%	3.1%	-0.3%	9.0%	10.7%	-3.8%	13.8%	8.6%	17.7%	-4.8%	11.2%	9.3%
Loans -29.0%	Wine 30.0%	Hybrid 12.7%	Loans 1.1%	Property 10.5%	H Fund 6.7%	MLPs 2.8%	Hybrid -1.7%	Hybrid 8.5%	Hybrid 10.3%	Hybrid -3.9%	HY 13.7%	HY 8.0%	HYFA 7.9%	AT1 -9.7%	Hybrid 10.2%	CTY 9.2%
HYFA	Gold	Stocks	Cash	Loans	Hybrid	Loans	Govt	Stocks	HY	AT1	Hybrid	H Fund	Loans	HY	REITS	HY
-30.8%		12.3%	0.1%	9.8%	6.4%	2.0%	-2.6%	8.2%	10.2%	-4.3%	12.7%	6.8%	5.4%	-13.2%	9.5%	7.5%
Wine	IG 12 22/	Loans	CTY	Gold	REITS	Govt	H Fund	Property	IG	REITS	IG	Loans	AT1	Hybrid	IG	Cash
-38.2% MLPs	19.2% CTY	9.6% CTY	-1.2% Stocks	5.6% MLPs	3.3% Wine	0.2% Cash	-3.6% IG	8.0% AT1	9.2% Property	-5.4% Wine	11.4% MLPs	3.0% Hybrid	4.8% H Fund	-13.3% HYFA	9.5% Cash	5.3% H Fund
-38.3%	13.5%	9.0%	-5.0%	5.2%	0.8%	0.0%	-3.8%	4.8%	7.0%	-5.7%	9.2%	2.7%	3.7%	-13.7%	5.1%	5.3%
Stocks	H Fund	IG	REITS	H Fund	IG	HY	HY	REITS	Govt	H Fund	H Fund	Property	Hybrid	IG	Govt	HYFA
-40.3% REITS	13.4%	6.0% Govt	-5.6% H Fund	3.5%	0.1%	-0.1% H Fund	-4.2% Wine	4.4% IG	6.5% H Fund	-6.7%	8.6%	1.6%	1.8% HY	-16.7%	3.6% H Fund	4.8% IG
-41.8%	Govt 2.3%	5.6%	-8.9%	Govt 1.7%	Cash 0.0%	-0.6%	-5.2%	4.3%	6.0%	Stocks -8.2%	Loans 8.2%	Priv Eq 1.1%	н ү 1.4%	Stocks -17.7%	3.1%	1.2%
CTY -46.5%	Cash 0.1%	H Fund 5.2%	Wine -15.9%	CTY 0.1%	CTY -1.2%	Gold -1.8%	HYFA -7.6%	Wine 3.6%	CTY 5.8%	Priv Eq -10.8%	Property 6.4%	Cash 0.5%	Cash 0.0%	Govt -18.0%	AT1 2.6%	REITS 1.1%
Priv Eq	Property	Cash	Priv Eq	Cash	Govt	Wine	Gold	H Fund	Loans	MLPs	Govt	REITS	0.0% IG	REITS	CTY	Wine
-64.5%	-16.9%	0.1%	-17.2%	0.1%	-4.3%	-12.4%	-10.4%	2.5%	4.4%	-13.5%	5.5%	-6.3%	-3.0%	-22.8%	-4.3%	-2.2%
				Wine -4.8%	Gold -27.3%	CTY -33.1%	CTY -32.9%	Govt 1.7%	Cash 0.8%	CTY -13.8%	Cash 2.2%	CTY -23.7%	Gold -4.0%	Priv Eq -29.5%	Property -7.9%	Property -3.3%
				11070	21.070	Bitcoin	MLPs	Cash	MLPs	Bitcoin	Wine	MLPs	Govt	Bitcoin	Wine	Govt
						-56.2%	-36.3%	0.2%	-7.7%	-74.2%	0.3%	-30.3%	-6.9%	-64.1%	-9.1%	-4.2%

Note: Past performance is no guarantee of future results. Based on calendar year data from 2008 to 2024 (except for Property and Wine, for which the 2022 data is from 30 September 2023 to 30 September 2024). Calculated using total return indices in US dollars unless stated otherwise: spot price of gold per ounce (Gold), ICE BofA 0-3 month US treasury index (Cash), spot price of Bitcoin in USD (Bitcoin), ICE BofA Global Government Index (Govt), ICE BofA Global Corporate Index (IG), ICE BofA Global HY Index (HY), Credit Suisse Leveraged Loan Indices (Loans, with the global index constructed by Invesco Global Market Strategy Office as a weighted average of the US and Western European indices), GPR General World Index (REITS), S&P GSCI index (CTY), MSCI World Index (Stocks), Hedge Fund Research Global Hedge Fund Index (H Fund), LPX Major Market Listed Private Equity Index (Priv Eq), US NCREIF Property Index (Property), Liv-ex Fine Wine 100 Index (Wine, price index converted from sterling to US dollars), Morningstar MLP Composite Index (MLPs), FTSE Time-Weighted US Fallen Angel Bond Select Index (HYFA), iBoxx USD Contingent Convertible Liquid Developed Market AT1 with 8.5% Issuer Cap (AT1), ICE BofA Global Hybrid Non-Financial Corporate Index (Hybrid). Source: Bloomberg, LSEG Datastream, ICE BofA, Credit Suisse/UBS, MSCI, S&P GSCI, GPR, LPX, FHFA, Liv-ex, Hedge Fund Research, iBoxx, FTSE, Morningstar and Invesco Global Market Strategy Office



Data as at 24/01/2025		1	otal Re	turn (US	SD, %)		Total Return (Local Currency, %)					
	Index	Level/RY	1w	1m	QTD	YTD	12m	1w	1m Ì	QTD	YTD	12m
Equities												
World	MSCI	873	2.1	2.0	3.8	3.8	21.8	1.7	1.8	3.5	3.5	23.4
Emerging Markets	MSCI	1090	1.9	0.7	1.5	1.5	14.2	1.1	0.4	0.9	0.9	18.0
China	MSCI	64	3.0	-1.0	-0.1	-0.1	28.2	2.9	-0.9	-0.1	-0.1	28.1
US	MSCI	5838	1.8	1.3	4.0	4.0	27.5	1.8	1.3	4.0	4.0	27.5
Europe	MSCI	2127	3.4	6.7	6.2	6.2	10.5	1.4	6.0	5.3	5.3	14.5
Europe ex-UK	MSCI	2634	3.7	7.4	7.0	7.0	9.4	1.8	6.5	5.7	5.7	13.7
UK	MSCI	1261	2.2	4.0	3.7	3.7	14.4	-0.1	4.5	4.0	4.0	16.9
Japan	MSCI	3926	3.2	2.4	-0.1	-0.1	5.1	2.9	1.3	-1.1	-1.1	11.3
Government Bonds	IVICOI	0020	0.2	2.1	0.1	0.1	0.1	2.0	1.0			11.0
World	BofA-ML	3.46	0.7	0.2	0.3	0.3	-1.2	0.0	-0.3	-0.3	-0.3	1.2
Emerging Markets	BBloom	7.01	0.6	1.0	1.0	1.0	14.3	0.6	1.0	1.0	1.0	14.3
							1					
China	BofA-ML	1.54	1.2	1.2	1.1	1.1	7.6	0.0	0.4	0.3	0.3	8.8
US (10y)	Datastream	4.62	0.0	0.1	-0.1	-0.1	0.6	0.0	0.1	-0.1	-0.1	0.6
Europe	Bofa-ML	2.89	1.9	0.1	0.7	0.7	-1.0	-0.2	-1.1	-0.9	-0.9	2.6
Europe ex-UK (EMU, 10y)	Datastream	2.55	1.8	-0.4	0.2	0.2	-2.8	-0.3	-1.6	-1.3	-1.3	0.7
UK (10y)	Datastream	4.64	2.6	-0.3	-0.4	-0.4	-1.8	0.3	0.2	-0.1	-0.1	0.3
Japan (10y)	Datastream	1.20	0.0	-0.2	-0.1	-0.1	-8.2	-0.2	-1.2	-1.0	-1.0	-2.7
IG Corporate Bonds												
Global	BofA-ML	4.80	8.0	0.5	0.5	0.5	3.4	0.2	0.2	0.1	0.1	4.7
Emerging Markets	BBloom	6.61	0.5	0.8	0.7	0.7	12.1	0.5	0.8	0.7	0.7	12.1
China	BofA-ML	2.31	1.2	1.0	0.9	0.9	4.7	0.0	0.2	0.1	0.1	5.8
US	BofA-ML	5.38	0.2	0.3	0.2	0.2	4.2	0.2	0.3	0.2	0.2	4.2
Europe	BofA-ML	3.39	2.1	0.8	1.2	1.2	1.6	0.0	-0.4	-0.3	-0.3	5.3
UK	BofA-ML	5.56	2.7	0.1	0.0	0.0	2.7	0.3	0.6	0.3	0.3	4.9
Japan	BofA-ML	1.38	0.2	0.6	0.5	0.5	-6.4	-0.1	-0.5	-0.4	-0.4	-0.8
HY Corporate Bonds	BOILT IVILE	1.00	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.1		
Global	BofA-ML	7.23	0.8	1.3	1.2	1.2	9.1	0.3	1.1	0.9	0.9	9.9
US	BofA-ML	7.40	0.3	1.4	1.2	1.2	9.9	0.3	1.4	1.2	1.2	9.9
	BofA-ML	5.91	2.4	1.4	1.7	1.7	4.4	0.3	0.2	0.1	0.1	8.2
Europe Cash (Overnight LIBOR)	BUIA-IVIL	5.91	2.4	1.4	1.7	1.7	4.4	0.2	0.2	0.1	0.1	0.2
		4.00	0.4	0.4	0.0	0.0	- 0	0.4	0.4	0.0	0.0	- 0
US		4.29	0.1	0.4	0.2	0.2	5.3	0.1	0.4	0.2	0.2	5.3
Euro Area		2.92	0.3	-1.8	-0.6	-0.6	-2.1	0.1	0.3	0.1	0.1	3.7
UK		4.70	-0.3	-3.9	-2.5	-2.5	1.0	0.1	0.4	0.2	0.2	5.2
Japan		0.23	0.9	-1.8	0.6	0.6	-5.1	0.0	0.0	0.0	0.0	0.1
Real Estate (REITs)												
Global	FTSE	1612	1.4	1.0	1.2	1.2	7.5	-0.7	-0.2	-0.4	-0.4	11.4
Emerging Markets	FTSE	1137	-0.1	-3.5	-3.6	-3.6	-0.5	-2.2	-4.7	-5.1	-5.1	3.1
US	FTSE	3230	1.6	1.2	1.6	1.6	13.9	1.6	1.2	1.6	1.6	13.9
Europe ex-UK	FTSE	2329	1.2	1.4	0.8	0.8	1.3	-0.9	0.1	-0.8	-0.8	5.0
UK	FTSE	781	0.0	-1.6	-1.7	-1.7	-9.7	-2.3	-1.2	-1.4	-1.4	-7.7
Japan	FTSE	1967	2.2	3.6	1.8	1.8	-4.8	2.0	2.5	0.9	0.9	0.8
Commodities												
All	GSCI	3836	-1.1	6.5	4.9	4.9	10.9	_	_	_	_	_
Energy	GSCI	672	-3.0	8.3	5.6	5.6	10.0	_	_	_	_	_
Industrial Metals	GSCI	1706	-0.8	2.1	3.6	3.6	8.8	_	_	_	_	_
Precious Metals	GSCI	3086	1.1	5.6	5.6	5.6	36.7	-	-	-	-	_
	GSCI		2.2				I	-	-	-	-	-
Agricultural Goods	3001	531	2.2	4.5	3.2	3.2	3.1	-	-	-	-	-
Currencies (vs USD)*						, .	ا ـ ا					
EUR		1.05	2.2	0.9	1.4	1.4	-3.6	-	-	-	-	-
JPY		156.01	0.2	8.0	8.0	8.0	-5.5	-	-	-	-	-
GBP		1.25	2.3	-0.4	-0.3	-0.3	-2.1	-	-	-	-	-
CHF		1.10	1.0	-0.6	0.2	0.2	-4.7	-	-	-	-	-
CNY		7.25	1.1	0.7	0.7	0.7	-1.3	_		_		

Notes: Past performance is no guarantee of future results. *The currency section is organised so that in all cases the numbers show the movement in the mentioned currency versus USD (+ve indicates appreciation, -ve indicates depreciation). Please see appendix for definitions, methodology and disclaimers.

Source: LSEG Datastream and Invesco Global Market Strategy Office



Figure 6 – Global equity sector total returns	relative to mark	ret (%)							
Data as at 24/01/2025	Global								
	1w	1m	QTD	YTD	12m				
Energy	-3.1	2.0	0.1	0.1	-11.2				
Basic Materials	-0.6	1.8	1.1	1.1	-13.8				
Basic Resources	-0.7	2.1	1.9	1.9	-12.1				
Chemicals	-0.4	1.2	-0.1	-0.1	-16.0				
Industrials	0.8	1.7	1.1	1.1	-0.8				
Construction & Materials	0.6	2.0	1.4	1.4	-1.5				
Industrial Goods & Services	0.8	1.7	1.1	1.1	-0.7				
Consumer Discretionary	0.3	-1.0	0.0	0.0	4.4				
Automobiles & Parts	-3.0	-6.7	-3.3	-3.3	7.2				
Media	4.0	0.7	1.6	1.6	12.2				
Retailers	8.0	-0.3	1.1	1.1	15.0				
Travel & Leisure	-1.1	-3.7	-3.5	-3.5	-5.2				
Consumer Products & Services	1.6	3.8	2.8	2.8	-9.2				
Consumer Staples	-0.7	-2.5	-3.6	-3.6	-15.0				
Food, Beverage & Tobacco	-0.7	-3.1	-4.2	-4.2	-17.0				
Personal Care, Drug & Grocery Stores	-0.7	-1.5	-2.6	-2.6	-11.3				
Healthcare	1.4	1.5	0.8	0.8	-11.0				
Financials	-0.2	1.9	0.9	0.9	6.5				
Banks	0.1	3.0	1.6	1.6	8.3				
Financial Services	0.1	1.9	1.6	1.6	6.9				
Insurance	-1.3	-1.0	-2.0	-2.0	1.6				
Real Estate	-0.9	-1.4	-2.4	-2.4	-9.3				
Technology	0.3	-2.1	-0.4	-0.4	10.1				
Telecommunications	0.4	0.7	-0.4	-0.4	-5.6				
Utilities	-1.7	-0.3	-1.9	-1.9	-2.9				

Notes: **Past performance is no guarantee of future results.** Returns shown are for Datastream sector indices versus the total market index. Source: LSEG Datastream and Invesco Global Market Strategy Office



Figure 7a - U	S factor	index total	returns	(%)
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Data as at 24/01/2025		Α	bsolute				Relati	ve to Mar	ket	
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
Growth	1.9	2.5	4.4	4.4	16.7	0.1	1.3	0.6	0.6	-8.1
Low volatility	0.7	0.6	1.7	1.7	17.4	-1.1	-0.5	-2.1	-2.1	-7.6
Price momentum	2.5	5.5	7.9	7.9	30.8	0.7	4.3	4.0	4.0	2.9
Quality	1.3	4.0	5.0	5.0	14.0	-0.4	2.9	1.2	1.2	-10.3
Size	1.3	1.7	2.7	2.7	12.3	-0.5	0.6	-1.1	-1.1	-11.6
Value	0.7	3.7	4.2	4.2	22.7	-1.1	2.6	0.4	0.4	-3.5
Market	1.8	1.1	3.8	3.8	27.1					_
Market - Equal-Weighted	1.2	2.6	4.0	4.0	19.0					

Notes: Past performance is no guarantee of future results. All indices are subsets of the S&P 500 index, they are rebalanced monthly, use data in US dollars and are equal-weighted. Growth includes stocks in the top third based on both their 5-year sales per share trend and their internal growth rate (the product of the 5-year average return on equity and the retention ratio); Low volatility includes stocks in the bottom quintile based on the standard deviation of their daily returns in the previous three months; Price momentum includes stocks in the top quintile based on their performance in the previous 12 months; Quality includes stocks in the top third based on both their return on invested capital and their EBIT to EV ratio (earnings before interest and taxes to enterprise value); Size includes stocks in the bottom quintile based on their price to book value ratios. The market represents the S&P 500 index. Source: LSEG Datastream and Invesco Global Market Strategy Office

Figure 7b – European factor index total returns (%)

Data as at 24/01/2025		Α	bsolute				Relati	ve to Mar	ket	
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
Growth	1.6	3.8	2.9	2.9	12.4	0.4	-1.4	-1.5	-1.5	-2.1
Low volatility	-0.2	2.5	1.8	1.8	14.2	-1.4	-2.6	-2.6	-2.6	-0.5
Price momentum	1.6	5.1	4.5	4.5	24.1	0.4	-0.2	0.0	0.0	8.1
Quality	0.7	4.5	3.6	3.6	15.8	-0.5	-0.8	-0.9	-0.9	0.9
Size	0.9	3.0	2.0	2.0	8.9	-0.4	-2.2	-2.4	-2.4	-5.1
Value	0.5	4.2	2.6	2.6	14.1	-0.7	-1.1	-1.8	-1.8	-0.6
Market	1.2	5.3	4.5	4.5	14.8					
Market - Equal-Weighted	1.0	4.0	3.2	3.2	13.3					

Notes: Past performance is no guarantee of future results. All indices are subsets of the STOXX 600 index, they are rebalanced monthly, use data in euros and are equal-weighted. Growth includes stocks in the top third based on both their 5-year sales per share trend and their internal growth rate (the product of the 5-year average return on equity and the retention ratio); Low volatility includes stocks in the bottom quintile based on the standard deviation of their daily returns in the previous three months; Price momentum includes stocks in the top quintile based on their performance in the previous 12 months; Quality includes stocks in the top third based on both their return on invested capital and their EBIT to EV ratio (earnings before interest and taxes to enterprise value); Size includes stocks in the bottom quintile based on their market value in euros; Value includes stocks in the bottom quintile based on their price to book value ratios. The market represents the STOXX 600 index. Source: LSEG Datastream and Invesco Global Market Strategy Office



Neutral	Policy Range	Allo	cation Positi	on vs Neutral	Hedged Currenc
5%	0-10%	<u> </u>			
2.5%			0%		
2.5%			0%		
40%	10-70%	1	47%		
25%	10-40%		25%		
8%		Ţ	12%		25% JPY
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Notes: **China is included in Emerging Markets allocations. This is a theoretical portfolio and is for illustrative purposes only. See the latest The Big Picture document for more details. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. Arrows indicate the direction of the most recent changes. Source: Invesco Global Market Strategy Office



Figure 9 - Model allocations for global sectors

	Neutral	Invesco	Preferred Region
Energy	6.1%	Neutral	EM
Basic Materials	3.8%	Underweight ↓	Japan
Basic Resources	2.3%	Underweight ↓	Japan
Chemicals	1.5%	Neutral	UŚ
Industrials	13.2%	Underweight	US
Construction & Materials	1.7%	Underweight	US
Industrial Goods & Services	11.4%	Underweight	US
Consumer Discretionary	14.0%	Underweight	US
Automobiles & Parts	2.4%	Underweight	Europe
Media	1.1%	Neutral	Japan
Retailers	5.3%	Overweight	US
Travel & Leisure	1.9%	Underweight	EM
Consumer Products & Services	3.4%	Underweight	Japan
Consumer Staples	5.4%	Overweight	US
Food, Beverage & Tobacco	3.4%	Overweight	US
Personal Care, Drug & Grocery Stores	2.0%	Overweight	Europe
Healthcare	9.3%	Overweight	US
Financials	15.7%	Overweight	US
Banks	7.4%	Overweight	Europe
Financial Services	5.3%	Overweight	US
Insurance	3.1%	Overweight ↑	US
Real Estate	2.8%	Neutral	Japan
Technology	23.0%	Neutral	EM
Telecommunications	3.4%	Underweight	US
Utilities	3.4%	Neutral	US

Notes: These are theoretical allocations which are for illustrative purposes only. They do not represent an actual portfolio and are not a recommendation of any investment or trading strategy. See the latest Strategic Sector Selector for more details. Source: LSEG Datastream and Invesco Global Market Strategy Office



Appendix

Methodology for asset allocation, expected returns and optimal portfolios

Portfolio construction process

The optimal portfolios are theoretical and not real. We use optimisation processes to guide our allocations around "neutral" and within prescribed policy ranges based on our estimations of expected returns and using historical covariance information. This guides the allocation to global asset groups (equities, government bonds etc.), which is the most important level of decision. For the purposes of this document the optimal portfolios are constructed with a one-year horizon.

Which asset classes?

We look for investibility, size and liquidity. We have chosen to include equities, bonds (government, corporate investment grade and corporate high yield), bank loans, REITs to represent real estate, commodities and cash (all across a range of geographies). We use cross-asset correlations to determine which decisions are the most important.

Neutral allocations and policy ranges

We use market capitalisation in USD for major benchmark indices to calculate neutral allocations. For commodities, we use industry estimates for total ETP market cap + assets under management in hedge funds + direct investments. We use an arbitrary 5% for the combination of cash and gold. We impose diversification by using policy ranges for each asset category (the range is usually symmetric around neutral).

Expected/projected returns

The process for estimating expected returns is based upon yield (except commodities, of course). After analysing how yields vary with the economic cycle, and where they are situated within historical ranges, we forecast the direction and amplitude of moves over the next year. Cash returns are calculated assuming a straight-line move in short term rates towards our targets (with, of course, no capital gain or loss). Bond returns assume a straight-line progression in yields, with capital gains/losses predicated upon constant maturity (effectively supposing constant turnover to achieve that). Forecasts of corporate investment-grade, high-yield and bank loan spreads are based upon our view of the economic cycle (as are forecasts of credit losses). Coupon/interest payments are added to give total returns. Equity and REIT returns are based on dividend growth assumptions. We calculate total returns by applying those growth assumptions and adding the forecast dividend yield. No such metrics exist for commodities; therefore, we base our projections on US CPI-adjusted real prices relative to their long-term averages and views on the economic cycle. All expected returns are calculated in local currency and then, where necessary, converted into other currency bases using our exchange rate forecasts.

Optimising the portfolio

Using a covariance matrix based on monthly local currency total returns for the last 5 years and we run an optimisation process that maximises the Sharpe Ratio. Another version maximises Return subject to volatility not exceeding that of our Neutral Portfolio. The optimiser is based on the Markowitz model.

Currency hedging

We adopt a cautious approach when it comes to currency hedging as currency movements are notoriously difficult to accurately predict and sometimes hedging can be costly. Also, some of our asset allocation choices are based on currency forecasts. We use an amalgam of central bank rate forecasts, policy expectations and real exchange rates relative to their historical averages to predict the direction and amplitude of currency moves.



Definitions of data and benchmarks for Figure 3 (items not covered in footnote to chart)

Sources: we source data from LSEG Datastream unless otherwise indicated.

Cash: returns are based on a proprietary index calculated using the Intercontinental Exchange Benchmark Administration overnight LIBOR (London Interbank Offer Rate). From 1st January 2022, we use the Refinitiv overnight deposit rate for the euro, the British pound and the Japanese yen. The global rate is the average of the euro, British pound, US dollar and Japanese yen rates. The series started on 1 January 2001.

Government bonds: Current and historical yields are based on ICE BofA government bond indices with historical ranges starting on 31 December 1985 for the Global, Europe ex-UK, UK and Japanese indices, 30 January 1978 for the US and 31 December 2004 for China. The emerging markets yields are based on the Bloomberg emerging markets sovereign US dollar bond index with the historical range starting on 28 February 2003.

Corporate investment grade (IG) bonds: Current and historical yields are based on ICE BofA investment grade corporate bond indices with historical ranges starting on 31 December 1996 for the Global, 31 January 1973 for the US dollar, 1 January 1996 for the euro, 31 December 1996 for the British pound, 6 September 2001 for the Japanese yen and 31 December 2004 for the China indices. The emerging markets yields are based on the Bloomberg emerging markets corporate US dollar bond index with the historical range starting on 28 February 2003

Corporate high yield (HY) bonds: ICE BofA high yield indices with historical ranges starting on 29 August 1986 for the US dollar, and 31 December 1997 for the Global and euro indices.

Bank Loans: Credit Suisse Leveraged Loan Indices with historical ranges starting on 31 January 1992 for the US index, 31 January 1998 for the Western Europe Index and 31 January 1998 for the Global Index (the global index is constructed by Invesco Global Market Strategy Office as a weighted average of the US and Western European indices, using market capitalisation as the weighting factor). We use current yield. Data is sourced from Credit Suisse/UBS and Bloomberg.

Equities: Dividend yields are based on Datastream benchmark indices with historical ranges starting on 1 January 1973 for the Global, US, Europe ex-UK and Japanese indices, 31 December 1969 for the UK index, 2 January 1995 for the Emerging Markets index and 26 August 1991 for the China A-Shares index.

Real estate: We use FTSE EPRA/NAREIT indices with historical ranges starting on 29 December 1989 for the US, Europe ex-UK, UK and Japanese indices, 18 February 2005 for the Global index, and 31 October 2008 for the Emerging Markets index.



Definitions of data and benchmarks for Figure 5

Sources: we source data from LSEG Datastream unless otherwise indicated.

Cash: returns are based on a proprietary index calculated using the Intercontinental Exchange Benchmark Administration overnight LIBOR (London Interbank Offer Rate). From 1st January 2022, we use the Refinitiv overnight deposit rate for the euro, the British pound and the Japanese yen. The global rate is the average of the euro, British pound, US dollar and Japanese yen rates. The series started on 1 January 2001 with a value of 100.

Gold: London bullion market spot price in USD/troy ounce.

Government bonds: Current levels, yields and total returns use Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK, and the ICE BofA government bond total return index for the World and Europe. The emerging markets yields and returns are based on the Bloomberg emerging markets sovereign US dollar bond index.

Corporate investment grade (IG) bonds: ICE BofA investment grade corporate bond total return indices, except for in emerging markets where we use the Bloomberg emerging markets corporate US dollar bond index.

Corporate high yield (HY) bonds: ICE BofA high yield total return indices

Equities: We use MSCI benchmark gross total return indices for all regions.

Commodities: Goldman Sachs Commodity total return indices

Real estate: FTSE EPRA/NAREIT total return indices

Currencies: Global Trade Information Services spot rates



Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

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