

The Big Picture

Global Asset Allocation 2024 Q2

Quarterly update from Invesco's Global Market Strategy Office
17 March 2024

For professional/qualified/accredited investors only



The Big Picture

Global Asset Allocation 2024 Q2

The strong performance of many assets over the last four months, and our concerns about the state of the global economy, lead us to expect lower returns and to spread the risks within our Model Asset Allocation. Consequently, we reduce investment grade, high yield and equities, while boosting cash and bank loans. That more conservative stance is balanced by moving commodities (a performance laggard) from zero to the maximum that we allow. From a regional perspective we still prefer European and emerging market (EM) assets.

Model asset allocation

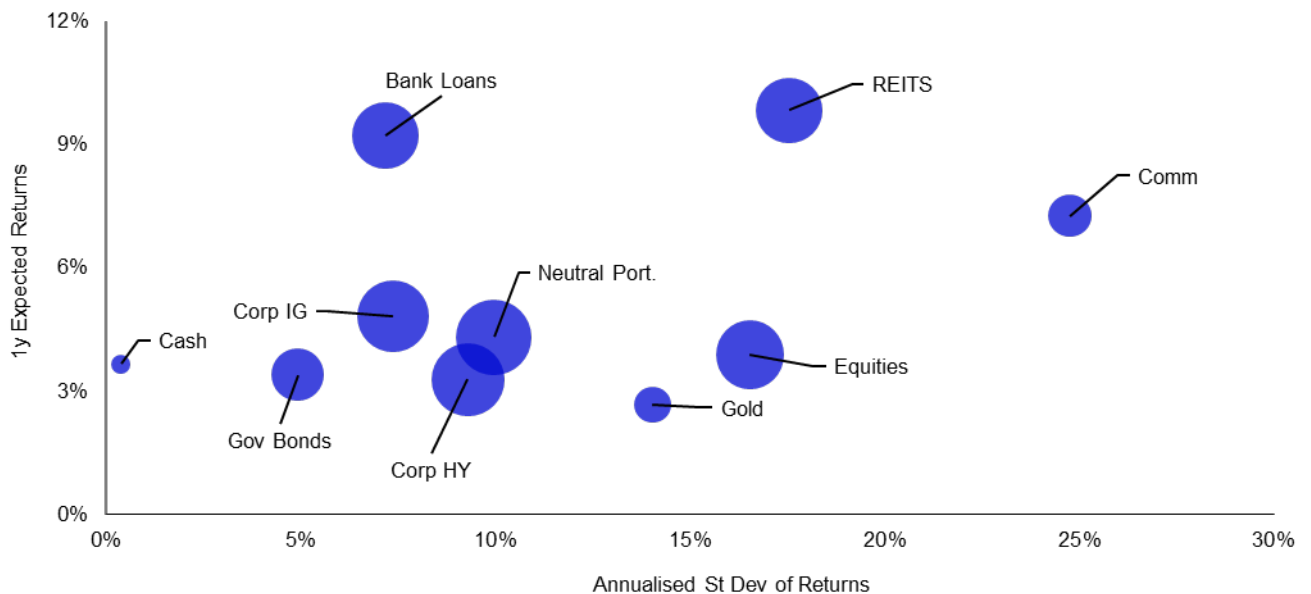
In our view:

- Cash rates are now more competitive given falling yields on other assets. We increase to Overweight.
- Bank loans also offer an attractive risk-reward trade-off. We increase to the Maximum.
- Commodities have lagged and may benefit from eventual economic upturn. We increase to Overweight.
- Corporate investment grade (IG) is now less compelling than it was. We reduce but stay Overweight.
- Corporate high yield (HY) has built in a lot of good news. We reduce to Underweight.
- Equities have performed very well and potential is now limited. We reduce to further Underweight.
- Real estate (REITS) has the potential to produce the best returns. We remain Overweight.
- Government yields have fallen and we prefer cash and IG as defensive assets. We remain Underweight.
- Gold may be helped by falling yields and weakening dollar but is expensive. We remain at Zero.
- Regionally, we favour Europe and EM.
- US dollar expected to weaken and we add to the hedge into JPY.

Our best-in-class assets (based on 12m projected returns)

- EM government bonds
- US bank loans
- Eurozone equities

Figure 1 – Projected 1-year returns for global assets and neutral portfolio



Based on annualised local currency returns. Returns are projected but standard deviation of returns is based on 5-year historical data. Size of bubbles is in proportion to average 5-year pairwise correlation with other assets (hollow bubbles indicate negative correlation). Cash is an equally weighted mix of USD, EUR, GBP and JPY. Neutral portfolio weights shown in Figure 3. As of 29 February 2024. **There is no guarantee that these views will come to pass.** See Appendices for definitions, methodology and disclaimers.

Source: Credit Suisse/UBS, ICE BofA, MSCI, S&P GSCI, FTSE Russell, LSEG Datastream and Invesco Global Market Strategy Office

Table of contents

Summary and conclusions: A barbell approach to spreading risk..... 3

Model asset allocation* 5

Since we last wrote 6

Taking a step back: focusing on the next decade using Invesco’s CMAs 7

Key question #1: Is the global economy strengthening or weakening? 8

Key question #2: Are central banks about to ease? 10

Key question #3: What do we expect when central banks ease? 11

Key question #4: What is priced into markets? 14

Key question #5: Does it matter who wins the US election? 16

Key Question #6: Are there any bubbles? 17

Projections for the next year 18

Model Asset Allocation: A barbell approach to spreading risk..... 20

Equity factors and sectors 21

Appendices 22

 Appendix 1: Global valuations vs history 22

 Appendix 2: Asset class total returns..... 23

 Appendix 3: Invesco 10-year Capital Market Assumptions (USD version) 24

 Appendix 4: Key assumptions..... 25

 Appendix 5: Methodology for asset allocation, expected returns and optimal portfolios..... 26

 Appendix 6: Definitions of data and benchmarks 27

 Appendix 7: Sector classifications, valuation methodology, sector name abbreviations (Figure 31) and equity factor definitions (Figure 30) 30

 Appendix 8: Methodology, data and benchmarks for equity gains during US presidencies (Figure 25)..... 32

 Appendix 9: Methodology, data and benchmarks for Mania Template (Figure 26)..... 33

 Appendix 10: Invesco Solutions Capital Market Assumptions methodology (Figure 6 & Appendix 3)..... 34

Important information 35

<p>We boost cash and bank loans but add risk by Overweighting commodities</p>	<p>Summary and conclusions: A barbell approach to spreading risk</p> <p>The strong performance of many assets over the last four months, and our concerns about the state of the global economy, lead us to expect lower returns and to spread the risks within our Model Asset Allocation. Consequently, we reduce investment grade (Overweight), high yield (Underweight) and equities (Underweight), while boosting cash and bank loans (both Overweight). That more conservative stance is balanced by moving commodities (a performance laggard) from zero to the maximum that we allow. From a regional perspective we still prefer European and emerging market (EM) assets.</p>
<p>After strong performance, we spread risk away from outperforming assets</p>	<p>With many assets performing better than expected in such a short space of time, we are faced with a choice: use more optimistic assumptions to suggest further strong gains or change the Model Asset Allocation away from outperforming assets and towards those that have either lagged or that come with less risk. Having asked a number of questions about the outlook for growth, the timing and extent of central bank easing (and what happens when policy is eased), what is priced into markets, whether bubbles exist and whether the outcome of US elections matter for financial markets, we opt to spread risk away from outperforming assets towards more defensive choices (cash and bank loans) and the lagging cyclical (but volatile) commodity asset class.</p>
<p>Underlying assumptions</p>	<p>Underpinning our projections for the next 12 months are the following assumptions:</p> <ul style="list-style-type: none"> • Global GDP growth will slow and then recover • Global inflation will fall towards central bank targets • Major western central banks start cutting rates during 2024 Q2 • Yield curves steepen (with long yields falling less than short yields) • Credit spreads widen (on the whole) and defaults rise • Bank loan current yield spreads narrow marginally but defaults rise • Equity and REIT dividend growth is minimal and yield movements are mixed • USD weakens as Fed eases, especially versus JPY (as BOJ tightens) • Commodities strengthen as the global economy recovers and USD weakens
<p>Western central banks expected to ease within months but a lot is priced into the long end of curves</p>	<p>The full set of assumptions is shown in Appendix 4, while the resultant market targets are shown in Figure 27. Projected returns for global assets are shown in Figures 1 and 2. Perhaps the single most important forecast is that the Fed and other Western central banks will start cutting rates in the coming months, with 100-150 basis points of cuts possible in the next 12 months. We think a lot of this is already priced into the long end of yield curves, though there may be some short term downside if the US economy weakens in the first half of 2024, as we expect. Hence, we believe that yield curve steepening will largely be the result of falling short rates and we are less attracted to long duration assets than we were four months ago.</p>
<p>We think dollar weakness could help EM and commodities</p>	<p>We expect the dollar to weaken (especially versus the yen) as the Fed has more easing to do than other central banks (in our opinion). This could help gold, cushioning the decline back to more reasonable levels (we think gold is expensive). We believe it could also offer support to other commodities, especially industrial commodities, which have lagged other cyclical assets over the last year or so. We think it will also help EM assets.</p>
<p>Projected returns scaled back...a lot of good news is in the price</p>	<p>Our projected returns are tempered by the belief that a lot of good news is priced into some assets. For example, high yield (HY) spreads are narrower than we would expect at this stage of the cycle, and equities are at record highs in some markets. Hence, the expected returns shown in Figures 1 and 2 are more modest than they were four months ago (especially for equities and HY); gold and commodities are exceptions. Our optimisation process (based on those projections) favours cash, investment grade (IG), bank loans and commodities (see Figure 29), while gold, HY and equities are shunned.</p>
<p>Equities reduced to further Underweight</p>	<p>Hence, within our Model Asset Allocation (see Figure 3), we have chosen to reduce equities, HY and IG. Equities have performed extremely well, especially in Japan and the US. We doubt they are priced for slowdown in the US and reduce the global allocation from 37% to 35% (Underweight versus the Neutral 45%). We implement this by reducing the US and Japanese allocations (to further Underweight) and the UK (to Neutral), while boosting the Eurozone (to further Overweight). We think US indices are</p>

	expensive (on a market capitalisation weighted basis) and fear that Japanese stocks will suffer if the yen rebounds (as we expect). We continue to be Overweight EM equities, especially China which we think offers value. Looking for parts of the equity market that will benefit most from central bank easing, we identify small caps, banks and REITs.
HY spreads are narrow; reduce to Underweight	After a strong run (falling yields and narrowing spreads), we are concerned that HY is pricing in a lot of good news about the economic cycle and few of the risks. We continue to expect spreads to widen and default rates to rise (though only towards cyclical norms) and our 12-month projected returns are lower than they were. Hence, we reduce the allocation from an Overweight 8% to an Underweight 3% (versus Neutral 5%).
IG also reduced but we remain Overweight	Though performing less well than HY, we note that IG yields have fallen and that spreads have narrowed. Again, the projected returns are depressed by the belief that spreads will widen slightly. Those projections no longer suggest an advantage over cash when allowing for risk (see Figure 1). Hence, we reduce the allocation to IG (from 20%), though remain at a still Overweight 16% (versus Neutral 10%). Across regions, we favour the US, Europe and EM (see Figure 3).
Cash looks relatively attractive; go Overweight	As just hinted, the lower returns anticipated on many other assets, make cash look more attractive than four months ago (when we published the 2024 Outlook). That is especially true when allowing for low volatility and low correlation to other assets (see Figure 29 for optimisations). Hence, we take cash to an Overweight 6% (from zero).
Bank loans look attractive on a risk-adjusted basis; go further Overweight	We also boost the allocation to bank loans , an asset class that comes with similar volatility to IG but that we think offers better return potential (see Figure 1). It may seem odd to favour bank loans over HY when we expect policy rates to fall (given the near zero duration of the asset class) but we are attracted by the high current yield and relatively generous spreads (as measured by discount margins). We are also less enthusiastic about long duration assets than we were (given the decline in long yields since October 2023).
Commodities have lagged; go Overweight	We balance those defensive additions to cash and bank loans by boosting commodities from zero to 4% (the most we allow for this asset class). Though industrial commodities are being depressed by weak global demand (in our view), we think they could benefit as economies reaccelerate in late 2024 and we note they have lagged other cyclical assets.
No changes to government bonds, real estate and gold	Otherwise, we make no changes to the Underweight allocation (22%) to government bonds , with an ongoing preference for US and EM (not China) markets. We also stick to the Overweight 6% allocation to real estate , where we think a lot of bad news is in the price. We also remain Zero allocated to gold (good in a crisis but expensive, we think).
EM and Europe the preferred regions. Hedge from USD to JPY	Regionally, we are Overweight European and EM assets. We boost the partial hedge out of US dollar into Japanese yen, believing the latter will rally as the BOJ normalises.

Figure 2 – Expected global total returns (annualised, local currency) and Model Asset Allocation*

	Expected 1-year Total Return	Neutral Portfolio	Policy Range	Model Asset Allocation	Position Vs Neutral
Cash & Gold	3.2%	5%	0-10%	↑ 6%	Overweight
Cash	3.7%	2.5%	0-10%	↑ 6%	Overweight
Gold	2.7%	2.5%	0-10%	0%	Underweight
Government Bonds	3.4%	25%	10-40%	22%	Underweight
Corporate IG	4.8%	10%	0-20%	↓ 16%	Overweight
Corporate HY	3.3%	5%	0-10%	↓ 3%	Underweight
Bank Loans	9.2%	4%	0-8%	↑ 8%	Overweight
Equities	3.9%	45%	25-65%	↓ 35%	Underweight
Real Estate (REITS)	9.8%	4%	0-8%	6%	Overweight
Commodities	7.3%	2%	0-4%	↑ 4%	Overweight

*This is a theoretical portfolio and is for illustrative purposes only. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. Arrows show direction of change in allocations. See appendices for definitions, methodology and disclaimers. **There is no guarantee that these views will come to pass.** Source: Invesco Global Market Strategy Office

Model asset allocation*

Figure 3 – Model asset allocation (17/03/2024)

	Neutral	Policy Range	Allocation	Position vs Neutral	Hedged	Currency
Cash Equivalents	5%	0-10%	6%	↑		
Cash	2.5%		6%	↑		
Gold	2.5%		0%			
Bonds	40%	10-70%	41%	↓		
Government	25%	10-40%	22%			
US	8%		13%			25% JPY
Europe ex-UK (Eurozone)	7%		2%			
UK	1%		1%			
Japan	7%		2%			
Emerging Markets	2%		4%			
China**	0.2%		0%			
Corporate IG	10%	0-20%	16%	↓		
US Dollar	5%		8%	↓		50% JPY
Euro	2%		3%	↓		
Sterling	1%		2%			
Japanese Yen	1%		0%	↓		
Emerging Markets	1%		3%			
China**	0.1%		0%			
Corporate HY	5%	0-10%	3%	↓		
US Dollar	4%		2%	↓		
Euro	1%		1%	↓		
Bank Loans	4%	0-10%	8%	↑		
US	3%		6%	↑		
Europe	1%		2%			
Equities	45%	25-65%	35%	↓		
US	25%		10%	↓		
Europe ex-UK	7%		12%	↑		
UK	4%		4%	↓		
Japan	4%		1%	↓		
Emerging Markets	5%		8%			
China**	2%		4%			
Real Estate	4%	0-16%	6%			
US	1%		2%			
Europe ex-UK	1%		1%			
UK	1%		1%	↓		
Japan	1%		1%			
Emerging Markets	1%		1%	↑		
Commodities	2%	0-4%	4%			
Energy	1%		1%	↑		
Industrial Metals	0.3%		2%	↑		
Precious Metals	0.3%		0%			
Agriculture	0.3%		1%	↑		
Total	100%		100%			
Currency Exposure (including effect of hedging)						
USD	52%		39%	↓		
EUR	19%		23%	↑		
GBP	7%		10%			
JPY	13%		13%	↑		
EM	9%		16%	↑		
Total	100%		100%			

*This is a theoretical portfolio and is for illustrative purposes only. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. **China is included in Emerging Markets allocations. Cash is an equally weighted mix of USD, EUR, GBP and JPY. Currency exposure calculations exclude cash. Arrows show direction of change in allocations. See appendices for definitions, methodology and disclaimers.

Source: Invesco Global Market Strategy Office

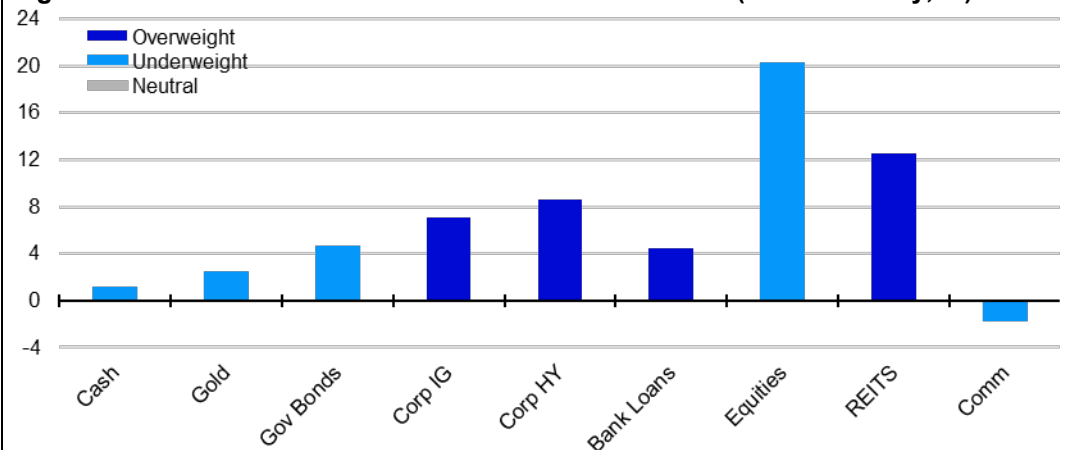
Cyclical assets outperformed over the last four months, except commodities

Since we last wrote

In the last Big Picture document we reduced cash to zero within our Model Asset Allocation (see [Big Picture 2024 Outlook](#) published on 19 November 2023), while adding to IG (going to the maximum allowed), HY, bank loans and REITS (to further Overweight) and to equities (though remaining Underweight). From a regional perspective we favoured EM and European assets. **Figure 4** shows how global assets have performed since then (as of 29 February 2024). Full regional detail is shown in **Appendix 2**.

Asset performance has been broadly positive since then (see **Figure 4**). Luckily, we were zero weighted in commodities (the only category to deliver negative returns) and also in cash and gold (the worst performing among other assets). However, we were also Underweight the best performing asset (equities). Even worse, within equities we were Underweight the US and Overweight China (see **Appendix 2**). On a brighter note, our preference for EM ex-China within fixed income categories worked out well.

Figure 4 – Global asset class total returns since 31/10/23 (local currency, %) *

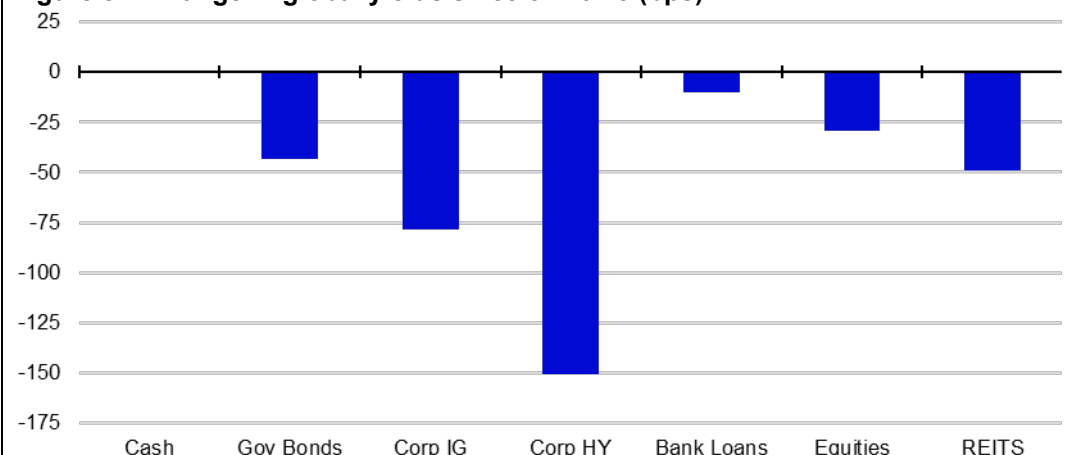


Past performance is no guarantee of future results. *31/10/23 to 29/02/24. Colours represent model allocations during this period. See appendices for definitions and disclaimers. Source: LSEG Datastream and Invesco Global Market Strategy Office

Yields have fallen and credit spreads have narrowed, suggesting optimism

Cash rates appear to have stopped rising and yields on other assets fell in anticipation of central bank easing (see **Figure 5**). Credit yields fell the most, suggesting a further narrowing of spreads versus government yields. This was especially the case for HY, with global yields falling around 150 bps in four months. The decline in the yield on cyclical assets (HY, equities and REITS), suggests optimism about the cycle. We will explore whether this optimism is justified.

Figure 5 – Change in global yields since 31/10/23 (bps)



Past performance is no guarantee of future results. From 31/10/23 to 29/2/24. See appendices for definitions and disclaimers. Source: Credit Suisse, LSEG Datastream, Invesco Global Market Strategy Office

Invesco's 10-year CMAs have been published

Taking a step back: focusing on the next decade using Invesco's CMAs

Before considering projections for the next year, it may be instructive to use longer term return projections as a guide. Invesco Solutions have just published their 10-year capital market assumptions. **Figure 6** shows their projected returns for global asset classes in a range of currency bases (their framework differs from ours, so we have had to adapt some of their categories – for instance, we use their US Treasury Short category to represent cash and precious metals for gold). A more detailed version showing regional projections is contained in **Appendix 3**.

	USD	EUR	GBP	CHF
Cash & Gold	1.1	-0.7	0.8	-2.0
Cash - US Treasury Short	3.5	1.6	3.1	0.3
Gold	-1.2	-3.1	-1.5	-4.4
Government Bonds	4.7	2.9	4.4	1.6
Corporate IG	5.2	3.3	4.9	2.0
Corporate HY - US HY	6.2	4.3	5.8	3.0
Bank Loans (US)	5.9	4.1	5.6	2.8
Equities	6.8	4.9	6.4	3.6
Real Estate (REITS)	7.1	5.2	6.7	3.9
Commodities	5.5	3.6	5.1	2.3

Note: Estimates as of 29 December 2023 and based on the 10-year capital market assumptions published by Invesco Solutions in Long-Term Capital Market Assumptions (March 2024). The USD version of the CMAs is reproduced in Appendix 3. The above table uses the geometric expected return version for global asset classes ("gold" is based on the projections for precious metals and the "Cash & Gold" category shows the average of those two assets). These estimates reflect the views of Invesco Solutions, the views of other investment teams at Invesco may differ from those presented here. **There is no guarantee that these views will come to pass.**
Source: Invesco Solutions

HY and bank loans dominate 10-year CMA based optimal portfolios

Not surprisingly, the further we move along the risk spectrum, the higher the projected returns tend to be, though commodities don't appear to offer enough return given the extra volatility. When it comes to CMA based optimal solutions, the closest we get to consistent overweighting across currency bases and objectives is for HY and bank loans (see **Figure 7**). At the other extreme, gold, IG and commodities are nearly always underweighted. Cash, government bond, equity and real estate allocations are mixed, with equities (and real estate) preferred when maximising return and cash/government bonds preferred when we maximise the Sharpe ratio.

	Neutral Portfolio	Policy Range	Maximise Sharpe Ratio				Maximise Return			
			USD	EUR	GBP	CHF	USD	EUR	GBP	CHF
Cash & Gold	5%	0-10%	10%	10%	10%	10%	0%	0%	3%	0%
Cash	2.5%	0-10%	10%	10%	10%	10%	0%	0%	3%	0%
Gold	2.5%	0-10%	0%	0%	0%	0%	0%	0%	0%	0%
Government Bonds	25%	10-40%	40%	40%	38%	40%	10%	25%	21%	14%
Corporate IG	10%	0-20%	7%	7%	0%	3%	4%	2%	6%	15%
Corporate HY	5%	0-10%	10%	10%	10%	10%	10%	10%	10%	10%
Bank Loans	4%	0-8%	8%	6%	8%	8%	8%	8%	8%	8%
Equities	45%	25-65%	25%	25%	30%	25%	52%	40%	50%	45%
Real Estate (REITS)	4%	0-8%	0%	0%	0%	4%	16%	15%	0%	8%
Commodities	2%	0-4%	0%	2%	4%	0%	0%	0%	2%	0%

Note: optimisations are based on the 10-year projected returns published by Invesco Solutions in Long-Term Capital Market Assumptions (March 2024), as shown in **Figure 6** above. Optimisations are performed by the Asset Allocation Research team using our historical 10-year covariance matrices (for each currency). "Gold" is based on the projections for precious metals and the "Cash & Gold" category shows the sum of allocations for those two assets. "Maximise Sharpe Ratio" optimisations are performed by maximising the Sharpe Ratio subject not violating the constraints implied by the policy ranges shown in the table. "Maximise Return" optimisations are performed by maximising return subject to the policy range constraints but also subject to the standard deviation of returns not exceeding that of the Neutral Portfolio (as shown in **Figure 3**). Though based on the projected returns provided by Invesco Solutions, these optimal allocations do not represent their views, nor those of any other investment team at Invesco. See appendices for definitions, methodology and disclaimers.

Source: Invesco Solutions and Invesco Global Market Strategy Office

Proprietary indicators suggest we are in a recovery regime

Key question #1: Is the global economy strengthening or weakening?

Figure 8 shows two proprietary indicators from Invesco Solutions, designed to help decide where we are in economic and market cycles. The Global LEI (leading economic indicator) measure suggests that global growth is below trend, while the GRACI (Global Risk Appetite Cycle Indicator) suggests that risk appetite has been improving, which is interpreted as being typical of what happens in the recovery phase.

Figure 8 – Global risk appetite and the global business cycle

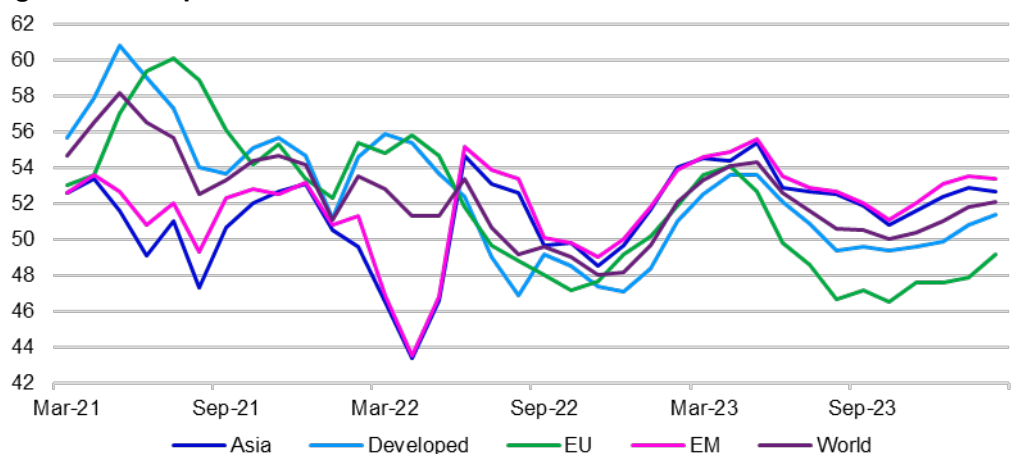


Note: **past performance does not guarantee future results.** Monthly data from January 1992 to February 2024 (as of 29 February). Both Global LEI (Leading Economic Indicator) and GRACI (Global Risk Appetite Cycle Indicator) are proprietary tools provided by Invesco Solutions. Global LEI is a weighted average of leading indicators for 23 countries (both developed and emerging). A reading above (below) 100 signals growth above (below) a long-term average. GRACI measures the average incremental return received per incremental unit of risk taken in global financial markets (i.e., incremental return received for moving from government bonds to credit, from credit to developed equities, from developed equities to emerging equities, etc.). It is calculated using country-level total return indices across fixed income and equity markets. A reading above (below) zero signals a positive (negative) compensation for risk taking in global capital markets in the recent past. A rising index signals improving market sentiment and vice-versa. Sources: Bloomberg L.P., Macrobond, MSCI, FTSE, JP Morgan and Invesco Solutions

Regional PMIs have been improving, which may justify improving risk sentiment...but some cyclical assets are struggling and the US economy is slowing

Indeed, **Figure 9** suggests there was an upturn across most regions during 2023 Q4 and that this continued into 2024 (based on purchasing manager indices). Quite where this improvement came from is not clear, given that central banks are yet to ease policy. Perhaps it was the drop in inflation, which has taken pressure off real incomes or the effect of falling bond yields, which may have improved financing conditions. Wherever it came from, it would seem to justify the outperformance of cyclical assets (though the poor performance of industrial commodities and small caps/cyclical equities is at odds with that conclusion). The question is whether it is sustainable, given the apparent weakening seen in the US economy in the early part of 2024.

Figure 9 – Composite PMI indices

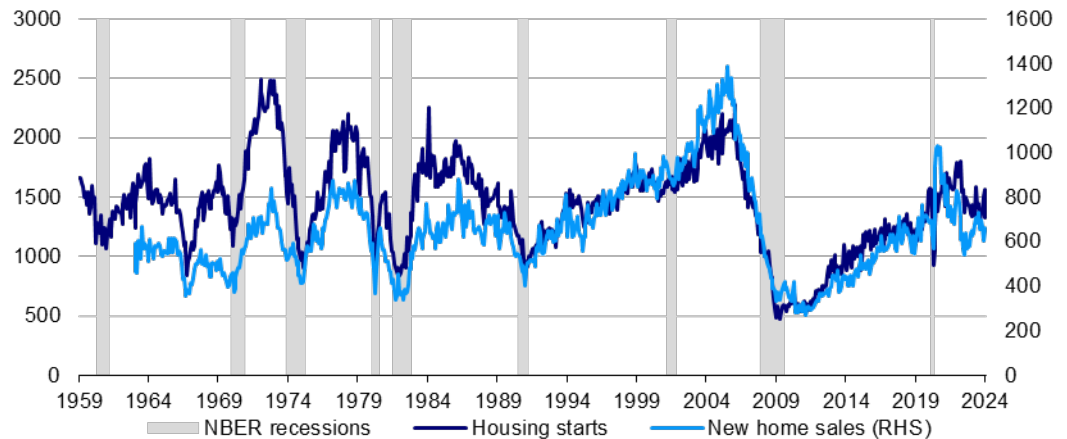


Note: based on monthly data from March 2021 to February 2024. Source: J.P. Morgan, S&P Global, LSEG Datastream and Invesco Global Market Strategy Office

The US economy seems to be slowing...

On the topic of softer US data flows, **Figure 10** suggests the US housing market is still weakening on a trend basis. January data for retail sales, personal spending and industrial production were all on the weak side, suggesting that momentum has been lost. Further, ISM surveys suggest that February was even worse, with the February employment report confirming that feeling. This doesn't mean the US will suffer recession but there is an apparent loss of momentum that could hinder risk assets.

Figure 10 – US housing markets points to weakness



Note: monthly data from January 1959 to January 2024. "NBER recessions" are periods of US economic recession as defined by the National Bureau of Economic Research. Source: LSEG Datastream and Invesco Global Market Strategy Office

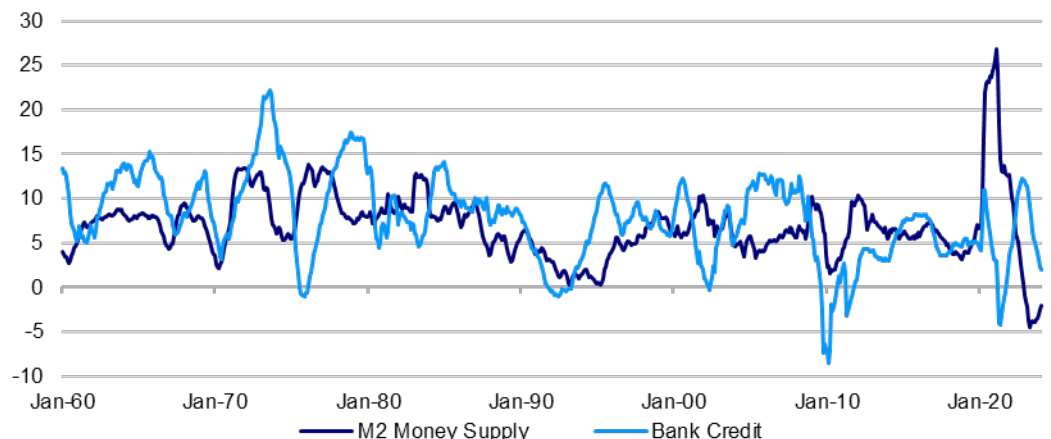
...from unsustainably high growth

This loss of momentum comes as no surprise to us given the one-off factors that boosted US GDP growth in 2023 Q3 (inventory accumulation and a large fall in household savings, along with generous support from government spending). Indeed, the surprise was that growth was so strong in the second half of last year given the monetary backdrop. Fed tightening had pushed money supply growth into negative territory and bank lending has been decelerating since the start of 2023 (see **Figure 11**).

Any slowdown could provoke a pause in the rally of risk assets

Hence, we expect a bursting of the exuberance about a soft landing of the US economy, which, added to the near recession in Japan and parts of Europe, could temper enthusiasm about the global economic cycle (especially as central banks are delaying rate cuts). India continues to be a brighter spot and we expect China to deliver growth of around 4%-5%, which we think would come as a pleasant surprise to many (Chinese money supply growth is around 10%). If we are right about this pause in global growth, we would expect to see some consolidation in assets such as equities, HY and REITS. We would normally add industrial commodities to that list but they have been weak.

Figure 11 – US money supply and bank credit growth is not supportive (% yoy)



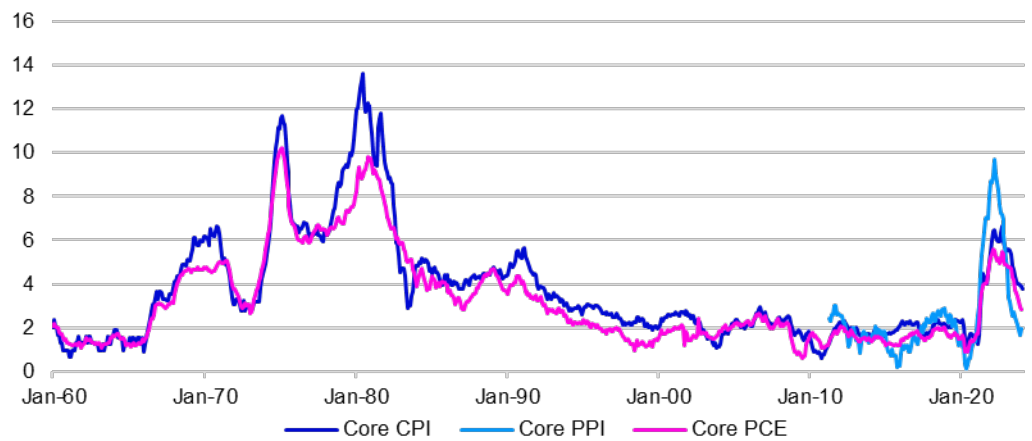
Note: monthly data from January 1960 to January 2024. Bank credit is loans and leases provided by US commercial banks. Source: LSEG Datastream and Invesco Global Market Strategy Office

Inflation moving in the right direction

Key question #2: Are central banks about to ease?

With economies weakening, central bank interest rate decisions probably depend upon the path of inflation. Consumer price gains have come down rapidly since the peaks of mid-late 2022 but major central banks appear sceptical that core inflation is moving towards their targets. We think they are being overly cautious since core inflation appears to be on a downward trajectory (see **Figure 12**) and we expect that to continue as inflation is largely a cyclical phenomenon. The commonly expressed worry about the US is the shelter component of CPI, which accounts for 45% of the core CPI index and is still running at around 6% year-on-year. However, that is lower than it was (peak of 8.2%) and tends to follow house price inflation with an 18-24 month lag, which suggests to us it will continue lower for the rest of this year (at least). Besides, the Fed says it is more focused on core PCE inflation, which was 2.8% in January (core CPI was 3.9%).

Figure 12 – Measures of US core inflation (%)

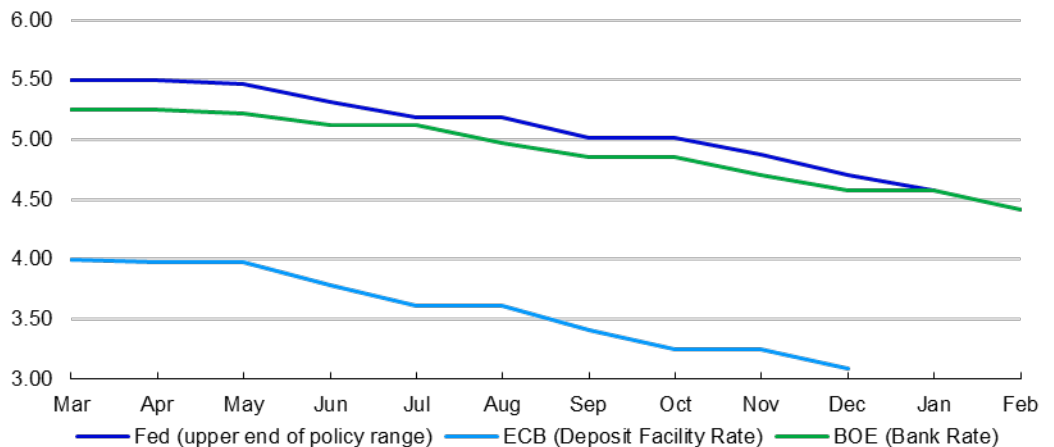


Based on monthly data from January 1960 to February 2024.
Source: LSEG Datastream and Invesco Global Market Strategy Office

We think major central banks will start reducing policy rates in June, with substantial cuts to come

There has been little change in market implied policy rates for end-2024 since we last wrote. Though markets are now more cautious about the immediate future, **Figure 13** suggests central bank easing is still expected, with the first cuts anticipated in mid-year. The Fed is expected to have cut policy rates by around 80 bps by the end of the year (and by 90 bps by the January 2025 meeting), with something similar expected from the ECB and only 65 bps from the BOE. We think the US elections (early November) could argue for a front-loading of Fed rate cuts in June and July, with a further burst after the elections. That could help weaken the US dollar.

Figure 13 – Market implied path of central bank policy rates (%)



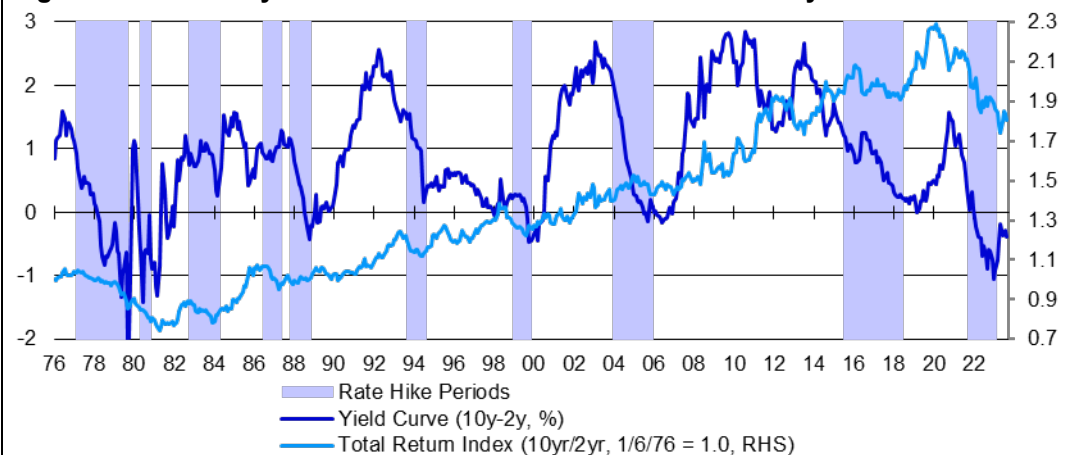
From March 2024 to February 2025. Based on Fed Funds Futures (for the Fed) and Overnight Index Swaps (for the BOE and ECB) as calculated by Bloomberg. Rates calculated for central bank policy meeting dates. For months where there is no meeting, we show the same rate as the month before. As of 13 March 2024.
Source: Bloomberg and Invesco Global Market Strategy Office

We expect yield curves to steepen, which normally favours longer maturity bonds but this time may be different

Key question #3: What do we expect when central banks ease?

Assuming that central banks do ease this year, we expect yield curves to steepen (with short rates falling more than long rates). **Figure 14** suggests the US yield curve often flattens when the Fed is tightening policy. Once, the tightening is over and easing commences, there is a tendency for the yield curve to steepen. Despite the fact that shorter rates fall more rapidly than long rates, there is a tendency for long bonds to outperform when the yield curve steepens (as they tend to do on average over time). However, we fear a lot of that is already priced into the long end of yield curves.

Figure 14 – The US yield curve and returns on different maturity bonds

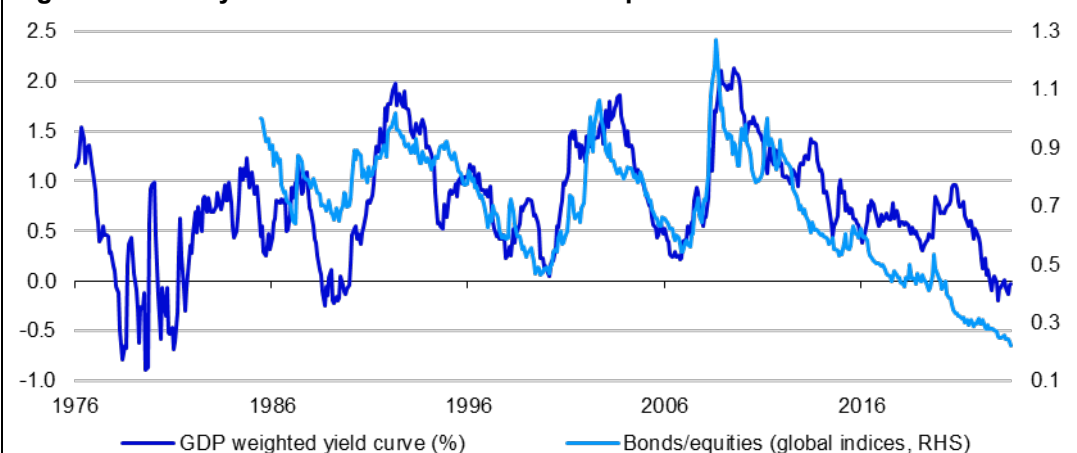


Note: **past performance is no guarantee of future results.** Based on monthly data from June 1976 to February 2024 (as of 29 February 2024). "Rate hike periods" show periods when the US Federal Reserve was raising its policy rate (assuming July 2023 was the last hike in this cycle). "Yield Curve (10y-2y, %)" shows the difference between the US treasury 10-year yield and the US treasury 2-year yield. "Tot Ret (10yr/2yr, RHS)" shows the ratio between the total return index for 10-year US treasuries and that of 2-year US treasuries, rebased to 1.0 on 1 June 1976. Total returns are calculated using movements in the respective yields on a daily basis to derive price movements, which are added to income flows assuming daily sales and repurchases to maintain constant maturities. Source: LSEG Datastream and Invesco Global Market Strategy Office

Steepening yield curves are usually associated with government bonds outperforming equities

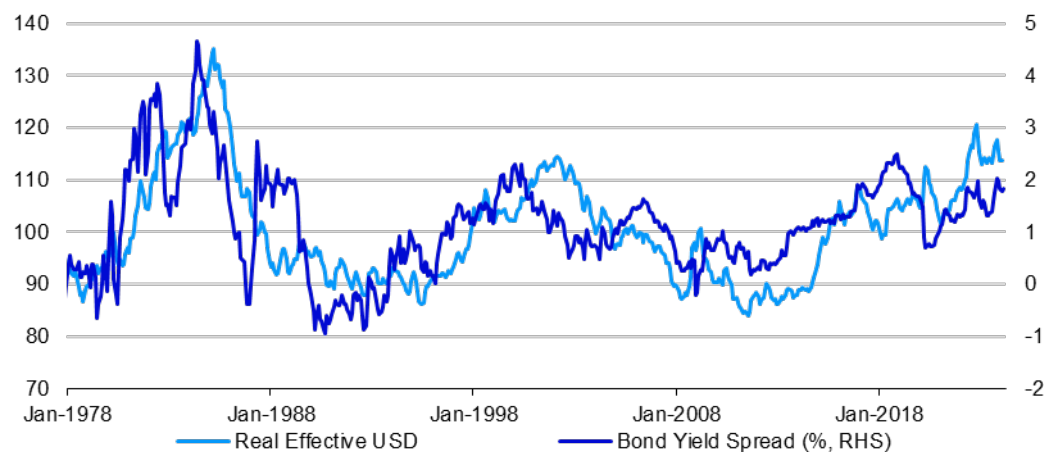
Figure 15 broadens the analysis beyond the US and suggests there is a good correlation between yield curves and the performance of bonds versus equities. When yield curves flatten, as they have tended to do since the GFC, global equities tend to outperform global government bonds. However, when yield curves steepen, government bonds tend to outperform (presumably because of economic weakness). This comforts us in our view that equities offer a poor risk/reward trade-off (after recent strong gains).

Figure 15 – G10 yield curve and bonds versus equities



Note: **Past performance is no guarantee of future results.** Based on monthly data from January 1976 to February 2024 (as of 29 February 2024). "GDP weighted yield curve" is the average 10-year yield minus 2-year yield comparison across 10 economies (Australia, Brazil, Canada, China, Eurozone, India, Japan, Russia, UK and US), weighted by GDP. "Bonds/equities" is based on total return indices in US dollars and is the MSCI World Index divided by the ICE BofA Global Government Index. Source: ICE BofA, MSCI, LSEG Datastream and Invesco Global Market Strategy Office

Figure 16 – Real effective US dollar and yield spreads



Note: **Past performance is no guarantee of future results.** Monthly data from January 1978 to February 2024 (as of 29 February 2024). Real effective US dollar is an index calculated by the OECD as the trade weighted value of the US dollar versus a basket of currencies and adjusted for CPI inflation differentials. Bond yield spread is the US 10-year treasury yield minus the average of the 10-year government yields of Germany, Japan and the UK. Source: OECD, LSEG Datastream and Invesco Global Market Strategy Office.

We expect the dollar to weaken, especially versus the yen

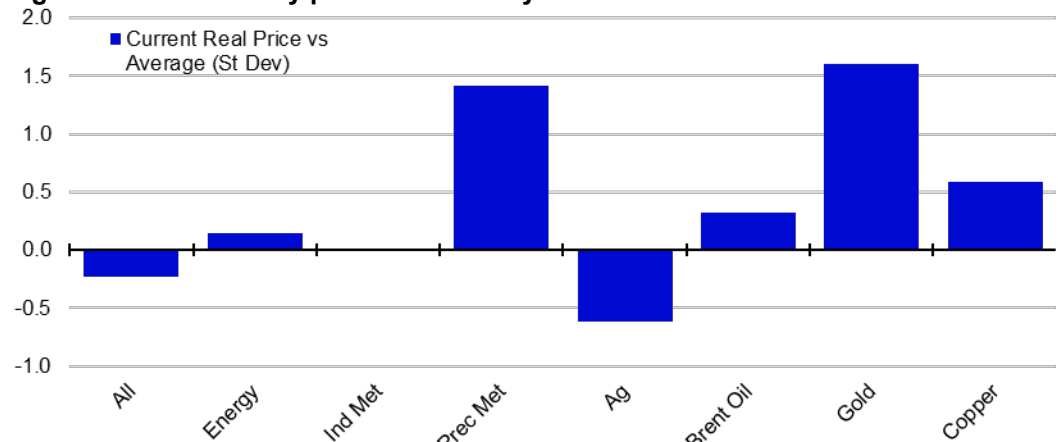
Though **Figure 13** suggests markets expect as much easing from the ECB as from the Fed, we suspect the Fed may be more aggressive as it has more tightening to unwind. This along with the belief that the BOJ may be tightening just as the Fed eases, leads us to believe that the dollar will weaken over the next 12 months. **Figure 16** suggests that a closing of the yield gap between the US and elsewhere could weaken the dollar, which is towards the upper end of its historical range in real terms.

A weakening dollar could help EM assets and commodities

A depreciating dollar could be supportive of emerging market assets, in our opinion, many of which we consider to be relatively good value. We suspect that the outlook for emerging markets would be improved if commodity prices increased (many emerging market countries are resource exporters). A weakening global economy is unlikely to be supportive of commodities in the short term (see the weakness shown in **Figure 4** and **Appendix 2**). However, if the global economy recovers over the coming 12 months and the dollar weakens, we would expect that to be supportive of industrial commodities, which have lagged other cyclical assets such as equities and HY.

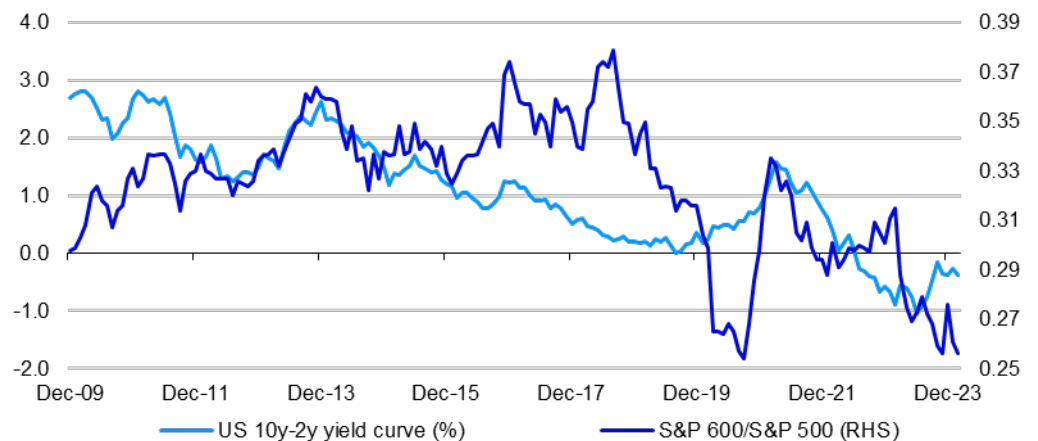
Figure 17 shows that energy and industrial metals are close to historical norms (in real terms), suggesting that valuations are unlikely to impede performance (in our view).

Figure 17 – Commodity prices deflated by US CPI versus historical norms



Abbreviations: "Ind Met" is industrial metals, "Prec Met" is precious metals and "Ag" is agriculture. Historical ranges start on: All and Ag 31/12/69; Energy 31/12/82; Ind Met 3/1/77; Prec Met 2/1/73; Brent 1/6/87; gold 1/1/74; copper 1/1/74. As of 29 February 2024. See appendices for definitions, methodology and disclaimers. Source: GSCI, LSEG Datastream and Invesco Global Market Strategy Office

Figure 18 – US small caps relative to large caps and the yield curve



Note: **Past performance is no guarantee of future results.** Monthly data from December 2009 to February 2024 (as of 29 February 2024). Source: LSEG Datastream and Invesco Global Market Strategy Office.

Small caps may benefit from policy easing and steepening yield curves

When looking for asset categories that could outperform when central banks ease, small capitalisation equities are an obvious place to start. They are usually supposed to have less financial strength with which to withstand the effect of higher interest rates. **Figure 18** suggests there is a (weak) relationship between the performance of the S&P 600 (small caps) relative to the S&P 500 and the slope of the US yield curve. The underperformance of small caps over recent years has coincided with a flattening of the yield curve. We suspect the upcoming easing by the Fed and steepening of the yield curve will be accompanied by a relief outperformance by small caps.

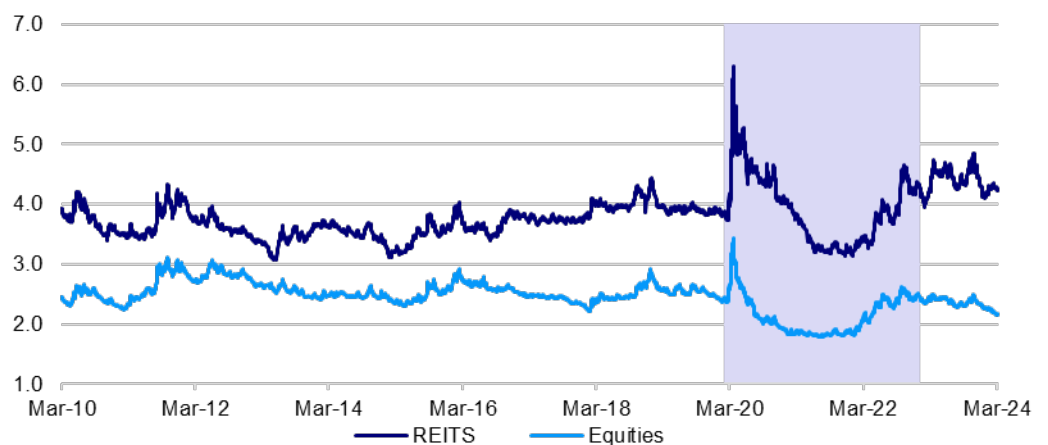
Banks and REITs could also benefit from the easing of monetary policy

Across equity sectors, we note that US and UK banks tend to outperform when the yield curve steepens (their business model consists of borrowing funds on short maturities and lending them out long). Another equity sector that we think could benefit from the easing of monetary policy is REITs. The real estate industry has perhaps suffered more than most from the tightening of financial conditions and we believe will feel more relief than many other sectors as interest rates decline.

Real estate fundamental problems may be in the price

This is not to deny the fundamental problems confronting the real estate sector, especially in the office sector. However, we believe that much of those problems are now reflected in the price of the asset. **Figure 19** shows that the yield premium offered by global REITs versus the broad equity market is wider than normal. REIT yields are above historical norms, while equity yields are lower than normal.

Figure 19 – Global real estate and equity dividend yields (%)



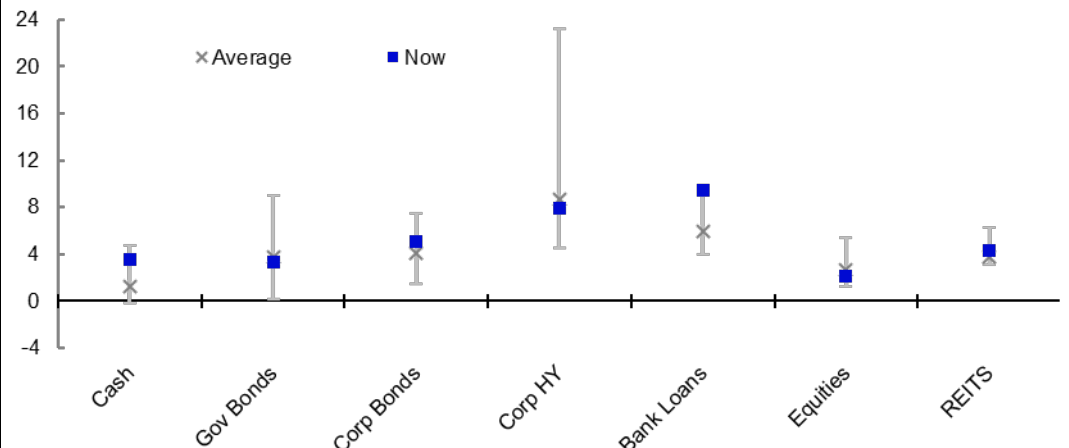
Note: **Past performance is no guarantee of future results.** Daily data from 2 March 2010 to 7 March 2024. REITS dividend yield is based on FTSE EPRA/NAREIT Global Index. Equity dividend yield is based on the Datastream World Index. Shaded area shows the Covid-19 pandemic period (from 1 February 2020 to end-2022). Source: FTSE EPRA/NAREIT, LSEG Datastream and Invesco Global Market Strategy Office

Yields are broadly in line with norms

Key question #4: What is priced into markets?

Despite the recent decline (Figure 5), asset class yields are in line with historical norms, when averaged across regions (see Figure 20). Obvious exceptions are cash and bank loans (above norms) and HY and equities (below norms). Appendix 1 shows that it is the US that is depressing the global equity dividend yield below norms.

Figure 20 – Global asset yields within historical ranges (%)



Start dates for historical ranges are Cash 1/1/01; Gov Bonds 31/12/85; Corp Bonds 31/12/96; Corp HY 31/12/97; Bank Loans 31/01/98; Equities 1/1/73; REITs 18/2/05. See appendices for definitions, methodology and disclaimers. As of 29 February 2024.
Source: Credit Suisse Indices/UBS, LSEG Datastream and Invesco Global Market Strategy Office

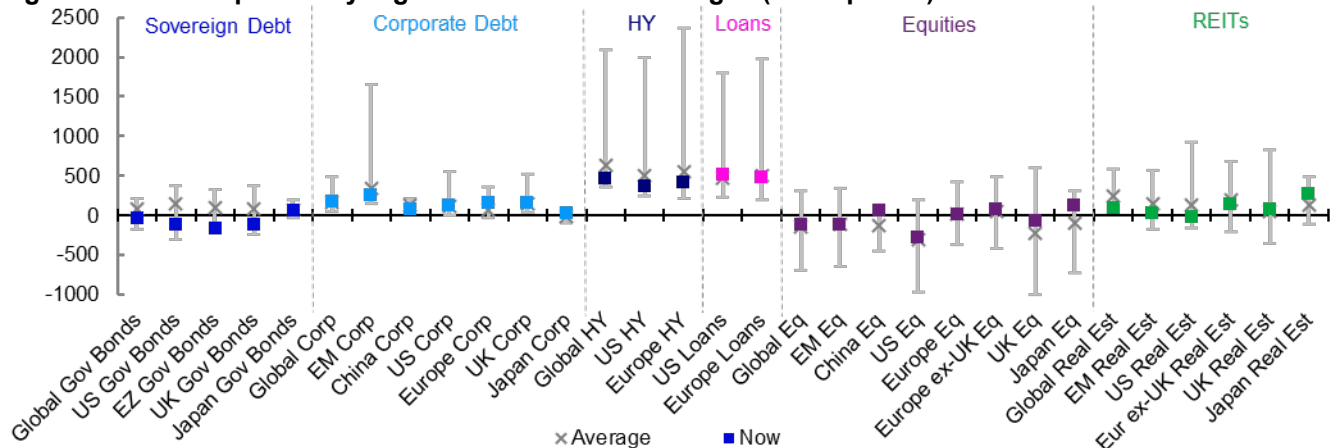
Looking at spreads, yield curves (long rates versus cash rates) are expected to steepen

Figure 21 converts the regional yields shown in Appendix 1 into spread format. Cash rates are used as the starting point (and are not shown), with government bond yield curves calculated relative to cash rates and all other spreads calculated relative to government yields (except for bank loans which are relative to market based cash rates over three years). As can be seen, yield curves remain inverted and below historical averages, suggesting that long bond yields are already anticipating a fair amount of central bank easing. We expect yield curves to steepen as central bank rates decline, even if there is some near term downward movement in longer yields.

Spreads on many other assets are tight, suggesting confidence about the cycle

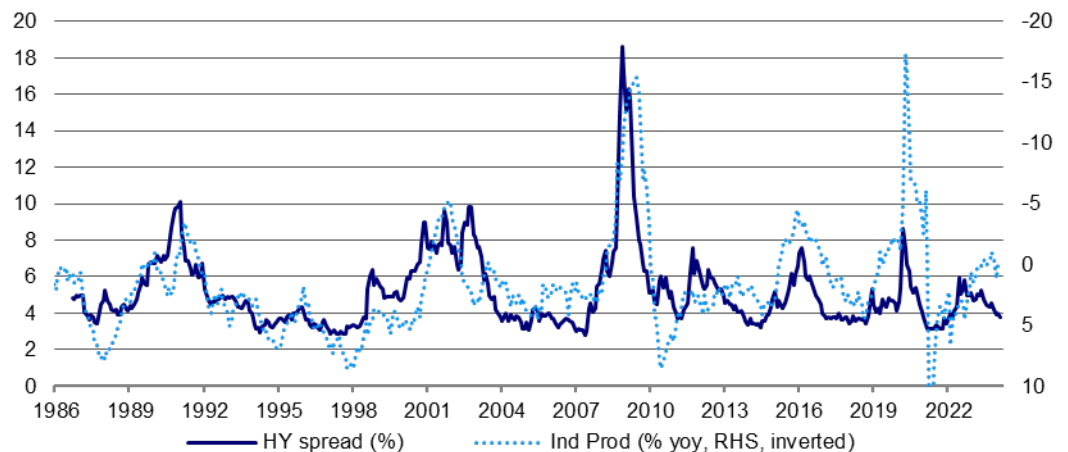
Otherwise, the spreads are largely in line with or narrower than historical norms, which suggests to us a degree of confidence about the economic cycle. Figure 22 shows the historical relationship between US industrial production growth and the spread on US HY. We believe the HY spread is narrower than justified by economic reality.

Figure 21 – Yield spreads by region within historical ranges (basis points)



Notes: Past performance is no guarantee of future results. As of 29 February 2024. "Sovereign Debt" is 10-year yield minus local cash rate. "Corporate Debt" is the investment grade yield minus local government bond yield. "HY" is the yield on high yield minus the local government bond yield. "Loans" is the discount margin on bank loans (3-year life). "Equities" is dividend yield minus local government bond yield. "REITs" is the REIT dividend yield minus local government bond yield. See appendices for definitions, methodology and disclaimers.
Source: Bloomberg, Credit Suisse Indices/UBS, ICE BofA, FTSE Russell, LSEG Datastream and Invesco Global Market Strategy Office.

Figure 22 – US high yield spread and industrial production growth (%)



Notes: **Past performance is no guarantee of future results.** Monthly data from January 1986 to February 2024 (as of 29 February 2024). HY spread is the difference between the yield to maturity on the ICE BofA US High Yield Index and the US 10-year treasury yield.

Source: LSEG Datastream and Invesco Global Market Strategy Office

Tight spreads suggest limited return potential and downside risk

This is a pattern that we see repeated throughout the fixed income universe, with spreads less generous than has normally been associated with the current growth environment (with the exception of bank loan discount margins). At best, we could say that markets have anticipated the next economic recovery, which suggests limited scope for improvement when that recovery eventually comes. At worst, it suggests a widening of spreads could occur if the recovery disappoints (and that default rates could rise).

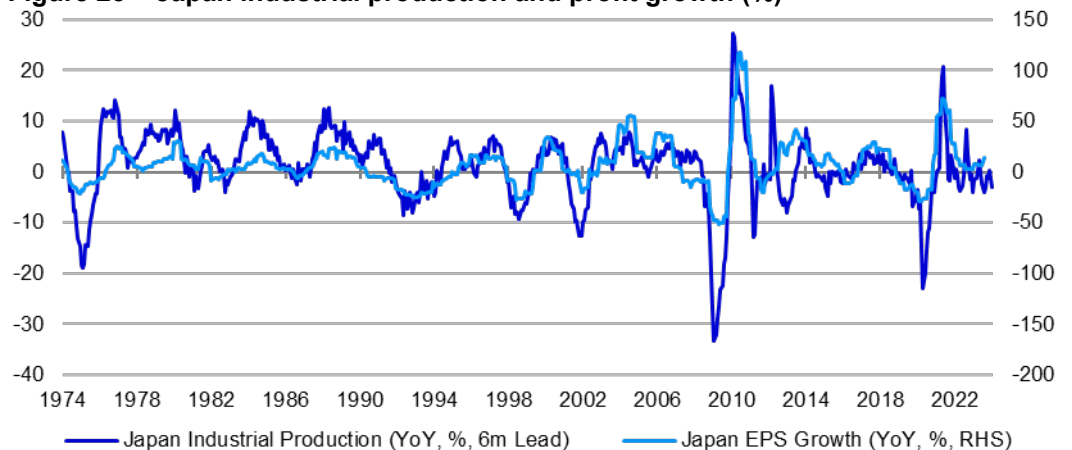
Equity yield gaps still look relatively generous, though they have normalised to some extent...

When it comes to equity markets, **Figure 21** suggests that dividend yield gaps have normalised versus what existed for much of the post-GFC era (when low government bond yields made equity yields look relatively attractive). Nevertheless, equity dividend yields remain relatively generous compared to government yields in some markets (versus longer historical norms), especially China, Japan and the UK, though not the US.

...but profit growth may come under pressure if economies weaken

More problematic for equity markets is that profit recovery appears to have been priced in by recent price gains (admittedly, profits have been more resilient than we might have imagined given the ongoing economic weakness). **Figure 23** shows the relationship between Japanese industrial production and profit growth, which suggests there is a lag of around 6 months between the two. Leaving aside the recent weakness of the yen, which we think has boosted Japanese profits (and which we expect to reverse), we suspect the ongoing low growth could depress profits (and Japan is not alone).

Figure 23 – Japan industrial production and profit growth (%)



Notes: Monthly data from January 1974 to February 2024 (as of 29 February 2024). EPS is earnings per share and is calculated from the Datastream Japan Market index and price/earnings ratio.

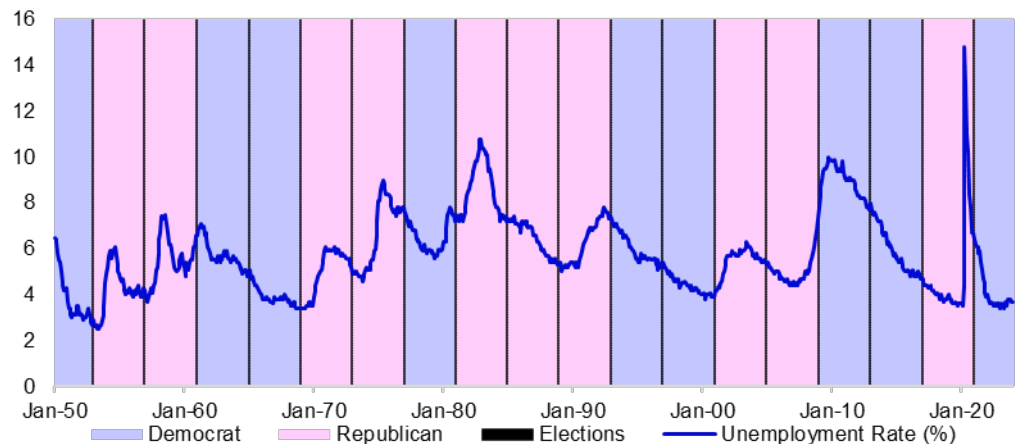
Source: LSEG Datastream and Invesco Global Market Strategy Office

Unemployment has tended to rise under Republican presidents and fall under Democrats

Key question #5: Does it matter who wins the US election?

We have recently been asked whether there would be a “Trump boost” if Donald Trump returns to the White House. We doubt it. Republican presidents have a poor track record when it comes to the economy, judging by unemployment. **Figure 24** shows that Republicans have tended to leave office with unemployment higher than when they entered (Ronald Reagan was the exception). Democrats, on the other hand, have tended to preside over a reduction in unemployment. Presidents Trump and Biden fit those historical templates (though the former was handicapped by Covid).

Figure 24 – US unemployment across presidential cycles (%)



Based on monthly data from January 1950 to January 2024. “Democrat” and “Republican” shows periods when the president was a Democrat or a Republican, respectively. “Elections” shows election dates. Source: 270twin, LSEG Datastream, Wikipedia and Invesco Global Market Strategy Office

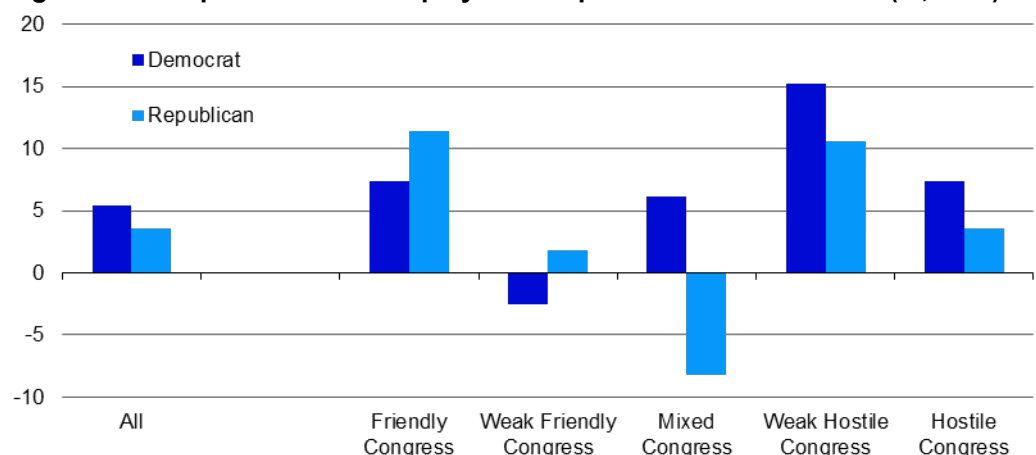
A fiscal challenge for whoever wins

In any case, we suspect the state of US government finances will make it difficult for whoever wins the next election to embark on the sort of fiscal boost (tax cuts or spending) that appear to have helped the US economy over recent years.

Stocks also tend to do better under Democrat presidents

President Trump’s term in office was associated with annualised S&P 500 gains of 13.7%, versus 9.9% under President Biden (as of 29 February 2024). However, **Figure 25** shows that stocks have tended to do better under Democrat presidents than under Republicans (and valuations are now challenging, we believe). We note that the dollar slipped by 5% during the Trump presidency, versus a gain of 8.9% under President Biden (based on the Fed’s broad trade weighted USD index, up to 23 February 2024).

Figure 25 – US presidents and equity market performance since 1853 (% ann.)



Note: **Past performance is no guarantee of future results.** Based on daily data from 4 March 1853 to 29 February 2024. “All” shows the annualised price performance of US equities during periods of Democrat and Republican presidents. The different Congress types split the full period into subsets depending on whether Congress was aligned with the president or not. See appendices for the details of the types of Congress and details of the US equity index. Source: 270twin, Global Financial Data, Robert Shiller, Wikipedia, LSEG Datastream and Invesco Global Market Strategy Office

Key Question #6: Are there any bubbles?

Some budding bubbles...AI and Bitcoin

There are some obvious places to look for bubble behaviour at the moment (Bitcoin and the Magnificent 7, say). There is usually a kernel of truth that underlies bubbles and manias. However, that kernel often concerns “unknowns” that are difficult to forecast with any certainty. These imponderables are fertile territory for speculation, as analysts and strategists compete to make the most bullish forecasts. Both AI and cryptocurrencies seem perfect vehicles for such speculative behaviour.

Herding and FOMO are powerful drivers of manias

Once an aggressive market trend begins, financial manias are made possible by behavioural characteristics such as herding and the fear of missing out (we feel comforted by being part of the crowd, and seeing others profiting from these trends makes it hard to resist). Our analysis of bubbles and manias (and crashes) was covered in a range of publications: *The shape of a bubble* (May 2019), *Why do bubble and crashes occur?* (May 2019), *A bubble and crash dashboard* (June 2019).

Strong credit growth is a missing ingredient at the moment

One further ingredient is usually present when financial manias occur: a generous supply of credit. The lack of credit and money supply growth (especially in the US) suggests that bubbles are less likely than during the 2020/21 period (see **Figure 11**).

Our Mania template is based on 15 episodes

Figure 26 shows our Mania Template. It is based on fifteen manias across various assets, starting with the South Sea Bubble of 1720. As can be seen, price behaviour during manias becomes exponential, with prices typically rising three-fold in three years, doubling in the last year, and gaining 40% in the last three months. Also of note, is the fact that once the bubble bursts, the downside is close to a mirror image of the upside. Identifying manias in the early stages can be rewarding but joining them late can be painful (though it initially feels good to be joining the party).

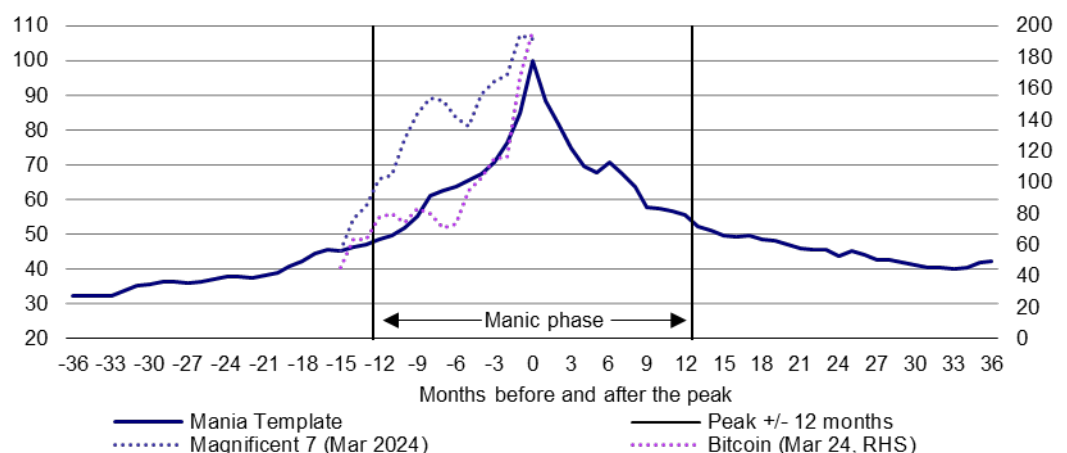
Bitcoin is again showing mania characteristics

Long term investors in Bitcoin have benefitted from a rolling series of bubbles, the peaks of which have recently been four years apart: November 2013, December 2017 and October 2021. If that pattern were followed, the next peak would come in the fourth quarter of 2025 but we emphasise this is not a forecast (we have no idea what drives cryptocurrencies). However, **Figure 26** suggests recent Bitcoin price gains are typical of late-stage mania behaviour (note that we have to put Bitcoin on a different axis as the price movements are so extreme and have started the analysis in December 2022, the most recent low, even though the chart assumes March 2024 will be the peak).

As do the Magnificent 7

The so-called Magnificent 7 (stocks that are thought to enable AI) also appear to be following a path normally associated with the final stages of a mania. Again, we started the analysis in December 2022 as that was the most recent bottom.

Figure 26 – Invesco’s Mania Template applied to Bitcoin and the Magnificent 7



Notes: **Past performance is no guarantee of future results.** Based on monthly data. “Magnificent 7” is based on the Bloomberg Magnificent 7 total return index (see appendices for definition). “Magnificent 7” and “Bitcoin” are constructed assuming peak levels were achieved in March 2024 (as of 11 March 2024). See appendices for methodology of and sources for “Mania Template”. Source: Bloomberg, Global Financial Data, LSEG Datastream and Invesco Global Market Strategy Office

Economies to slow and then recover...but that recovery seems already priced in

We assume lower growth and inflation will allow central banks to soften their approach and bring eventual recovery

We expect Fed rates to be lower in 12 months and yield curves to steepen

Equity and REIT yields to face conflicting influences

Projections for the next year

We think the global economy is decelerating, which brings short-term risk for the more cyclical assets, especially after recent strong performance. However, we have a 12-month forecast horizon, within which we expect most central banks to start easing, which we think could help economies and assets (though we worry that is already in the price).

Underpinning our projections for the next 12 months are the following assumptions:

- Global GDP growth will slow and then recover
- Global inflation will fall towards central bank targets
- Major western central banks start cutting rates during 2024 Q2
- Yield curves will steepen (with long yields falling less than short yields)
- Credit spreads widen (on the whole) and defaults rise
- Bank loan current yield spreads narrow marginally but defaults rise
- Equity and REIT dividend growth is minimal and yield movements are mixed
- USD weakens as Fed eases, especially versus JPY (as BOJ tightens)
- Commodities strengthen as the global economy recovers and USD weakens

The assumptions behind our projections are laid out in **Appendix 4**, while **Figure 27** shows the implied market targets. Perhaps the single most important forecast is that major central bank policy rates will be markedly lower in 12 months (with rate cuts starting in a matter of months). Exceptions are the PBOC and the BOJ. We expect yield curves to steepen, though largely because short rates fall (we expect 10-year yields to fall in the short term but to be mixed over a 12-month horizon). We predict the US dollar will weaken (as the Fed eases aggressively), which we think could support commodities and EM assets, especially as the global economy improves later in 2024.

Yields on equities and real estate will face competing forces: slowing economies could push them to the upside (perhaps balanced by falling bond yields) but they could then fall as economies recover. Overall, we expect little change, except for Chinese equities and UK REITS (declines expected) and EM REITS (increase expected).

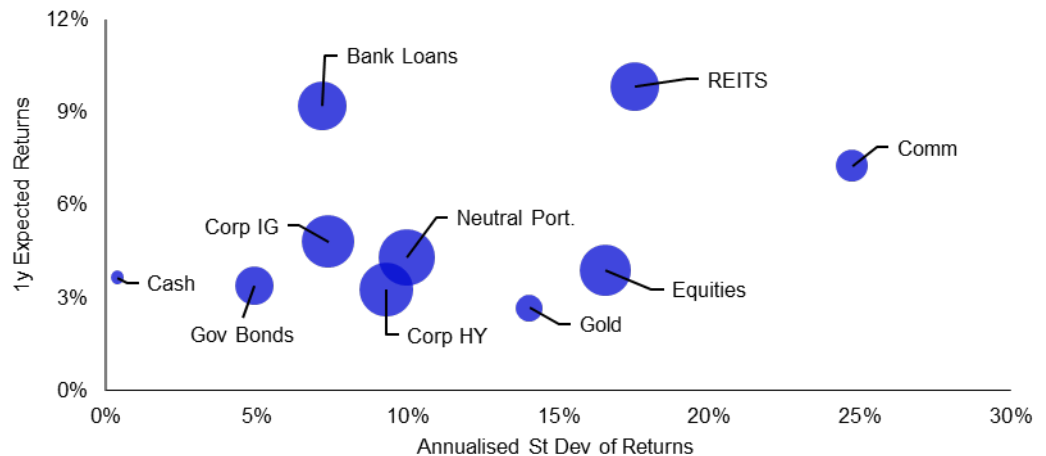
Figure 27 – Market forecasts

		Current (29/02/24*)	Forecast 12-month
Central Bank Rates	US	5.50	4.25
	Eurozone	4.00	3.00
	China	3.45	3.40
	Japan	-0.10	0.10
	UK	5.25	4.00
10yr Bond Yields	US	4.26	4.10
	Eurozone	2.38	2.45
	China	2.36	2.50
	Japan	0.71	1.00
	UK	4.12	4.00
Exchange Rates/US\$	EUR/USD	1.08	1.15
	USD/CNY	7.19	7.00
	USD/JPY	149.99	130.00
	GBP/USD	1.26	1.30
	USD/CHF	0.88	0.84
Equity Indices	S&P 500	5096	5000
	Euro Stoxx 50	4878	5300
	FTSE A50	11908	13500
	Nikkei 225	39166	38500
	FTSE 100	7630	7650
Commodities (US\$)	Brent/barrel	85	90
	Gold/ounce	2045	2100
	Copper/tonne	8402	9000

Notes: * except for central bank rates which take account of subsequent changes. **There is no guarantee that these views will come to pass.** See Appendices for definitions, methodology and disclaimers.

Source: LSEG Datastream and Invesco Global Market Strategy Office

Figure 28 – Projected 12m return versus risk for global assets



Notes: based on local currency returns. Returns are projected but standard deviation of returns is based on 5-year historical data. Size of bubbles is in proportion to average pairwise correlation with other assets (hollow bubbles indicate negative correlation). Cash is an equally weighted mix of USD, EUR, GBP and JPY. Neutral portfolio weights shown in **Figure 3**. As of 29 February 2024. **There is no guarantee that these views will come to pass.** See Appendices for definitions, methodology and disclaimers. Source: ICE BofA, Credit Suisse Indices/UBS, FTSE Russell, MSCI, S&P GSCI, LSEG Datastream and Invesco Global Market Strategy Office

Changes to projected returns largely reflect the drop in yields (rise in prices)

Most of the return projections shown in **Figure 28** are lower than in the last edition (especially HY and equities), though commodities and gold are exceptions. The changes since last time broadly reflect the strong rise in prices and fall in yields (see **Figure 5**). The upgrading of commodities reflects recent price weakness and the belief that economic recovery will benefit industrial commodities (and that a weakening US dollar will benefit gold, as could a return to the White House of Donald Trump). Bank loan spreads are more generous than HY spreads, which explains the higher projected returns for bank loans (though the lack of duration may be a handicap when rates fall).

Optimisation favours cash, IG, bank loans and commodities

We use an optimisation process to help balance risk and reward and **Figure 29** shows the results. The outcome favours cash, IG, bank loans and commodities, while shunning gold, HY and equities (the outcomes are mixed for government bonds and real estate).

Defensive additions to cash and bank loans balanced by boost to commodities

Within our Model Asset Allocation, we follow the output of the optimiser, in direction if not magnitude. We reduce IG (staying Overweight), HY (to Underweight) and equities (to further Underweight), while boosting cash (to Overweight), bank loans (to further Overweight) and Commodities (to Overweight).

Figure 29 – Optimised allocations for global assets (using local currency returns)

	Neutral Portfolio	Policy Range	Projected Returns	Optimisations Sharpe Ratio	Max Return	Model Asset Allocation*
Cash & Gold	5%	0-10%	3.2%	10%	10%	↑ 6%
Cash	2.5%	0-10%	3.7%	10%	10%	↑ 6%
Gold	2.5%	0-10%	2.7%	0%	0%	0%
Govt Bonds	25%	10-40%	3.4%	40%	10%	22%
Corporate IG	10%	0-20%	4.8%	13%	20%	↓ 16%
Corporate HY	5%	0-10%	3.3%	0%	0%	↓ 3%
Bank Loans	4%	0-8%	9.2%	8%	8%	↑ 8%
Equities	45%	25-65%	3.9%	25%	40%	↓ 35%
Real Estate	4%	0-8%	9.8%	0%	8%	6%
Commodities	2%	0-4%	7.3%	4%	4%	↑ 4%

Notes: *This is a theoretical portfolio and is for illustrative purposes only. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. Based on local currency returns (for both the one-year projected returns and five-year historical covariance matrix). Cash is an equally weighted mix of USD, EUR, GBP and JPY. "Sharpe Ratio" shows the results of maximising the Sharpe Ratio. "Max Return" maximises returns while not exceeding the volatility of the Neutral Portfolio. **There is no guarantee that these views will come to pass.** See appendices for definitions, methodology and disclaimers. Source: Invesco Global Market Strategy Office

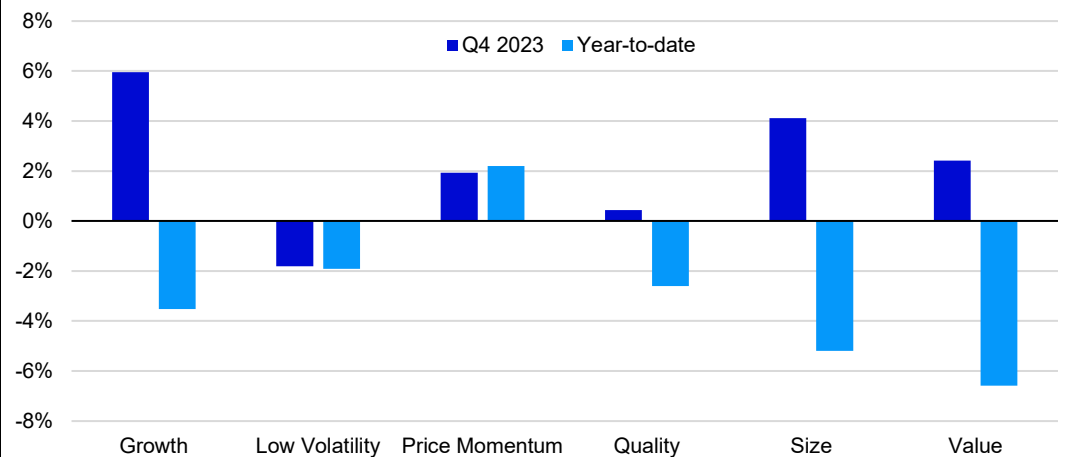
Model Asset Allocation: A barbell approach to spreading risk	
We spread the risk by boosting cash, bank loans and commodities	The strong performance of many assets over the last four months, and our concerns about the state of the global economy, lead us to expect lower returns and to spread the risks within our Model Asset Allocation. Consequently, we reduce IG (Overweight), HY (Underweight) and equities (Underweight), while boosting cash and bank loans (both Overweight). That more conservative stance is balanced by moving commodities (a performance laggard) from zero to the maximum that we allow. From a regional perspective we still prefer European and EM assets.
A lot of good news is already priced-in	As outlined earlier, we think that cyclical assets such as equities and HY have already priced in a positive economic scenario. Hence, we believe that some valuations are challenging (leaving limited scope for returns) and we fear the possibility of short term volatility if the global economy slows. However, we expect a rapid decline in central bank interest rates from mid-2024, which we think could limit the downside. We also believe rate reductions are largely priced into longer dated bonds. There are potential geopolitical and election risks, but we doubt they will have an enduring effect.
Reducing exposure to recent strong performers, including equities	Four months ago, we reduced cash within the Model Asset Allocation to Zero, believing there were better opportunities in other assets. That worked out better and faster than we expected (see Figure 4). Given the lower returns that we now project, we are reducing allocations to some of the better performing (and riskier) assets; especially those with rich valuations. Equities have performed extremely well over that period and we reduce the allocation from an already Underweight 37% to 35% (versus a Neutral 45%). This is done by reducing allocations to the US (to further Underweight, as we find it expensive), the UK (to Neutral) and Japan (to further Underweight) and balanced by an increase in the Eurozone (to further Overweight). We remain Overweight EM, especially China (where we find value). Full regional allocations are shown Figure 3 .
Credit exposure also reduced, given tight spreads	We also reduce the allocations to credit categories. High yield spreads are much narrower than we would expect at this stage of the economic cycle and we expect spreads to widen and defaults to rise (towards but not reaching cyclical norms). We reduce the allocation from an Overweight 8% to an Underweight 3% (versus a Neutral 5%). We also reduce the allocation to the less volatile investment grade category, to a still Overweight 16% (down from 20%). Those reductions to HY and IG are implemented by scaling back US and Eurozone allocations, as well as Japan in IG.
We prefer bank loans...	The bank loans asset category has similar volatility to IG but we expect better returns (see Figure 28). We boost the allocation to 8% (the maximum we allow) from 7%. It may seem odd to prefer bank loans to HY at a time when interest rates are expected to fall but we are attracted by the more generous spreads.
...and cash	Given the limited return projections for many assets, we return to cash as our diversifier of choice (low volatility and limited correlation to other assets). Having reduced the cash allocation to Zero four months ago, we now take it to an Overweight 6%.
We boost risk by adding to the more volatile (and lagging) commodity asset class	Balancing that defensive stance is a move back into Commodities , taking the asset class to the maximum allowed 4% (from Zero), with a focus on energy, industrial metals and agriculture. We are intrigued by the fact that the more cyclical components have not joined in the strong performance by cyclical assets and we expect some catch-up, especially if the global economy recovers later in the year.
No changes to government bonds, gold and real estate	Otherwise, we make no changes to the Underweight allocation (22%) to government bonds , with an ongoing preference for US and EM ex-China. Yields are down and we prefer cash. We also make no change to the Zero allocation to gold (the price is up a lot, though it is possible a Trump White House could offer further support). We also make no change to the real estate (REITs) allocation, which is at an Overweight 6%, with a preference for the US and EM. We see the risks but think a lot is in the price.
Europe and EM favoured. We hedge from USD into yen	Regionally, we are Overweight European and EM assets. We boost the partial hedge out of US dollar into Japanese yen, believing the latter will rally as the BOJ normalises.

We look for a broadening of factor performance, perhaps to size and value

Equity factors and sectors

After a broadening rally in Q4 2023 gave us a taste of a maturing equity market cycle, factor returns have narrowed again year-to-date (see **Figure 30** for Europe as an example). Price momentum is the only factor that continued to outperform in both Europe and the US (alongside US growth), which tends to do well in the mid-cycle stage. Despite a current weak patch in global economic growth, a reacceleration starting in the second half of 2024, falling inflation and easier monetary policy by major developed market central banks are likely to broaden equity market returns and may allow more cyclical factors, such as size and value, to outperform in the next 12 months.

Figure 30 – European factor relative total returns (%)

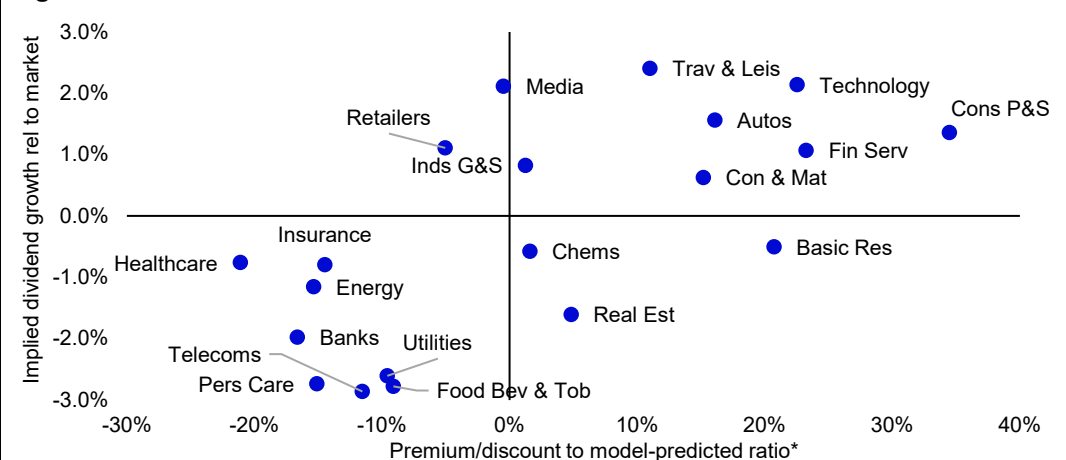


Note: **Past performance is no guarantee of future results.** As of 29 February 2024. Returns are relative to the S&P 500 (US) and the Stoxx 600 (Europe). See appendices for methodology and disclaimers.
Source: LSEG Datastream and Invesco Global Market Strategy Office

We favour cyclical sectors such as industrials, banks and real estate

In our latest [Strategic Sector Selector](#) we maintained our view that global equities could continue to progress further in the mid-cycle stage of the market cycle. As long as our macroeconomic outlook does not change significantly, we would expect cyclical sectors to outperform in the next 12 months and prefer to maintain Overweight allocations to those that have historically tended to outperform during this phase, including industrial goods & services, banks and real estate, for example. At the same time, we remain Overweight a limited selection of defensives, such as consumer staples and healthcare while the economic picture remains in flux in the short term.

Figure 31 – Global sectors valuation matrix

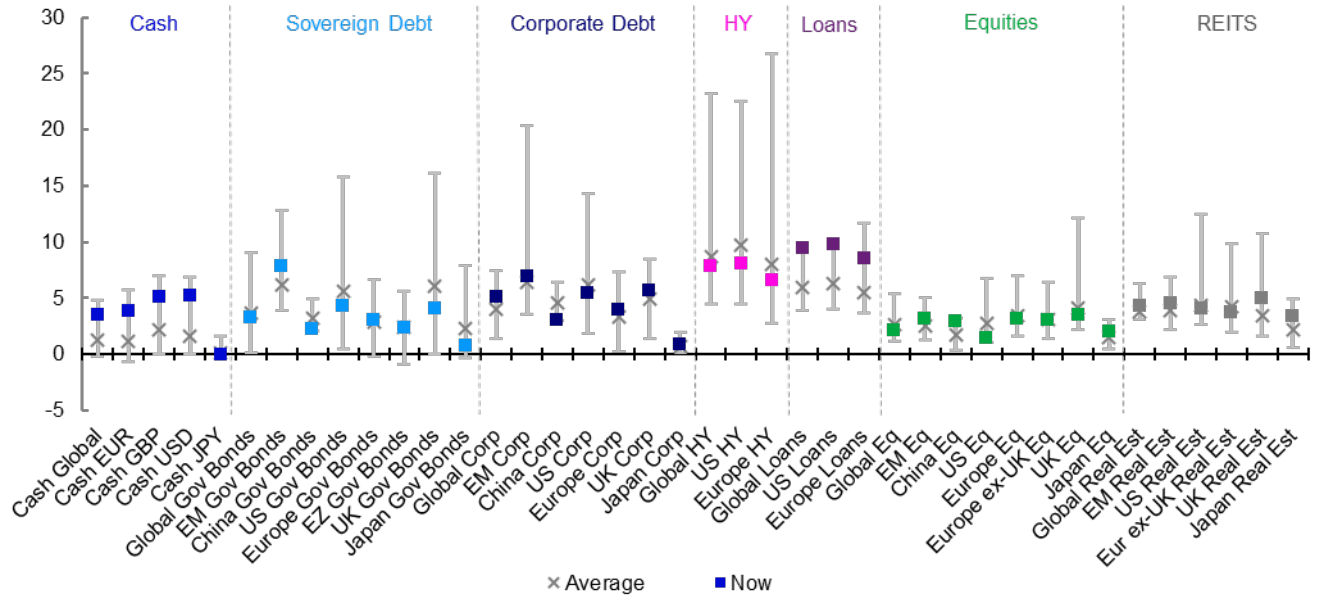


Notes: On the horizontal axis, we show how far a sector's valuation is above/below that implied by our multiple regression model (dividend yield relative to market). The vertical axis shows the perpetual real growth in dividends required to justify current prices relative to that implied for the market. We consider the sectors in the top right quadrant expensive on both measures, and those in the bottom left are considered cheap. See appendices for methodology and disclaimers. Data as of 29 February 2024.
Source: LSEG Datastream and Invesco Global Market Strategy Office

Appendices

Appendix 1: Global valuations vs history

Regional yields within historical ranges (%)



Notes: **Past performance is no guarantee of future results.** As of 29 February 2024. "Corporate Debt" is investment grade credit and "Loans" are bank loans. See appendices for definitions, methodology and disclaimers. Source: Bloomberg, Credit Suisse Indices/UBS, FTSE Russell, ICE BofA, LSEG Datastream and Invesco Global Market Strategy office

Appendix 2: Asset class total returns

Data as at 29/02/2024	Index	Current Level/Ry	Total Return (USD, %)				Total Return (Local Currency, %)			
			4m	YTD	12m	5y*	4m	YTD	12m	5y*
Equities										
World	MSCI	761	21.6	5.0	23.8	11.0	20.8	6.0	24.0	11.8
Emerging Markets	MSCI	1021	11.6	-0.1	9.2	2.3	10.7	1.5	10.1	4.4
China	MSCI	54	-4.4	-3.1	-14.0	-5.9	-4.6	-2.7	-13.6	-5.7
US	MSCI	4859	24.9	7.0	30.7	14.7	24.9	7.0	30.7	14.7
Europe	MSCI	2045	18.1	1.5	13.3	7.9	14.6	3.7	9.9	8.7
Europe ex-UK	MSCI	2570	20.4	2.3	15.8	9.1	17.2	5.0	12.7	9.6
UK	MSCI	1155	10.5	-1.3	5.5	4.5	6.0	-0.5	0.9	5.5
Japan	MSCI	3984	20.5	7.8	27.4	7.7	20.5	14.4	40.0	14.2
Government Bonds										
World	BofA-ML	3.30	5.4	-3.3	0.8	-2.6	4.5	-1.5	2.2	-0.9
Emerging Markets (USD)	BBloom	7.86	16.4	-0.8	13.3	0.3	16.4	-0.8	13.3	0.3
China	BofA-ML	2.27	5.5	0.6	3.2	3.0	3.7	2.0	7.0	4.5
US (10y)	Datastream	4.26	6.0	-2.4	0.8	0.1	6.0	-2.4	0.8	0.1
Europe	BofA-ML	3.05	7.8	-3.7	7.4	-2.5	5.4	-1.7	5.2	-1.5
Europe ex-UK (EMU, 10y)	Datastream	2.38	6.7	-4.5	7.0	-3.8	4.3	-2.5	4.8	-2.8
UK (10y)	Datastream	4.12	10.1	-4.2	6.9	-3.8	5.7	-3.4	2.3	-2.8
Japan (10y)	Datastream	0.71	1.9	-6.2	-9.4	-5.9	2.0	-0.4	-0.4	-0.2
IG Corporate Bonds										
Global	BofA-ML	5.05	7.8	-1.8	6.8	0.9	6.9	-1.0	6.2	1.2
Emerging Markets (USD)	BBloom	6.88	13.7	1.7	11.1	1.5	13.7	1.7	11.1	1.5
China	BofA-ML	3.02	4.4	-0.1	1.8	2.5	2.6	1.4	5.5	4.0
US	BofA-ML	5.50	8.1	-1.2	6.1	1.9	8.1	-1.2	6.1	1.9
Europe	BofA-ML	3.94	7.0	-2.8	8.8	-1.4	4.6	-0.8	6.6	-0.4
UK	BofA-ML	5.63	11.6	-2.4	11.0	-1.1	7.2	-1.6	6.3	-0.1
Japan	BofA-ML	0.92	0.9	-5.9	-8.1	-5.7	1.0	-0.1	0.9	0.1
HY Corporate Bonds										
Global	BofA-ML	7.90	9.5	0.4	11.2	3.1	8.9	0.9	10.6	3.3
US	BofA-ML	8.02	9.1	0.3	11.0	4.0	9.1	0.3	11.0	4.0
Europe	BofA-ML	6.61	10.0	-0.9	12.2	1.6	7.6	1.2	10.0	2.6
Cash (Overnight LIBOR)										
US		5.32	1.7	0.9	5.1	1.9	1.7	0.9	5.1	1.9
Euro Area		3.89	3.6	-1.5	5.8	-0.6	1.3	0.7	3.6	0.5
UK		5.19	6.0	0.0	10.3	0.5	1.8	0.9	5.0	1.5
Japan		-0.01	-0.2	-5.9	-9.2	-5.8	0.0	0.0	0.0	-0.1
Real Estate (REITs)										
Global	FTSE	1556	16.9	-4.5	1.0	0.0	14.3	-2.5	-1.0	1.1
Emerging Markets	FTSE	1217	7.3	-4.2	-4.6	-6.8	4.9	-2.2	-6.5	-5.9
US	FTSE	2983	21.1	-2.5	4.8	3.5	21.1	-2.5	4.8	3.5
Europe ex-UK	FTSE	2230	18.9	-13.1	0.8	-4.5	16.3	-11.3	-1.2	-3.5
UK	FTSE	772	18.5	-10.3	-2.5	-3.8	13.7	-9.6	-6.7	-2.8
Japan	FTSE	2063	3.4	-4.3	2.0	-1.7	3.5	1.6	12.0	4.3
Commodities										
All	GSCI	3527	-4.2	5.4	5.0	7.2	-	-	-	-
Energy	GSCI	634	-5.9	9.4	9.6	6.3	-	-	-	-
Industrial Metals	GSCI	1557	1.7	-2.7	-7.5	3.8	-	-	-	-
Precious Metals	GSCI	2288	2.4	-1.3	11.0	8.0	-	-	-	-
Agricultural Goods	GSCI	496	-6.7	-3.4	-8.0	7.9	-	-	-	-
Currencies (vs USD)**										
EUR		1.08	2.3	-2.1	2.1	-1.0	-	-	-	-
JPY		149.98	-0.2	-5.9	-9.2	-5.8	-	-	-	-
GBP		1.26	4.2	-0.8	4.5	-1.0	-	-	-	-
CHF		1.13	2.0	-4.9	6.5	2.4	-	-	-	-
CNY		7.19	1.8	-1.2	-3.6	-1.4	-	-	-	-

Notes: **Past performance is no guarantee of future results.** *Five-year returns are annualised. **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.

Appendix 3: Invesco 10-year Capital Market Assumptions (USD version)

	Asset Class	Index	Expected geometric return %	Expected arithmetic return %	Expected Risk %	Arithmetic return to risk ratio	
Fixed Income	US Treasury Short	BBG BARC US Treasury Short	3.5	3.5	1.5	2.33	
	US Treasury Intermediate	BBG BARC US Treasury Intermediate	4.0	4.1	4.6	0.88	
	US Treasury Long	BBG BARC US Treasury Long	3.8	4.5	12.2	0.37	
	US TIPS	BBG BARC US TIPS	4.7	4.9	5.7	0.85	
	US Bank Loans	CSFB Leverage Loan Index	5.9	6.3	8.2	0.76	
	US Aggregate	BBG BARC US Aggregate	4.8	5.0	6.1	0.81	
	US Inv Grd Corps	BBG BARC US Investment Grade	5.0	5.3	7.8	0.67	
	US MBS	BBG BARC US MBS	5.2	5.4	6.7	0.80	
	US Preferred Stocks	BOA ML Fixed Rate Pref Securities	5.2	5.9	12.2	0.48	
	US High-Yield Corps	BBG BARC US High Yield	6.2	6.6	10.1	0.66	
	US Muni	BOA ML US Muni	3.8	4.0	7.0	0.57	
	US Muni (Taxable)	ICE BOA US Taxable Muni Securities Plus	4.9	5.3	8.1	0.65	
	US HY Muni	BBG US Muni Bond HY	4.8	5.1	8.8	0.58	
	Global Aggregate	BBG BARC Global Aggregate	4.7	4.9	7.2	0.68	
	Global Aggregate-Ex US	BBG BARC Global Aggregate- Ex US	4.8	5.3	10.5	0.51	
	Global Treasury	BBG BARC Global Treasuries	4.7	5.1	8.6	0.59	
	Global Sovereign	BBG BARC Global Sovereign	4.6	4.9	8.1	0.61	
	Global Corporate	BBG BARC Global Corporate	5.2	5.5	8.0	0.68	
	Global Inv Grd	BBG BARC Global Corporate Inv Grd	5.2	5.5	8.2	0.67	
	Eurozone Corporate	BBG BARC Euro Aggregate Credit - Corporate	4.9	5.7	13.4	0.43	
	Eurozone Treasury	BBG BARC Euro Aggregate Government - Treasury	5.0	5.8	12.8	0.45	
	Asian Dollar Inv Grd	BOA Merrill Lynch ACIG	5.2	5.5	8.1	0.68	
	EM Aggregate	BBG BARC EM Aggregate	6.3	7.0	12.9	0.55	
	EM Agg IG	BBG BARC EM USD Agg IG	5.0	5.4	8.8	0.61	
	China Policy Bk & Tsy	BBG BARC China PB Tsy TR	4.2	4.3	4.0	1.07	
	China RMB Credit	BBG BARC China Corporate	4.6	4.6	3.5	1.32	
	Equities	World Equity	MSCI ACWI	6.8	8.1	17.1	0.48
		World Ex-US Equity	MSCI ACWI Ex-US	7.5	9.1	18.8	0.48
US Broad		Russell 3000	6.4	7.8	17.5	0.44	
US Large Cap		S&P 500	6.4	7.7	16.8	0.46	
US Mid Cap		Russell Midcap	7.2	9.0	19.5	0.46	
US Small Cap		Russell 2000	8.3	10.6	22.8	0.47	
MSCI EAFE		MSCI EAFE	6.9	8.5	18.7	0.45	
MSCI Europe		MSCI Europe	7.4	9.0	18.9	0.47	
Eurozone		MSCI Euro X UK	7.2	9.0	19.9	0.45	
UK Large Cap		FTSE 100	7.4	9.2	20.0	0.46	
UK Small Cap		FTSE Small Cap UK	8.7	11.5	25.6	0.45	
Canada		S&P TSX	7.2	9.0	20.3	0.44	
Japan		MSCI JP	5.1	7.3	22.4	0.33	
Emerging Market		MSCI EM	8.9	11.6	24.7	0.47	
Asia Pacific Ex JP		MSCI APXJ	9.1	11.8	24.9	0.47	
China Large Cap		CSI 300	10.7	15.4	34.2	0.45	
Alternatives	Global Infra	DJ Brookfield Global Infra	9.5	10.5	14.9	0.70	
	Global REITs	FTSE EPRA/NAREIT Developed Index	7.1	8.6	18.8	0.46	
	Hedge Funds	HFRI HF Index	6.7	7.0	8.6	0.81	
	Commodities	S&P GSCI	5.5	8.0	23.8	0.34	
	Agriculture	S&P GSCI Agriculture	4.0	6.1	21.2	0.29	
	Energy	S&P GSCI Energy	7.1	12.7	37.0	0.34	
	Industrial Metals	S&P GSCI Industrial Metals	4.7	7.3	24.0	0.30	
Precious Metals	S&P GSCI Precious Metals	-1.2	0.5	18.4	0.02		

Notes: Estimates as of 29 December 2023, as published in Long-Term Capital Market Assumptions (March 2024). These estimates reflect the views of Invesco Solutions; the views of other investment teams at Invesco may differ from those presented here. **There is no guarantee that these views will come to pass.** TIPS = treasury inflation protected securities, MBS = mortgage-backed securities. Source: Invesco Solutions

Appendix 4: Key assumptions

Key assumptions for 1-year projected returns

	US	Eurozone/ Europe ex-UK	UK	Japan	EM	China
Central bank rates (%)	4.25	3.00	4.00	0.10	-	3.40
Sovereign spreads vs rates (bps)	25	25	25	75	-	-
Corporate IG spread vs sovereign (bps)	140	60	150	20	-	-
Corporate HY spread vs sovereign (bps)	450	450	-	-	-	-
Bank Loan spread vs 3M cash rates (bps)	420	440	-	-	-	-
Corporate HY default rates (%)	2.5	2.0	-	-	-	-
Corporate HY recovery rates (%)	30	30	-	-	-	-
Bank Loan default rates (%)	3.0	3.0	-	-	-	-
Bank Loan recovery rates (%)	40	40	-	-	-	-
Equities dividend growth (%)*	5.0	5.0	0.0	3.0	2.0	5.0
Equities dividend yield (%)*	1.5	3.0	3.5	2.1	3.0	2.7
Real estate (REITS) dividend growth (%)*	3.0	5.0	0.0	5.0	10.0	-
Real estate (REITS) dividend yield (%)*	4.0	3.8	4.8	3.4	4.7	-

Notes: *assumptions for Europe ex-UK. One-year assumptions are based on our analysis of how current values compare to historical norms (assuming some degree of reversion to the mean, except where our analysis suggests historical norms are unlikely to be a guide to the future), adjusted for our view about the development of the economic and financial market cycles over the next year in each region.

There is no guarantee that these views will come to pass.

Source: Invesco Global Market Strategy Office

Appendix 5: 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.

Appendix 6: Definitions of data and benchmarks

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 euro, British pound and 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 values in the market forecast table (**Figure 27**) use Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK and the Thomson Reuters China benchmark 10-year yield for China. Historical and projected yields and returns (**Figures 1, 2, 4, 5, 20, 21, 27, 28, 29**) are based on Bank of America Merrill Lynch 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 and returns are based on the Bloomberg emerging markets sovereign US dollar bond index with the historical range starting on 28 February 2003. The same indices are used to construct **Appendix 1**.

Corporate investment grade (IG) bonds: Bank of America Merrill Lynch 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 and returns 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: Bank of America Merrill Lynch 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). **Figure 20** and **Appendix 1** are based on current yield. Data is sourced from Credit Suisse Indices/UBS and Bloomberg.

Equities: We use MSCI benchmark indices to calculate projected returns and calculate long-term total returns with historical ranges starting on 31 December 1969 for the Global, US, Europe ex-UK, UK and Japanese indices, 31 December 1987 for the emerging markets index and 31 December 1992 for the China index (**Figures 1, 2, 27, 28, 29**). Equity index valuations (**Figures 4, 5, 20, 21 and Appendix 1**) are based on dividend yields and price-earnings ratios using 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, 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.

Commodities: Goldman Sachs Commodity Index with historical ranges starting on 31 December 1969 for the All Commodities and Agriculture indices, 31 December 1982 for the Energy index, 3 January 1977 for the Industrial Metals index, and 2 January 1973 for the Precious Metals index. "Industrial commodities" is oil & gas and industrial metals.

Definitions of data and benchmarks for Appendix 2

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 LSEG 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 Bank of America Merrill Lynch government bond total return index for China, the World and Europe. The emerging markets yields and returns are based on the Barclays Bloomberg emerging markets sovereign US dollar bond index.

Corporate investment grade (IG) bonds: Bank of America Merrill Lynch investment grade corporate bond total return indices and the Barclays Bloomberg emerging markets corporate US dollar bond total return index for emerging markets.

Corporate high yield (HY) bonds: Bank of America Merrill Lynch 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

Definitions of data and benchmarks for Figure 21 (yield spreads)

We calculate spreads for government bonds by deducting cash rates from redemption yields for government bond indices within each region. For other assets we deduct government bond yields from redemption yields for corporate bond indices (both investment grade and high yield) and dividend yields for equity and real estate indices. Based on daily data.

Cash rates: we use the Intercontinental Exchange Benchmark Administration overnight LIBOR (London Interbank Offer Rate) from 2 January 2001. From 1st January 2022, we use the Refinitiv overnight deposit rate for the euro, the British pound and the Japanese yen.

Government bonds: We use Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK. The global government bond spread is based on an average of the euro, British pound, US dollar and Japanese yen cash rates deducted from the redemption yield on the Intercontinental Exchange Bank of America Global Government Index. Historical ranges start on 2 January 2001.

Corporate investment grade (IG) bonds: we use Bank of America Merrill Lynch investment grade corporate bond total return indices and the Barclays Bloomberg emerging markets corporate US dollar bond total return index for emerging markets. The spread for Europe uses Eurozone government bond yields. The spread for emerging markets uses the US 10-year government yield. Historical ranges start on 31 May 1984 for the US data, 31 December 1996 for the Global and the UK, 4 January 1999 for Europe, 3 January 2000 for Japan, 28 February 2003 for Emerging Markets and 31 December 2004 for China.

Corporate high yield (HY) bonds: we use redemption yields on Bank of America Merrill Lynch high yield indices. The spread for Europe uses Eurozone government bond yields. Historical ranges start on 30 September 1986 for the US data, 31 December 1997 for Global and 4 January 1999 for Europe.

Bank loans: we use the 3-year discount margin on 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.

Equities: we use Datastream Total Market indices. The dividend yield gap for Europe uses yields on the Intercontinental Exchange Bank of America European Union Government Index Eurozone government bond yields. Europe ex-UK yields gaps use Eurozone government bond yields. The dividend yield gap for emerging markets uses the US 10-year government yield. Historical ranges start on 1 January 1980 for the US and UK data, 2 January 1984 for Japan, 31 December 1985 for Global, 2 January 1995 for Emerging Markets, 3 September 1996 for Europe, 4 January 1999 for Europe ex-UK and 31 December 2004 for China.

Real estate: FTSE EPRA/NAREIT total return indices. The dividend yield gap for Europe ex-UK uses Eurozone government bond yields. The dividend yield gap for emerging markets uses the US 10-year government yield. Historical ranges start on 29 December 2000 for Europe ex-UK, 28 February 2001 for UK, 31 October 2001 for the US and Japan, 22 December 2008 for Emerging Markets and 2 March 2010 for Global.

Appendix 7: Sector classifications, valuation methodology, sector name abbreviations (Figure 31) and equity factor definitions (Figure 30)

We use a sector classification created by merging the two main systems used by Standard & Poor's (S&P) for the US and Stoxx for Europe. We have decided to classify our 10 top level industries using categories that most closely resemble the Global Industry Classification Standard (GICS) and at the level below that (super sectors) we are using the Industry Classification Benchmark (ICB). The former is used for the S&P 500 index and the latter for the Stoxx 600, our benchmark indices for this document. The two systems overlap in most cases and the only material difference seems to be in the consumer sectors. Therefore, we define consumer staples as the aggregate of personal & household goods and food & beverage, while consumer discretionary includes automobiles & parts, media, retail and travel & leisure. For the rest, we assume 100% overlap for the corresponding top-level sectors.

Autos = Automobiles & parts
 Basic Res = Basic Resources
 Chem = Chemicals
 Con & Mat = Construction & Materials
 Fin Serv = Financial Services
 Food & Bev = Food & Beverage
 Ind G&S = Industrial Goods & Services
 Pers & Hh Gds = Personal & Household Goods
 Real Est = Real Estate
 Tech = Technology
 Telecoms = Telecommunications
 Trav & Leis = Travel & Leisure

Multiple regression analysis

We have run a multiple regression analysis to examine how macroeconomic factors influence sector valuations. We have used the dividend yield relative to market as the dependent variable and have run the regressions with the following independent variables:

Monthly series since 31/01/1991:

- 1-year change in: industrial production, consumer price index
- The level of: real oil price (US CPI adjusted), real copper price (US CPI adjusted), consumer confidence index, manufacturing confidence index, 10-year benchmark government bond yield, net debt/EBITDA (only for non-financial sectors), return on equity

We calculate a global measure of industrial production growth, consumer price index growth, consumer confidence, manufacturing confidence and government bond yields using data from four regions or countries representing 65% of global Gross Domestic Product: United States, Europe, Japan and China. The global measures are weighted averages using Datastream global index market capitalisations as weights.

This analysis shows us which independent variables have a statistically significant relationship with sector valuation ratios. In addition, the regression coefficients tell us how much each independent variable influences those ratios. Finally, we use those coefficients to calculate what the valuation ratios should be, based on the model, and compare them to currently observed valuations. In theory, this allows us to determine whether a sector is undervalued or overvalued based on the macroeconomic factors we have used.

Leverage and profitability ratios

We calculate Net Debt/EBITDA from sector and market level aggregates supplied by LSEG Datastream. They define Net Debt as Total Debt minus Cash, where Cash represents Cash & Due from Banks for Banks, Cash for Insurance companies and Cash & Short Term Investments for all other industries. We tend to exclude Financials from

Net Debt/EBITDA comparisons for it is difficult to distinguish debt they sell as a product and debt they incur during the operation of the business. In addition, LSEG Datastream define EBITDA – Earnings before Interest, Taxes and Depreciation – as the earnings of a company before interest expense, income taxes and depreciation. It is calculated by taking the pre-tax income and adding back interest expense on debt and depreciation, depletion and amortisation and subtracting interest capitalised.

Implied perpetual growth models

A valuation cross-check is sought by calculating the perpetual real growth in dividends required to justify current prices. This then allows an evaluation of whether those implied growth rates are realistic.

We use a simple perpetual growth model to calculate implied growth. If $\text{Price} = \text{Dividend}/(\text{Discount Factor} - \text{Growth})$, then $\text{Growth} = \text{Discount Factor} - \text{Dividend Yield}$. The Discount Factor is equal to $\text{Risk Free Rate} + (\text{Beta} \times \text{Market Risk Premium})$. Everything is expressed in real terms to eliminate the distorting influence of inflation, the output being growth in real terms. The important ingredients are derived as follows:

- The risk-free rate is an equity market capitalisation weighted average of US, UK, Eurozone, Japanese and Chinese 10-year real yields.
- Sector betas are calculated using five years of weekly price movements relative to the global market index.
- The risk premium is derived from US equity and treasury market returns since 1871.
- The dividend yield for each sector is the 12-month trailing yield calculated by Datastream.

Equity factor index definitions

All indices are subsets of the S&P 500 index for the US and the Stoxx 600 for Europe, 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 market value in US dollars.

Value includes stocks in the bottom quintile based on their price to book value ratios.

Appendix 8: Methodology, data and benchmarks for equity gains during US presidencies (Figure 25)

Based on the S&P 500 index since 1957 and comparable indices as derived by Robert Shiller prior to that. The index prior to 1926 is Robert Shiller's recalculation of data from Common Stock Indexes by Cowles & Associates (see [here](#)). From 1926 to 1957, the Shiller data is based on the S&P Composite Index and thereafter is based on the S&P 500 as we know it today.

The analysis starts at the beginning of the presidency of Franklin Pierce on 04 March 1853 and ends on 29 February 2024.

"Friendly Congress" is when both houses are of the same party as the president.

"Weak Friendly Congress" is when both houses support the President for most of his full term.

"Mixed Congress" is when both parties have an equal stake in Congress.

"Weak Hostile Congress" is when both houses are predominantly against the president.

"Hostile Congress" is when both houses are against the president throughout his term.

Past performance is no guarantee of future results.

Source: 270twin, Robert Shiller, Global Financial Data, Bloomberg, LSEG Datastream, Wikipedia and Invesco Global Market Strategy Office.

Appendix 9: Methodology, data and benchmarks for Mania Template (Figure 26)

The Mania Template is based on monthly data during 15 historical manias, sourced from LSEG Datastream unless stated otherwise. For each mania, the relevant asset price is indexed to 100 at the peak (month zero) and is shown over the three years before and after that point. The template shows the average of the 15 manias at each point in time. The 15 manias are (with peak month and source):

- 1) UK equities during the South Sea Bubble -- an index that is an unweighted average of the prices of Bank of England, East India Company and South Sea Company (Jun 1720, Global Financial Data)
- 2) UK equities -- an index of UK stocks (including industrials but excluding banks, insurance and bridge stocks) calculated by Hayek as provided by Rostow and Schwartz in *The Growth and Fluctuation of the British Economy* (Jul 1864, GFD)
- 3) US oil -- West Texas Intermediate oil price (US\$/barrel), from *The Derrick's Handbook of Petroleum* (Sep 1876, GFD)
- 4) US oil -- West Texas Intermediate oil price (US\$/barrel), from *The Derrick's Handbook of Petroleum* (Dec 1895, GFD)
- 5) US equities -- S&P Composite Index (Sep 1929, Robert Shiller)
- 6) US bank stocks -- S&P 500 Diversified Banks calculated by Standard & Poor's based on historical price data (Sep 1929, GFD)
- 7) US wheat -- US Wheat #2 Cash Price (US\$/bushel) from The Chicago Board of Trade (Jan 1974, GFD)
- 8) Gold -- bullion price on the London Bullion Market (US\$/ounce) provided by ICE Benchmark Administration Ltd. (Sep 1980, LSEG Datastream)
- 9) Nikkei index (Dec 1989, LSEG Datastream)
- 10) Greek bank stocks -- Datastream Banks Index for Greece (Sep 1999, LSEG Datastream)
- 11) NASDAQ Composite (Feb 2000, LSEG Datastream)
- 12) Miami house prices (Feb 2007, FHFA index from LSEG Datastream)
- 13) China A-shares -- China A-DS Market Index calculated by Datastream (Oct 2007, LSEG Datastream)
- 14) US oil -- West Texas Intermediate oil price (US\$/barrel), 40-degree API, f.o.b. Cushing Oklahoma (Jun 2008, GFD)
- 15) Bitcoin -- USD to Bitcoin on the Bitstamp exchange, from Thomson Reuters (Nov 2013, data to Jul 2011 from Bloomberg and thereafter LSEG Datastream)

"Bitcoin" and "Magnificent 7" are indexed to start at the same level as the "Mania Template" (in month -15 in this case, as that is when both assets bottomed from sizeable downturns and assuming that 11 March 2024 is the peak) and are sourced from LSEG Datastream and Bloomberg, respectively.

The Bloomberg Magnificent 7 Total Return Index is an equal-weighted equity benchmark consisting of a fixed basket of seven widely traded companies classified in the United States and representing the Communications, Consumer Discretionary and Technology sectors as defined by Bloomberg Industry Classification System (BICS).

Appendix 10: Invesco Solutions Capital Market Assumptions methodology (Figure 6 & Appendix 3)

We show a summary of the Capital Market Assumptions produced by Invesco's Solutions team (Solutions) and this is a summary of their methodology.

Invesco Solutions employ a fundamentally based "building block" approach to estimating asset class returns. Estimates for income and capital gain components of returns for each asset class are informed by fundamental and historical data. Components are then combined to establish estimated returns. This is a summary of key elements of the methodology used to produce long-term (10-year) and medium term (5-year) estimates.

Fixed income returns are composed of the average of the starting (initial) yield and expected yield for bonds, estimated changes in valuation given changes in the Treasury yield curve, roll return which reflects the impact on the price of bonds that are held over time, and a credit adjustment which estimates the potential impact on returns from credit rating downgrades and defaults.

Equity returns are composed of: a dividend yield, calculated using dividend per share divided by price per share, buyback yield, calculated as the percentage change in shares outstanding resulting from companies buying back or issuing shares, valuation change, the expected change in value given the current Price/Earnings (P/E) ratio and the assumption of reversion to the long-term average P/E ratio, and the estimated growth of earnings based on the long-term average real GDP per capita and inflation.

Alternative returns are composed of a variety of public versus private assets with heterogeneous drivers of return given their distinct nature. They range from a beta driven proxy to public markets or a bottom up, building block methodology like that of fixed income or equities, depending on whether they are more bond like or stock like.

Volatility estimates for the different asset classes are derived using rolling historical quarterly returns of various market benchmarks. Given that benchmarks have differing histories within and across asset classes, volatility estimates of shorter-lived benchmarks are normalised to ensure that all are measured over similar time periods.

For the full Capital Market Assumptions methodology, please contact the Solutions team.

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