

## Uncommon truths

### Rotating markets and politics

**Rotations are happening apace, in markets and politics. In fact, after a bout of volatility, we seem to be back to where we started. I doubt that will last, and expect changes in market leadership to prevail.**

This has been a summer of rotations, both in markets and politics. No rotation was as brutal as the unwind of carry trades and the global stock market sell-off of late July/early August. But that was partially reversed within a matter of days. Subsequent further gains give the feeling that all is back to normal, though major indices are still short of mid-July peaks. For example, the Nikkei is 10% below that peak and the NASDAQ Composite is still down 5%, though the S&P 500 is within 2% of the 16 July high. Among currencies, USDJPY is 9% below its early-July peak.

Hence, it may feel as though markets have come full circle but that is not universally the case. The rebound has been partly in response to US economic data that was stronger than feared, after the scares of a few weeks ago. In particular, last week saw encouraging jobless claims data and a rebound in retail sales in July (along with CPI data that suggests to me that inflation will trend lower, based on the run rate in the last three months). Markets are now back to pricing a 25bp Fed rate cut in September (rather than 50bps) and bond yields have rebounded.

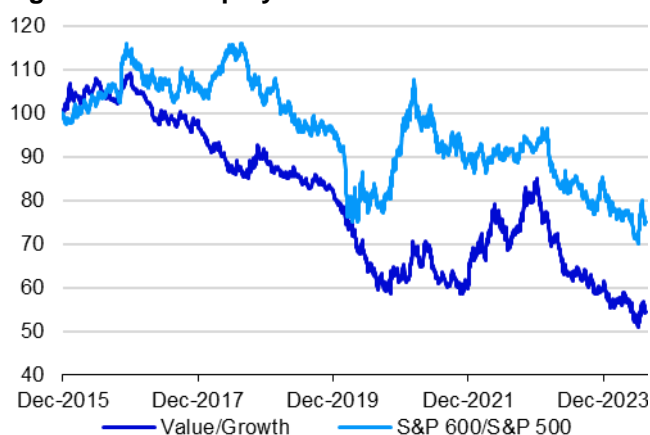
However, all is not rosy. Retail sales actually fell 0.2% from March to June (in nominal terms) and housing starts fell 7% in July, suggesting the two-year downtrend in the housing sector continues. I suspect there will be plenty more concerns about the state of the US economy before the year is out.

There was, however, much talk of other rotations before the volatility started: the great rotations from growth to value and from large/mega caps to small caps. **Figure 1a** shows that trend outperformance by growth and large caps had been a feature of recent years, and had many of us speculating about the timing of a reversal. It appeared as though such a rotation had started in the early part of July (in the US equity market), perhaps because it was felt that small caps and value stocks had more to gain from eventual Fed easing (and perhaps because some mega cap and growth stocks had reached challenging valuations).

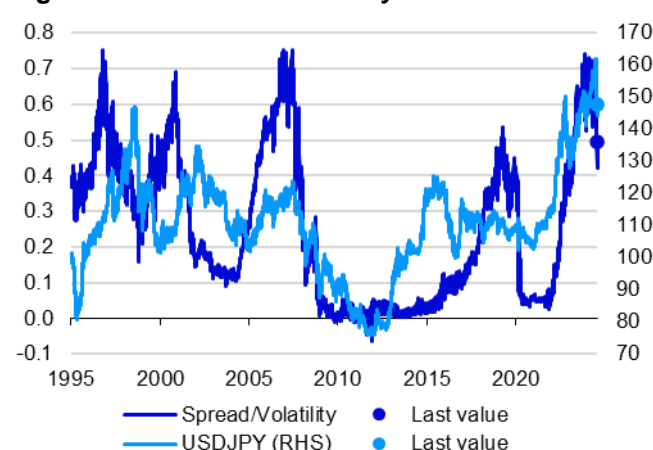
Well, those nascent rotations ended abruptly. They didn't survive the onset of market volatility and, more intriguingly, have not recommenced now that volatility has waned and markets have rebounded. Though value and size have not given up all of the relative gains of mid-to-late July, the patterns of the last week or so feel all too familiar (and ominous for those of us expecting a change in leadership). We still expect those changes in leadership to occur but admit that slow economic growth or recession in the US could prolong our suffering.

The other big reversal came in currency markets, with the Japanese yen rebounding from extreme lows (USDJPY peaked at 162 in early July). **Figure 1b** shows why: the reward-to-risk ratio on carry trades from JPY to USD fell sharply (from elevated levels), as the interest rate spread between the US and Japan started to fall, while the implied volatility on USDJPY options rose. The unwinding of those carry trades contributed to the yen rebound, from what we felt were unsustainably low valuations.

**Figure 1a – US equity market trends**



**Figure 1b – USDJPY and carry trade reward/risk**



Notes: **Past performance is no guarantee of future results.** Figure 1a is based on daily data from 31 December 2015 to 16 August 2024. "Value/Growth" shows the Dow Jones US Value Index divided by the Dow Jones US Growth Index. All indices are price indices. The data series are rebased to 100 on 31 December 2015. Figure 1b is based on daily data from 1 January 1995 to 16 August 2024. "Spread" is US 3M deposit rates minus Japanese 3M deposit rates (in percent). "Volatility" is the implied volatility on 3m currency options between the US dollar and Japanese yen (in percent). Source: Dow Jones, Refinitiv, S&P, LSEG Datastream and Invesco Global Market Strategy Office



As with other assets, the panic of late-July/early-August faded rapidly and there has since been a relapse of the yen as the spread/volatility ratio on USDJPY rebounded. As with other assets, the recovery in the spread/volatility ratio and USDJPY has been partial but with the 3M interest rate spread remaining around 5.3%, carry traders may be tempted back (so long as implied volatility remains low).

This could depress the yen in the short term but we suspect that once the Fed eases and the BOJ tightens (thus narrowing the spread), the yen will sustainably appreciate from what we believe is still an excessively cheap level. At that point, we think Japanese stocks will underperform global indices (in local currency terms), as happened during the recent volatility.

There has also been a big reversal in US politics. Again, this happened towards the end of July. **Figure 2** shows that the opinion poll lead enjoyed by Donald Trump over President Biden widened after the 27 June debate. It seemed that the Republican candidate was in the ascendant, though the shooting of 13 July didn't provide the expected boost.

What really changed matters was the withdrawal of Joe Biden from the race on 21 July and the subsequent installation of Vice President Harris as the Democratic Party candidate. The national opinion poll lead enjoyed by Donald Trump evaporated (his share of vote fell, while that of the opposition rose), and Kamala Harris moved into the lead. VP Harris also appears capable of winning some of the swing states.

All of a sudden, my January prediction that Democrats could win two of the three big election races (White House, Senate and House) felt more credible (see

[The Aristotle List](#)). However, before getting too carried away, it is worth remembering that the opinion polls remain tight and that the margins are too narrow to draw firm conclusions. Further, there also appears to have been a more recent twist, with Donald Trump making something of a comeback, though the upcoming Democratic National Convention in Chicago could give Harris another bounce. It is all to play for.

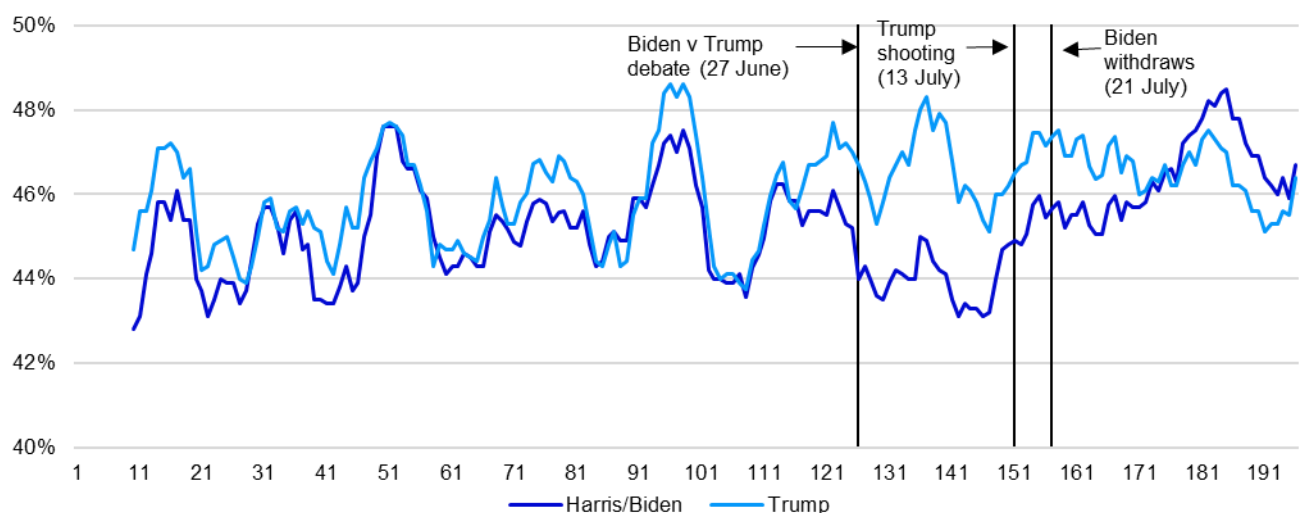
Of course, at some stage, Kamala Harris had to get down to specifics (rather than just riding a wave of enthusiasm) and this brings risks (increasing the number of potential attack lines for her opponent). This process started on Friday with the release of her economic programme, though the effect will not yet have shown up in opinion polls.

The package aims to help low and middle income families by boosting child tax credits (and boosting credits for those without children); extending and deepening the ceiling on drug prices and annual drug outlays; cancelling medical debt for some; lowering housing costs (help with down payments and tax credits for purchasers and measures to control rents) and preventing price "gouging" on essentials.

Of course, this comes at a price. The Committee for a Responsible Federal Budget (CRFB) estimates the plan would increase deficits by \$1.7 trillion over 10 years (around 6% of 2023 GDP). This is similar to the CRFB estimate of the cost of Donald Trump's proposed ending of the partial taxation of social security benefits (one part of his fiscal plan). There seems little desire (from either side) to address fiscal imbalances, which I fear may eventually hurt markets.

*Unless stated otherwise, all data as of 16 August 2024.*

**Figure 2 – Opinion polls for the US presidential election during 2024 (10-poll moving average)**



Note: Based on opinion polls from 31 December 2023 to 15 August 2024. The horizontal axis shows the number of opinion polls, rather than dates (though it is in date order). Source: FiveThirtyEight, Wikipedia and Invesco Global Market Strategy Office.

**Figure 3 – Asset class total returns (%)**

Data as at 16/08/2024	Index	Current Level/Ry	Total Return (USD, %)					Total Return (Local Currency, %)				
			1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
<b>Equities</b>												
World	MSCI	817	3.9	-1.5	2.2	14.0	23.9	3.8	-2.0	1.3	15.0	24.0
Emerging Markets	MSCI	1094	2.9	-1.9	1.4	9.1	15.4	2.6	-2.4	0.8	12.1	16.6
China	MSCI	57	1.7	-1.5	-0.1	4.8	-2.0	1.7	-1.9	-0.5	4.7	-2.6
US	MSCI	5283	4.0	-1.9	1.9	17.1	28.1	4.0	-1.9	1.9	17.1	28.1
Europe	MSCI	2145	3.2	0.1	2.7	9.2	16.9	2.6	-0.9	0.2	10.0	15.7
Europe ex-UK	MSCI	2654	3.2	-0.5	2.1	8.4	16.2	2.8	-1.9	-0.5	9.8	15.0
UK	MSCI	1278	3.2	2.3	4.7	12.0	19.5	2.1	2.7	2.7	10.7	18.2
Japan	MSCI	4027	7.3	-1.7	3.4	10.1	20.7	8.3	-8.2	-4.8	15.6	22.5
<b>Government Bonds</b>												
World	BofA-ML	3.09	0.2	3.2	5.2	-0.1	5.2	0.2	1.6	2.9	1.1	5.3
Emerging Markets	BBloom	7.37	1.5	2.6	4.7	7.5	19.5	1.5	2.6	4.7	7.5	19.5
China	BofA-ML	1.95	-0.1	2.2	2.3	4.0	8.1	-0.2	0.8	0.9	5.1	6.3
US (10y)	Datastream	3.89	0.5	2.5	4.4	2.4	7.2	0.5	2.5	4.4	2.4	7.2
Europe	BofA-ML	2.83	0.6	2.3	5.3	0.2	7.4	0.0	1.2	2.7	0.7	6.6
Europe ex-UK (EMU, 10y)	Datastream	2.20	0.3	2.7	4.9	-0.6	6.8	-0.3	1.6	2.3	-0.1	6.0
UK (10y)	Datastream	3.96	1.3	0.9	4.5	1.1	12.4	0.3	1.4	2.4	-0.1	11.2
Japan (10y)	Datastream	0.85	-0.7	9.1	11.0	-5.6	-2.0	0.2	1.8	2.2	-0.8	-0.5
<b>IG Corporate Bonds</b>												
Global	BofA-ML	4.62	0.8	1.9	3.9	3.1	10.3	0.6	1.6	3.1	3.4	10.1
Emerging Markets	BBloom	6.27	1.0	2.2	4.1	9.9	18.7	1.0	2.2	4.1	9.9	18.7
China	BofA-ML	2.61	0.0	1.8	1.8	2.4	6.4	-0.1	0.5	0.5	3.5	4.6
US	BofA-ML	5.05	0.9	1.8	3.8	3.8	11.0	0.9	1.8	3.8	3.8	11.0
Europe	BofA-ML	3.56	0.7	2.0	4.5	1.9	8.7	0.0	1.0	1.9	2.4	7.9
UK	BofA-ML	5.31	1.3	0.4	4.1	3.1	13.5	0.3	0.9	2.1	2.0	12.3
Japan	BofA-ML	1.03	-1.1	7.6	9.4	-4.8	-1.2	-0.1	0.5	0.6	-0.1	0.3
<b>HY Corporate Bonds</b>												
Global	BofA-ML	7.49	0.8	1.3	3.0	5.8	13.0	0.7	1.1	2.5	5.9	12.9
US	BofA-ML	7.64	0.7	1.1	2.7	5.3	12.4	0.7	1.1	2.7	5.3	12.4
Europe	BofA-ML	6.47	1.1	1.9	4.3	4.4	12.2	0.5	0.9	1.7	4.9	11.4
<b>Cash (Overnight LIBOR)</b>												
US		5.34	0.1	0.5	0.2	2.9	5.5	0.1	0.5	0.2	2.9	5.5
Euro Area		3.66	0.7	1.2	1.9	0.9	1.8	0.1	0.3	0.1	2.1	3.9
UK		5.20	1.5	2.0	3.0	4.9	5.4	0.1	0.4	0.2	2.8	5.3
Japan		0.08	1.8	-0.7	1.9	-10.6	-12.3	0.0	0.0	0.0	0.0	0.0
<b>Real Estate (REITs)</b>												
Global	FTSE	1658	0.9	1.8	7.6	4.0	14.6	0.3	0.8	4.9	4.6	13.7
Emerging Markets	FTSE	1202	1.7	-1.8	2.6	-2.7	0.2	1.1	-2.8	0.1	-2.2	-0.6
US	FTSE	3219	0.3	2.3	8.2	7.3	18.2	0.3	2.3	8.2	7.3	18.2
Europe ex-UK	FTSE	2516	0.5	1.3	8.1	1.4	26.2	-0.1	0.3	5.4	1.9	25.2
UK	FTSE	866	1.6	-1.9	5.0	1.6	18.3	0.6	-1.5	3.0	0.5	17.1
Japan	FTSE	2193	3.6	5.8	9.9	3.0	11.5	4.6	-1.3	1.1	8.1	13.2
<b>Commodities</b>												
All	GSCI	3540	0.0	-3.3	-4.8	5.8	1.6	-	-	-	-	-
Energy	GSCI	637	-0.3	-3.8	-5.6	10.0	2.9	-	-	-	-	-
Industrial Metals	GSCI	1633	2.5	-3.9	-6.0	2.0	8.0	-	-	-	-	-
Precious Metals	GSCI	2795	2.9	0.4	6.3	20.6	30.6	-	-	-	-	-
Agricultural Goods	GSCI	458	-1.7	-3.2	-6.2	-10.7	-13.5	-	-	-	-	-
<b>Currencies (vs USD)*</b>												
EUR		1.10	1.0	1.2	2.9	-0.1	1.4	-	-	-	-	-
JPY		147.60	-0.7	7.3	9.0	-4.4	-0.9	-	-	-	-	-
GBP		1.29	1.0	-0.4	2.0	1.1	1.1	-	-	-	-	-
CHF		1.15	-0.1	3.1	3.8	-2.8	1.6	-	-	-	-	-
CNY		7.16	0.0	1.4	1.4	-0.9	1.9	-	-	-	-	-

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

Source: LSEG Datastream and Invesco Global Market Strategy Office

**Figure 4 – Global equity sector total returns relative to market (%)**

Data as at 16/08/2024	Global				
	1w	1m	QTD	YTD	12m
<b>Energy</b>	<b>-1.8</b>	<b>0.6</b>	<b>-1.2</b>	<b>-7.7</b>	<b>-13.9</b>
<b>Basic Materials</b>	<b>-1.5</b>	<b>-2.8</b>	<b>-2.7</b>	<b>-10.8</b>	<b>-9.1</b>
Basic Resources	-1.4	-5.2	-4.3	-11.2	-6.0
Chemicals	-1.7	0.9	-0.1	-10.2	-12.9
<b>Industrials</b>	<b>-0.4</b>	<b>0.4</b>	<b>1.6</b>	<b>-2.5</b>	<b>-2.0</b>
Construction & Materials	-1.3	-1.4	1.3	-2.4	0.9
Industrial Goods & Services	-0.2	0.6	1.6	-2.6	-2.5
<b>Consumer Discretionary</b>	<b>1.0</b>	<b>-1.9</b>	<b>-2.2</b>	<b>-5.8</b>	<b>-7.6</b>
Automobiles & Parts	2.5	-8.2	-2.8	-14.0	-15.1
Media	-0.4	-0.6	-3.1	2.2	3.2
Retailers	1.4	-0.7	-1.7	3.7	2.5
Travel & Leisure	0.0	-2.4	-4.3	-12.7	-16.6
Consumer Products & Services	0.1	0.9	-1.1	-10.9	-13.0
<b>Consumer Staples</b>	<b>-2.4</b>	<b>4.4</b>	<b>3.0</b>	<b>-6.2</b>	<b>-13.0</b>
Food, Beverage & Tobacco	-2.3	4.8	3.3	-7.2	-14.0
Personal Care, Drug & Grocery Stores	-2.7	3.7	2.5	-4.5	-11.1
<b>Healthcare</b>	<b>-1.3</b>	<b>4.6</b>	<b>3.9</b>	<b>2.2</b>	<b>-3.0</b>
<b>Financials</b>	<b>-0.1</b>	<b>1.2</b>	<b>2.0</b>	<b>2.2</b>	<b>5.4</b>
Banks	0.0	0.5	0.8	2.0	6.0
Financial Services	-0.4	0.9	2.7	0.7	4.0
Insurance	0.1	3.8	3.6	5.7	6.4
<b>Real Estate</b>	<b>-2.4</b>	<b>3.4</b>	<b>5.1</b>	<b>-7.4</b>	<b>-6.0</b>
<b>Technology</b>	<b>2.4</b>	<b>-3.6</b>	<b>-3.5</b>	<b>11.1</b>	<b>17.5</b>
<b>Telecommunications</b>	<b>-0.4</b>	<b>2.3</b>	<b>1.9</b>	<b>-3.4</b>	<b>-2.9</b>
<b>Utilities</b>	<b>-2.1</b>	<b>4.6</b>	<b>3.4</b>	<b>0.2</b>	<b>-1.8</b>

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

**Figure 5a – US factor index total returns (%)**

Data as at 16/08/2024	Absolute					Relative to Market				
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
<b>Growth</b>	3.7	-2.3	0.1	9.9	20.6	-0.2	-0.4	-1.8	-6.5	-5.8
<b>Low volatility</b>	1.6	5.1	6.9	15.1	19.7	-2.3	7.1	4.9	-2.1	-6.5
<b>Price momentum</b>	3.4	-0.8	2.0	13.5	22.8	-0.6	1.1	0.1	-3.4	-4.0
<b>Quality</b>	2.8	0.9	3.4	7.9	15.0	-1.1	2.8	1.5	-8.2	-10.2
<b>Size</b>	2.1	2.1	5.6	4.5	13.1	-1.8	4.0	3.6	-11.1	-11.6
<b>Value</b>	2.4	1.7	5.8	11.2	24.0	-1.5	3.6	3.8	-5.3	-3.1
<b>Market</b>	4.0	-1.9	1.9	17.5	28.0					
<b>Market - Equal-Weighted</b>	2.5	-0.4	4.0	9.3	17.4					

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

**Figure 5b – European factor index total returns relative to market (%)**

Data as at 16/08/2024	Absolute					Relative to Market				
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
<b>Growth</b>	2.4	-3.1	-1.4	1.8	9.9	-0.2	-2.3	-1.7	-7.2	-5.3
<b>Low volatility</b>	1.7	1.4	2.9	9.5	13.8	-0.8	2.3	2.5	-0.2	-2.0
<b>Price momentum</b>	3.5	-1.4	1.8	15.0	23.2	0.9	-0.5	1.5	4.7	6.1
<b>Quality</b>	2.8	-2.7	-1.9	6.8	15.6	0.3	-1.8	-2.2	-2.7	-0.5
<b>Size</b>	1.8	-2.4	1.0	4.9	12.8	-0.7	-1.5	0.7	-4.5	-2.9
<b>Value</b>	2.3	-2.4	1.4	6.7	16.8	-0.3	-1.5	1.0	-2.8	0.6
<b>Market</b>	2.6	-0.9	0.3	9.8	16.1					
<b>Market - Equal-Weighted</b>	2.3	-1.1	1.2	6.6	13.9					

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

**Figure 6 – Model asset allocation**

	Neutral	Policy Range	Allocation	Position vs Neutral	Hedged	Currency
<b>Cash Equivalents</b>	<b>5%</b>	<b>0-10%</b>	<b>6%</b>			
Cash	2.5%		6%			
Gold	2.5%		0%			
<b>Bonds</b>	<b>40%</b>	<b>10-70%</b>	<b>39%</b>			
Government	25%	10-40%	27%			
US	8%		16%			25% JPY
Europe ex-UK (Eurozone)	7%		3%			
UK	1%		2%			
Japan	7%		2%			
Emerging Markets	2%		4%			
China**	0.2%		0%			
Corporate IG	10%	0-20%	12%			
US Dollar	5%		7%			50% JPY
Euro	2%		1%			
Sterling	1%		2%			
Japanese Yen	1%		0%			
Emerging Markets	1%		2%			
China**	0.1%		0%			
Corporate HY	5%	0-10%	0%			
US Dollar	4%		0%			
Euro	1%		0%			
<b>Bank Loans</b>	<b>4%</b>	<b>0-8%</b>	<b>8%</b>			
US	3%		6%			
Europe	1%		2%			
<b>Equities</b>	<b>45%</b>	<b>25-65%</b>	<b>35%</b>			
US	25%		10%			
Europe ex-UK	7%		11%			
UK	4%		3%			
Japan	4%		3%			
Emerging Markets	5%		8%			
China**	2%		4%			
<b>Real Estate</b>	<b>4%</b>	<b>0-8%</b>	<b>8%</b>			
US	1%		2%			
Europe ex-UK	1%		1%			
UK	1%		2%			
Japan	1%		1%			
Emerging Markets	1%		2%			
<b>Commodities</b>	<b>2%</b>	<b>0-4%</b>	<b>4%</b>			
Energy	1%		2%			
Industrial Metals	0.3%		1%			
Precious Metals	0.3%		0%			
Agriculture	0.3%		1%			
<b>Total</b>	<b>100%</b>		<b>100%</b>			
<b>Currency Exposure (including effect of hedging)</b>						
USD	52%		39%			
EUR	19%		20%			
GBP	7%		11%			
JPY	13%		15%			
EM	9%		16%			
<b>Total</b>	<b>100%</b>		<b>100%</b>			

Notes: \*\*China is included in Emerging Markets allocations. This is a theoretical portfolio and is for illustrative purposes only. See the latest [The Big Picture](#) document for more details. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. Arrows indicate the direction of the most recent changes.

Source: Invesco Global Market Strategy Office



**Figure 7 – Model allocations for global sectors**

	<b>Neutral</b>	<b>Invesco</b>	<b>Preferred Region</b>
<b>Energy</b>	<b>6.6%</b>	<b>Neutral</b>	<b>EM</b>
<b>Basic Materials</b>	<b>3.8%</b>	<b>Neutral</b>	<b>Japan</b>
Basic Resources	2.3%	Neutral	Japan
Chemicals	1.5%	Neutral	US
<b>Industrials</b>	<b>12.7%</b>	<b>Underweight</b> ↓	<b>US</b>
Construction & Materials	1.7%	Underweight	US
Industrial Goods & Services	11.0%	Underweight ↓	US
<b>Consumer Discretionary</b>	<b>13.9%</b>	<b>Underweight</b> ↓	<b>US</b>
Automobiles & Parts	2.4%	Underweight	Europe
Media	1.1%	Neutral	Japan
Retailers	5.2%	Overweight	US
Travel & Leisure	1.9%	Underweight	EM
Consumer Products & Services	3.3%	Underweight ↓	Japan
<b>Consumer Staples</b>	<b>5.2%</b>	<b>Overweight</b>	<b>US</b>
Food, Beverage & Tobacco	3.3%	Overweight	US
Personal Care, Drug & Grocery Stores	1.9%	Overweight	Europe
<b>Healthcare</b>	<b>9.2%</b>	<b>Overweight</b>	<b>US</b>
<b>Financials</b>	<b>15.4%</b>	<b>Overweight</b>	<b>US</b>
Banks	7.4%	Overweight	Europe
Financial Services	5.1%	Overweight	US
Insurance	2.9%	Underweight	US
<b>Real Estate</b>	<b>2.6%</b>	<b>Neutral</b>	<b>Japan</b>
<b>Technology</b>	<b>24.0%</b>	<b>Neutral</b>	<b>EM</b>
<b>Telecommunications</b>	<b>3.3%</b>	<b>Underweight</b>	<b>US</b>
<b>Utilities</b>	<b>3.2%</b>	<b>Neutral</b> ↑	<b>US</b>

Notes: These are theoretical allocations which are for illustrative purposes only. They do not represent an actual portfolio and are not a recommendation of any investment or trading strategy. See the latest [Strategic Sector Selector](#) for more details.

Source: LSEG Datastream and Invesco Global Market Strategy Office

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## Appendix

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### 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.



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**Definitions of data and benchmarks for Figure 3**

**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 1<sup>st</sup> January 2022, we use the Refinitiv overnight deposit rate for the euro, the British pound and the Japanese yen. The global rate is the average of the euro, British pound, US dollar and Japanese yen rates. The series started on 1 January 2001 with a value of 100.

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

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

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

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

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

**Commodities:** Goldman Sachs Commodity total return indices

**Real estate:** FTSE EPRA/NAREIT total return indices

**Currencies:** Global Trade Information Services spot rates

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