

## Applied philosophy

### The land of the rising prices

**Eastern members of the European Union have been struggling with some of the highest levels of inflation in Europe. The last time a comparable inflationary surge happened was during the era of transition after the fall of communism in the 1990s. We compare the main drivers of inflation across the two periods and what that could imply for equities and government bonds.**

The post-COVID bout of inflation seems to be ebbing in most countries around the world. In fact, only 28 countries out of the 143 available to us on Refinitiv Datastream registered new peaks in annual consumer price inflation during 2023. The countries in question are all emerging economies mostly from Africa. Broadly, those countries with the lowest GDP per capita have faced the highest inflation rates. This trend seems to be reflected in the European Union, where only two countries that were not formerly part of the Soviet bloc, Austria and Italy, had higher inflation rates than the European Union aggregate for April 2023 (**Figure 1**).

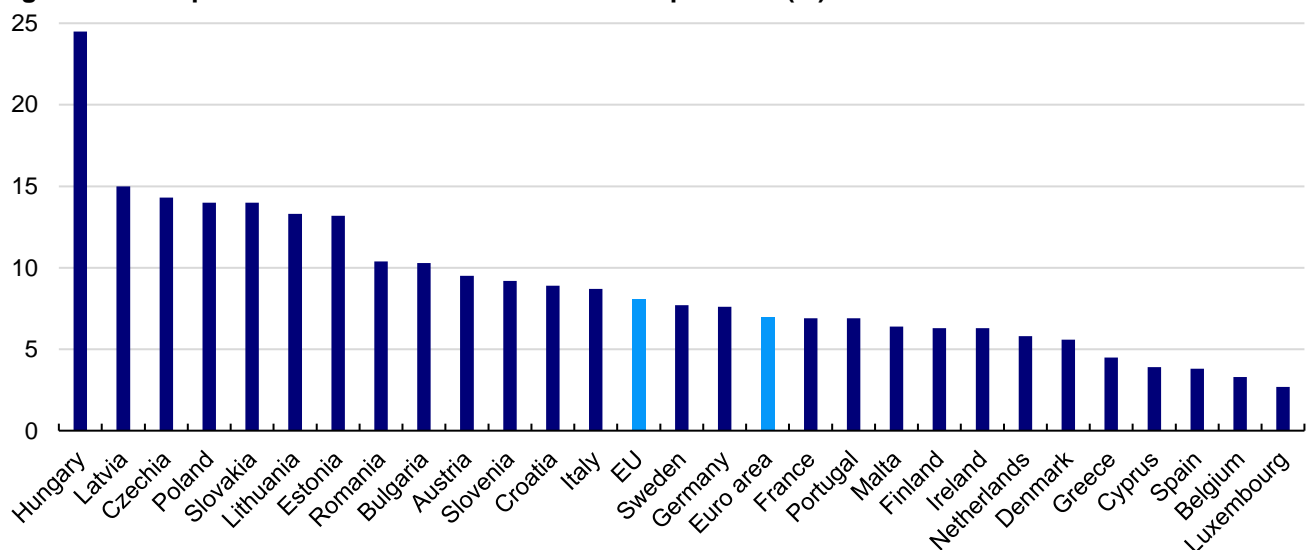
Eastern members of the European Union (EU) may even have flashbacks to the 1990s and not just because its fashion has returned, and cassette tapes are gaining popularity. Runaway inflation was a direct consequence of the transition from a closely controlled economy under communism to free market capitalism. Can that period teach us anything about the likely path of inflation?

Eastern European countries have found themselves having to deal with pressures that have not completely faded from their collective memories and were fresher than for Western countries, where the inflationary shocks of the 1970s and 80s may seem like the distant past. In contrast to their current struggles, communist countries entered the 90s after a slowdown in growth and high inflation driven by the shortages of the late-1980s (Kolodko 1993). Although these economic stresses were major contributors to the collapse of their political systems, the transition to a market economy exacerbated them in ways that took a significant amount of effort and time to bring under control. The steep learning curve contributed to major differences in how they coped with those stresses. The other complicating factor was the slowdown in developed world growth at the same time.

On the surface there are similarities with the post-COVID era: major demand-supply imbalances caused by (re-)opening of economies after a period of strict controls. The price signals that come from supply constraints cause a reorientation of demand. Of course, it would be a stretch to equate the two experiences especially as they happened under different circumstances.

Another similarity is a spike in energy prices caused by war: in 1990 between Iraq and Kuwait, in 2022 between Russia and Ukraine (see **Figure 2**). The response to this exogenous shock has been familiar: the temporary support in 2022-23 to tide the economy over until

**Figure 1 – European Union annual inflation rates in April 2023 (%)**



Note: Data as of 19 May 2023. The chart shows the annual change in harmonised consumer price index as reported for April 2023 vs April 2022.

Source: Eurostat and Invesco

energy prices return to “more affordable” levels carries echoes of the subsidisation of energy consumption during the era of central planning. Interestingly, the response to a surge in energy prices has been broadly similar in most EU member states in 2022, although the magnitude of assistance was different in each country. According to the Bruegel Institute, almost all EU members reduced the tax burden on energy for consumers, introduced some form of windfall tax on the profits of energy companies and provided support to businesses and vulnerable groups. They also capped retail prices, but only five members (France, Malta, Portugal, Slovenia and Spain) regulated wholesale prices.

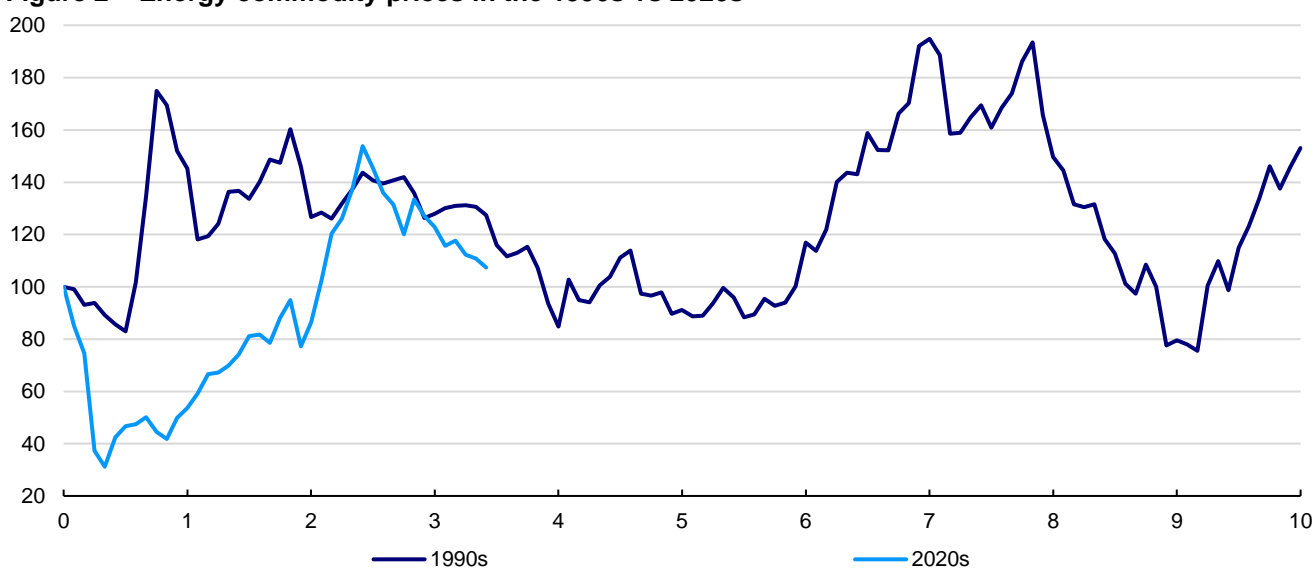
Finally, both periods are characterised by some form of monetary overhang. In the case of the 1990s, the monetisation of fiscal deficits, along with price controls, contributed to an overload of money in these economies that could not be spent on goods or services, whose supply was limited (Roaf et al., 2014). The support provided during COVID-related lockdowns – both monetary and fiscal – had a similar impact. It also supercharged asset price inflation, which created wealth that could not be spent on services during lockdowns. This generated inflation first in goods, where supply chain disruptions added to the impact, and then services after economies re-opened and pent-up demand drove a surge in demand.

However, a significant difference is that in the post-

communist transition the production of goods for which there was little demand was deliberately reduced, which was a major cause of the decline in GDP growth, while COVID-19 lockdowns mostly impacted the service sector. There is also a difference in timing: in the 1990s, Eastern European countries had to deal with a severe stagflationary environment, whereas the post-COVID inflationary surge was partly driven by the jump in growth after reopening. Arguably, another difference is that the reorganisation of the economy in the 1990s was structural and permanent, while in the early-2020s, we had a temporary pause in certain activities, while the main underpinnings of the economy remained the same, in our view. Nevertheless, the labour force adjusted in both cases, which in the 1990s, according to Kolodko (1993), came neither immediately, nor automatically, thanks to a still underdeveloped market allocation mechanism.

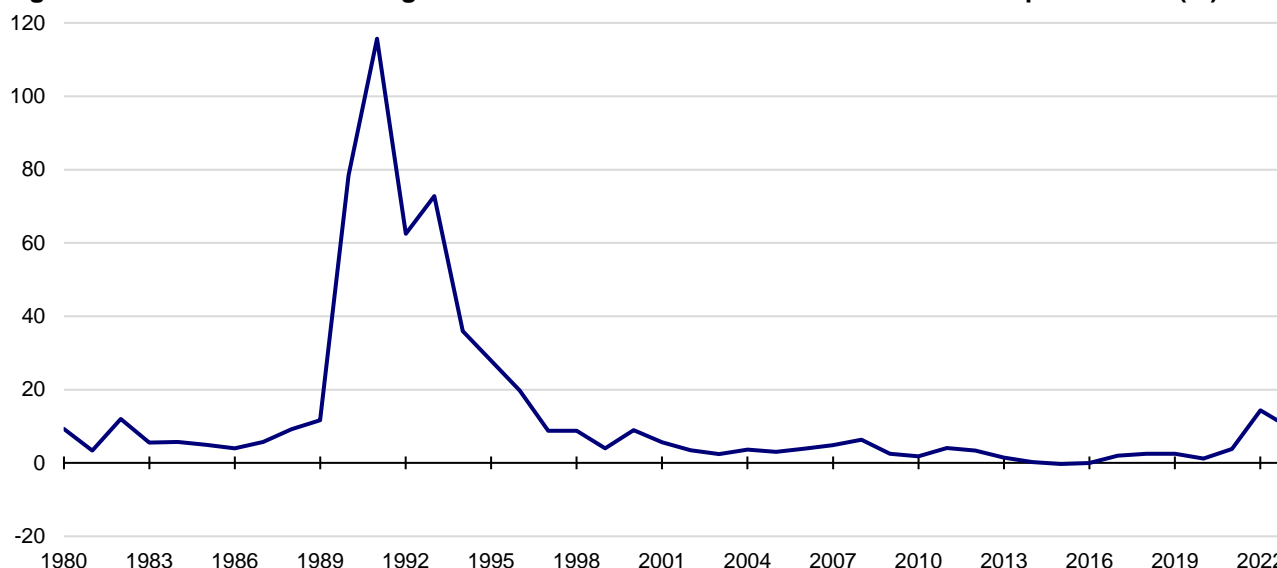
This time, some of the labour market shifts may have been voluntary, but the adjustments will still take time even if the dislocation is shorter. In theory, wage growth may entice some workers back to where the biggest shortages are, while the drop in real income may also force a reorientation towards better-paying jobs. Exacerbating these issues for some countries are high rates of emigration of young workers to Western Europe. Nevertheless, we think the adjustment will take less time than in the 1990s due to the fact that Eastern EU members now have free market capitalist economies and mostly independent central banks, and

**Figure 2 – Energy commodity prices in the 1990s vs 2020s**



Notes: Data as of 19 May 2023. **Past performance is no guarantee of future results.** We use monthly data from the GSCI Energy Total Return index between 1 January 1990 and 1 January 2000 for the 1990s series and 1 January 2020 to 12 May 2023 for the 2020s series. Both series are rebased to 100 on 1 January 1990 for the 1990s series and 1 January 2020 for the 2020s series. The x axis shows the number of years from the start of the decade.

Source: Refinitiv Datastream and Invesco

**Figure 3 – Median annual average inflation rates in Eastern members of the European Union (%)**


Notes: Data as of 19 May 2023. Using annual data between 1980 and 2023 for the year-over-year change in the annual average consumer price index from the International Monetary Fund's World Economic Outlook Database. The following countries are included in the median rate: Hungary, Poland and Romania from 1980, and then Bulgaria from 1981, Croatia, Latvia and Slovenia from 1993, Estonia and Slovakia from 1994 and Czechia and Lithuania from 1996. Data points for 2022 and 2023 are IMF estimates.

Source: International Monetary Fund and Invesco

therefore the required changes will not be as significant as 30 years ago.

How quickly inflation rates normalise in the region and where they settle depends on a lot of factors, although we think commodity prices, currency movements and labour market developments will remain the most important.

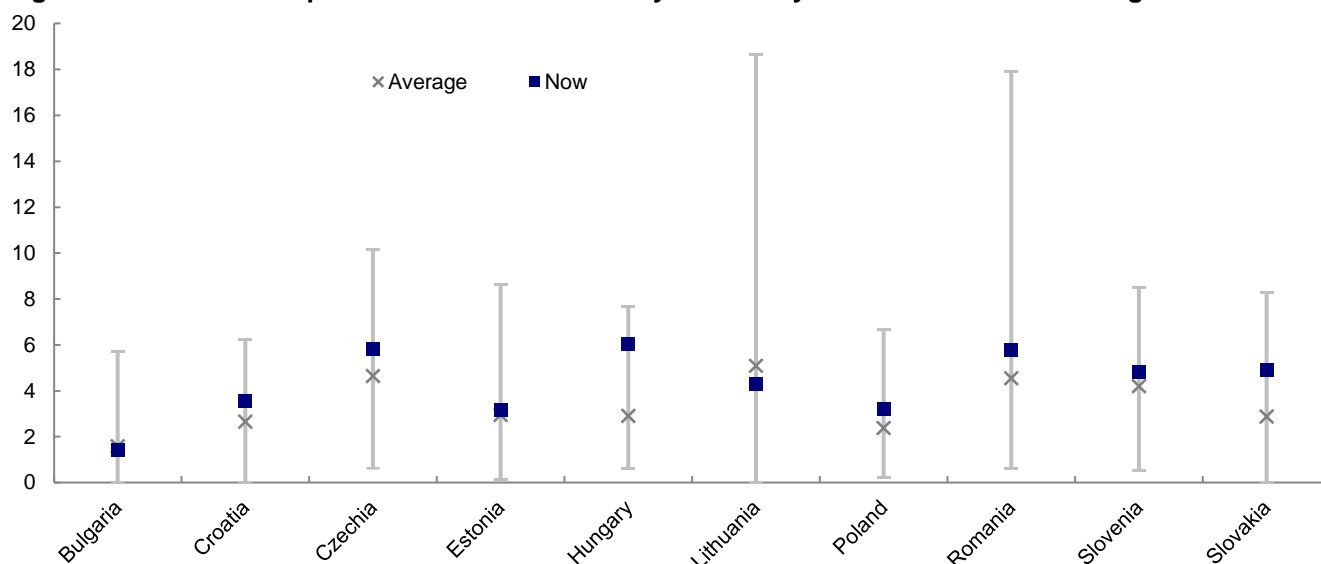
Food and energy comprise a relatively high proportion of the inflation baskets of CEE countries. The average weight of food, non-alcoholic beverages and energy among Eastern EU members is 32% compared to 24% for the whole EU (using 2023 weights from Eurostat). A decline in energy prices from their most recent peaks in 2022 reduced their contribution to inflation. However, food price inflation has stayed high despite a decline in agricultural commodities year-to-date and may remain elevated while supply disruptions continue caused by the war in Ukraine and extreme weather patterns.

Currency movements have also helped this year as the and euro, the Czech koruna, the Hungarian forint and the Polish zloty all strengthened against the US dollar (the latter three also against the euro). This should reduce the burden of imported inflation, especially in small and open economies. In any case, we think this trend will continue, especially against the USD, unless the global economy enters a more severe slowdown than we currently expect.

The hollowing out of the labour market may appear to be the largest obstacle to achieving inflation targets in the region, especially in light of shrinking working age populations, emigration and given the uncertainty around the situation of Ukrainian refugees and their participation in the labour market. However, most of these issues also coincided with low inflation rates in the 2010s. Therefore, we think that the dissipation of reopening-related sectoral disruptions will prove to be more important and will allow inflation to moderate.

Luckily, current inflation rates in the region are nowhere near the levels reached during the 1990s (**Figure 3**). Central bank policy rates could also stay lower than their 90s peaks, although we think they are restrictive enough to contribute to a rise in unemployment rates as GDP growth slows, with a deteriorating external environment adding to that trend.

Thus, if inflation continues to moderate globally and in Eastern members of the EU, it will allow central banks to lower interest rates, which would boost both government bonds and equities, in our view. We remained constructive on broader EM equities and sovereign bonds in our latest [The Big Picture](#) mainly due to their more attractive valuations relative to developed markets and also as a source of diversification, in case the global economy performs better than we expect.

**Figure 4 – Eastern European Union member country dividend yields within historical ranges**


Data as of 19 May 2023. We use daily dividend yields from Datastream Total Market indices. Averages include data for the whole series starting on 2 October 2000 for Bulgaria, 3 October 2005 for Croatia, 27 January 1994 for Czechia, 5 June 1997 for Estonia, 21 June 1991 for Hungary, 1 April 1998 for Lithuania, 1 March 1994 for Poland, 29 December 1997 for Romania, 31 December 1998 for Slovenia and 1 March 2006 for Slovakia.

Source: Refinitiv Datastream and Invesco

We also wrote last year about where we find value within EM equities and we concluded at the time that the three Eastern European members of the MSCI Emerging Market index (Czechia, Hungary and Poland) looked attractive relative to their historical averages based on their dividend yields. This remains the case despite strong returns in the last 12 months in local currency terms, comfortably outperforming broader EM equities based on Datastream Total Market Indices. In our larger universe, only Bulgaria and Lithuania have dividend yields below their historical averages (see **Figure 4**), while five countries yield close to or above 5%: Czechia, Hungary, Romania, Slovenia and Slovakia.

The government bonds of the three MSCI EM member countries (Czechia, Hungary and Poland) also look attractive to us despite rallying from their most recent lows in mid-October. Yields are above their 20-year averages and at 4.5% for fiscally prudent Czechia, 5.9% for Poland and 7.4% for Hungary offer enough pick-up compared to German bunds to compensate for more elevated levels of risk, in our view. Spreads versus Bunds are also above 20-year averages, which together with our expectation of their exchange rates

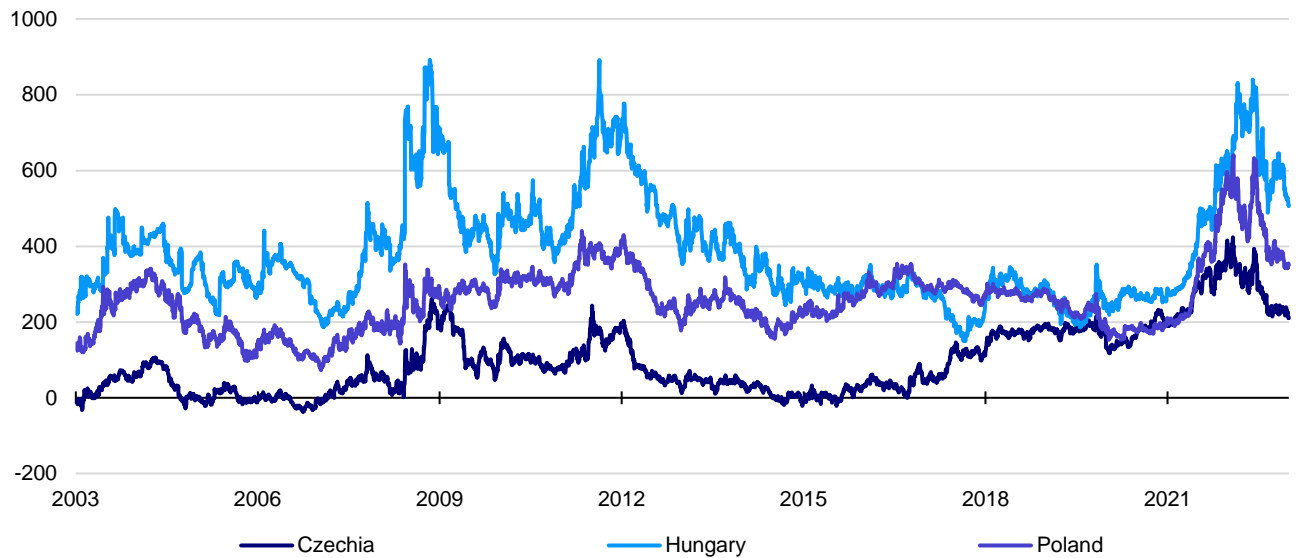
strengthening as risk-appetite improves and inflation differentials decline, implies that they have further potential to outperform (**Figure 5**).

We think that Eastern members of the EU have come a long way since the turbulent 1990s. Although the current inflationary surge may have parallels with that period of transition, its magnitude is different and could be resolved faster than 30 years ago. Based on our assumptions for the global economy avoiding a deep recession and inflation continuing to moderate, we find the region's equities and sovereign debt attractive even within a broader EM universe.

#### References:

- 1) Grzegorz W. Kolodko: From Recession to Growth in Post-Communist Economies: Expectations versus Reality, *Communist and Post-Communist Studies*, Vol. 26, No. 2 (June 1993), pp. 123-143.
- 2) James Roaf, Ruben Atoyán, Bikas Joshi, Krzysztof Krogulski: 25 Years of Transition – Post-Communist Europe and the IMF, *Regional Economic Issues Special Report*, 2014

**Figure 5 – Eastern European Union member country 10-year government bond yield spreads (basis points)**



Notes: Data as of 19 May 2023. **Past performance is no guarantee of future results.** The chart shows daily data between 19 May 2003 and 19 May 2023. We use Datastream 10-year benchmark government bond index redemption yields. We calculate spreads by deducting 10-year German Bund yields from each country's government bond yield.  
 Source: Refinitiv Datastream and Invesco

**Figure 6 – Asset class total returns (% annualised)**

Data as at 19/05/2023	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	656	1.2	0.5	1.9	9.5	8.5	1.4	0.9	2.3	9.6	9.2
Emerging Markets	MSCI	977	0.5	-1.1	-0.9	3.0	-0.3	0.7	-0.7	-0.3	3.6	2.0
China	MSCI	62	-0.8	-5.8	-7.4	-3.0	-2.4	-0.9	-5.8	-7.3	-2.6	-1.9
US	MSCI	3977	1.7	1.0	2.1	10.0	9.0	1.7	1.0	2.1	10.0	9.0
Europe	MSCI	1936	0.2	-0.3	3.1	14.2	16.0	0.8	0.8	3.3	12.4	14.2
Europe ex-UK	MSCI	2396	0.3	0.1	3.2	15.7	18.1	1.0	1.5	3.6	14.5	15.4
UK	MSCI	1152	-0.2	-1.5	2.9	9.2	9.4	0.1	-1.4	2.3	5.6	9.9
Japan	MSCI	3438	1.2	3.4	4.3	10.9	9.3	3.6	6.4	8.5	16.4	18.8
<b>Government Bonds</b>												
World	BofA-ML	3.00	-1.7	-1.0	-1.9	1.1	-6.2	-1.0	0.0	-0.9	1.8	-4.6
Emerging Markets	BBloom	8.12	-2.1	-0.6	-1.5	1.4	0.6	-2.1	-0.6	-1.5	1.4	0.6
China	BofA-ML	2.59	-1.1	-0.9	-1.0	0.9	0.1	0.0	0.9	1.2	2.0	3.8
US (10y)	Datastream	3.71	-1.9	-0.6	-1.4	2.8	-3.0	-1.9	-0.6	-1.4	2.8	-3.0
Europe	Bofa-ML	3.15	-1.7	-1.1	-1.5	2.3	-7.3	-1.0	0.4	-0.8	1.2	-9.0
Europe ex-UK (EMU, 10y)	Datastream	2.43	-2.0	-0.7	-1.5	3.6	-8.4	-1.3	0.9	-0.8	2.5	-10.1
UK (10y)	Datastream	3.99	-1.9	-0.8	-2.9	2.9	-14.5	-1.6	-0.7	-3.5	-0.5	-14.1
Japan (10y)	Datastream	0.40	-2.5	-2.1	-4.1	-1.6	-5.8	-0.1	0.7	-0.2	3.3	2.4
<b>IG Corporate Bonds</b>												
Global	BofA-ML	5.15	-1.4	-1.0	-0.9	2.4	-1.3	-1.2	-0.6	-0.7	2.1	-1.5
Emerging Markets	BBloom	7.87	-1.4	-1.1	-0.8	2.5	0.9	-1.4	-1.1	-0.8	2.5	0.9
China	BofA-ML	3.38	-1.1	-1.2	-1.0	1.0	-1.0	0.0	0.6	1.2	2.1	2.8
US	BofA-ML	5.49	-1.4	-1.1	-1.2	2.2	-0.4	-1.4	-1.1	-1.2	2.2	-0.4
Europe	BofA-ML	4.28	-1.4	-1.4	-0.6	2.8	-2.4	-0.8	0.2	0.2	1.7	-4.2
UK	BofA-ML	5.88	-1.5	-0.4	-0.6	4.7	-9.5	-1.2	-0.3	-1.2	1.3	-9.1
Japan	BofA-ML	0.75	-2.3	-2.3	-3.7	-3.4	-8.4	0.0	0.5	0.2	1.4	-0.4
<b>HY Corporate Bonds</b>												
Global	BofA-ML	8.89	-0.5	-0.7	-0.1	3.5	2.9	-0.3	-0.4	0.0	3.2	2.5
US	BofA-ML	8.75	-0.4	-0.4	0.1	3.8	3.5	-0.4	-0.4	0.1	3.8	3.5
Europe	BofA-ML	7.39	-0.4	-1.1	0.3	4.9	3.1	0.3	0.5	1.1	3.7	1.3
<b>Cash (Overnight LIBOR)</b>												
US		5.06	0.1	0.4	0.7	1.8	3.4	0.1	0.4	0.7	1.8	3.4
Euro Area		3.22	-0.4	-1.1	0.1	1.9	3.3	0.1	0.3	0.4	1.0	1.2
UK		4.47	0.0	0.4	1.5	4.5	2.7	0.1	0.4	0.6	1.5	2.8
Japan		-0.03	-1.6	-2.4	-3.8	-5.0	-7.5	0.0	0.0	0.0	-0.1	-0.1
<b>Real Estate (REITs)</b>												
Global	FTSE	1517	-1.9	-2.6	-1.7	-1.0	-10.7	-1.2	-1.0	-1.0	-2.1	-12.3
Emerging Markets	FTSE	1255	-2.9	-6.6	-4.0	-6.3	-14.0	-2.2	-5.1	-3.3	-7.3	-15.6
US	FTSE	2794	-2.2	-2.2	-2.5	0.1	-8.2	-2.2	-2.2	-2.5	0.1	-8.2
Europe ex-UK	FTSE	1952	-0.8	-7.2	-2.0	-6.8	-29.1	-0.1	-5.7	-1.3	-7.8	-30.4
UK	FTSE	703	0.5	0.3	3.1	4.5	-21.6	0.7	0.4	2.5	1.1	-21.3
Japan	FTSE	2112	-1.8	0.4	1.8	-1.1	-7.3	0.5	3.3	6.0	3.9	0.8
<b>Commodities</b>												
All	GSCI	3180	0.9	-6.5	-4.3	-9.0	-20.0	-	-	-	-	-
Energy	GSCI	534	3.0	-7.3	-4.3	-12.6	-24.9	-	-	-	-	-
Industrial Metals	GSCI	1564	0.3	-8.2	-7.3	-6.6	-16.0	-	-	-	-	-
Precious Metals	GSCI	2238	-1.7	-1.3	0.3	7.7	7.5	-	-	-	-	-
Agricultural Goods	GSCI	526	-3.6	-7.5	-5.6	-6.0	-20.9	-	-	-	-	-
<b>Currencies (vs USD)*</b>												
EUR		1.08	-0.4	-1.4	-0.3	0.9	2.0	-	-	-	-	-
JPY		137.97	-1.6	-2.4	-3.7	-5.0	-7.4	-	-	-	-	-
GBP		1.24	-0.3	-0.1	0.6	3.4	-0.4	-	-	-	-	-
CHF		1.11	-0.2	-0.2	1.7	2.8	8.2	-	-	-	-	-
CNY		7.01	-0.7	-1.7	-2.0	-1.6	-4.2	-	-	-	-	-

Notes: \*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). **Past performance is no guarantee of future results.** Please see appendix for definitions, methodology and disclaimers.

Source: Refinitiv Datastream and Invesco

**Figure 7 – Global equity sector total returns relative to market (%)**

Data as at 19/05/2023	Global				
	1w	1m	QTD	YTD	12m
<b>Energy</b>	<b>-1.9</b>	<b>-2.3</b>	<b>0.8</b>	<b>-6.4</b>	<b>-7.9</b>
<b>Basic Materials</b>	<b>-1.0</b>	<b>-5.3</b>	<b>-4.3</b>	<b>-5.7</b>	<b>-7.8</b>
Basic Resources	-1.3	-7.0	-5.4	-7.0	-5.4
Chemicals	-0.7	-2.9	-3.0	-4.0	-10.9
<b>Industrials</b>	<b>0.2</b>	<b>-0.4</b>	<b>-1.1</b>	<b>-1.3</b>	<b>2.7</b>
Construction & Materials	-0.5	1.8	1.1	4.1	6.0
Industrial Goods & Services	0.4	-0.7	-1.4	-2.1	2.3
<b>Consumer Discretionary</b>	<b>0.1</b>	<b>0.3</b>	<b>-1.0</b>	<b>6.0</b>	<b>5.0</b>
Automobiles & Parts	1.3	0.1	-5.4	9.9	-11.7
Media	1.2	-2.2	-4.8	2.3	1.5
Retailers	0.0	1.8	0.5	2.5	3.7
Travel & Leisure	0.9	1.0	2.0	6.9	14.2
Consumer Products & Services	-1.1	-1.2	-0.2	8.3	16.7
<b>Consumer Staples</b>	<b>-2.0</b>	<b>-0.5</b>	<b>-0.3</b>	<b>-4.6</b>	<b>0.9</b>
Food, Beverage & Tobacco	-2.1	-0.8	-0.3	-3.8	1.4
Personal Care, Drug & Grocery Stores	-1.9	0.0	-0.3	-6.2	-0.1
<b>Healthcare</b>	<b>-1.3</b>	<b>-1.2</b>	<b>1.1</b>	<b>-6.2</b>	<b>-0.7</b>
<b>Financials</b>	<b>0.2</b>	<b>-1.6</b>	<b>0.5</b>	<b>-6.8</b>	<b>-2.4</b>
Banks	0.4	-1.9	0.9	-7.6	-4.6
Financial Services	0.4	-1.7	-0.6	-5.9	-2.0
Insurance	-0.4	-0.7	1.5	-6.4	3.1
<b>Real Estate</b>	<b>-2.4</b>	<b>-3.0</b>	<b>-3.3</b>	<b>-8.9</b>	<b>-16.4</b>
<b>Technology</b>	<b>3.4</b>	<b>5.9</b>	<b>2.8</b>	<b>17.4</b>	<b>8.2</b>
<b>Telecommunications</b>	<b>-1.4</b>	<b>-2.6</b>	<b>-3.3</b>	<b>-2.2</b>	<b>-7.4</b>
<b>Utilities</b>	<b>-3.9</b>	<b>-2.2</b>	<b>-1.9</b>	<b>-7.7</b>	<b>-6.8</b>

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

**Figure 8a – US factor index total returns (%)**

Data as at 19/05/2023	Absolute					Relative to Market				
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
<b>Growth</b>	2.0	0.1	-0.5	11.7	14.0	0.3	-0.9	-2.6	1.6	4.3
<b>Low volatility</b>	-0.6	-0.1	1.4	0.9	4.4	-2.3	-1.2	-0.9	-8.2	-4.5
<b>Price momentum</b>	0.7	0.3	0.8	0.7	6.8	-1.0	-0.7	-1.4	-8.4	-2.4
<b>Quality</b>	2.3	-1.0	-1.2	5.4	6.8	0.6	-2.0	-3.4	-4.1	-2.3
<b>Size</b>	2.2	-4.2	-4.4	-1.4	-3.5	0.5	-5.2	-6.5	-10.2	-11.7
<b>Value</b>	2.2	-5.3	-3.3	-5.3	-7.3	0.5	-6.3	-5.4	-13.8	-15.3
<b>Market</b>	1.7	1.1	2.2	9.9	9.3					
<b>Market - Equal-Weighted</b>	0.9	-1.9	-1.2	1.7	3.3					

Notes: 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. **Past performance is no guarantee of future results.**

Source: Refinitiv Datastream and Invesco

**Figure 8b – European factor index total returns relative to market (%)**

Data as at 19/05/2023	Absolute					Relative to Market				
	1w	1m	QTD	YTD	12m	1w	1m	QTD	YTD	12m
<b>Growth</b>	-0.1	-1.0	0.7	9.9	5.0	-1.0	-2.2	-3.0	-2.4	-7.2
<b>Low volatility</b>	0.0	1.2	3.9	12.6	9.2	-0.9	0.0	0.2	0.0	-3.4
<b>Price momentum</b>	1.1	0.9	2.9	6.4	3.1	0.2	-0.4	-0.8	-5.6	-8.8
<b>Quality</b>	0.5	-1.6	-1.4	7.3	2.2	-0.4	-2.8	-4.9	-4.8	-9.7
<b>Size</b>	0.2	-0.4	0.8	6.8	0.7	-0.6	-1.6	-2.8	-5.1	-10.9
<b>Value</b>	1.0	-2.0	1.5	6.8	2.4	0.1	-3.2	-2.2	-5.2	-9.4
<b>Market</b>	0.9	1.2	3.8	12.6	13.1					
<b>Market - Equal-Weighted</b>	0.5	0.5	2.4	10.1	5.6					

Notes: 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. **Past performance is no guarantee of future results.**

Source: Refinitiv Datastream and Invesco



**Figure 9 – Model asset allocation**

	Neutral	Policy Range		Allocation	Position vs Neutral
<b>Cash Equivalents</b>	<b>5%</b>	<b>0-10%</b>	↑	<b>10%</b>	
Cash	2.5%		↑	10%	
Gold	2.5%		↓	0%	
<b>Bonds</b>	<b>40%</b>	<b>10-70%</b>		<b>48%</b>	
<b>Government</b>	<b>25%</b>	<b>10-40%</b>		<b>25%</b>	
US	8%		↑	12%	
Europe ex-UK (Eurozone)	7%			5%	
UK	1%			2%	
Japan	7%		↓	2%	
Emerging Markets	2%			4%	
China**	0.2%			0%	
<b>Corporate IG</b>	<b>10%</b>	<b>0-20%</b>		<b>15%</b>	
US Dollar	5%			9%	
Euro	2%			2%	
Sterling	1%			2%	
Japanese Yen	1%			0%	
Emerging Markets	1%			2%	
China**	0.1%			0%	
<b>Corporate HY</b>	<b>5%</b>	<b>0-10%</b>		<b>8%</b>	
US Dollar	4%		↓	6%	
Euro	1%		↑	2%	
<b>Equities</b>	<b>45%</b>	<b>25-65%</b>	↓	<b>34%</b>	
US	25%		↓	12%	
Europe ex-UK	7%		↑	5%	
UK	4%		↑	5%	
Japan	4%		↓	4%	
Emerging Markets	5%			8%	
China**	2%			4%	
<b>Real Estate</b>	<b>8%</b>	<b>0-16%</b>	↓	<b>8%</b>	
US	2%			3%	
Europe ex-UK	2%			1%	
UK	1%			2%	
Japan	2%		↓	1%	
Emerging Markets	1%		↓	1%	
<b>Commodities</b>	<b>2%</b>	<b>0-4%</b>		<b>0%</b>	
Energy	1%			0%	
Industrial Metals	0.3%			0%	
Precious Metals	0.3%			0%	
Agriculture	0.3%			0%	
<b>Total</b>	<b>100%</b>			<b>100%</b>	
<b>Currency Exposure (including effect of hedging)</b>					
USD	48%		↓	45%	
EUR	20%		↑	18%	
GBP	7%		↑	14%	
JPY	15%		↓	10%	
EM	9%		↓	15%	
<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

**Figure 10 – Model allocations for Global sectors**

	<b>Neutral</b>	<b>Invesco</b>	<b>Preferred Region</b>
<b>Energy</b>	<b>7.5%</b>	<b>Underweight</b>	<b>EM</b>
<b>Basic Materials</b>	<b>4.5%</b>	<b>Underweight</b>	<b>Europe</b>
Basic Resources	2.6%	Underweight	Europe
Chemicals	1.9%	Neutral	Europe
<b>Industrials</b>	<b>13.0%</b>	<b>Neutral</b>	<b>Japan</b>
Construction & Materials	1.6%	Underweight	US
Industrial Goods & Services	11.5%	Neutral	Europe
<b>Consumer Discretionary</b>	<b>14.7%</b>	<b>Overweight</b>	<b>Europe</b>
Automobiles & Parts	2.7%	Neutral	Europe
Media	1.1%	Neutral	Japan
Retailers	4.7%	Overweight	Europe
Travel & Leisure	2.2%	Underweight	EM
Consumer Products & Services	4.0%	Overweight	Europe
<b>Consumer Staples</b>	<b>6.5%</b>	<b>Overweight</b>	<b>US</b>
Food, Beverage & Tobacco	4.3%	Overweight	US
Personal Care, Drug & Grocery Stores	2.2%	Overweight	US
<b>Healthcare</b>	<b>10.0%</b>	<b>Overweight</b>	<b>US</b>
<b>Financials</b>	<b>15.0%</b>	<b>Underweight</b>	<b>Japan</b>
Banks	7.2%	Underweight	EM
Financial Services	4.9%	Underweight	EM
Insurance	2.9%	Neutral	Europe
<b>Real Estate</b>	<b>3.0%</b>	<b>Neutral</b>	<b>EM</b>
<b>Technology</b>	<b>18.8%</b>	<b>Overweight</b>	<b>US</b>
<b>Telecommunications</b>	<b>3.5%</b>	<b>Neutral</b>	<b>Europe</b>
<b>Utilities</b>	<b>3.6%</b>	<b>Underweight</b>	<b>Europe</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: Refinitiv Datastream and Invesco

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## Appendix

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### Definitions of data and benchmarks for Figure 6

**Sources:** we source data from 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<sup>st</sup> 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 the World and Europe. The emerging markets yields and returns are based on the Bloomberg Barclays emerging markets aggregate government bond index.

**Corporate investment grade (IG) bonds:** Bank of America Merrill Lynch investment grade corporate bond total return indices. The emerging markets yields and returns are based on the Bloomberg Barclays emerging markets aggregate corporate bond index.

**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

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*Data as of 19 May 2023 unless stated otherwise.*

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