



Guide to the Markets

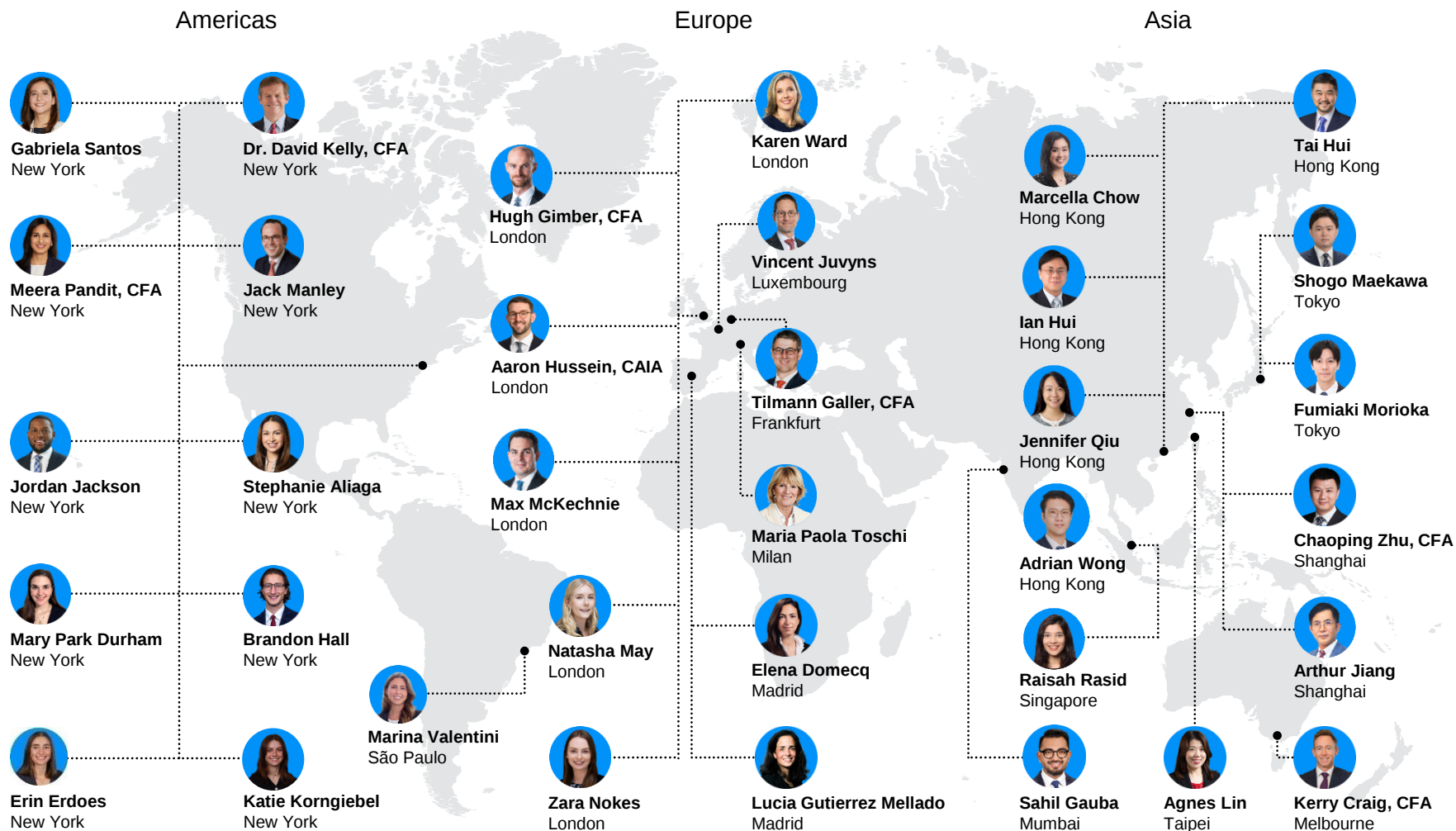
Europe | 4Q 2024
As of 30 September 2024





Global Market Insights Strategy Team

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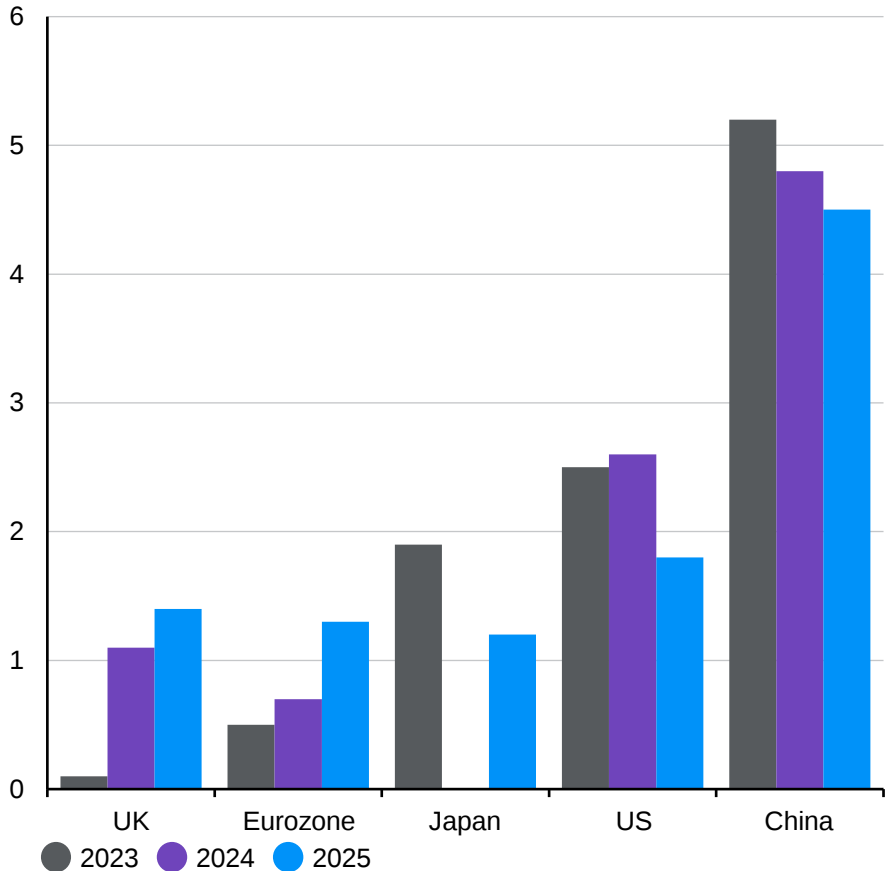
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Global growth

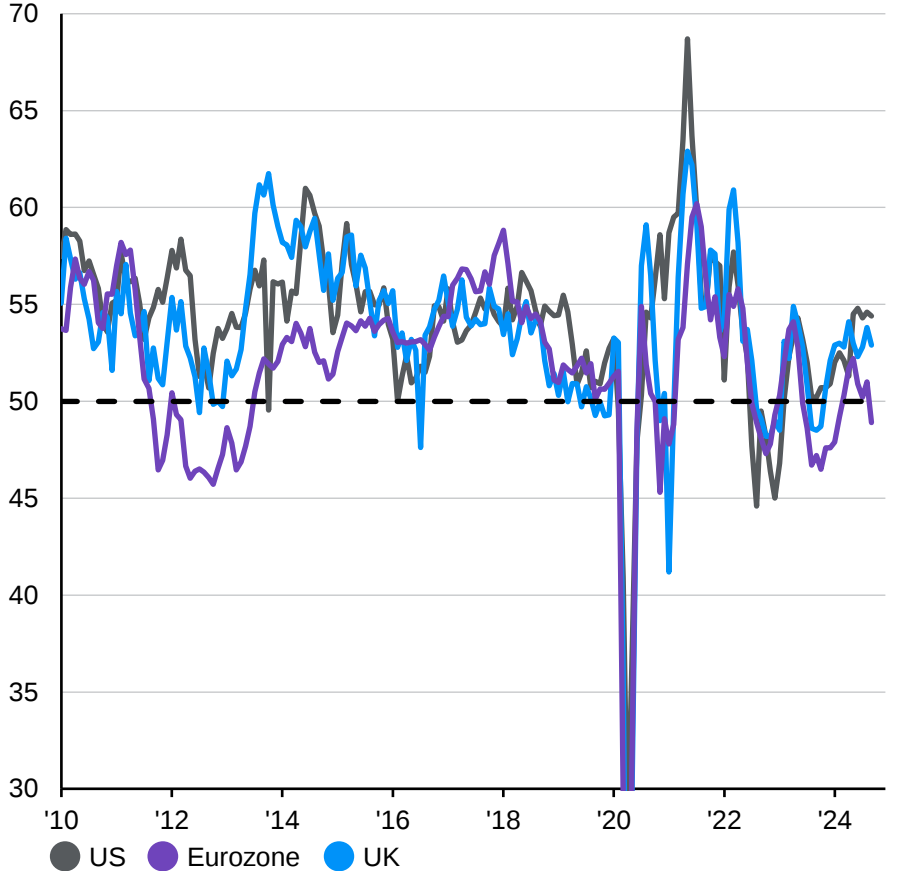
Consensus forecasts for real GDP growth

% change year on year



Composite Purchasing Managers' Index (PMI)

Index level



Source: (Left) Bloomberg, J.P. Morgan Asset Management. Forecasts are from Bloomberg contributor composite. (Right) Bloomberg, S&P Global, J.P. Morgan Asset Management. A score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. Guide to the Markets - Europe. Data as of 30 September 2024.



Global Purchasing Managers' Index (PMI) for manufacturing

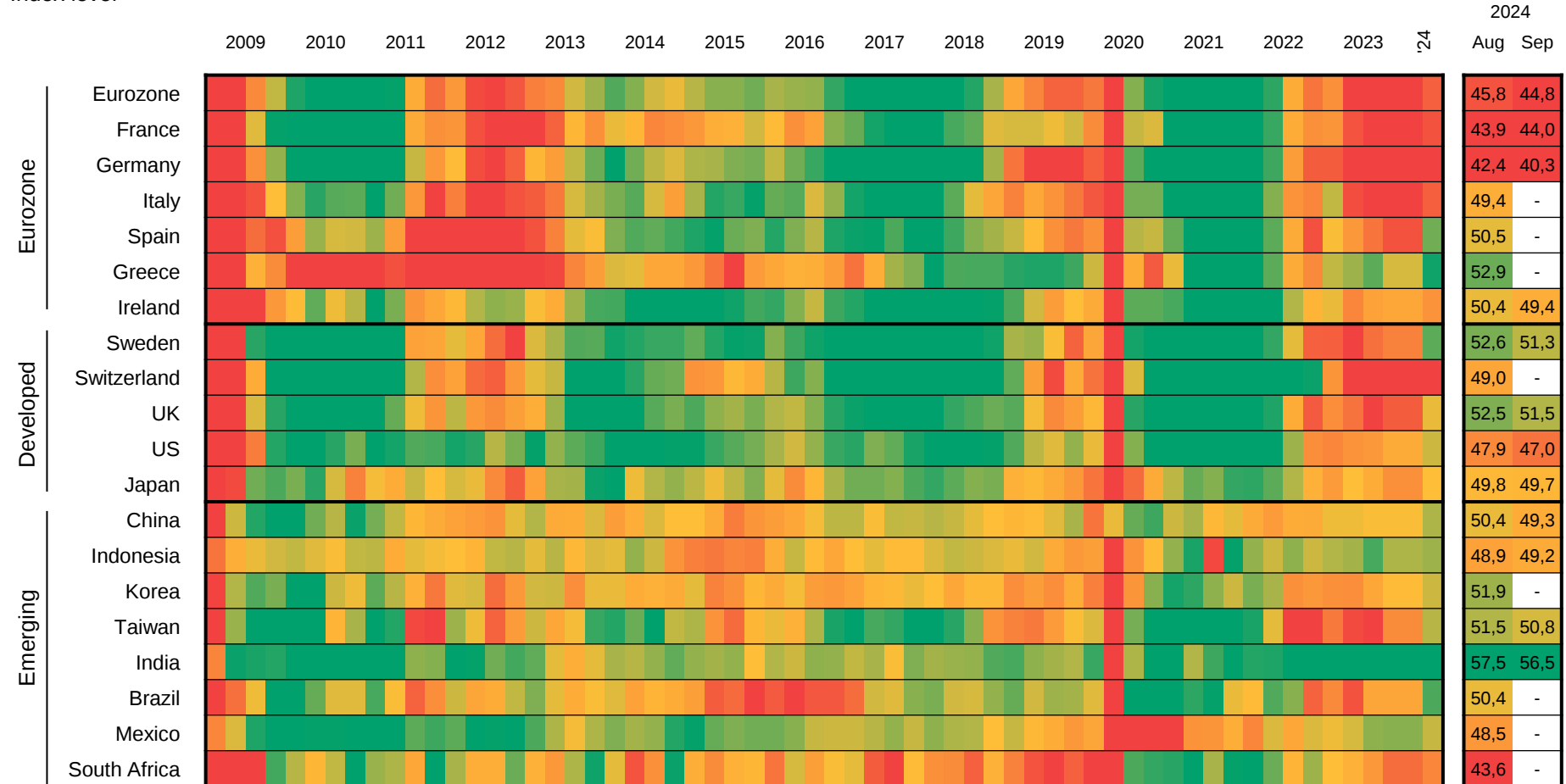
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Europe

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Global manufacturing PMI

Index level



Source: S&P Global, J.P. Morgan Asset Management. A score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. The heatmap colours range from red to yellow to green, where red is below 50, yellow is at 50 and green is above 50. Quarterly averages are shown, except the two most recent monthly data points. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Global inflation

GTM

Europe

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Headline inflation

% change year on year

		2022				2023								2024											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Eurozone	Eurozone	9,9	10,6	10,1	9,2	8,6	8,5	6,9	7,0	6,1	5,5	5,3	5,2	4,3	2,9	2,4	2,9	2,8	2,6	2,4	2,4	2,6	2,5	2,6	2,2
	France	6,2	7,1	7,1	6,7	7,0	7,3	6,7	6,9	6,0	5,3	5,1	5,7	5,7	4,5	3,9	4,1	3,4	3,2	2,4	2,4	2,6	2,5	2,7	2,2
	Germany	10,9	11,6	11,3	9,6	9,2	9,3	7,8	7,6	6,3	6,8	6,5	6,4	4,3	3,0	2,3	3,8	3,1	2,7	2,3	2,4	2,8	2,5	2,6	2,0
	Italy	9,4	12,6	12,6	12,3	10,7	9,8	8,1	8,6	8,0	6,7	6,3	5,5	5,6	1,8	0,6	0,5	0,9	0,8	1,2	0,9	0,8	0,9	1,6	1,2
	Spain	9,0	7,3	6,7	5,5	5,9	6,0	3,1	3,8	2,9	1,6	2,1	2,4	3,3	3,5	3,3	3,3	3,5	2,9	3,3	3,4	3,8	3,6	2,9	2,4
	Greece	12,1	9,5	8,8	7,6	7,3	6,5	5,4	4,5	4,1	2,8	3,5	3,5	2,4	3,8	2,9	3,7	3,2	3,1	3,4	3,2	2,4	2,5	3,0	3,2
	Ireland	8,6	9,4	9,0	8,2	7,5	8,1	7,0	6,3	5,4	4,8	4,6	4,9	5,0	3,6	2,5	3,2	2,7	2,3	1,7	1,6	2,0	1,5	1,5	1,1
Developed	Sweden	10,3	9,8	10,1	10,8	9,6	9,7	8,1	7,7	6,7	6,3	6,3	4,5	3,7	4,0	3,3	1,9	3,4	2,6	2,3	2,4	2,5	1,4	1,7	1,3
	Switzerland	3,2	2,9	2,9	2,7	3,2	3,2	2,7	2,6	2,2	1,8	2,1	1,9	2,0	2,0	1,6	2,1	1,5	1,2	1,1	1,4	1,5	1,3	1,2	1,0
	UK	10,1	11,1	10,7	10,5	10,1	10,4	10,1	8,7	8,7	7,9	6,8	6,7	6,7	4,6	3,9	4,0	4,0	3,4	3,2	2,3	2,0	2,0	2,2	2,2
	US	8,2	7,7	7,1	6,5	6,4	6,0	5,0	4,9	4,0	3,0	3,2	3,7	3,7	3,2	3,1	3,4	3,1	3,2	3,5	3,4	3,3	3,0	2,9	2,5
	Japan	3,0	3,7	3,8	4,0	4,3	3,3	3,2	3,5	3,2	3,3	3,3	3,2	3,0	3,3	2,8	2,6	2,2	2,8	2,7	2,5	2,8	2,8	2,8	3,0
Emerging	China	2,8	2,1	1,6	1,8	2,1	1,0	0,7	0,1	0,2	0,0	-0,3	0,1	0,0	-0,2	-0,5	-0,3	-0,8	0,7	0,1	0,3	0,3	0,2	0,5	0,6
	Indonesia	5,9	5,6	5,4	5,4	5,1	5,4	5,0	4,4	4,1	3,5	3,1	3,4	2,3	2,6	3,0	2,8	2,6	2,8	3,0	3,0	2,8	2,5	2,1	2,1
	Korea	5,5	5,6	5,0	5,0	5,0	4,7	4,2	3,7	3,4	2,7	2,4	3,4	3,7	3,8	3,3	3,2	2,8	3,1	3,1	2,9	2,7	2,4	2,6	2,0
	Taiwan	2,8	2,7	2,4	2,7	3,1	2,4	2,4	2,3	2,0	1,8	1,9	2,5	2,9	3,0	2,9	2,7	1,8	3,1	2,1	1,9	2,2	2,4	2,5	2,4
	India	7,4	6,8	5,9	5,7	6,5	6,4	5,7	4,7	4,3	4,9	7,4	6,8	5,0	4,9	5,6	5,7	5,1	5,1	4,9	4,8	4,8	5,1	3,6	3,7
	Brazil	7,2	6,5	5,9	5,8	5,8	5,6	4,7	4,2	3,9	3,2	4,0	4,6	5,2	4,8	4,7	4,6	4,5	4,5	3,9	3,7	3,9	4,2	4,5	4,2
	Mexico	8,7	8,4	7,8	7,8	7,9	7,6	6,8	6,3	5,8	5,1	4,8	4,6	4,5	4,3	4,3	4,7	4,9	4,4	4,4	4,7	4,7	5,0	5,6	5,0
	South Africa	7,5	7,6	7,4	7,2	6,9	7,0	7,1	6,8	6,3	5,4	4,7	4,8	5,4	5,9	5,5	5,1	5,3	5,6	5,3	5,2	5,2	5,1	4,6	4,4

Source: Bank of Mexico, DGBAS, ECB, Federal Reserve, IBGE, India Ministry of Statistics & Programme Implementation, Japan Ministry of Internal Affairs & Communication, Korean National Statistical Office, LSEG Datastream, National Bureau of Statistics of China, ONS, Riksbank, Statistics Indonesia, Statistics South Africa, Swiss National Bank, J.P. Morgan Asset Management. Eurozone countries use HICP inflation, all other countries use CPI inflation. Heatmap colours are based on the respective central bank target inflation rates. Blue is below target, white is at target and red is above target. *Guide to the Markets - Europe*. Data as of 30 September 2024.

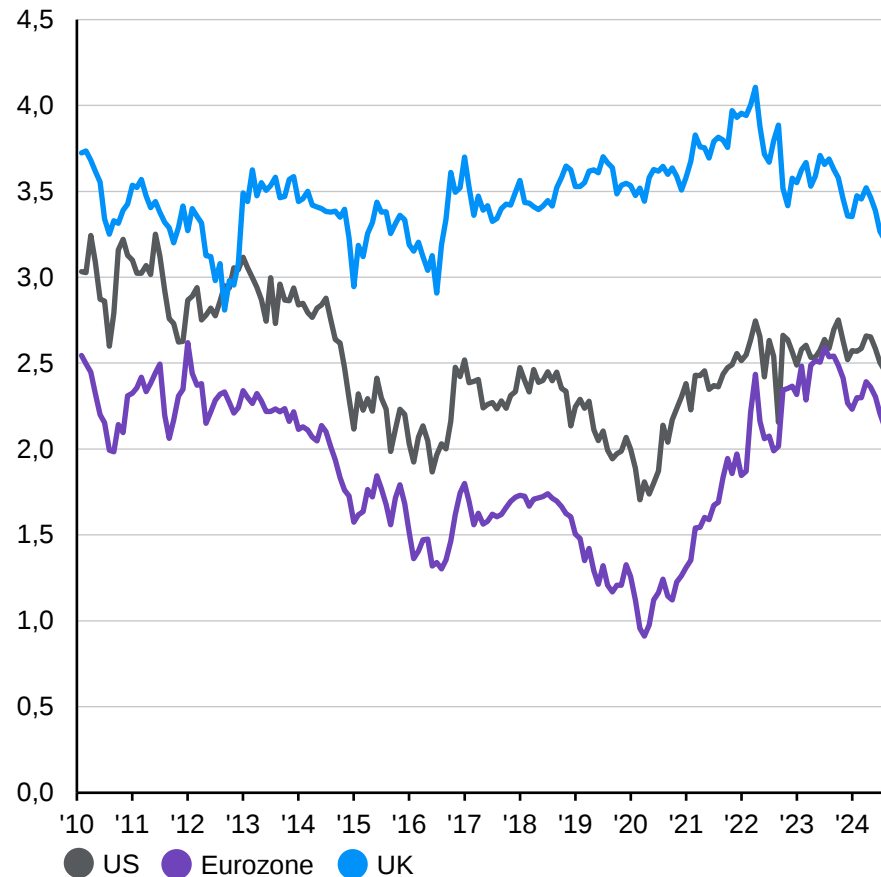


Global inflationary pressures

GTM Europe 7

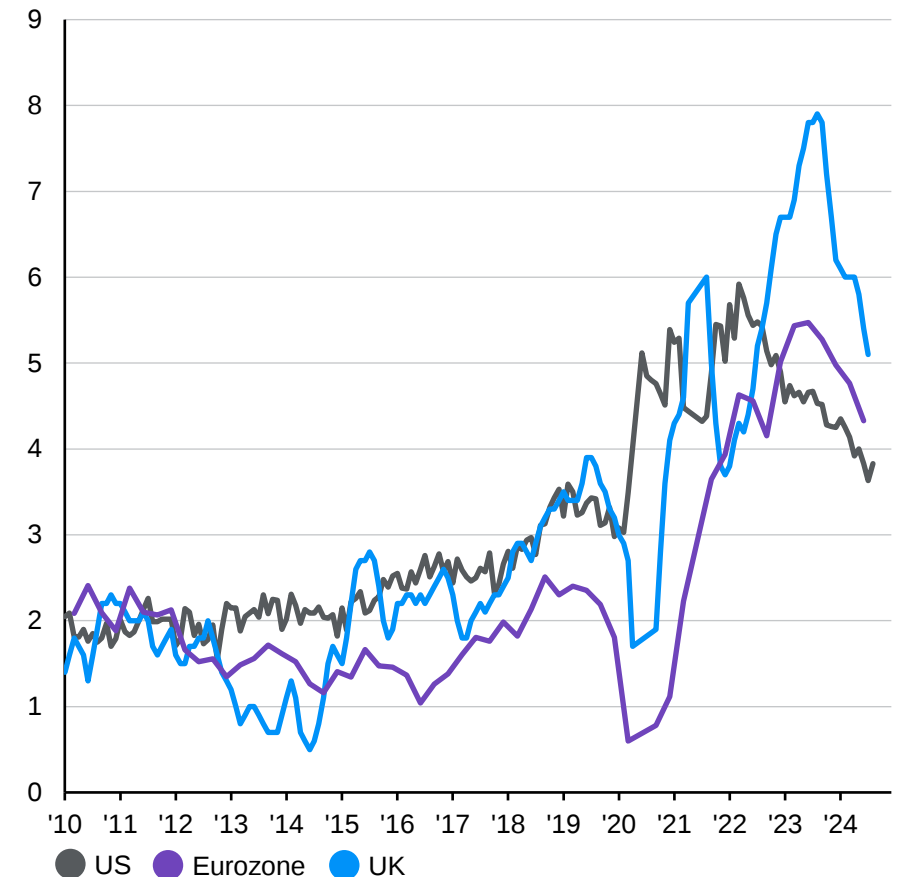
Market-based inflation expectations

%, 5y5y inflation swap rate



Wage growth

% change year on year

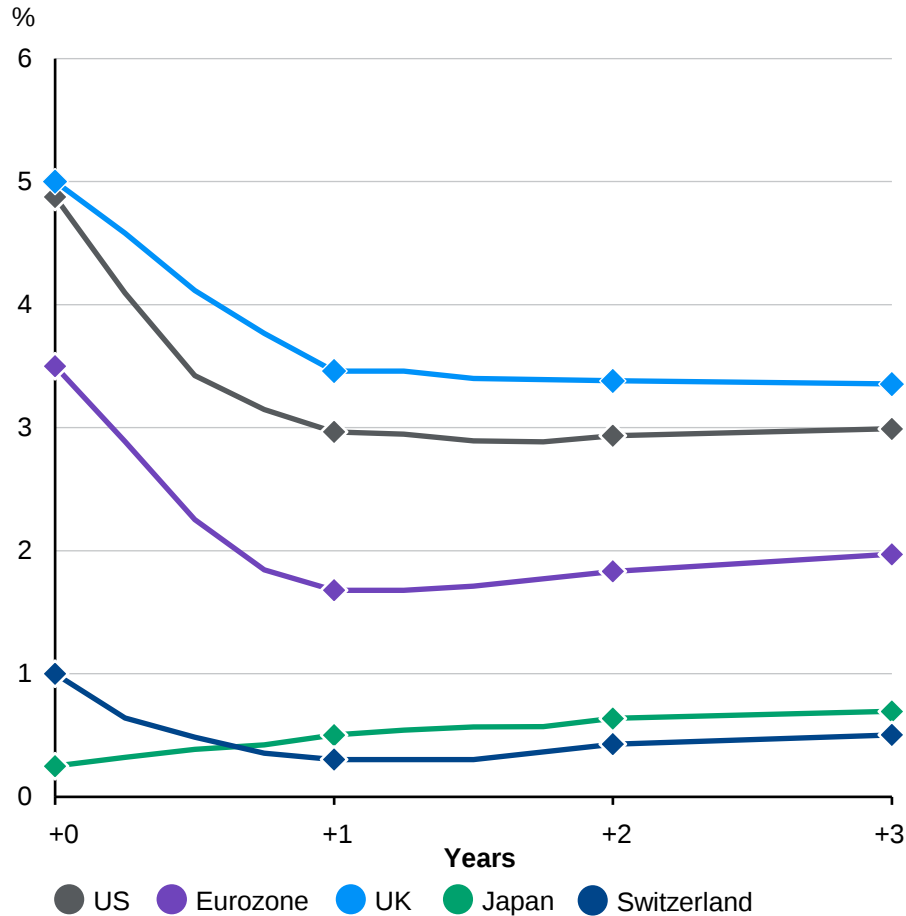


Source: (Left) Bloomberg, J.P. Morgan Asset Management. 5y5y inflation swaps represent the market's expectation of five-year average inflation, starting in five years' time. UK inflation swaps use RPI rather than CPI as the reference point, which partly explains why the UK 5y5y is higher than other regions. Strong demand for index-linked Gilts from defined benefit UK pension funds also drives the UK 5y5y higher. (Right) BLS, Eurostat, LSEG Datastream, ONS, J.P. Morgan Asset Management. US is average hourly non-farm earnings; eurozone is compensation per employee; UK is three-month moving average of whole economy regular pay (as published). All measures are smoothed to reduce pandemic-related distortions. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

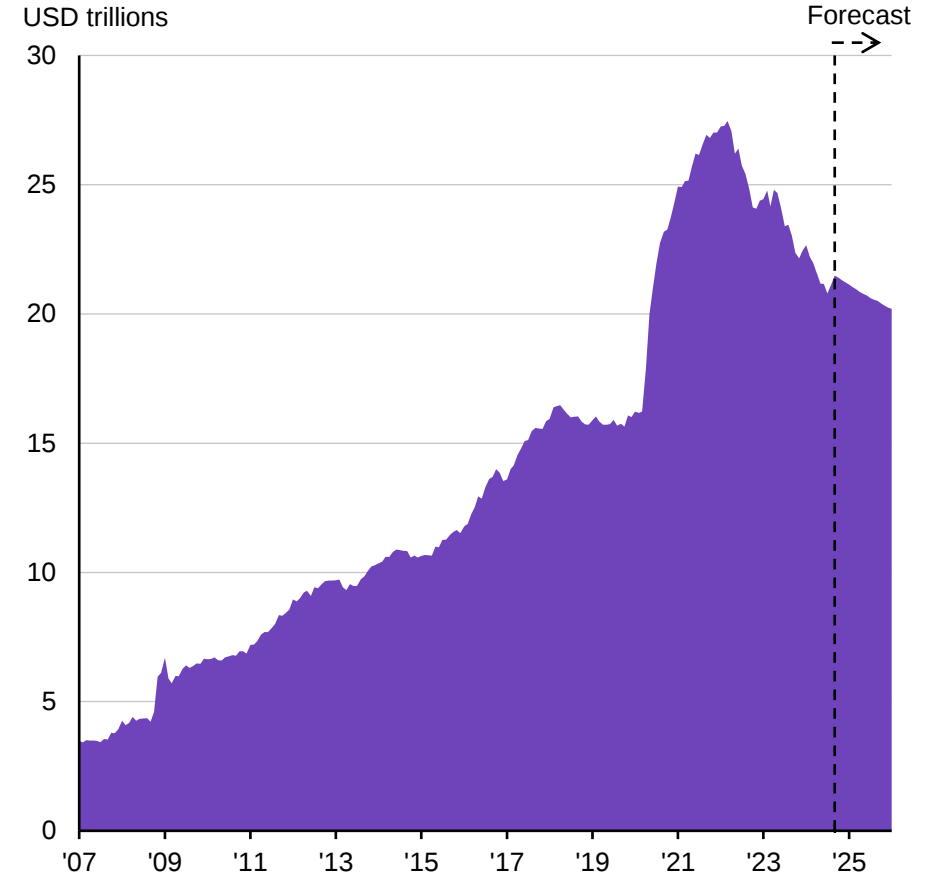


Global monetary policy

Market expectations for central bank policy rates



Global central bank balance sheets



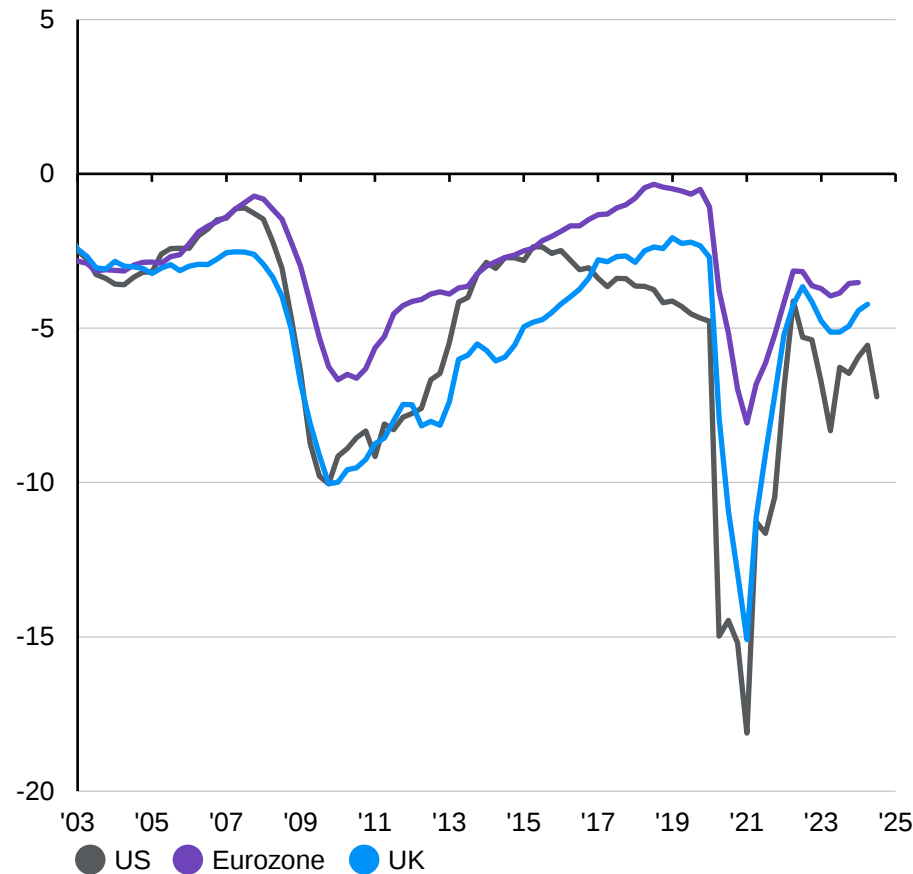
Source: (Left) Bloomberg, J.P. Morgan Asset Management. Expectations are calculated using OIS forwards. (Right) BoE, BoJ, ECB, Fed, LSEG Datastream, SNB, J.P. Morgan Asset Management. Global central bank balance sheet is the sum of the balance sheets of the BoE, BoJ, ECB, Fed and SNB. Forecast from J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Global fiscal policy

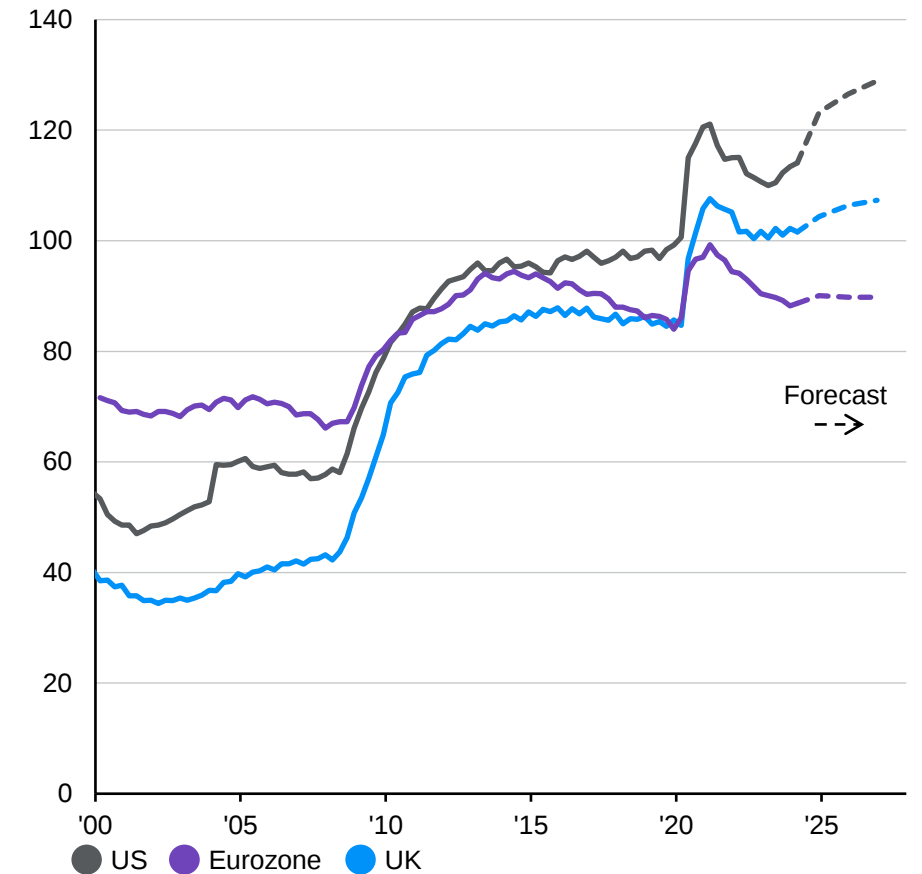
Public sector budget balance

% of nominal GDP



Government debt

% of nominal GDP



Source: (Left) Bloomberg, Eurostat, ONS, US Treasury, J.P. Morgan Asset Management. (Right) Bank for International Settlements, Eurostat, IMF, LSEG Datastream, J.P. Morgan Asset Management. Debt refers to gross debt at face value. Dotted lines represent IMF forecasts. *Guide to the Markets - Europe*. Data as of 30 September 2024.

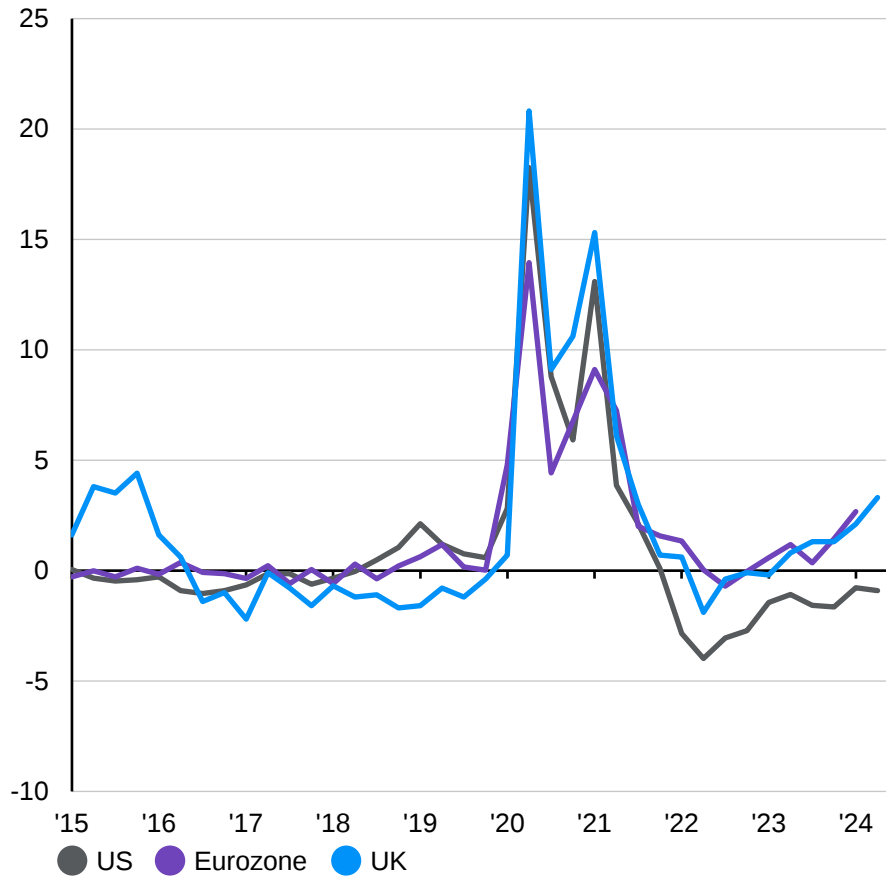


Global consumer balance sheets

GTM Europe 10

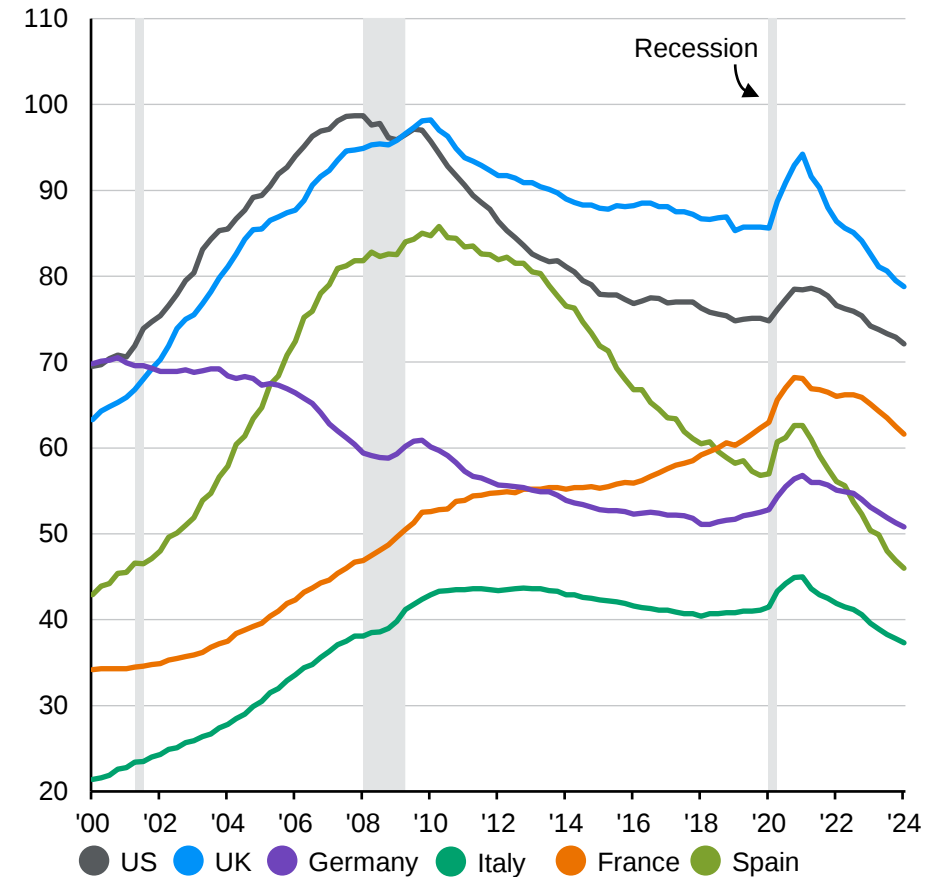
Excess savings rates

% points, savings rates relative to 2015-2019 average



Household debt

% of nominal GDP

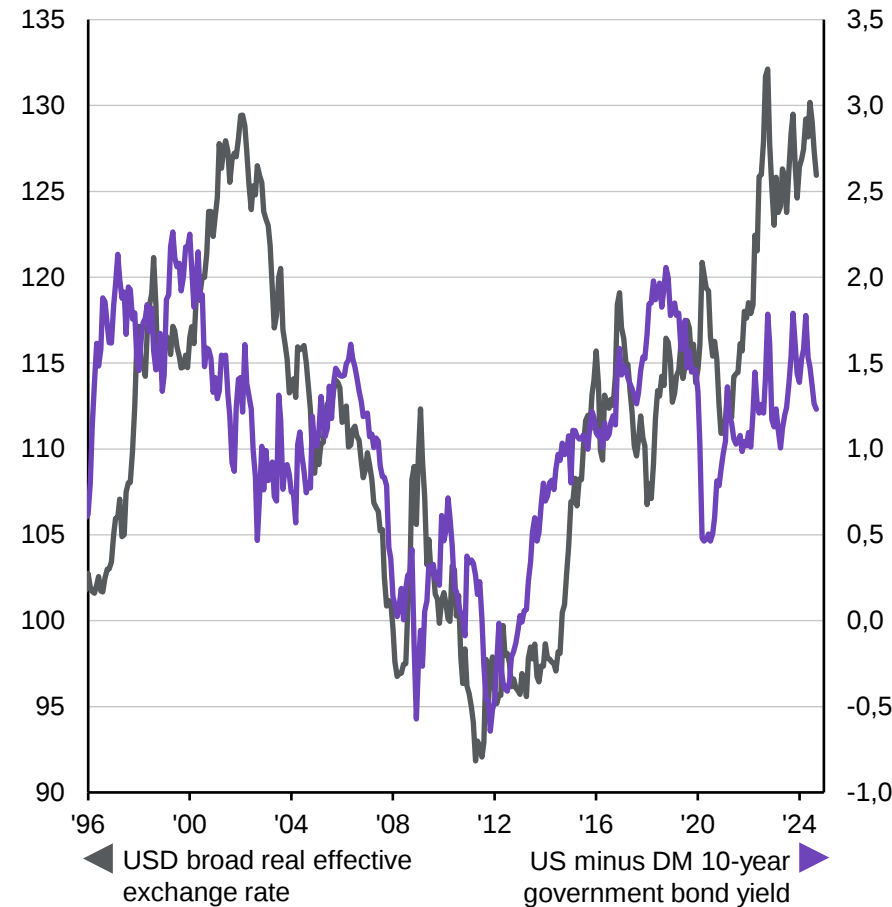




US dollar

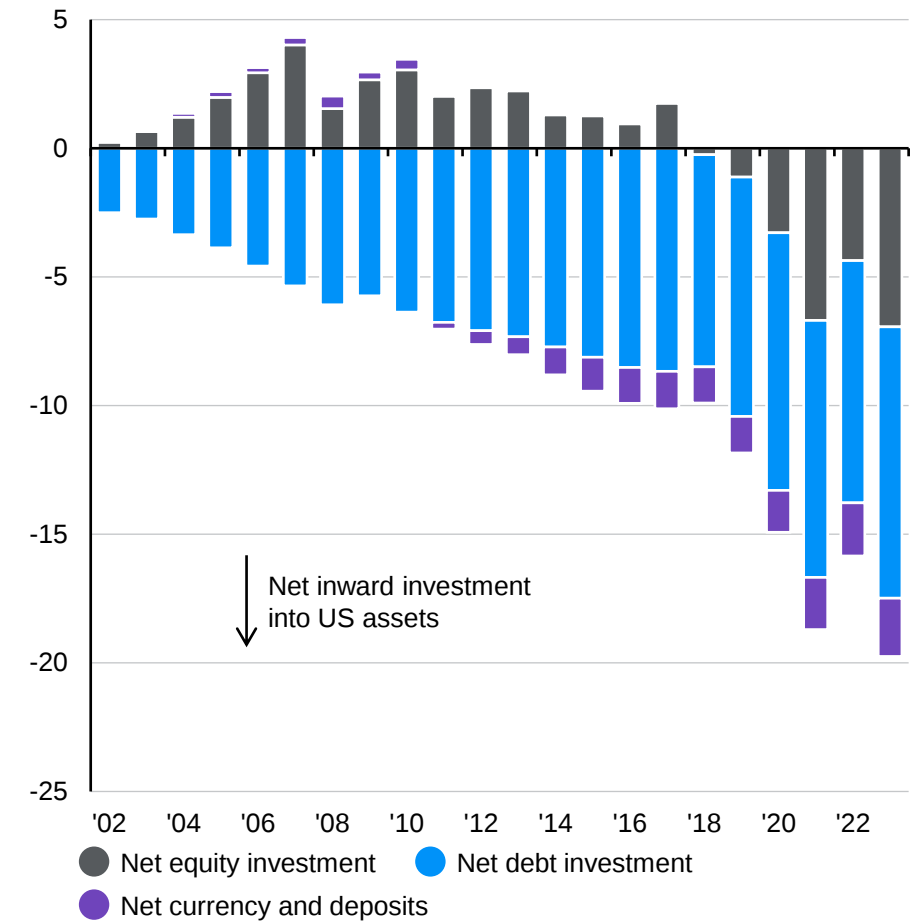
US dollar and interest rate differentials

Index level (LHS); % points (RHS)



US net international investment position

USD trillions



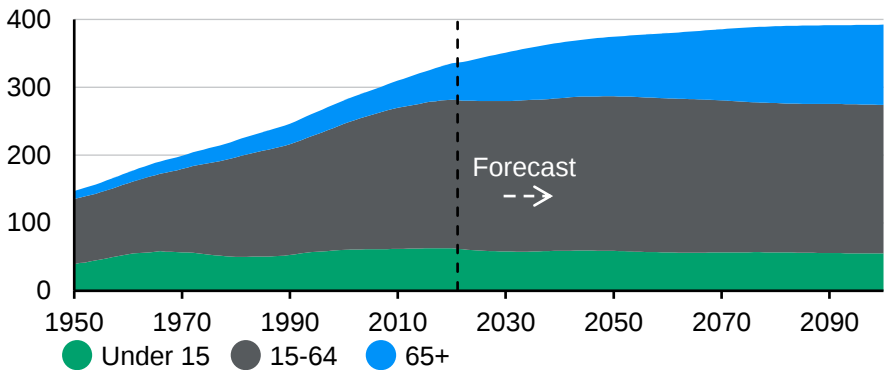
Source: (Left) J.P. Morgan Securities Research, LSEG Datastream, J.P. Morgan Asset Management. DM is developed markets and the yield is calculated as a GDP-weighted average of the 10-year government bond yields of Australia, Canada, France, Germany, Italy, Japan, Switzerland and the UK. (Right) BEA, Bloomberg, J.P. Morgan Asset Management. Equity and debt investments include funds. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Global demographics

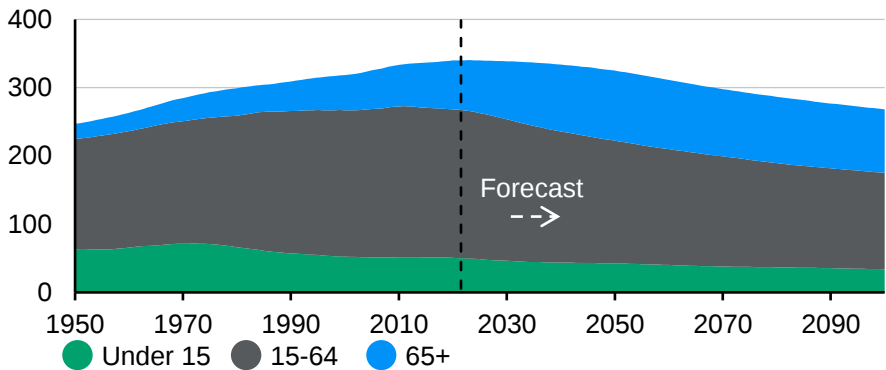
Population split by age: US

Millions of people



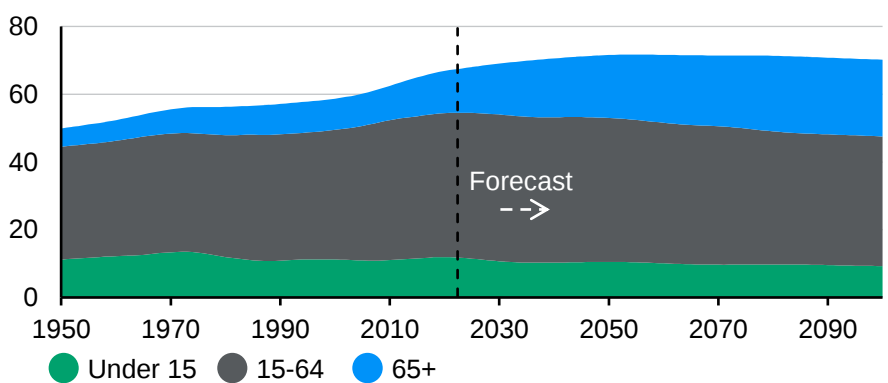
Population split by age: eurozone

Millions of people



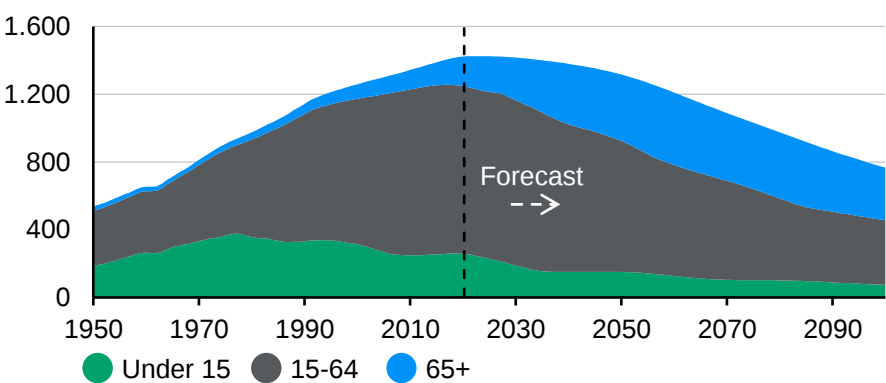
Population split by age: UK

Millions of people



Population split by age: China

Millions of people

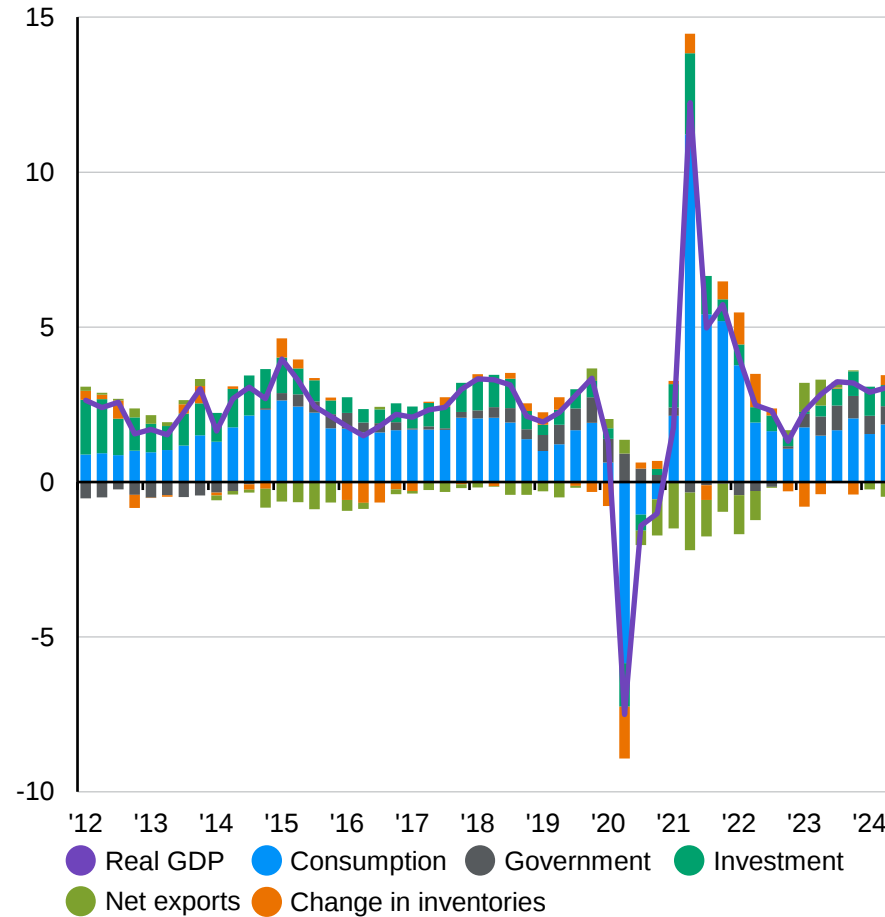




US GDP and business surveys

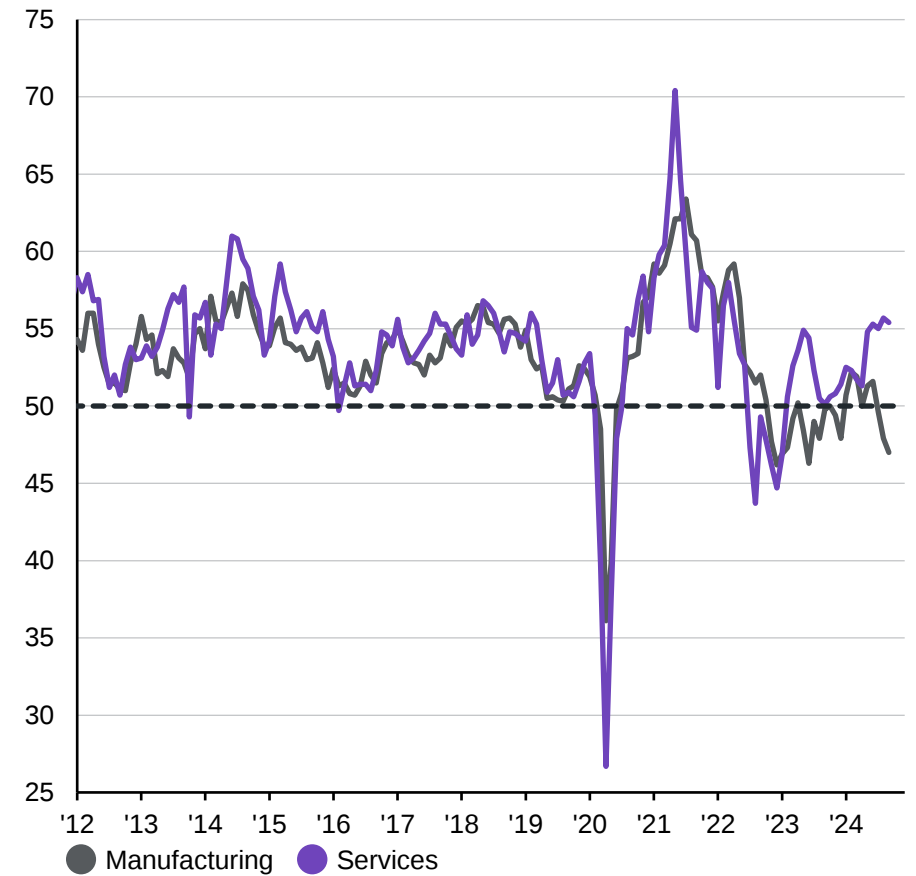
Contribution to US real GDP growth

% change year on year



US Purchasing Managers' Indices (PMI)

Index level



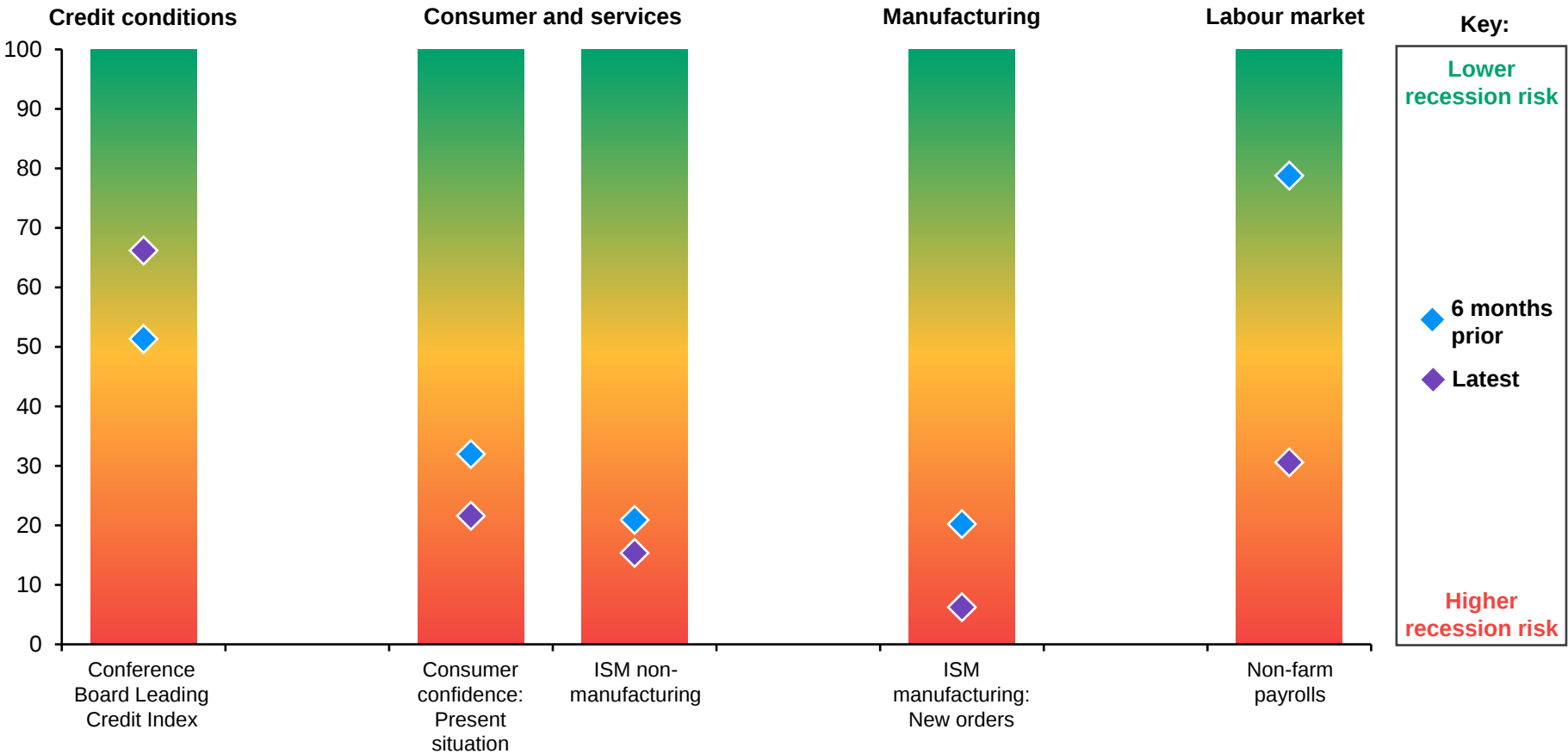
Source: (Left) BEA, LSEG Datastream, J.P. Morgan Asset Management. (Right) Bloomberg, S&P Global, J.P. Morgan Asset Management. A PMI score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. *Guide to the Markets - Europe*. Data as of 30 September 2024.



US Economic Monitor

US economic indicators

Percentile rank relative to historic data since 1990



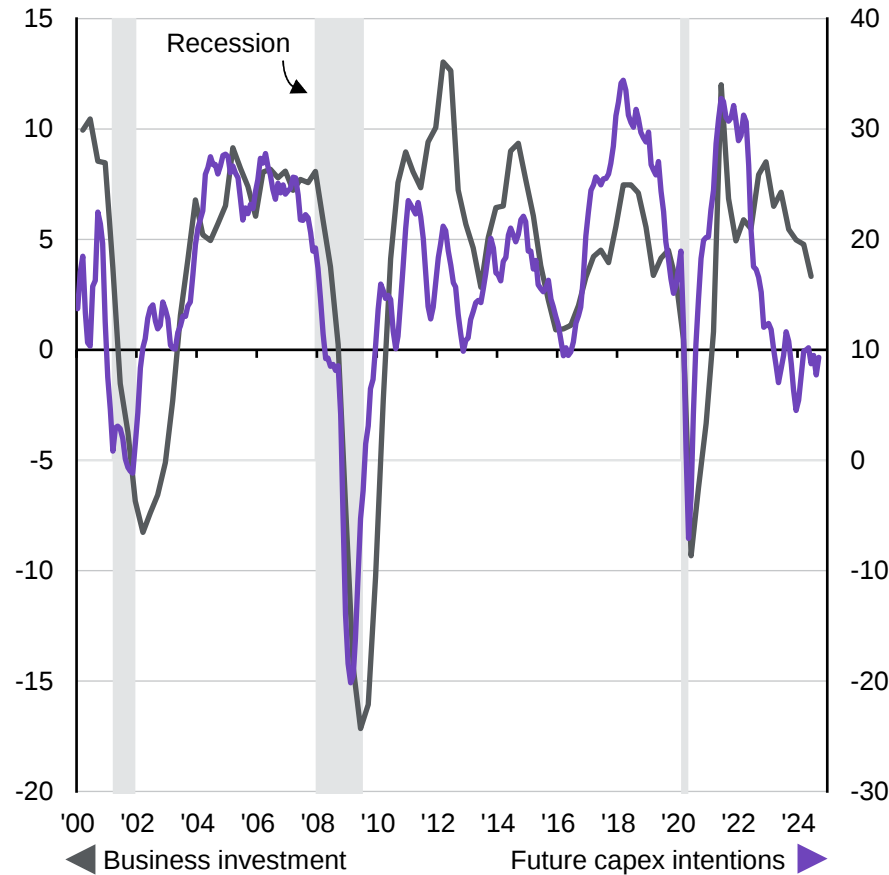


US business and residential investment

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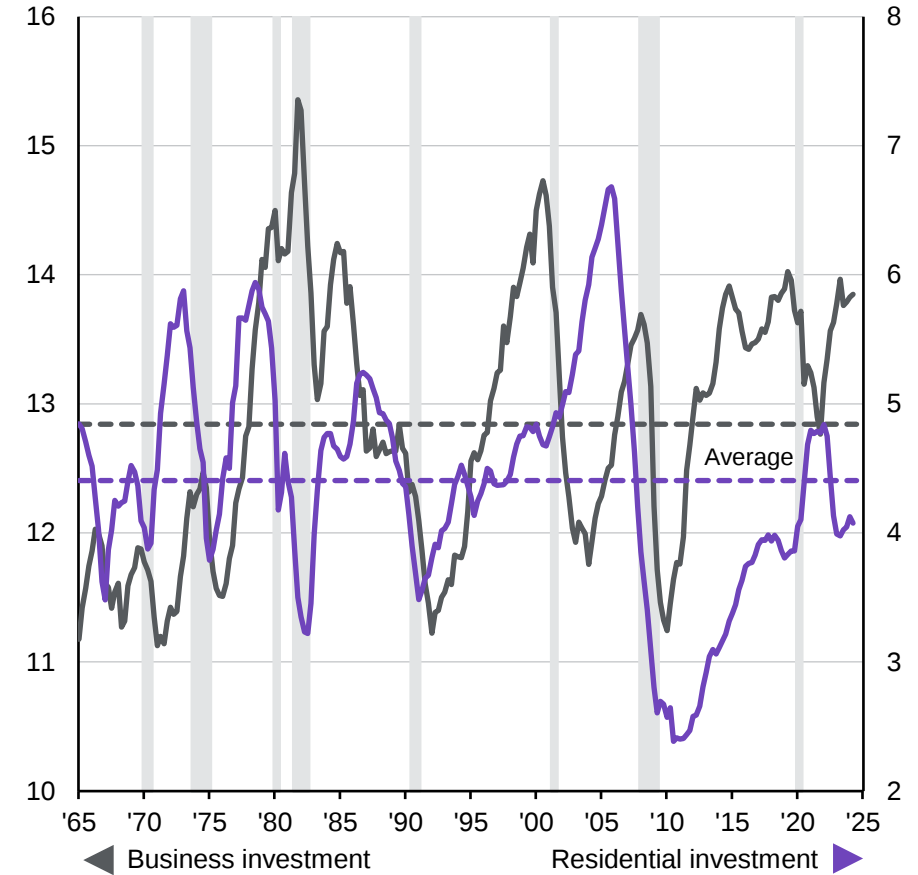
US real business investment and future capex intentions

% change year on year (LHS); index level (RHS)



US residential and business investment

% of nominal GDP



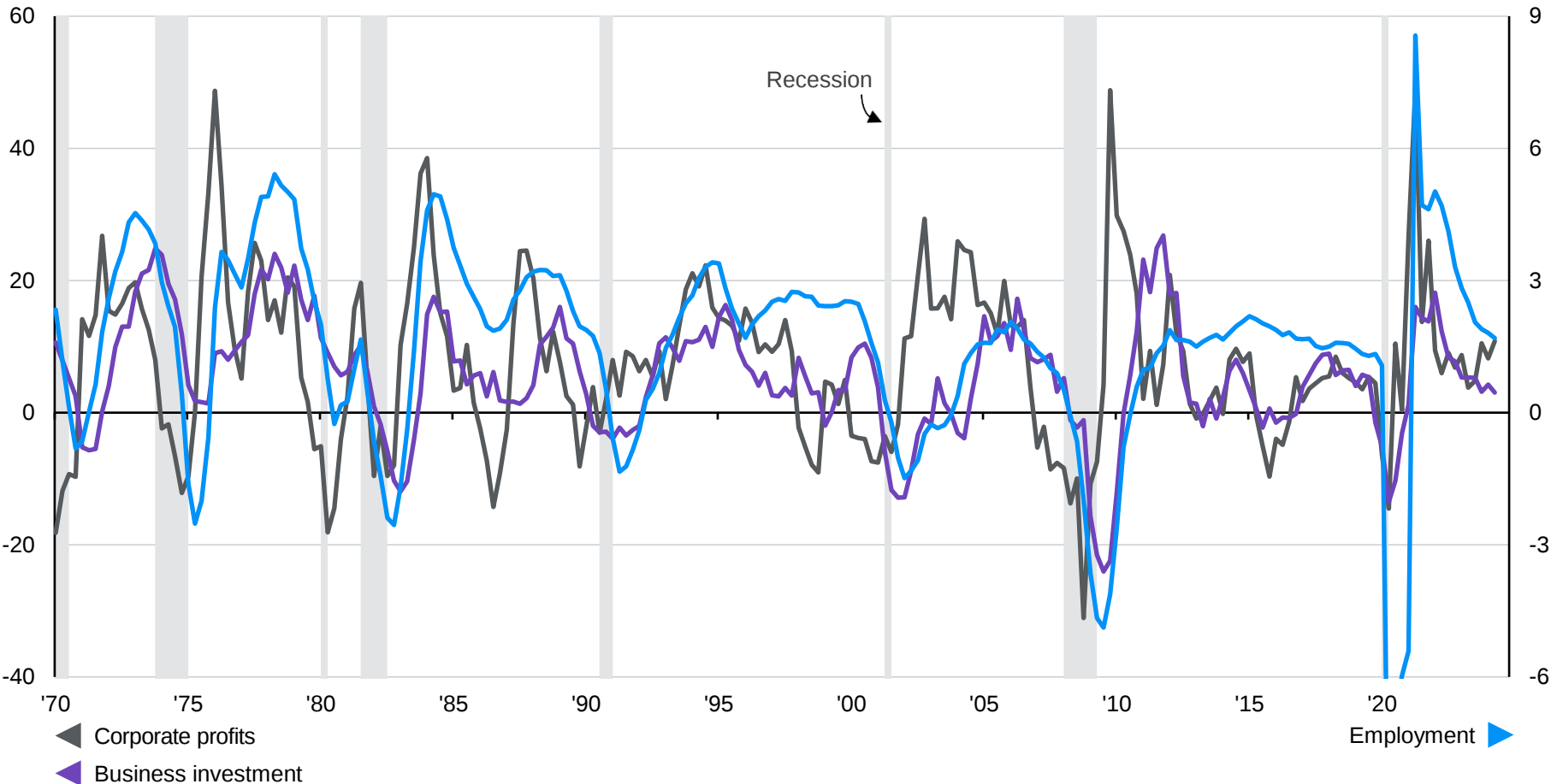
Source: (Left) BEA, Dallas Fed, Kansas City Fed, LSEG Datastream, New York Fed, Philadelphia Fed, Richmond Fed, J.P. Morgan Asset Management. Future capex intentions is an equally weighted average of the five aforementioned Fed districts' capex intentions measures, shown as a three-month moving average. (Right) BEA, LSEG Datastream, J.P. Morgan Asset Management. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates. *Guide to the Markets - Europe*. Data as of 30 September 2024.



US profits, investment and employment

US corporate profits, business investment and employment

% change year on year



Source: BEA, BLS, LSEG Datastream, J.P. Morgan Asset Management. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates. *Guide to the Markets - Europe*. Data as of 30 September 2024.

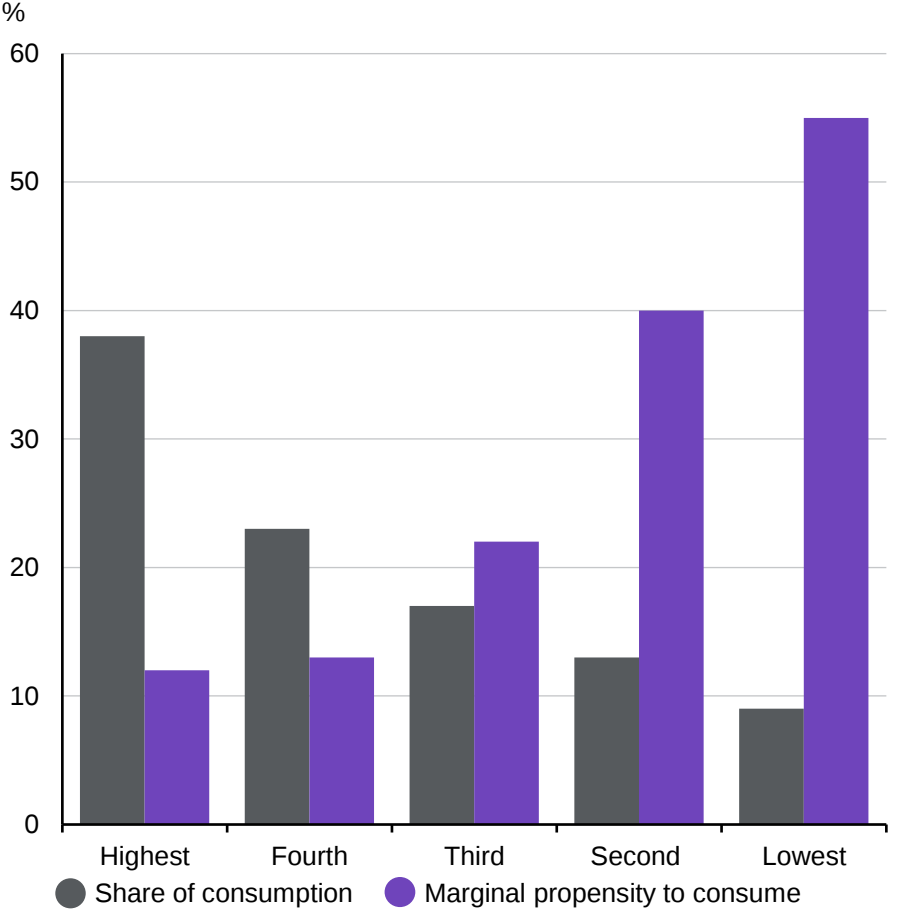


US consumer

US consumer confidence



US consumption by income quintile



Source: (Left) Conference Board, LSEG Datastream, J.P. Morgan Asset Management. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates. (Right) Apollo Global Management, Wharton Business School, J.P. Morgan Asset Management. Marginal propensity to consume shows how much of each additional dollar of income is spent. *Guide to the Markets - Europe*. Data as of 30 September 2024.

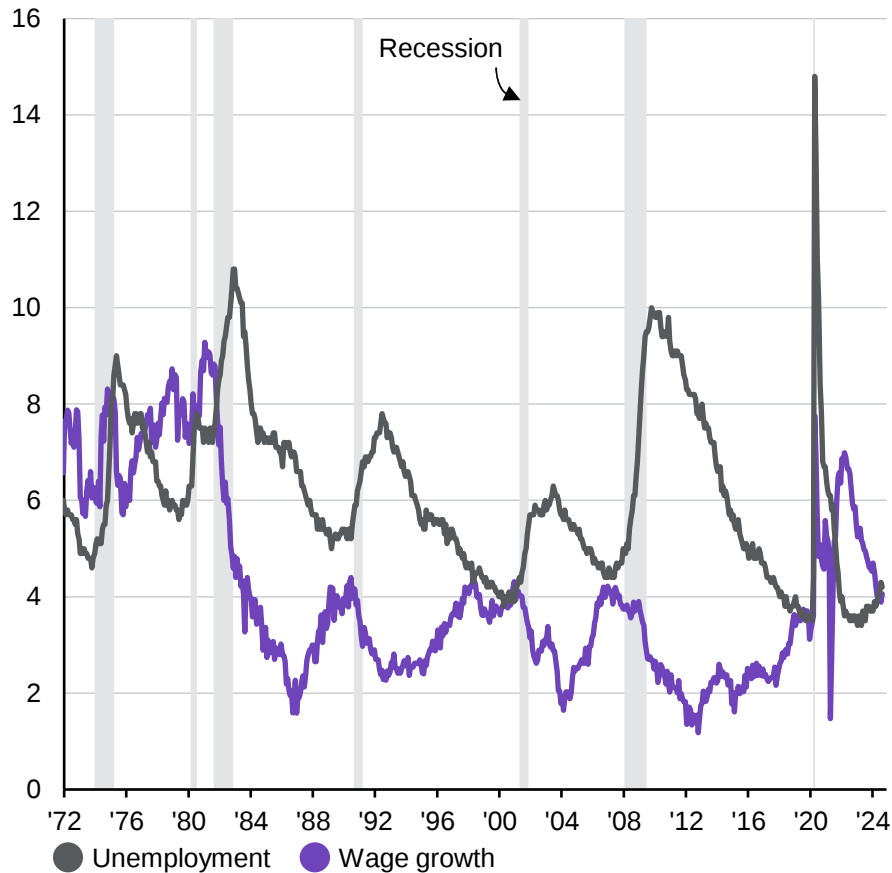


US labour market

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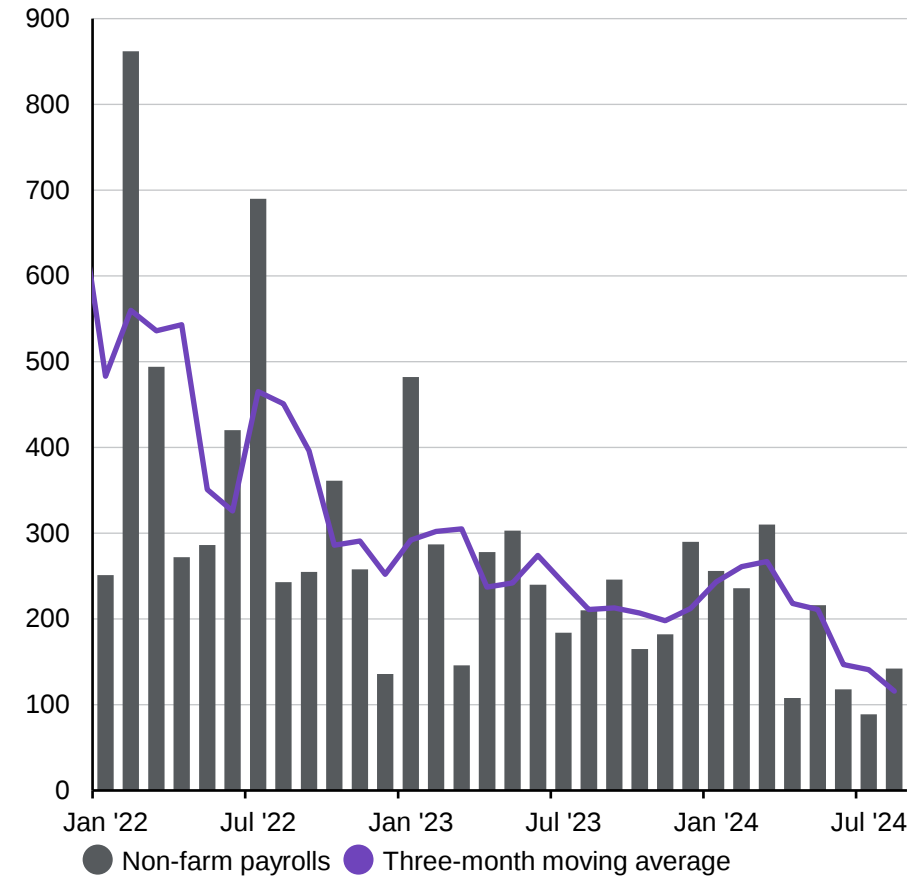
US unemployment and wage growth

%, wage growth is year on year



US non-farm payrolls

Thousands, absolute change



Source: (All charts) BLS, LSEG Datastream, J.P. Morgan Asset Management. Wage growth is average hourly earnings for production and nonsupervisory employees. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates. *Guide to the Markets - Europe*. Data as of 30 September 2024.

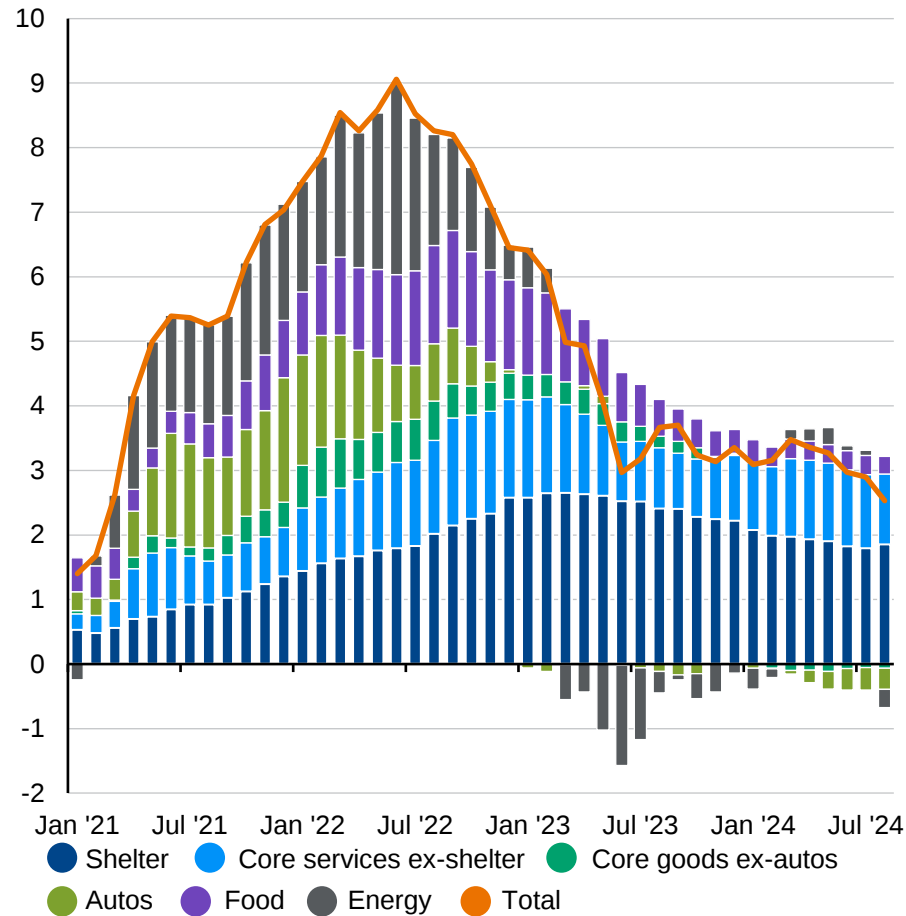


US inflation

GTM Europe 19

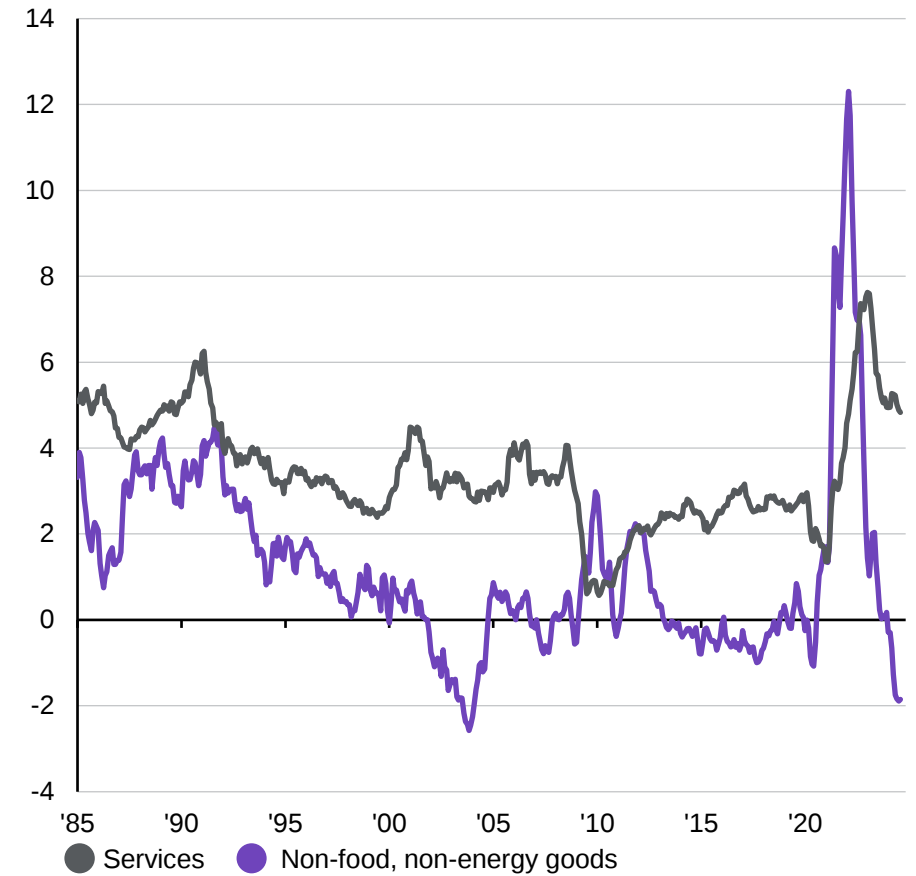
US headline inflation breakdown

% change year on year



US goods and services inflation

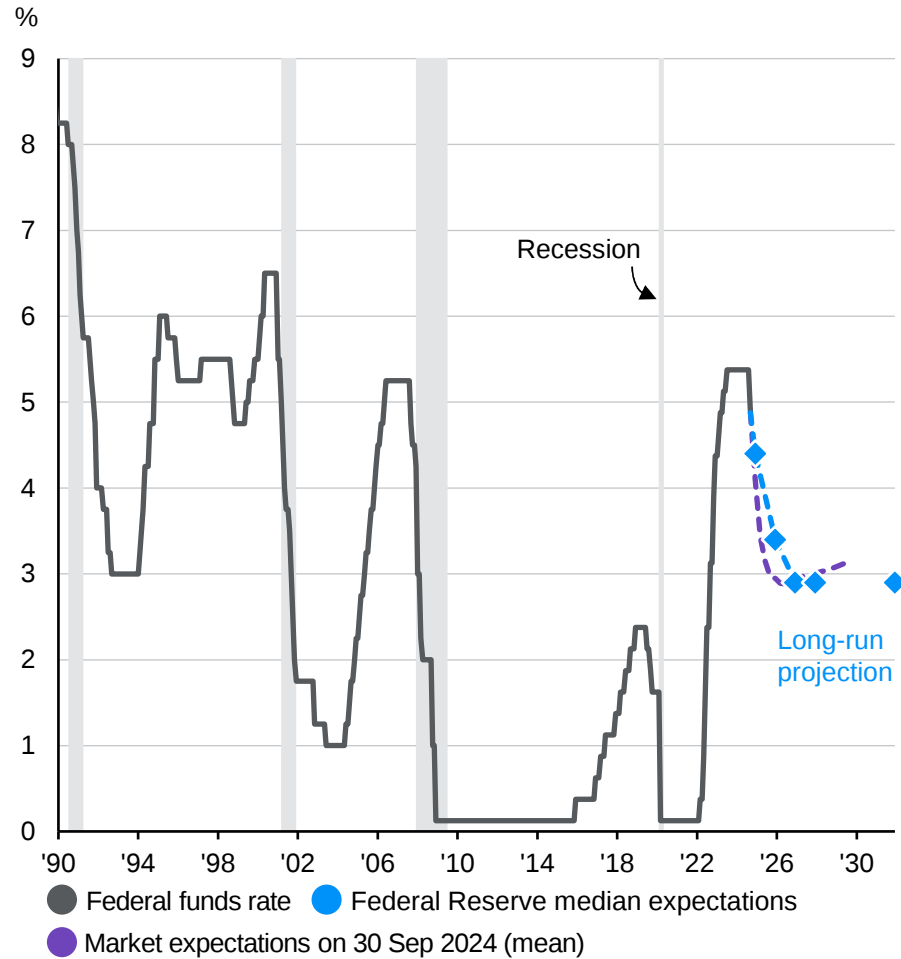
% change year on year



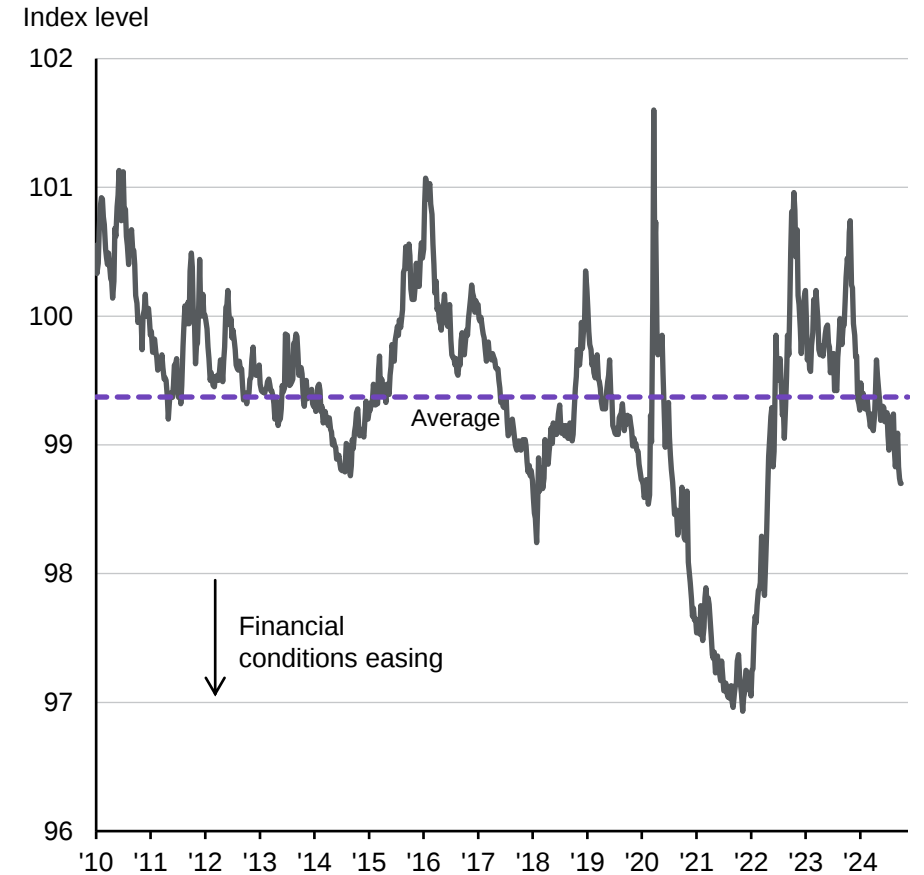


US Federal Reserve policy

Federal Reserve policy rate expectations



US financial conditions



Source: (Left) Bloomberg, BLS, Federal Reserve, J.P. Morgan Asset Management. Market expectations are calculated using OIS forwards. The long-run projection represents the committee's median assessment of where the federal funds rate would be expected to converge to under the appropriate monetary policy and in the absence of further shocks to the economy. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates. (Right) Bloomberg, Goldman Sachs, J.P. Morgan Asset Management. The financial conditions index is a measure of how easily money and credit flow through the economy. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

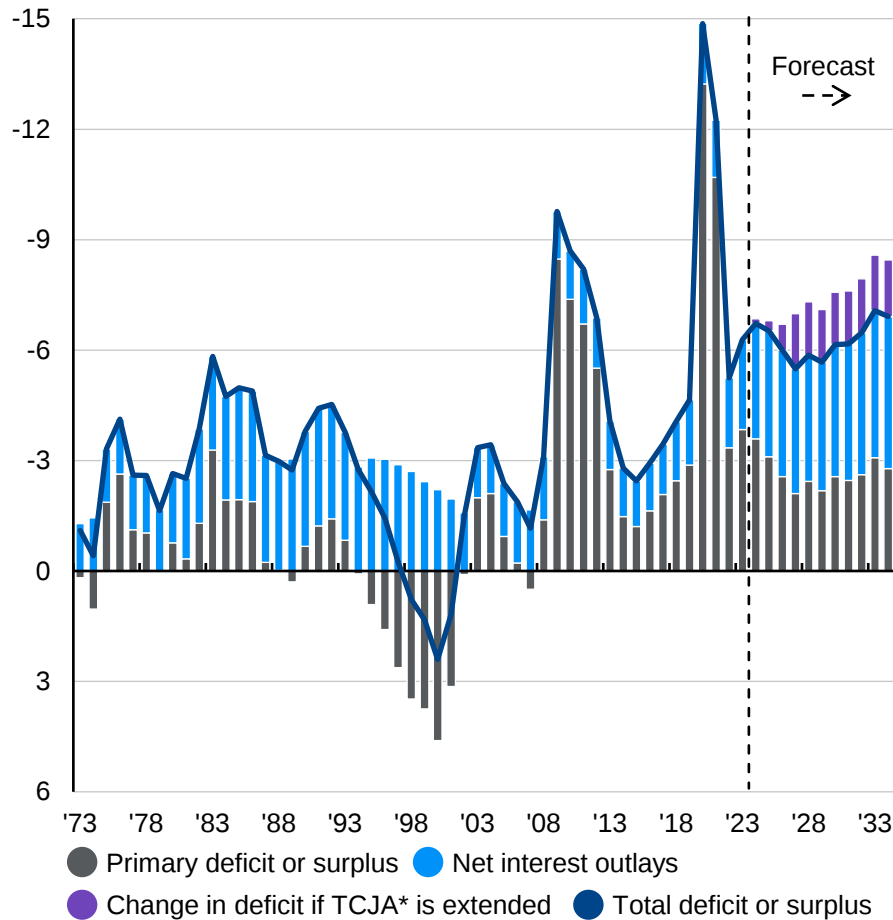


US fiscal policy

GTM Europe 21

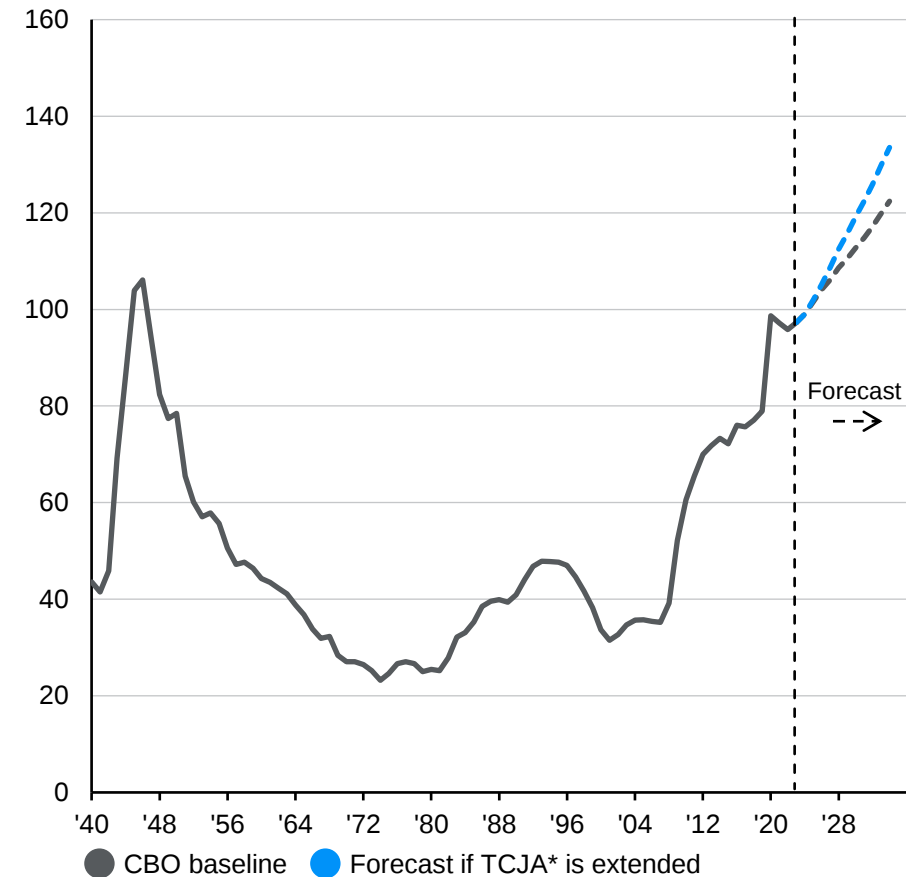
Composition of the US federal deficit

% of GDP



US federal debt

% of GDP



Source: (All charts) BEA, CBO, US Treasury, J.P. Morgan Asset Management. Forecasts are based on the Congressional Budget Office's (CBO's) latest budget and economic outlooks and internal J.P. Morgan Asset Management estimates. *TCJA refers to the Tax Cuts and Jobs Act of 2017, parts of which will expire on 31 December 2025 unless extended. Years shown are fiscal years. *Guide to the Markets - Europe*. Data as of 30 September 2024.

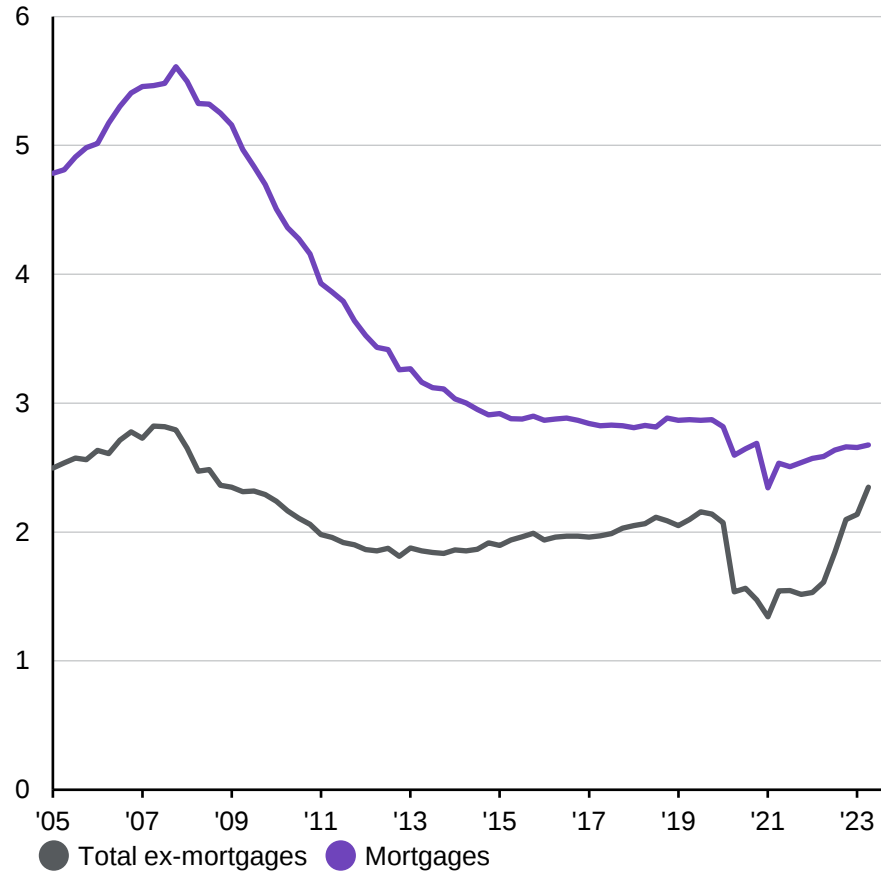


US interest rate sensitivity

GTM Europe 22

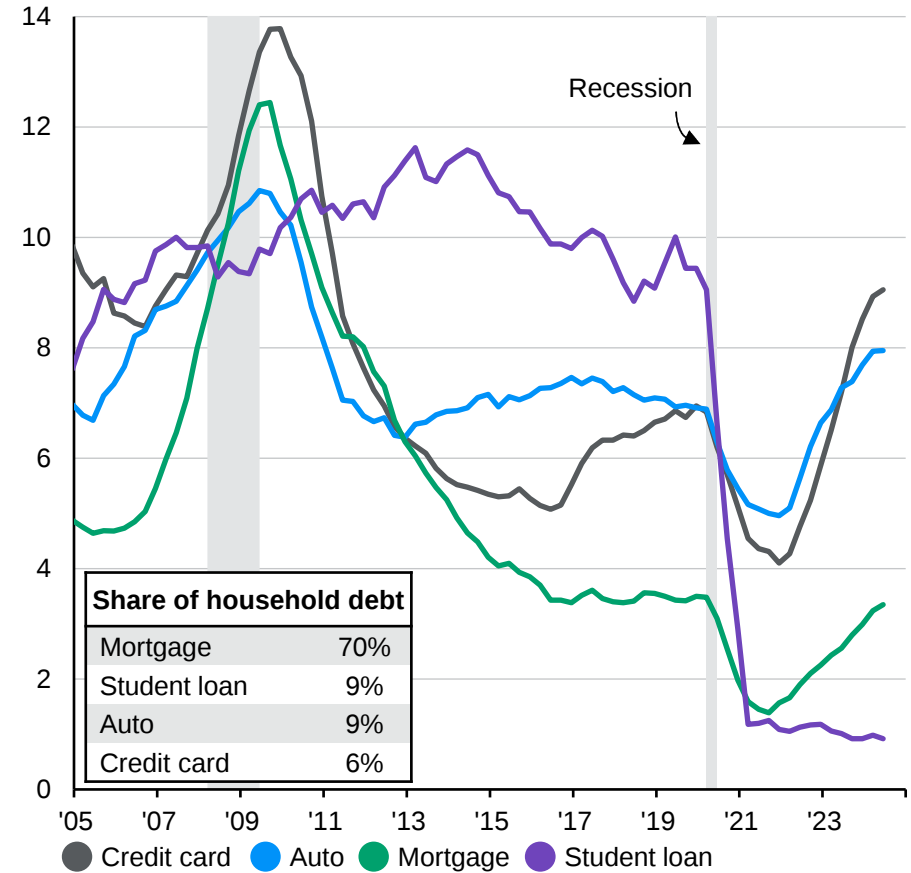
US personal interest payments

% of disposable income



US household debt in arrears

% of balance delinquent for 30+ days



Source: (Left) Federal Home Loan Mortgage Corporation, LSEG Datastream, Mortgage Bankers Association of America, J.P. Morgan Asset Management. (Right) Federal Reserve Bank of New York, LSEG Datastream, J.P. Morgan Asset Management. Percentages in table do not sum to 100 as they exclude home equity and other debt balances. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates.
Guide to the Markets - Europe. Data as of 30 September 2024.

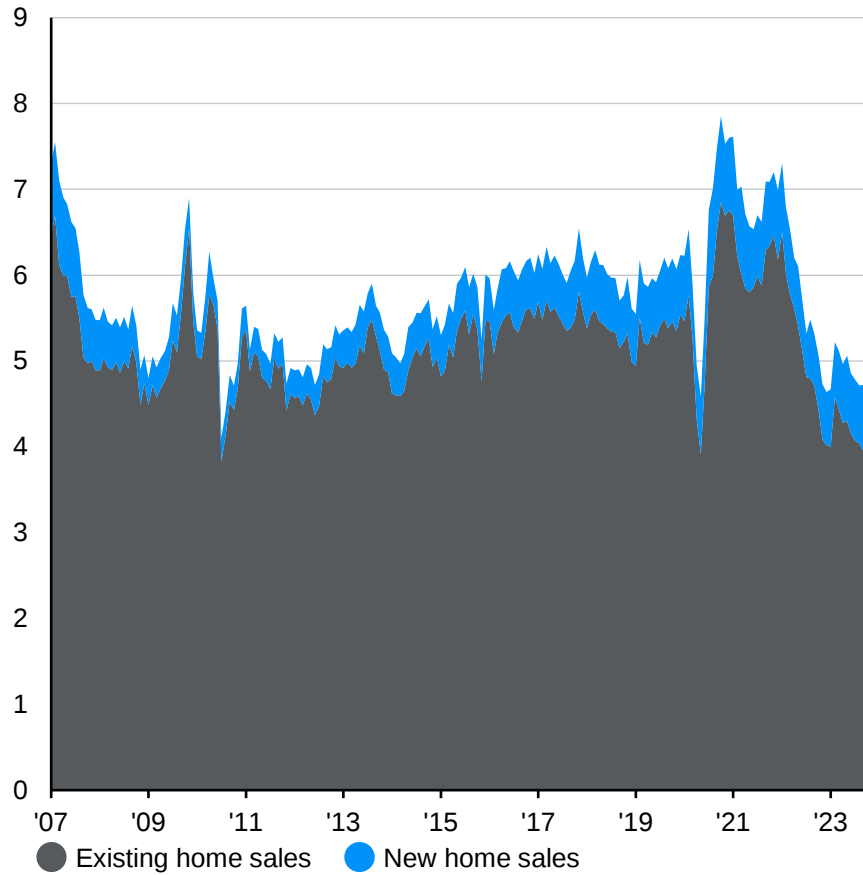


US housing activity and inventories

GTM Europe 23

US home sales

Millions, seasonally adjusted



US housing inventories

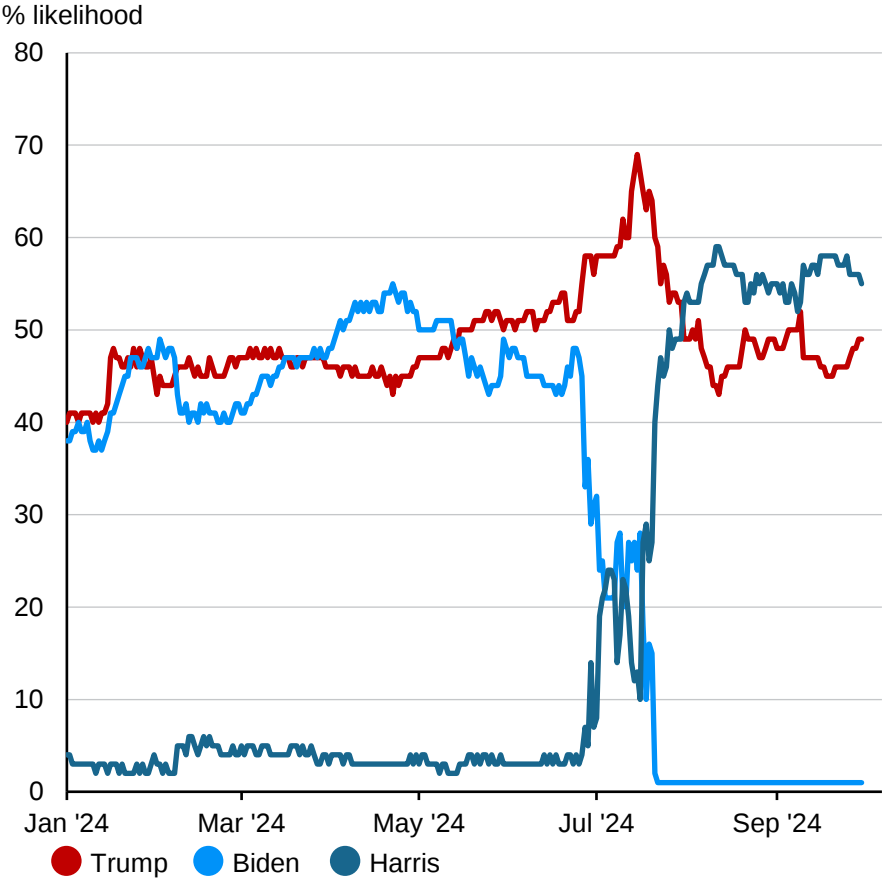
Millions, seasonally adjusted



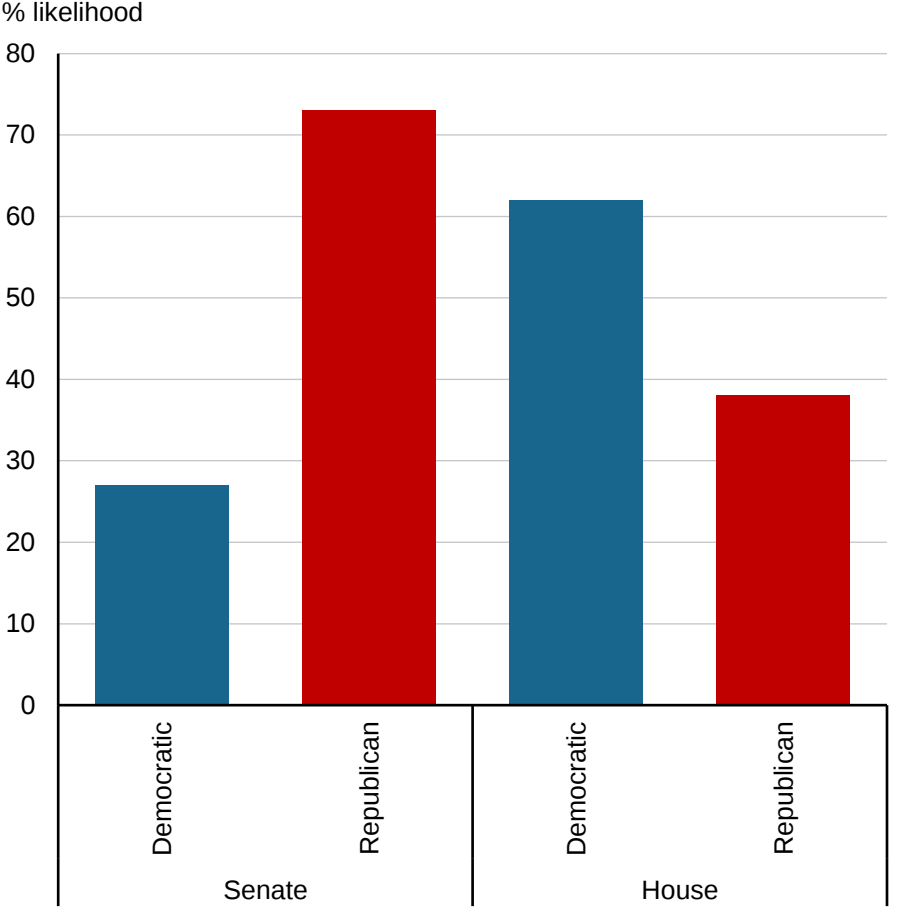


US politics

Market-implied probabilities for the 2024 presidential election winner



Market-implied probabilities for control of Congress



Source: (All charts) Bloomberg, PredictIt, J.P. Morgan Asset Management. President Biden withdrew from the race on 21 July 2024. Guide to the Markets - Europe. Data as of 30 September 2024.

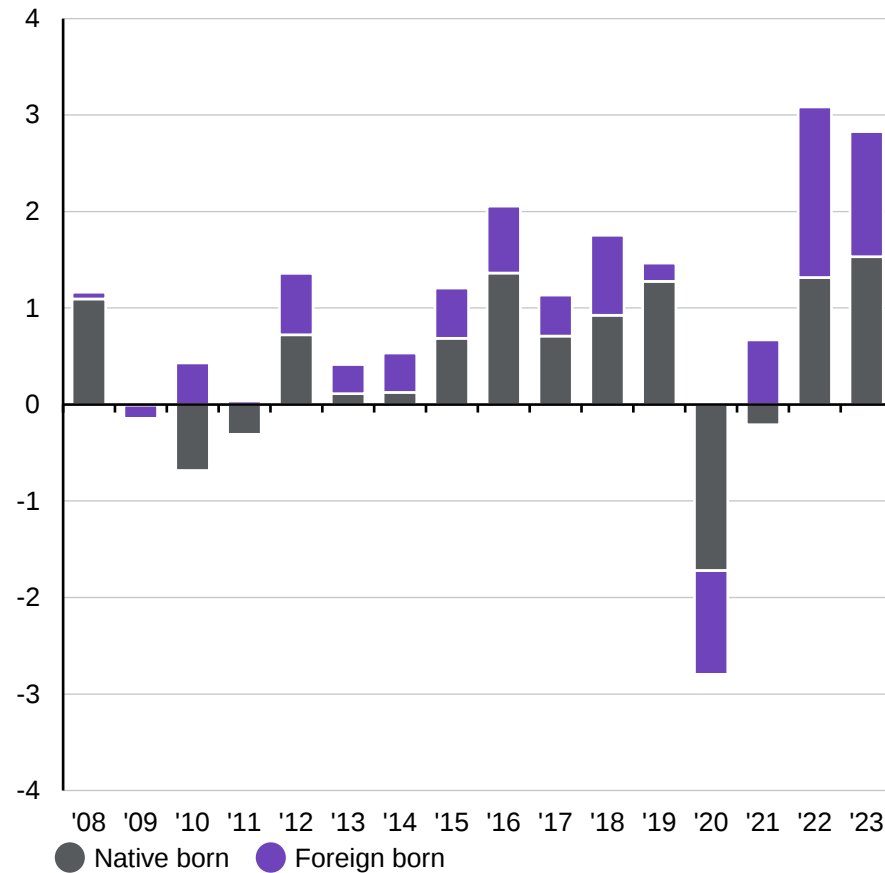


US focus: Labour market dynamics

GTM Europe 25

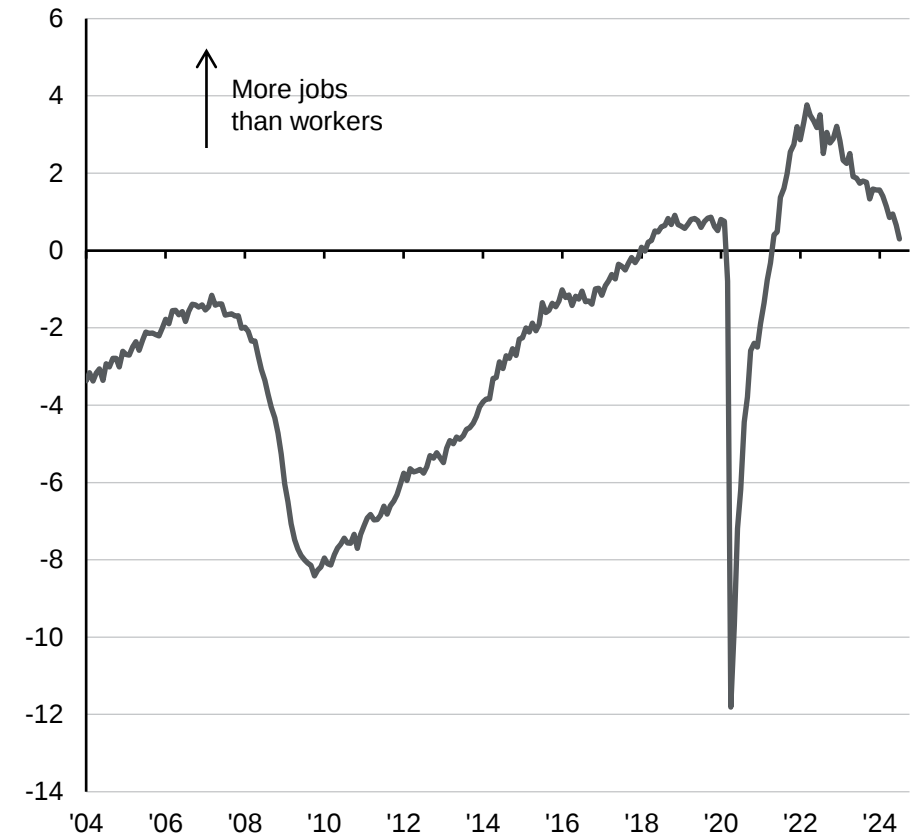
Labour force growth

Millions, change year on year



US labour supply and demand

% points, employment plus job openings relative to labour force



Source: (Left) BLS, LSEG Datastream, J.P. Morgan Asset Management. (Right) BLS, LSEG Datastream, J.P. Morgan Asset Management. A level of zero suggests that there is a job opening for every unemployed person seeking a job, a number above zero suggests there are more available jobs than available workers. *Guide to the Markets - Europe*. Data as of 30 September 2024.

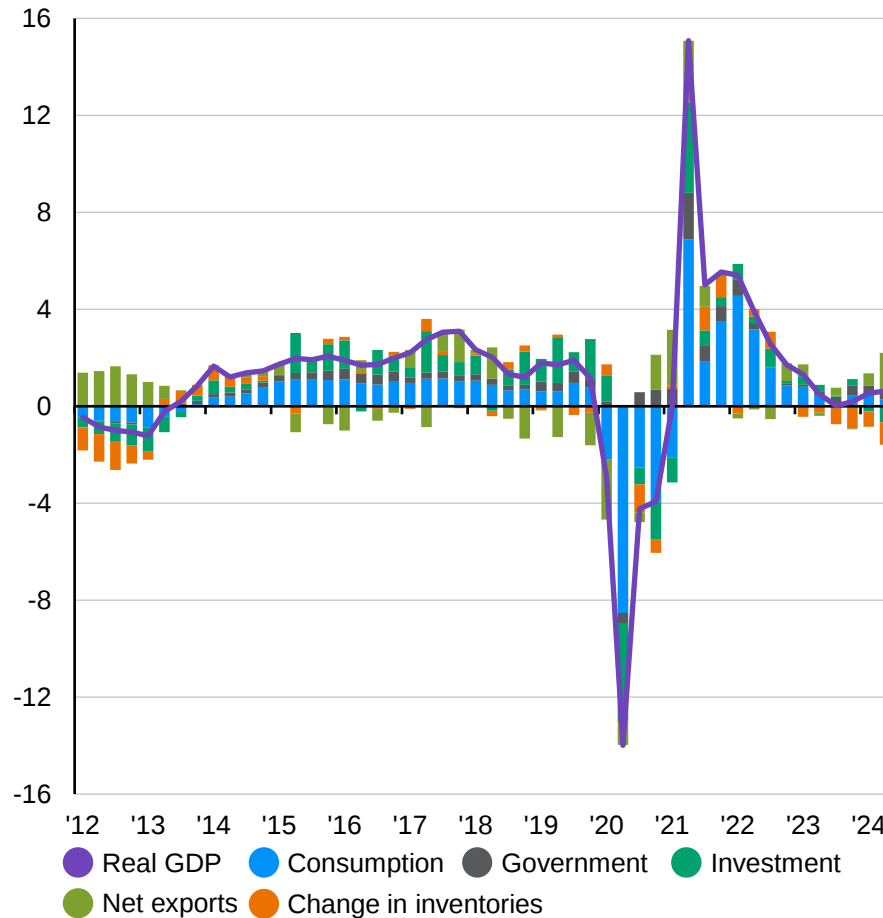


Eurozone GDP and business surveys

GTM Europe 26

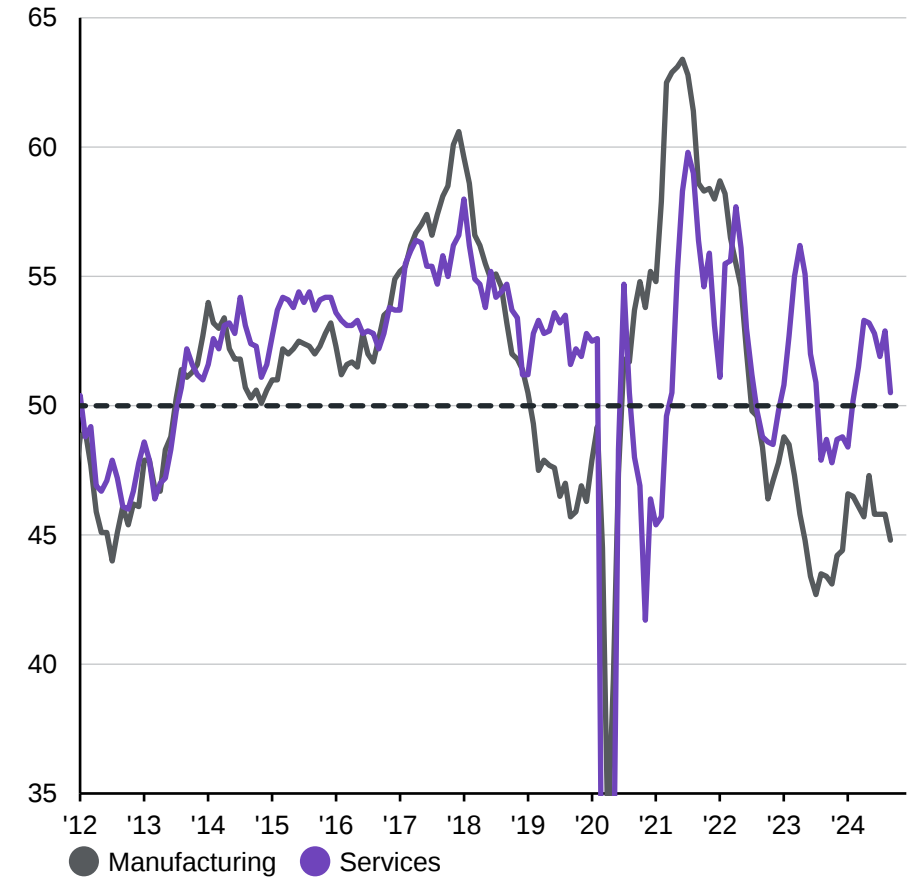
Contribution to eurozone real GDP growth

% change year on year



Eurozone Purchasing Managers' Indices (PMI)

Index level



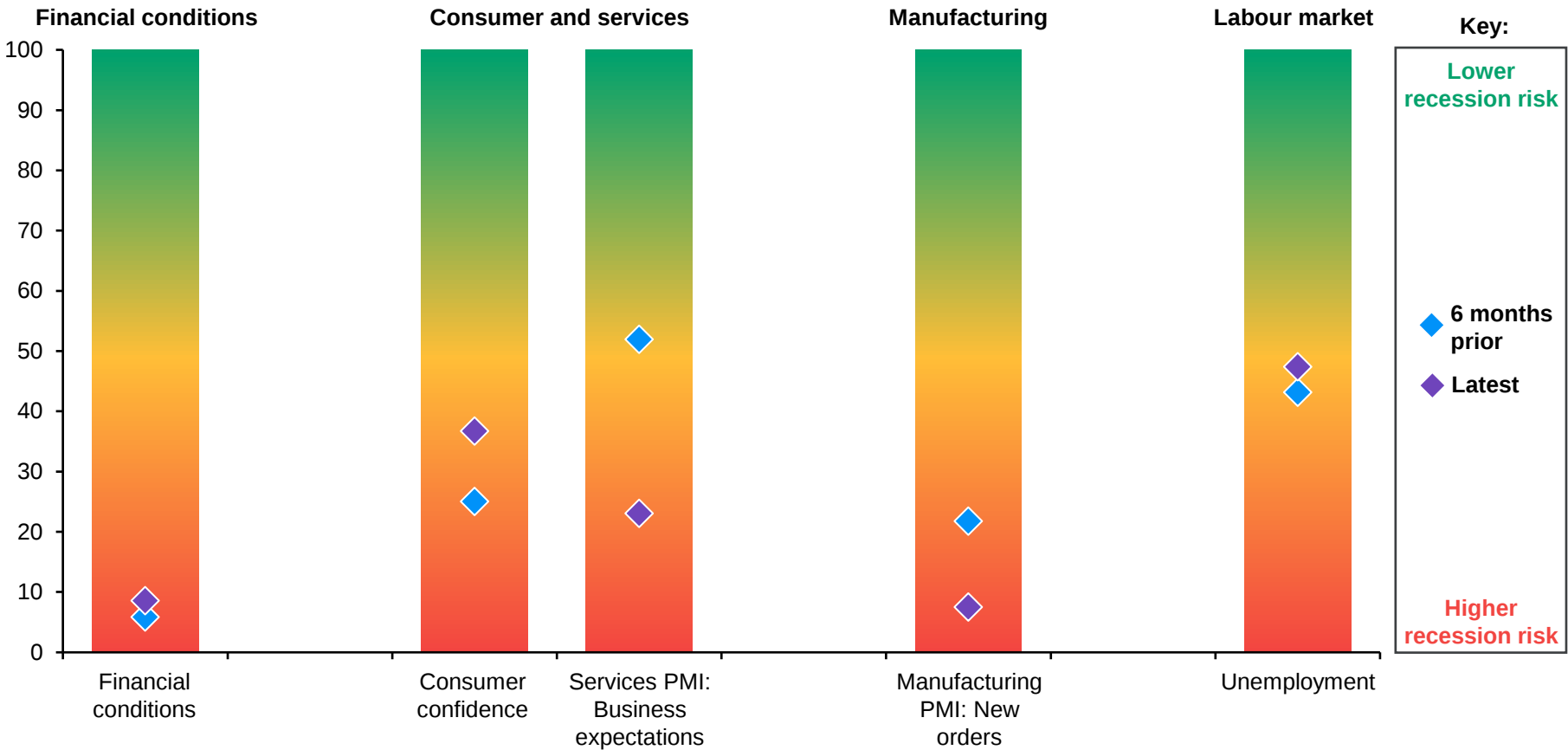
Source: (Left) Eurostat, LSEG Datastream, J.P. Morgan Asset Management. (Right) Bloomberg, S&P Global, J.P. Morgan Asset Management. A PMI score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Eurozone Economic Monitor

Eurozone economic indicators

Percentile rank relative to historic data since 1999



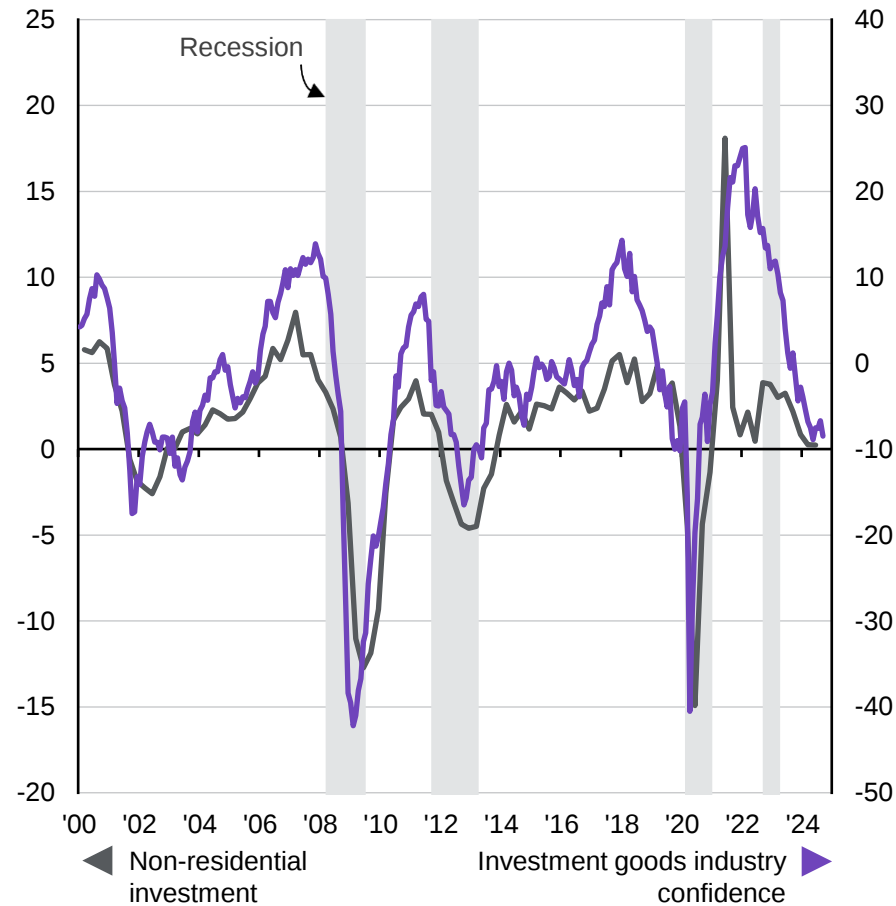


Eurozone business investment and credit conditions

GTM Europe 28

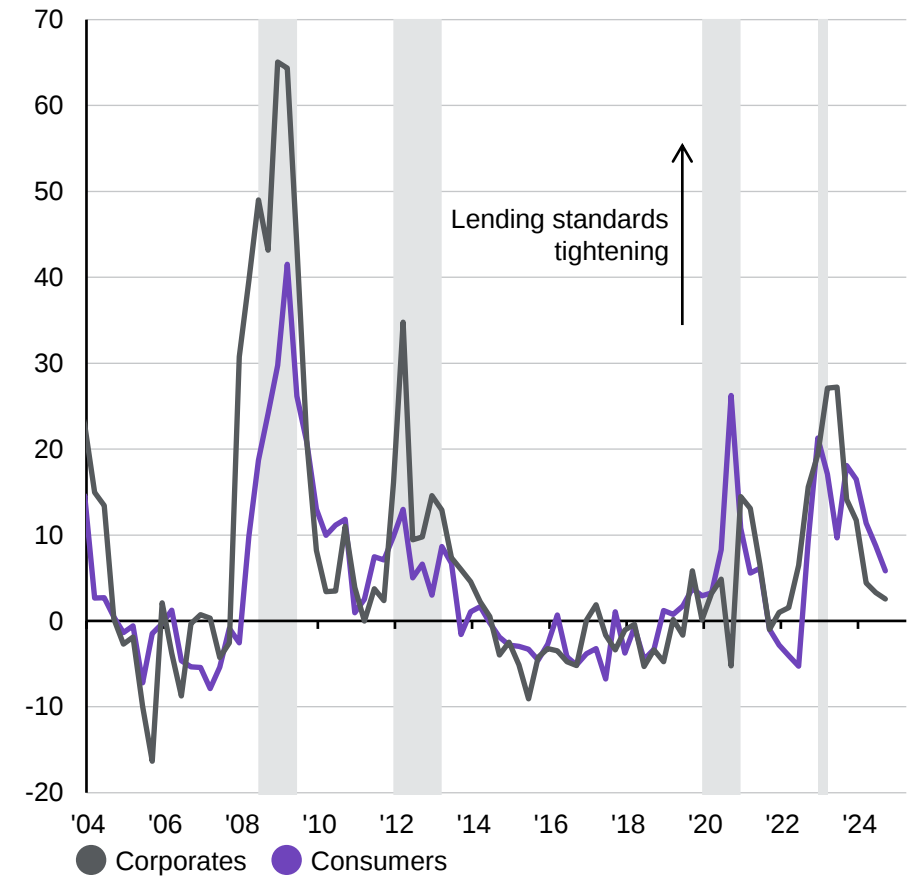
Eurozone real investment and investment confidence

% change year on year (LHS); index level (RHS)



Eurozone credit conditions

% of banks tightening credit standards



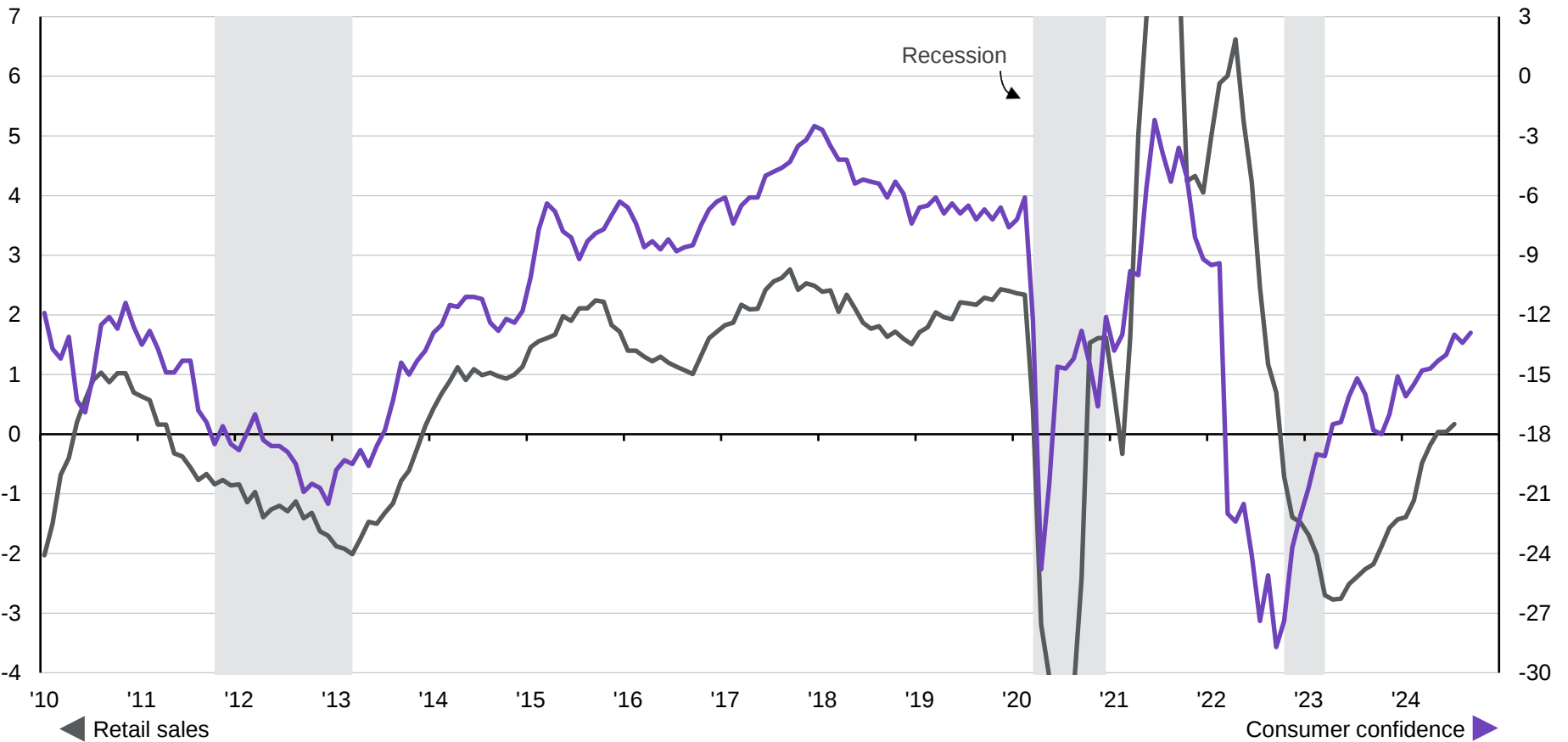
Source: (Left) Eurostat, LSEG Datastream, J.P. Morgan Asset Management. Non-residential investment is in real terms and includes both public and private investment. (Right) European Central Bank, LSEG Datastream, J.P. Morgan Asset Management. Data is from the Euro Area Bank Lending Survey. Guide to the Markets - Europe. Data as of 30 September 2024.



Eurozone consumer

Eurozone retail sales and consumer confidence

% change year on year, six-month moving average (LHS); index level (RHS)



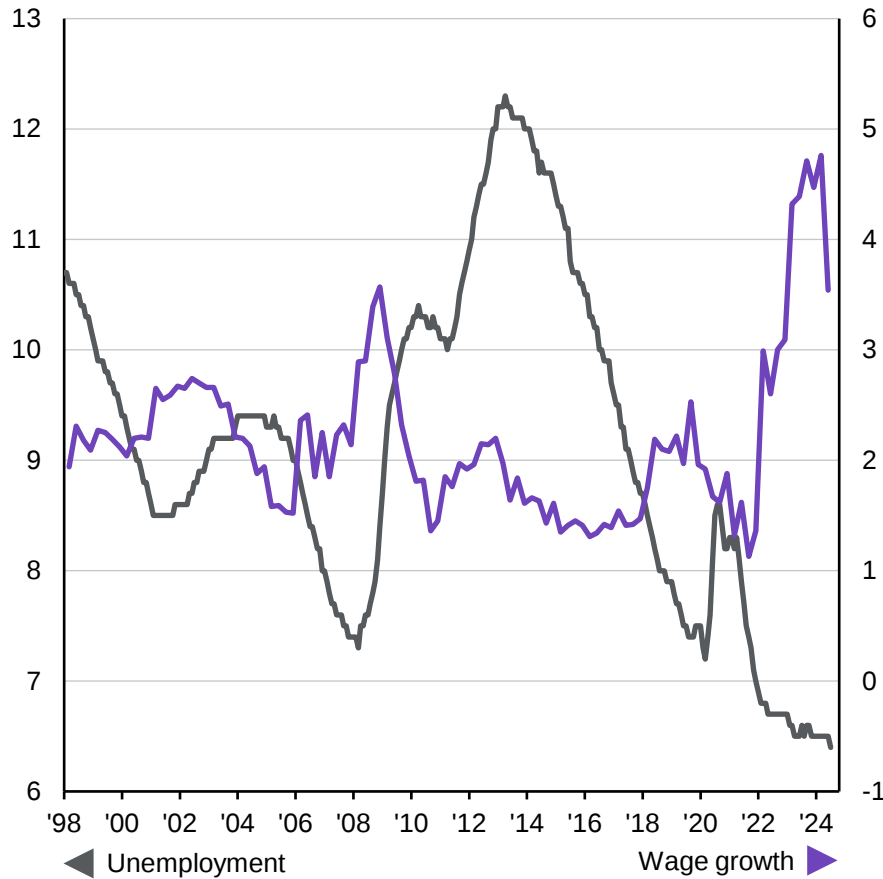


Eurozone labour market

GTM Europe 30

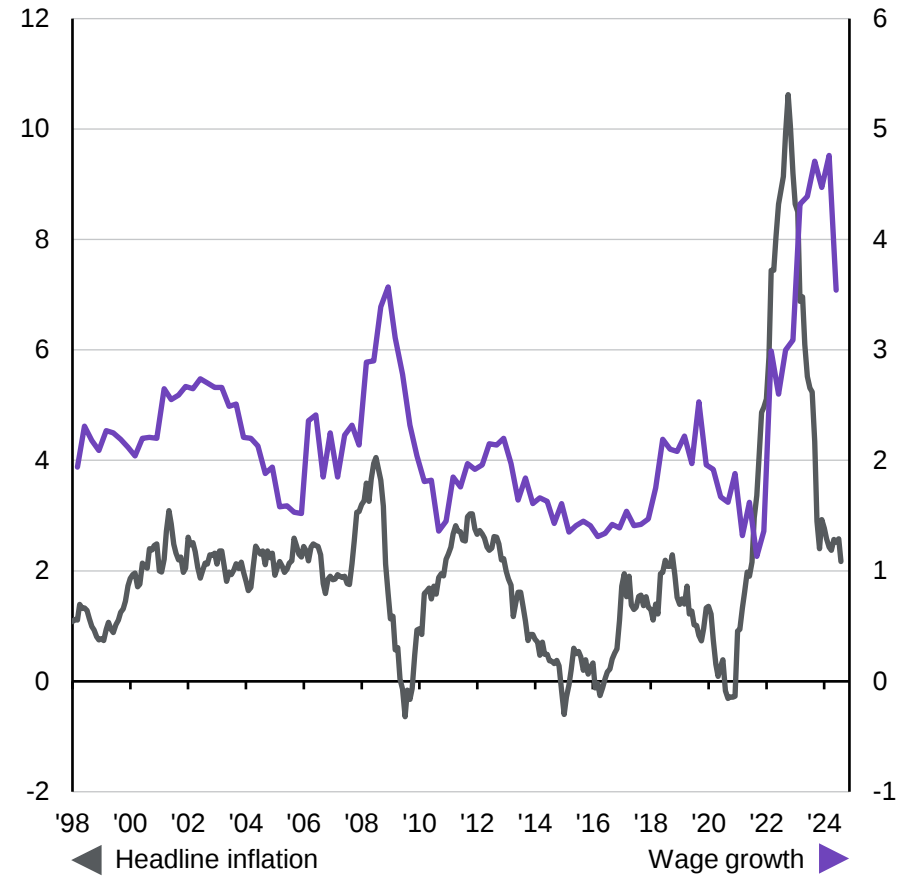
Eurozone unemployment and wage growth

%, wage growth is year on year



Eurozone headline inflation and wage growth

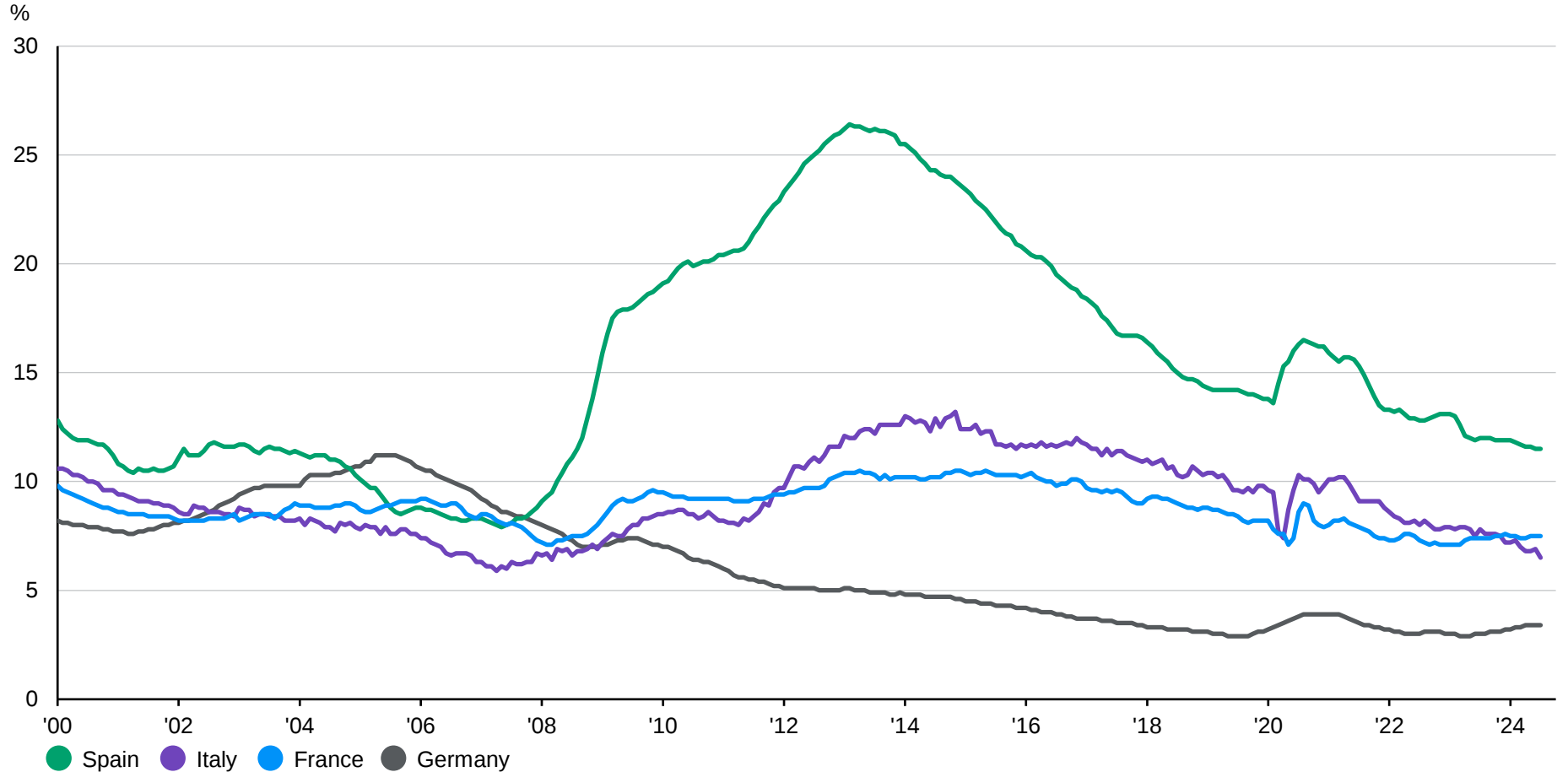
% change year on year





Eurozone unemployment

France, Germany, Italy and Spain unemployment rates

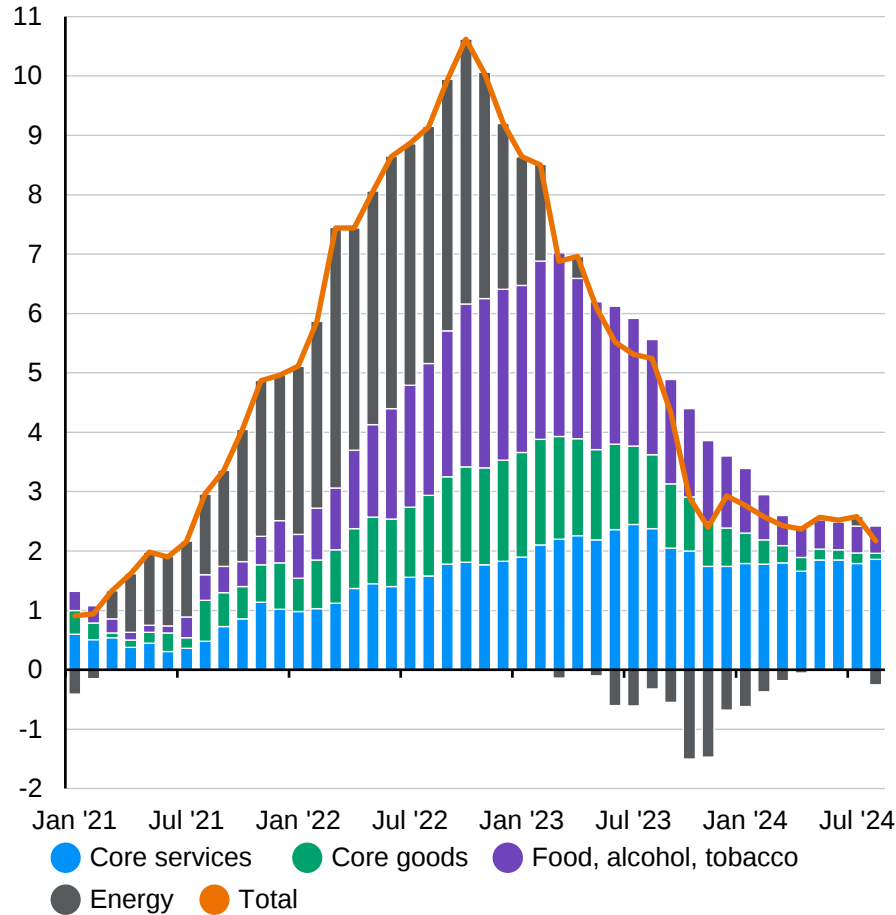




Eurozone inflation

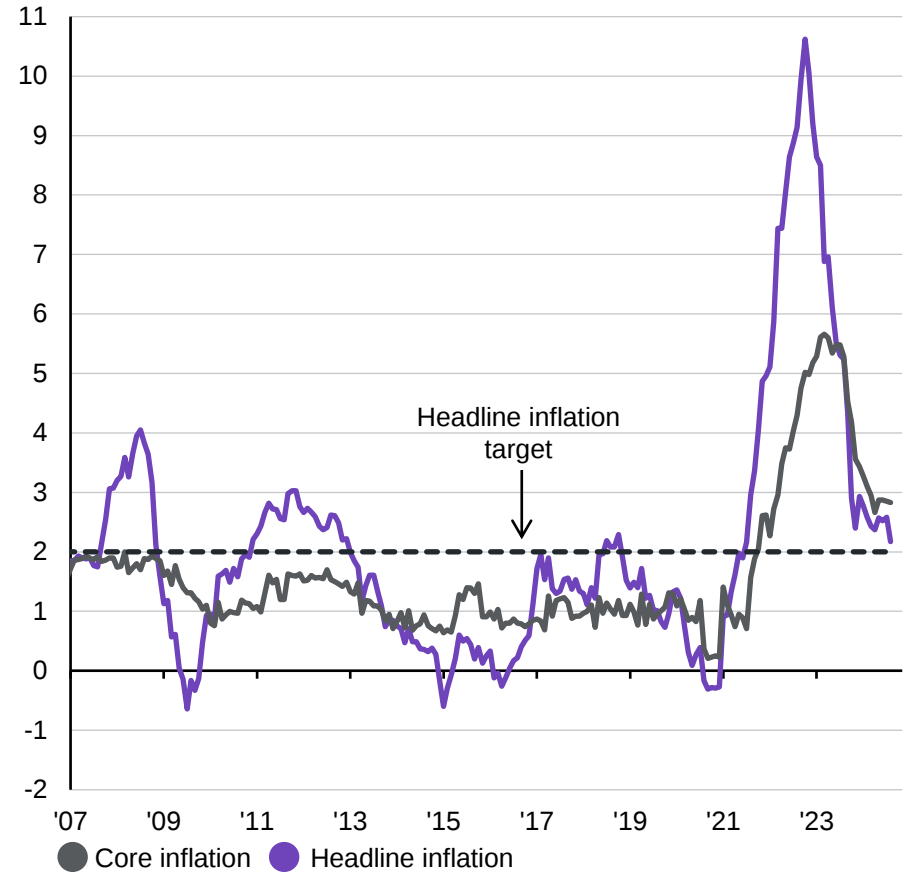
Eurozone headline inflation breakdown

% change year on year



Eurozone headline and core inflation

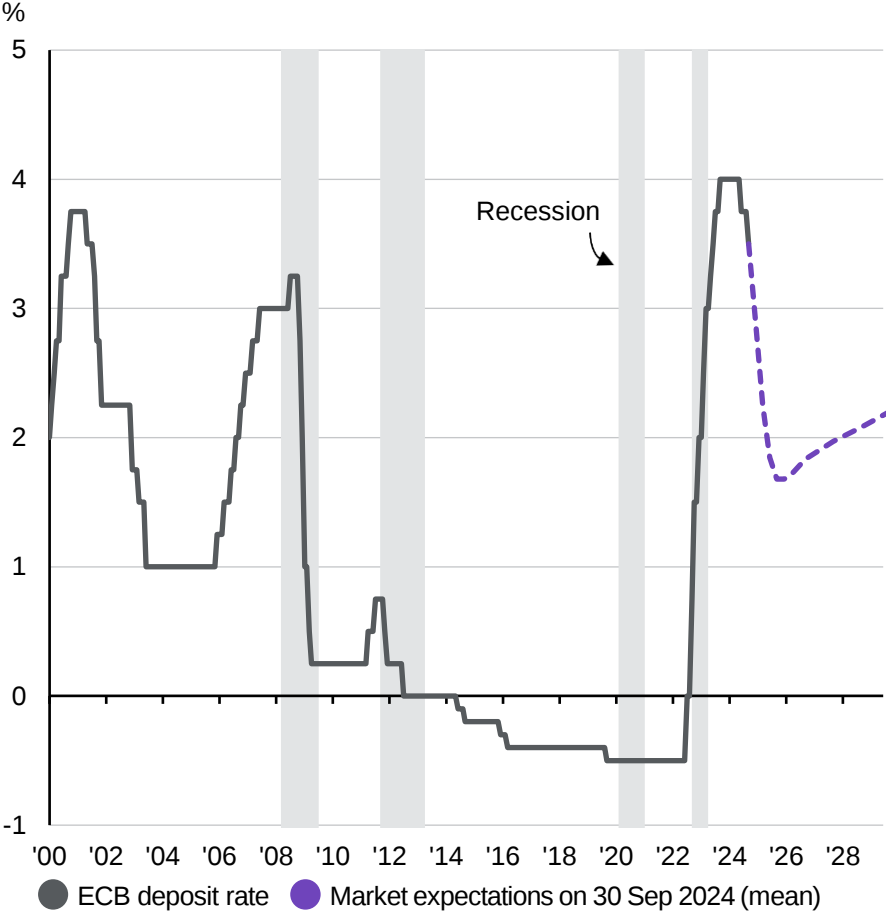
% change year on year





European Central Bank policy

European Central Bank policy rate expectations



Eurozone financial conditions

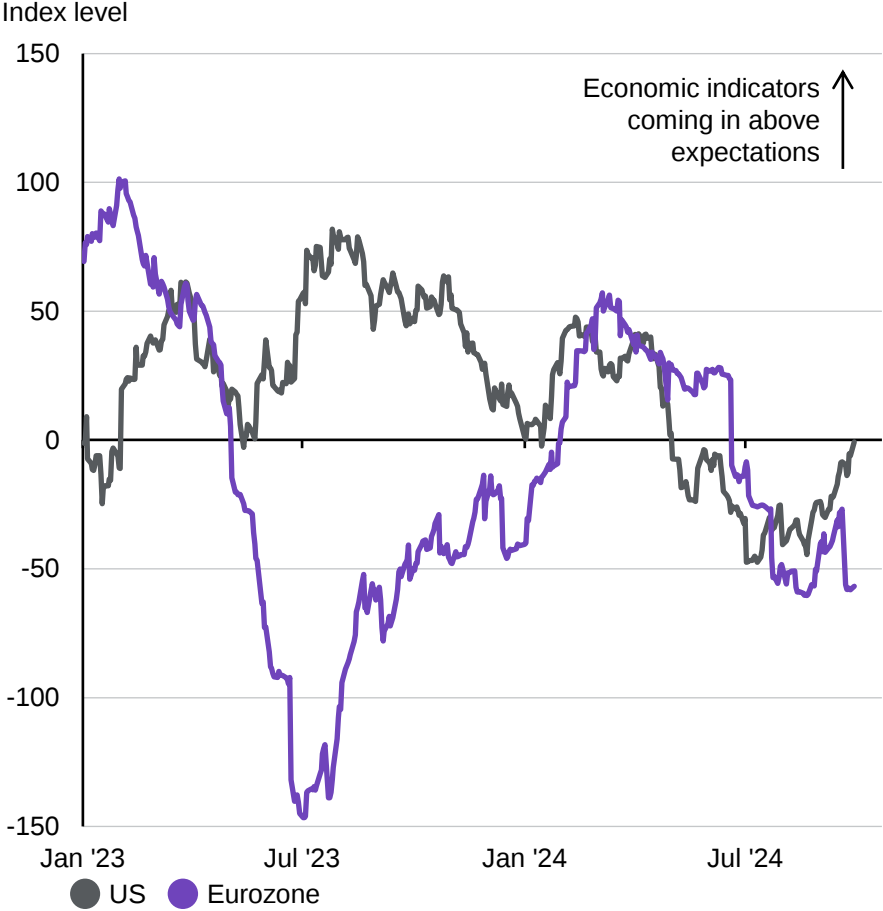


Source: (Left) Bloomberg, European Central Bank, J.P. Morgan Asset Management. Market expectations are calculated using OIS forwards. (Right) Bloomberg, Goldman Sachs, J.P. Morgan Asset Management. The financial conditions index is a measure of how easily money and credit flow through the economy. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

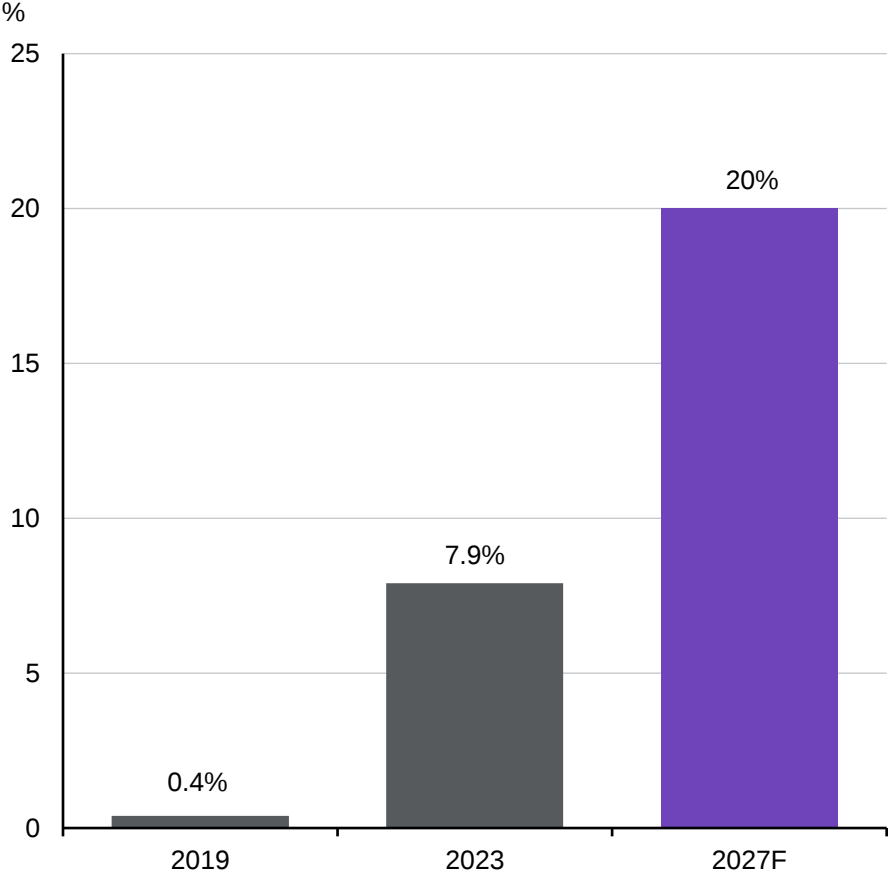


Eurozone focus: Economic surprises and autos

Citigroup economic surprise indices



Chinese brands' market share of EU electric vehicle sales



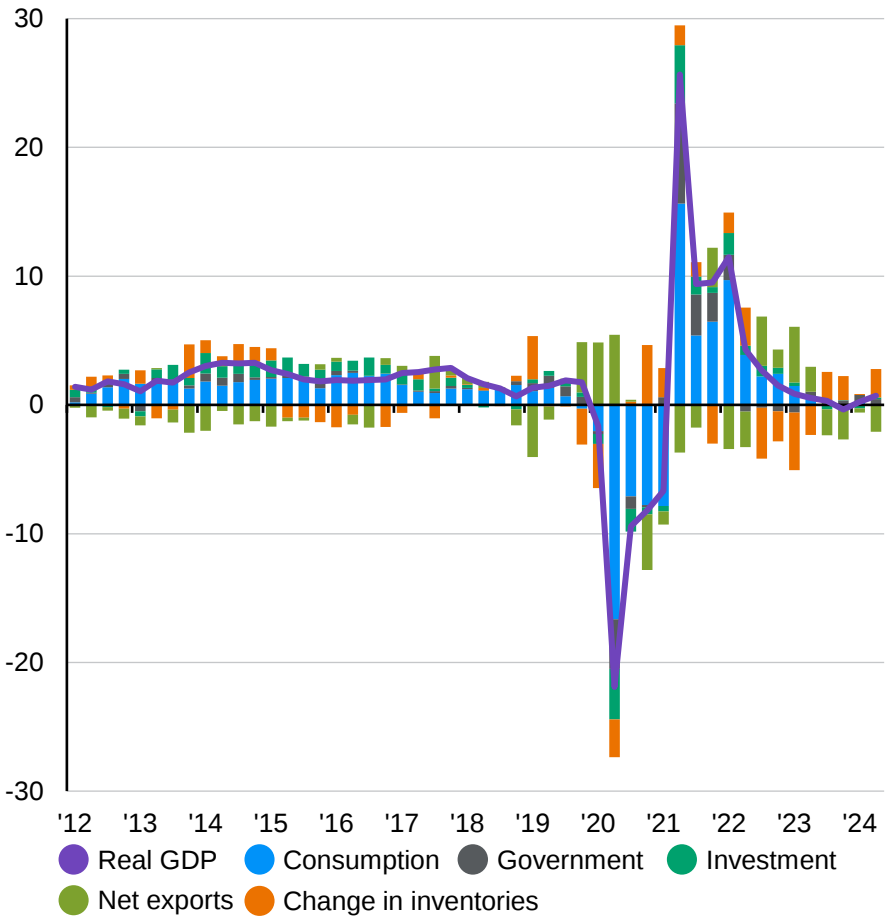
Source: (Left) Bloomberg, Citi, J.P. Morgan Asset Management. (Right) Transport and Environment, J.P. Morgan Asset Management. The market share covers Chinese-owned brands selling into Europe, but does not include vehicles manufactured in China by European companies. *Guide to the Markets - Europe*. Data as of 30 September 2024.



UK GDP and business surveys

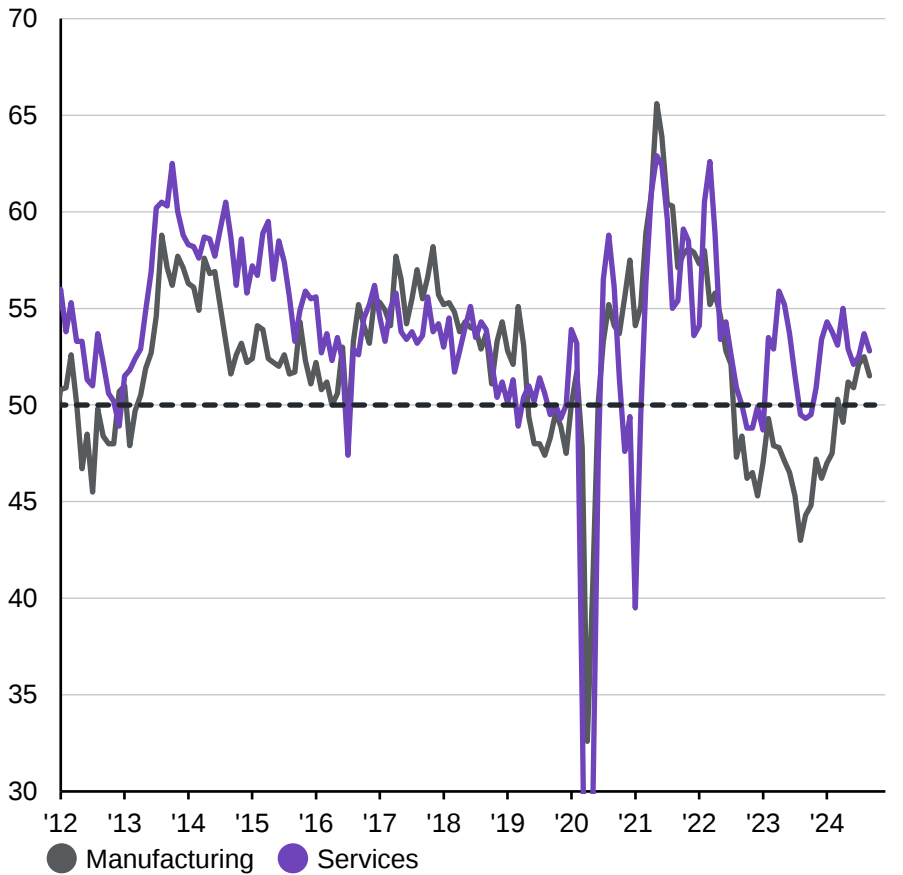
Contribution to UK real GDP growth

% change year on year



UK Purchasing Managers' Indices (PMI)

Index level



Source: (Left) LSEG Datastream, ONS, J.P. Morgan Asset Management. (Right) Bloomberg, S&P Global, J.P. Morgan Asset Management. A PMI score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. *Guide to the Markets - Europe*. Data as of 30 September 2024.

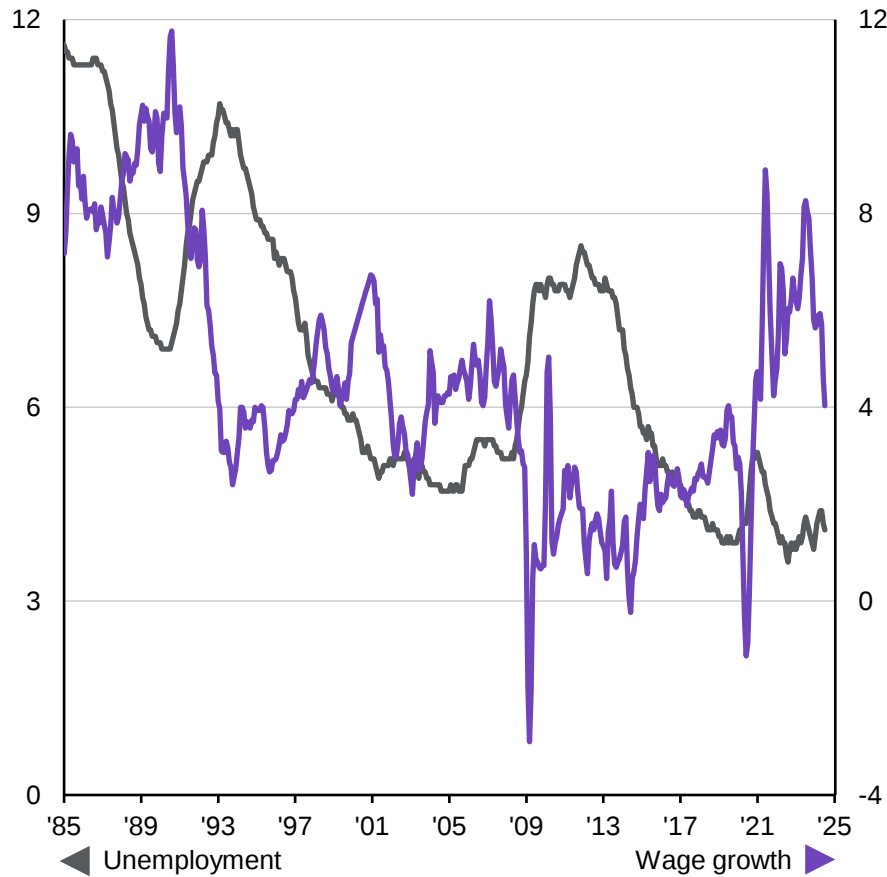


UK labour market

GTM Europe 36

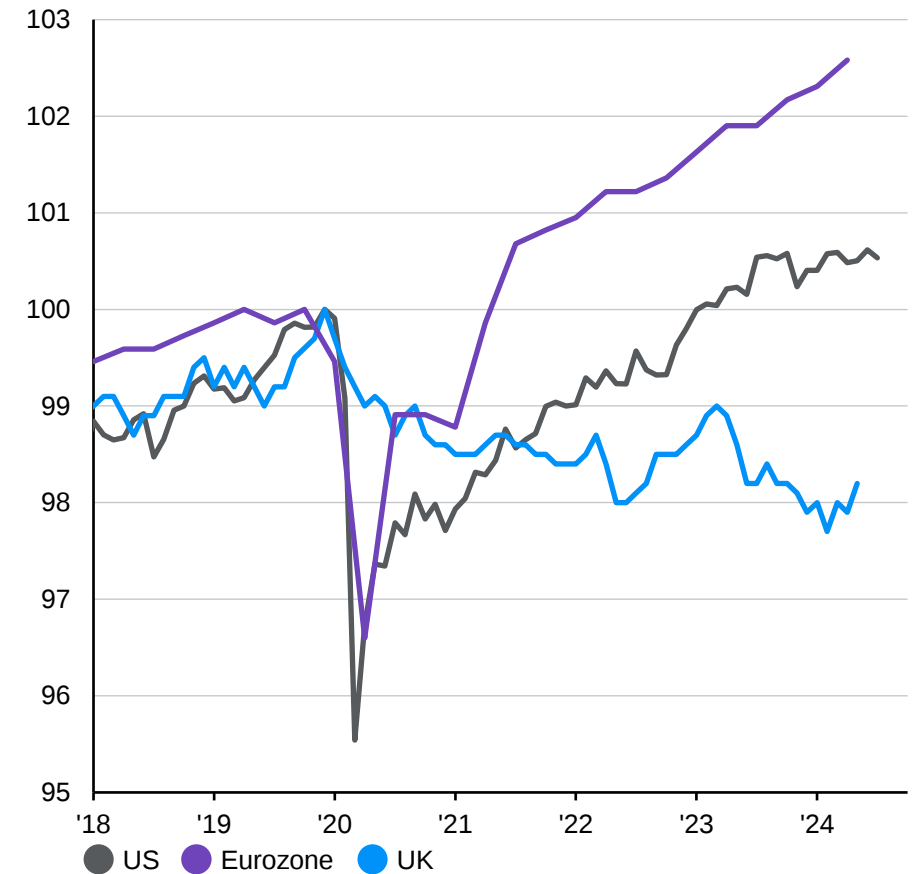
UK unemployment rate and wage growth

%, wage growth is year on year



Labour force participation rates

Index level, rebased to 100 at pre-pandemic peak



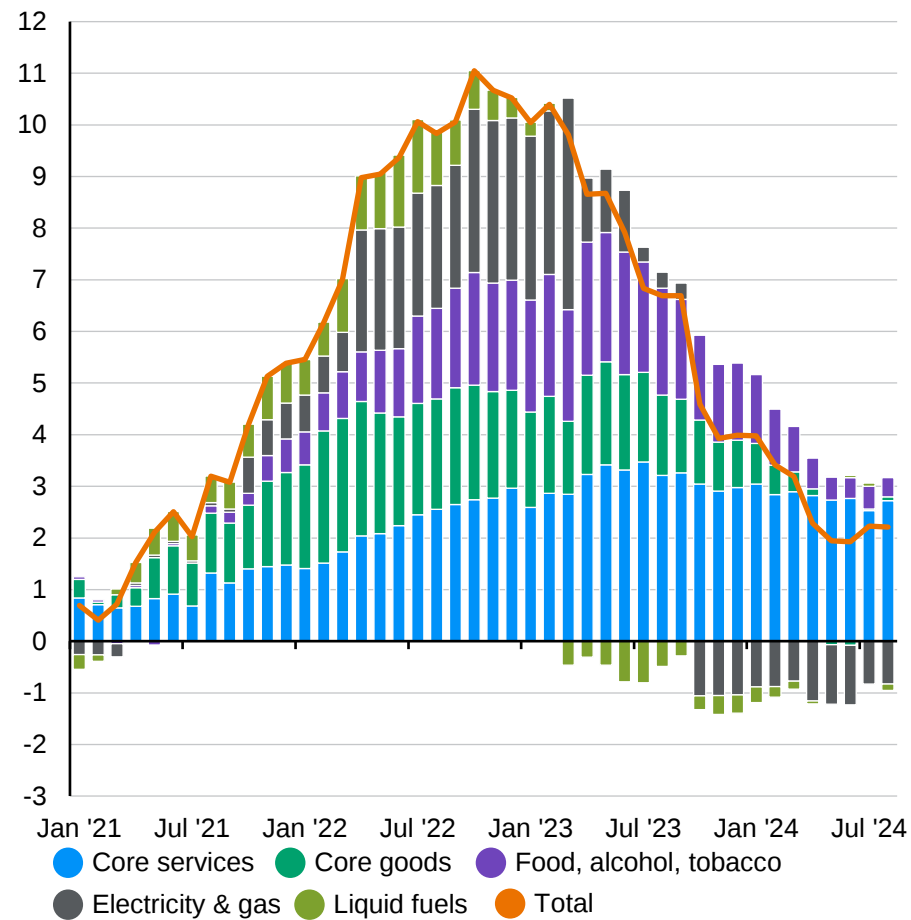
Source: (Left) LSEG Datastream, ONS, J.P. Morgan Asset Management. Wage growth is a three-month moving average of average weekly earnings for the whole economy, including bonuses and arrears. (Right) Eurostat, LSEG Datastream, OECD, ONS, J.P. Morgan Asset Management. Participation rates are for people between the ages of 16-64 for the US and UK, and 15-64 for the eurozone. *Guide to the Markets - Europe*. Data as of 30 September 2024.



UK inflation

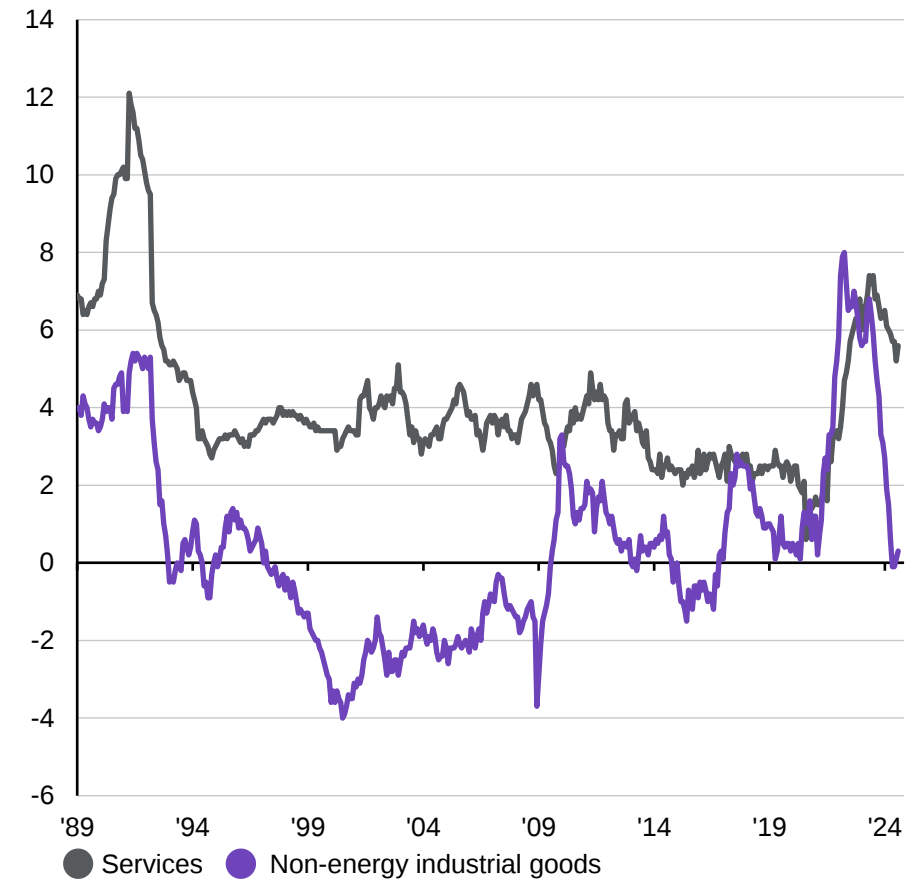
UK headline inflation breakdown

% change year on year



UK goods and services inflation

% change year on year



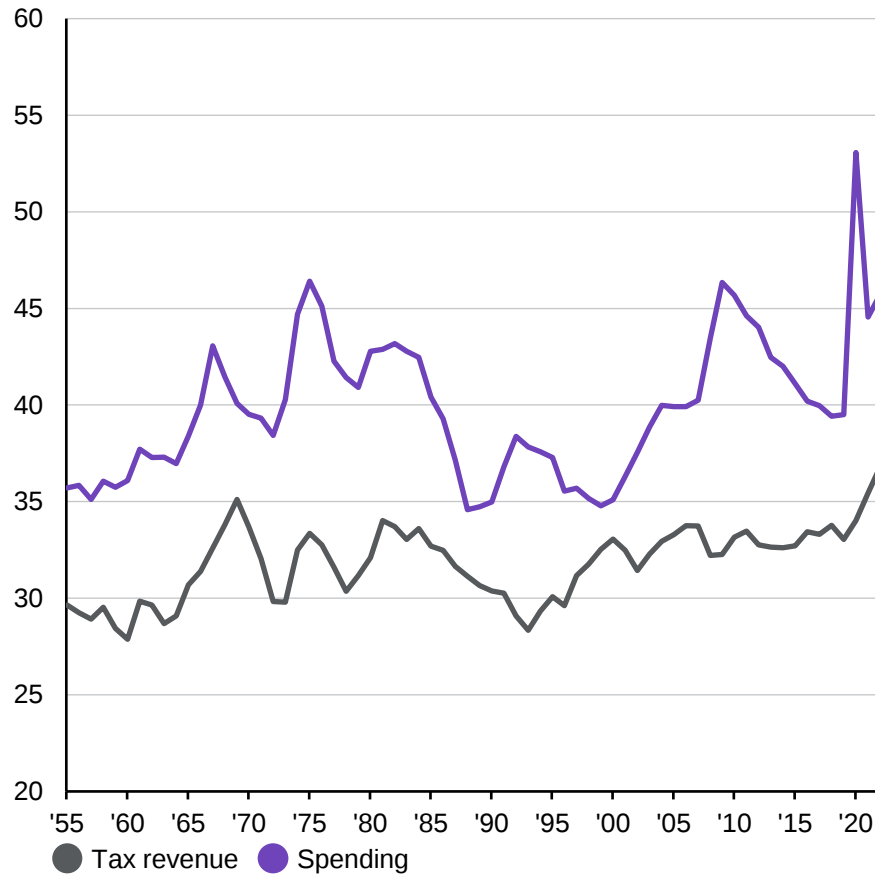


UK focus: Fiscal challenges

GTM Europe 38

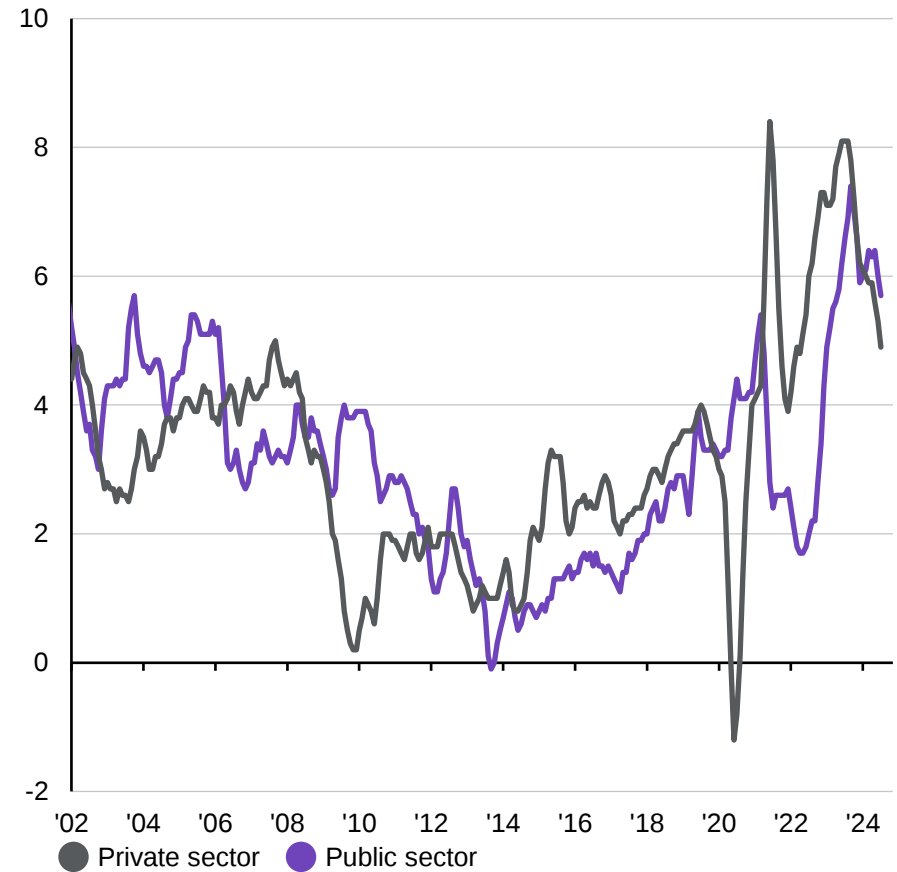
UK tax revenue and spending

% of GDP



UK wage growth

% change year on year, three-month moving average



Source: (Left) IFS, J.P. Morgan Asset Management. Spending is Total Managed Expenditure. (Right) LSEG Datastream, ONS, J.P. Morgan Asset Management. Wage growth is a three-month moving average of average weekly earnings, excluding bonuses and arrears. *Guide to the Markets - Europe*. Data as of 30 September 2024.

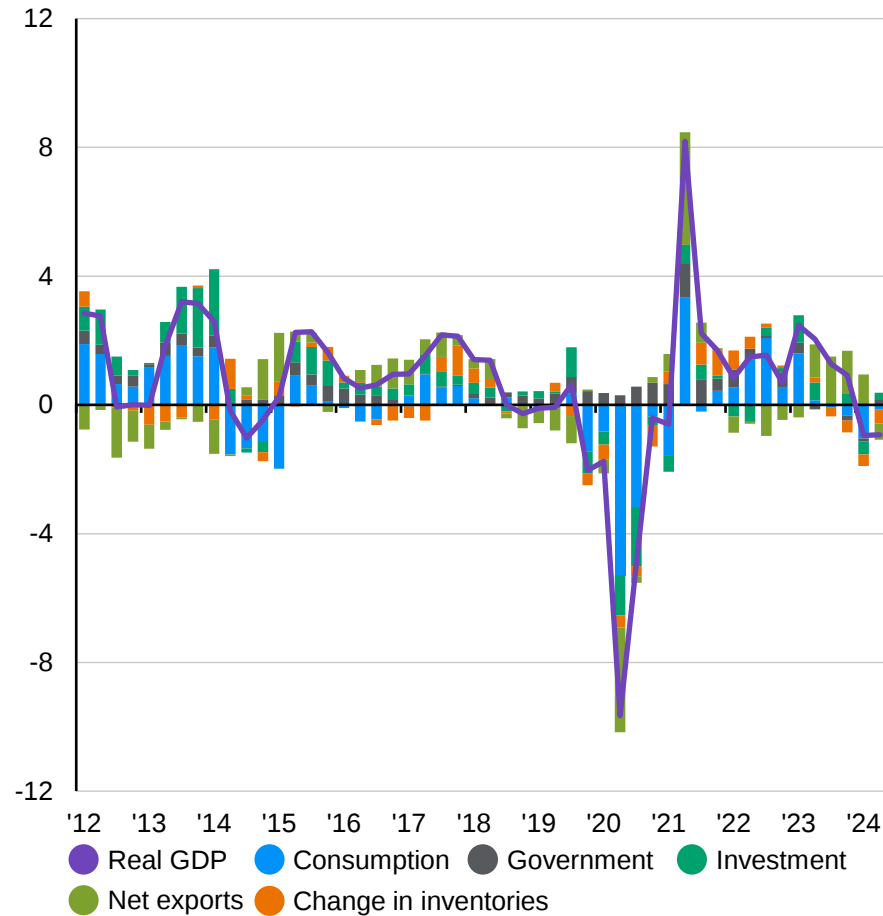


Japan GDP, inflation and wages

GTM Europe 39

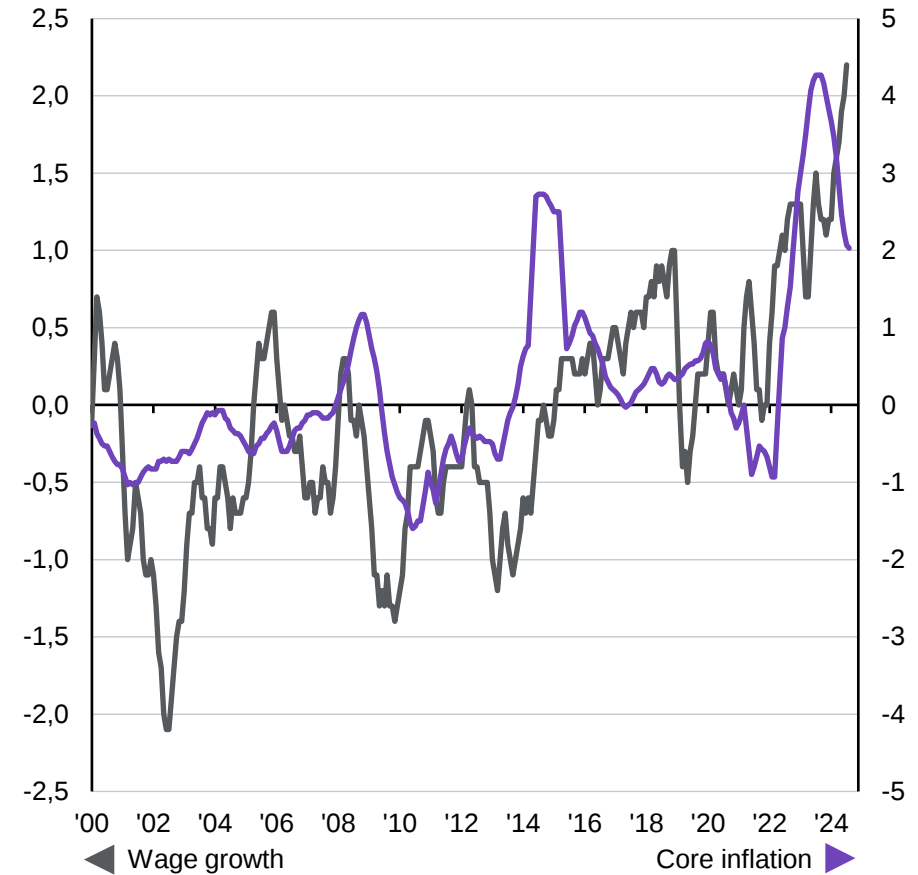
Contribution to Japan real GDP growth

% change year on year



Japan wages and core inflation

% change year on year, three-month moving average



Source: (Left) Japan Cabinet Office, LSEG Datastream, J.P. Morgan Asset Management. (Right) BoJ, Japan Ministry of Health, Labour and Welfare, LSEG Datastream, J.P. Morgan Asset Management. Core inflation is defined as excluding fresh food and energy, as preferred by the BoJ. Wage growth is an average of scheduled payments across all industries. *Guide to the Markets - Europe*. Data as of 30 September 2024.

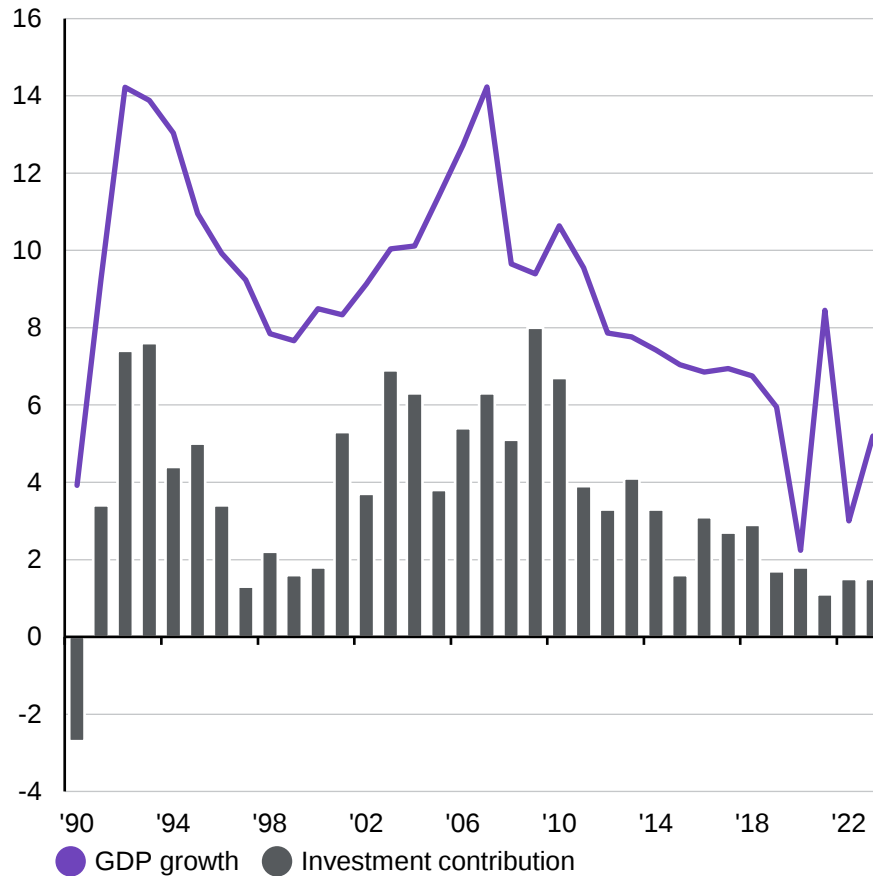


China growth drivers

GTM Europe 40

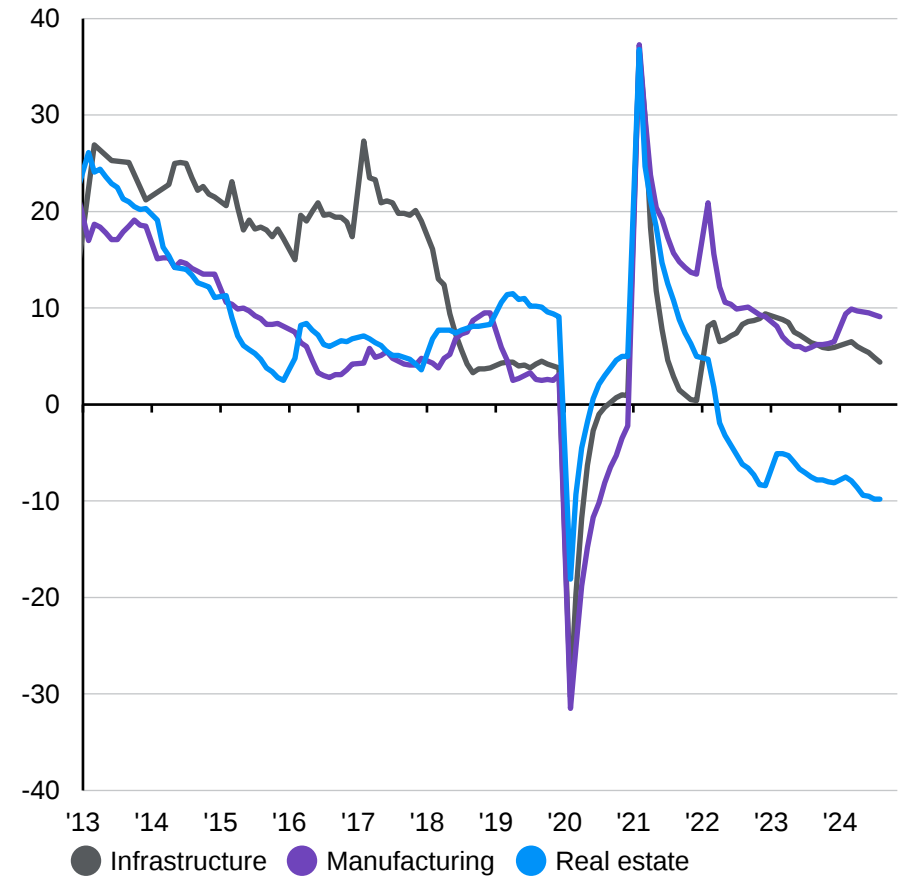
Contribution to China real GDP growth

% change year on year



China fixed asset investment by sector

% change year on year



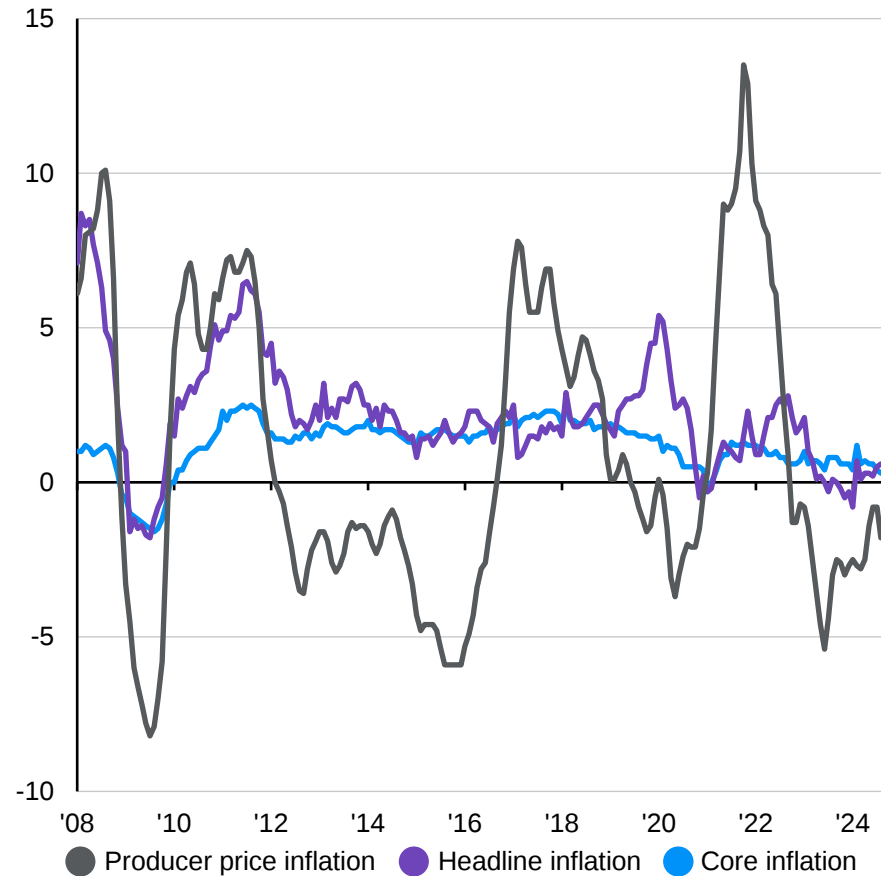


China inflation and credit dynamics

GTM | Europe | 41

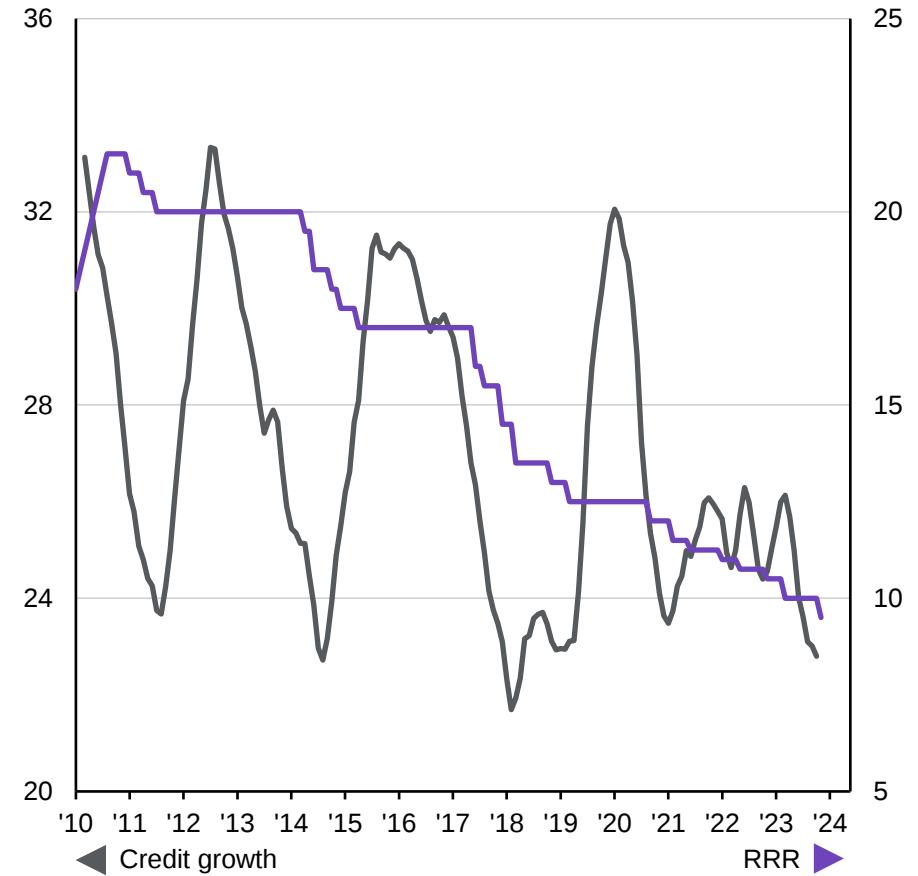
China inflation

% change year on year



China credit growth and Reserve Requirement Ratio (RRR)

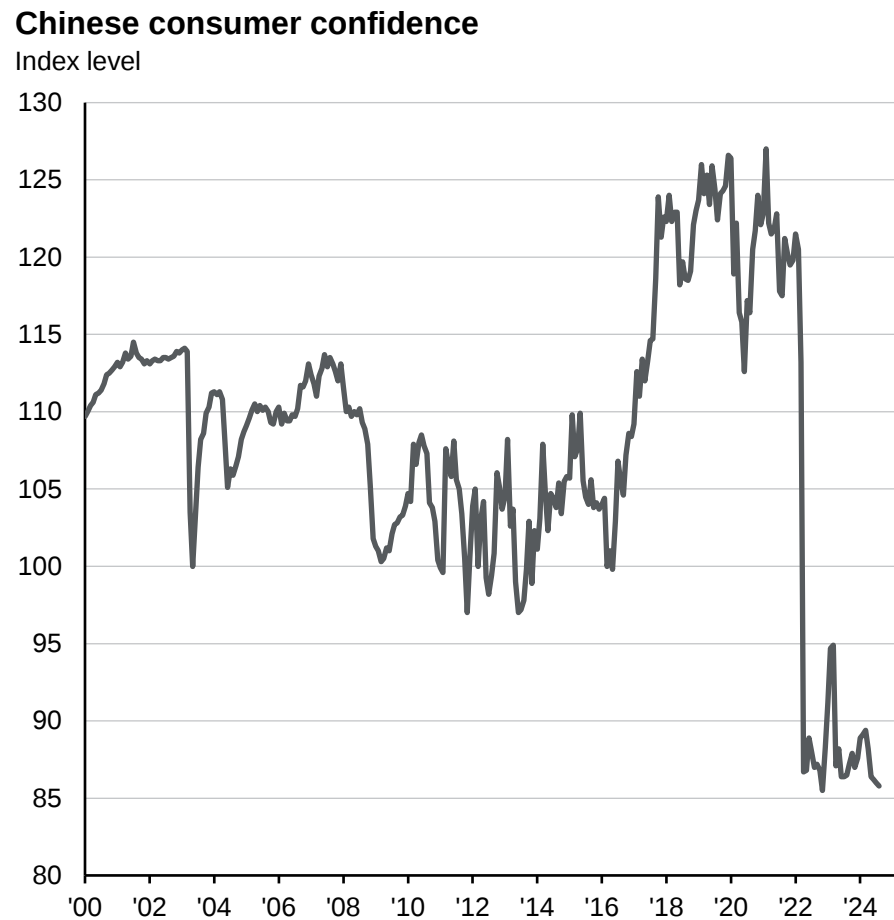
% of nominal GDP (LHS); % (RHS)



Source: (Left) Bloomberg, LSEG Datastream, J.P. Morgan Asset Management. Core inflation excludes food and energy. (Right) Bloomberg, People's Bank of China, J.P. Morgan Asset Management. Credit growth is the 12-month change in the credit stock to the real economy as a percent of nominal GDP. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



China consumer



Source: (Left) LSEG Datastream, National Bureau of Statistics of China, J.P. Morgan Asset Management. (Right) CEIC, Goldman Sachs Investment Research, LSEG Datastream, National Bureau of Statistics of China, NIFD, Wind, J.P. Morgan Asset Management. The index shows the change year on year in new house prices in 70 medium and large Chinese cities. *Guide to the Markets - Europe*. Data as of 30 September 2024.

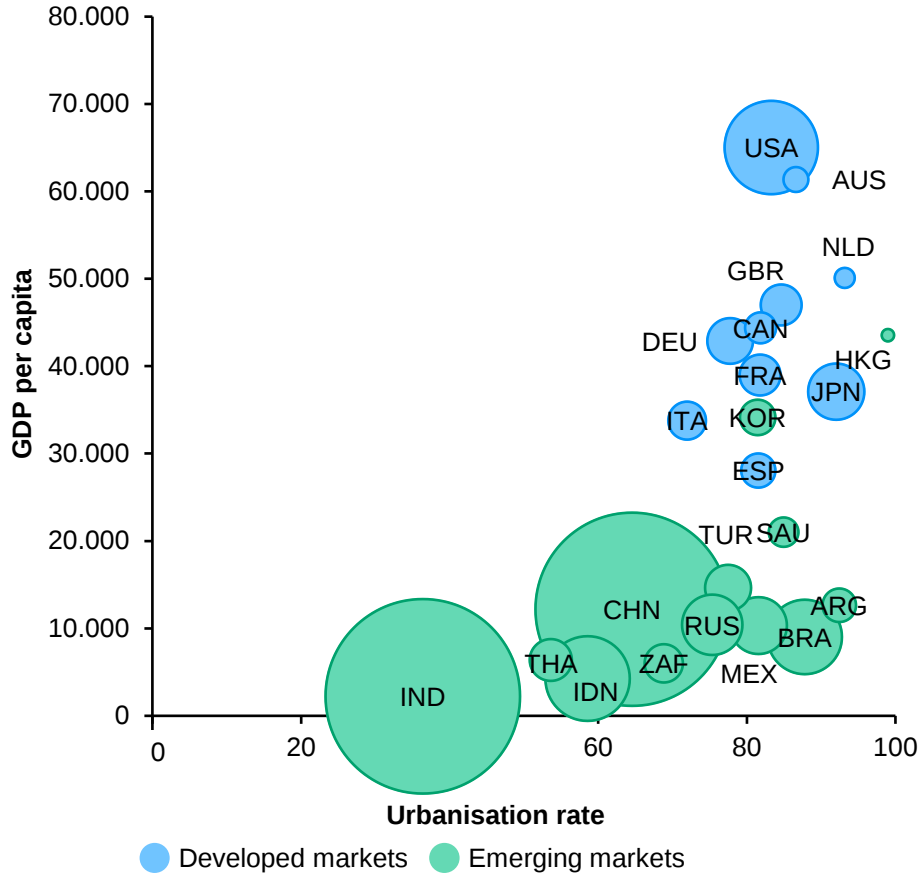


Emerging market structural dynamics

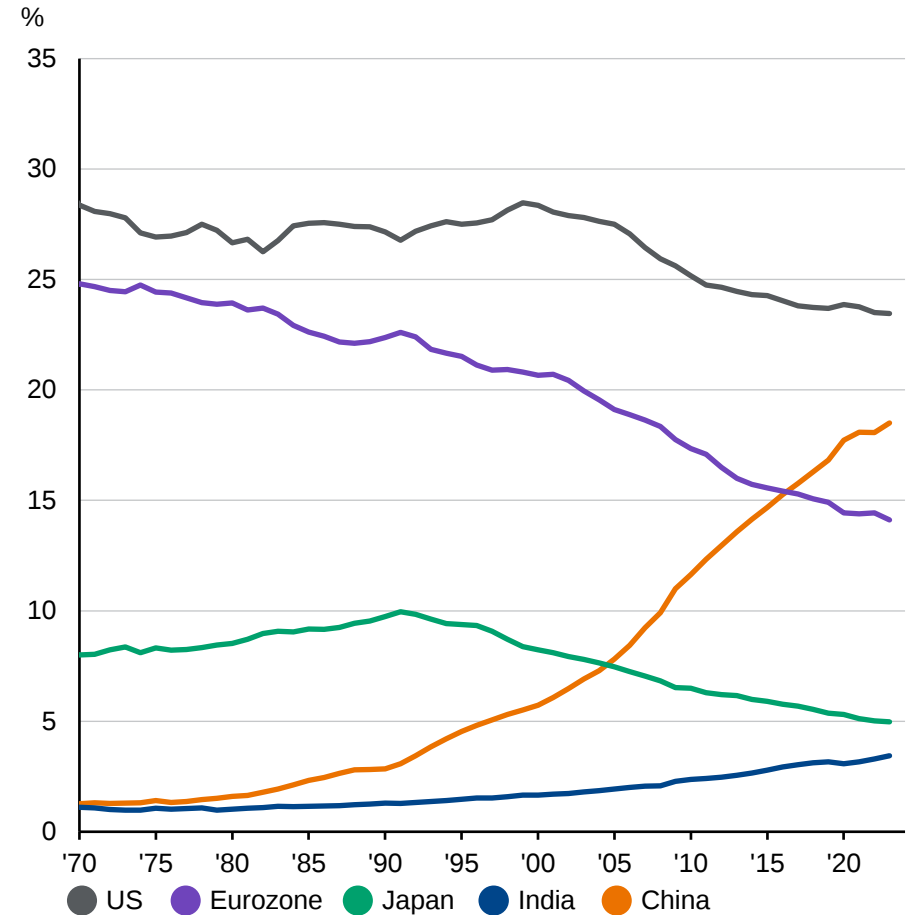
GTM Europe 43

Urbanisation, real GDP per capita and population size

% of population and USD, bubble size is population



Share of global real GDP

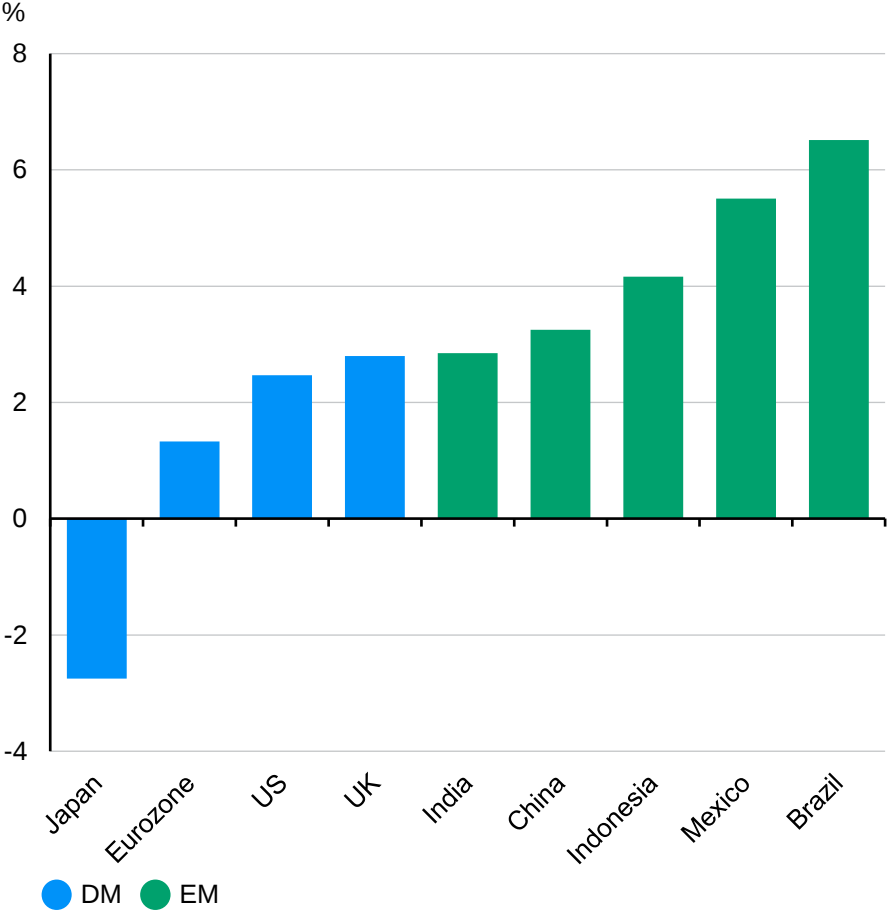


Source: (Left) World Bank, J.P. Morgan Asset Management. Urbanisation rate refers to the proportion of the total population living within an urban area defined by national statistical offices. Countries are labelled using three-letter International Organisation of Standardisation country codes. (Right) LSEG Datastream, World Bank, J.P. Morgan Asset Management. *Guide to the Markets - Europe*. Data as of 30 September 2024.

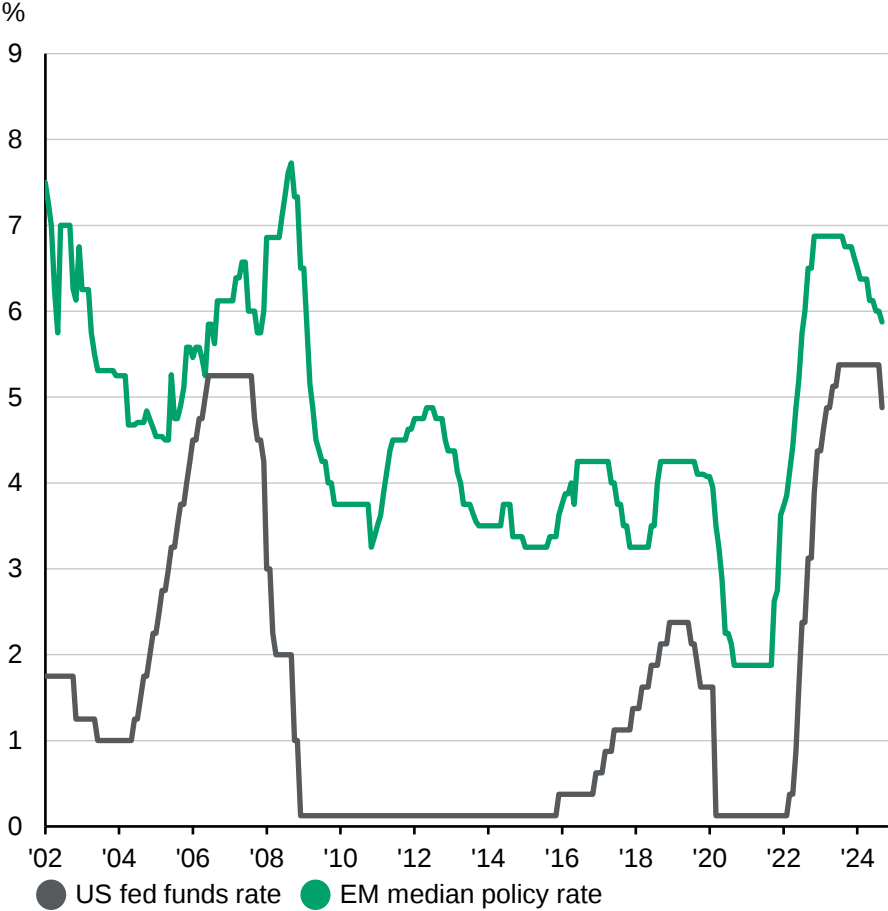


EM focus: Scope for easing

Real interest rates



Policy rates



Source: (All charts) Bloomberg, J.P. Morgan Asset Management. Real rates are calculated by deducting the headline inflation rate from the policy rate. EM median policy rate includes Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Peru, Philippines, Poland, South Africa, South Korea, Taiwan, Thailand and Turkey. Past performance is not a reliable indicator of current and future results.
Guide to the Markets - Europe. Data as of 30 September 2024.



World equity valuations

MSCI World forward P/E ratio



Equity and credit yields

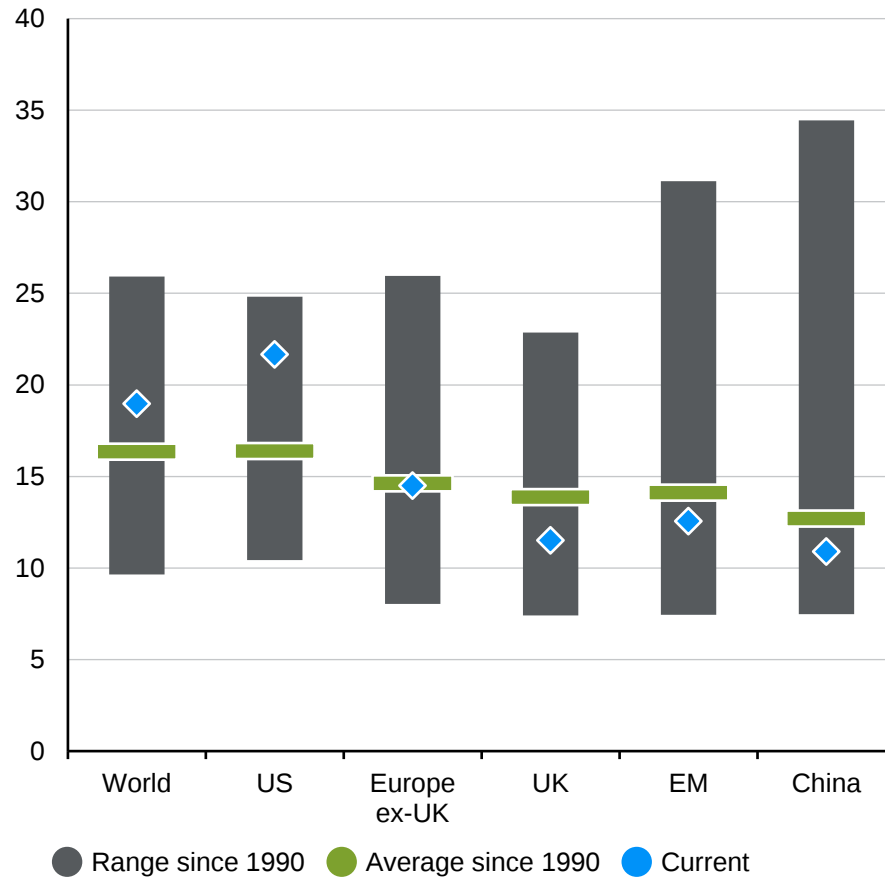




Regional equity valuations

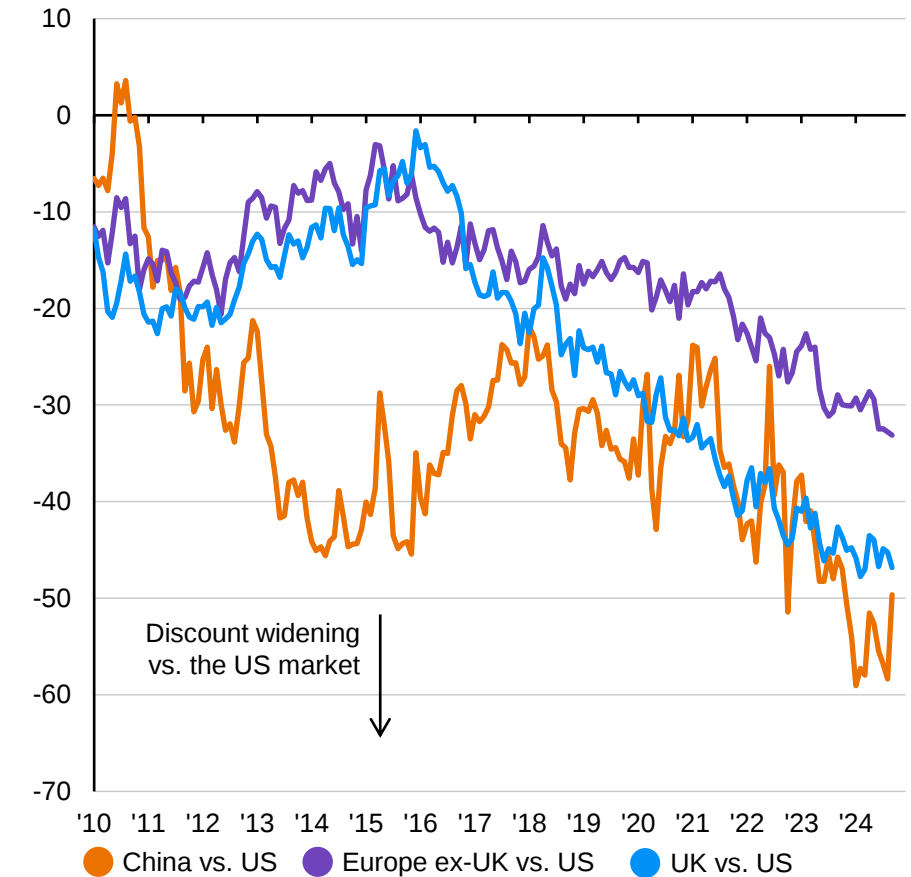
Global forward P/E ratios

x, multiple



Relative equity valuations

%, relative discount/premium based on 12-month forward P/E ratios



Source: (Left) FTSE, IBES, LSEG Datastream, MSCI, S&P Global, J.P. Morgan Asset Management. MSCI indices are used for World, Europe ex-UK, EM and China. UK is FTSE All-Share and US is S&P 500. Earnings data is based on 12-month forward estimates. (Right) FTSE, IBES, LSEG Datastream, MSCI, S&P Global, J.P. Morgan Asset Management. US: S&P 500; Europe ex-UK: MSCI Europe ex-UK; UK: FTSE All-Share; China: MSCI China. Valuation is price to 12-month forward earnings. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

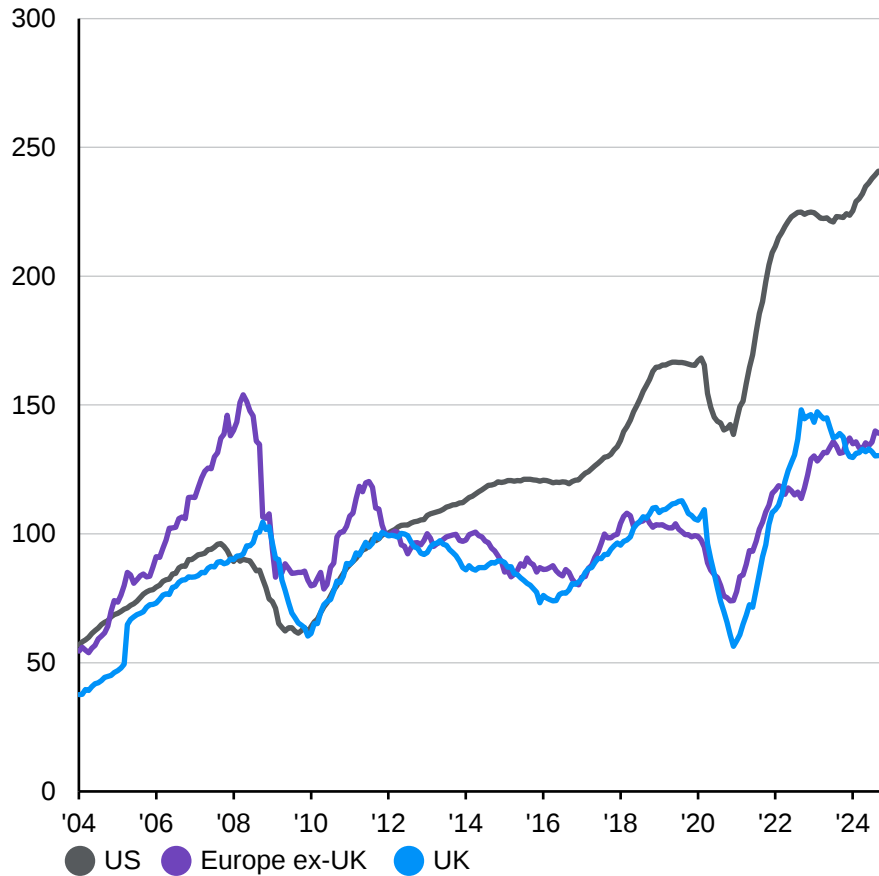


Regional earnings and profit margins

GTM Europe 47

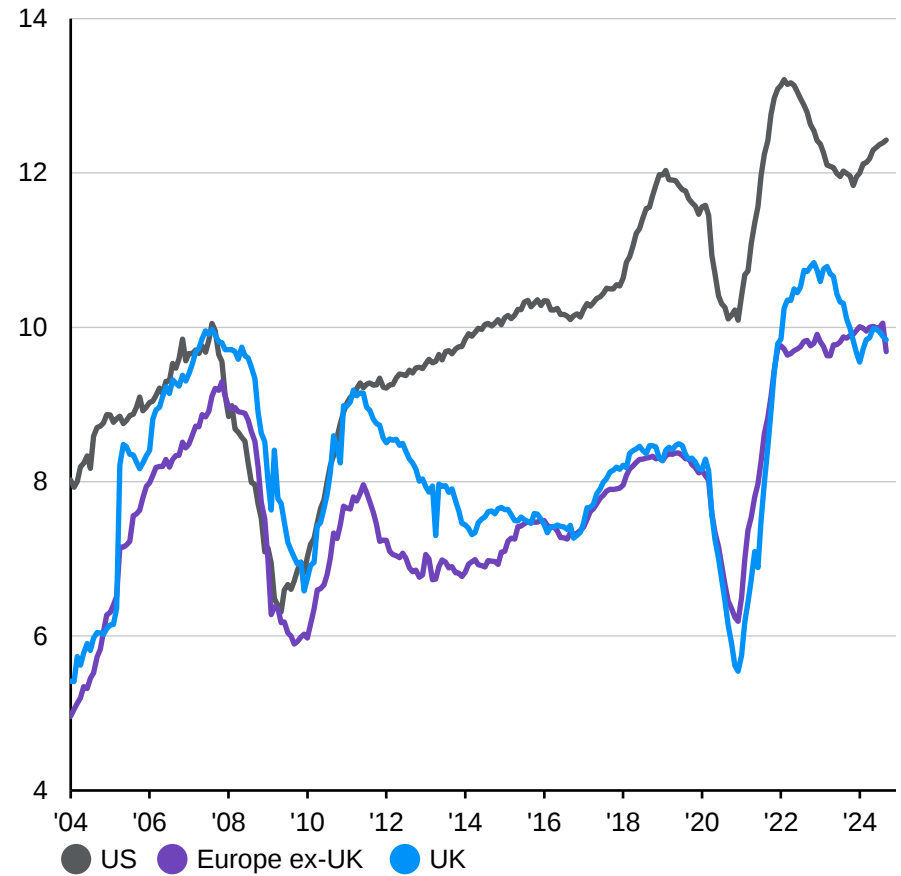
Earnings per share

USD, rebased to 100 in December 2011



Profit margins

%, margins of 12-month trailing earnings relative to sales

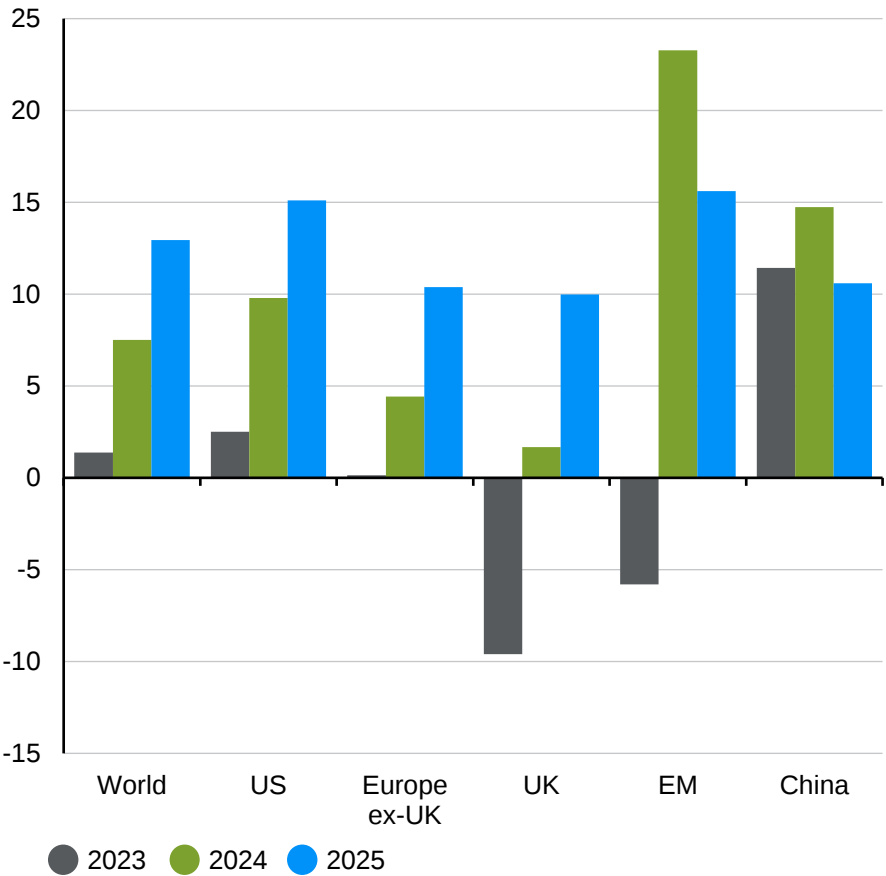




Regional earnings expectations

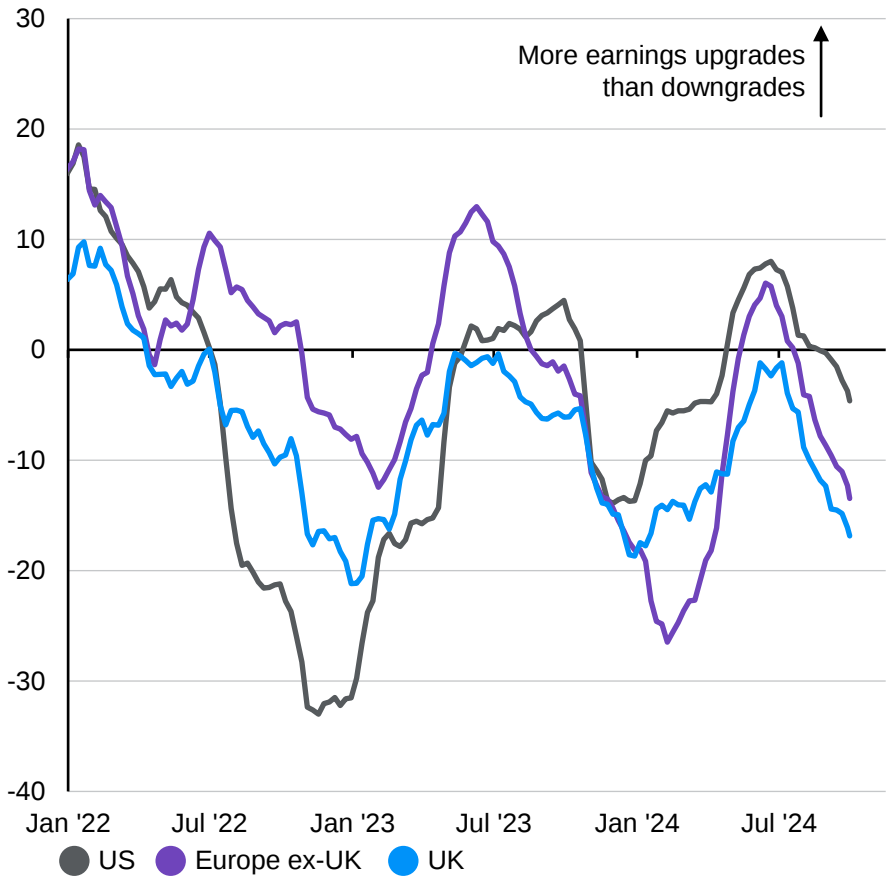
Consensus estimates for global earnings per share growth

% change year on year



Earnings revision ratios

%, 13-week ratio of earnings estimate upgrades to downgrades



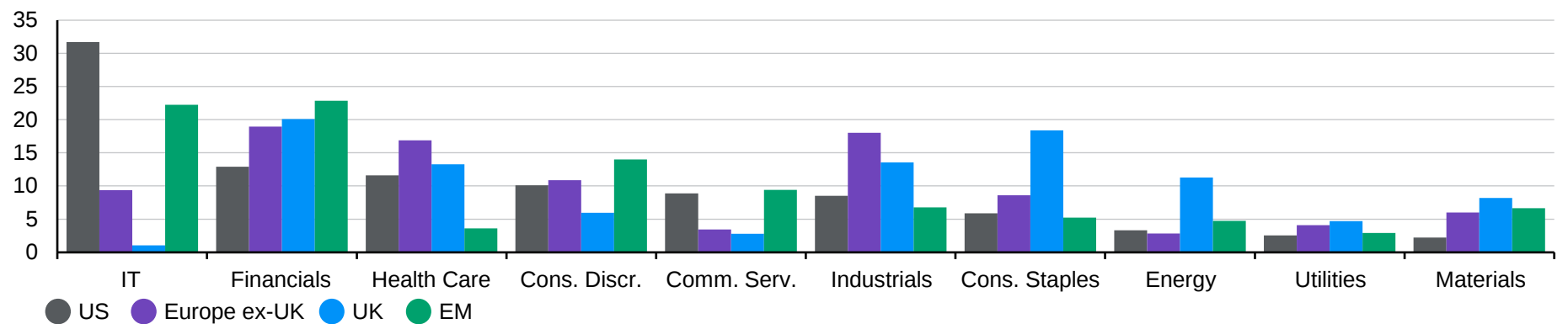
Source: (All charts) FTSE, IBES, LSEG Datastream, MSCI, S&P Global, Tokyo Stock Exchange, J.P. Morgan Asset Management. MSCI indices are used for World, Europe ex-UK, EM and China. Japan is TOPIX, UK is FTSE All-Share and US is S&P 500. Earnings revision ratios are based on 12-month forward earnings expectations, as published by IBES. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Global equity sector weights

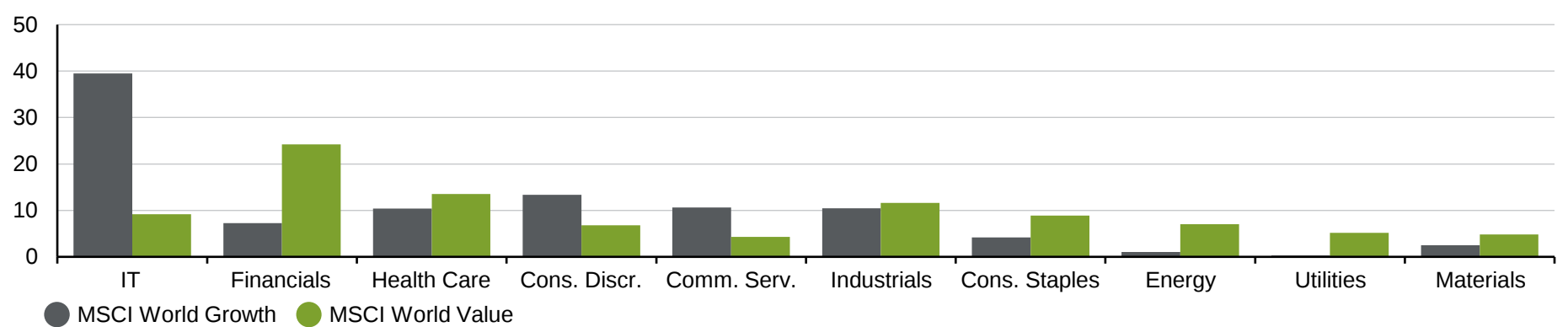
Global equity sector weights

% of total market cap



MSCI World Growth and Value sector weights

% of total market cap



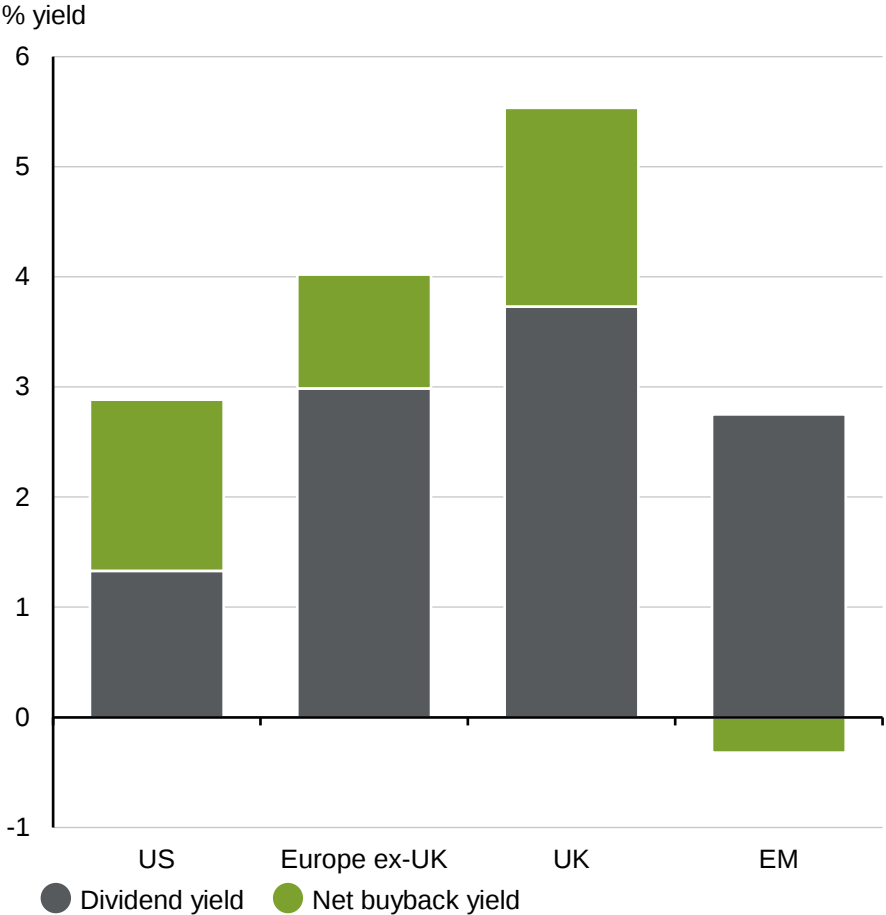
Source: (Top) LSEG Datastream, MSCI, S&P Global, J.P. Morgan Asset Management. Indices are all MSCI, except for US, which is S&P 500. (Bottom) LSEG Datastream, MSCI, J.P. Morgan Asset Management. Real estate is not included in these sector breakdowns due to the small size of the weight in each index. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



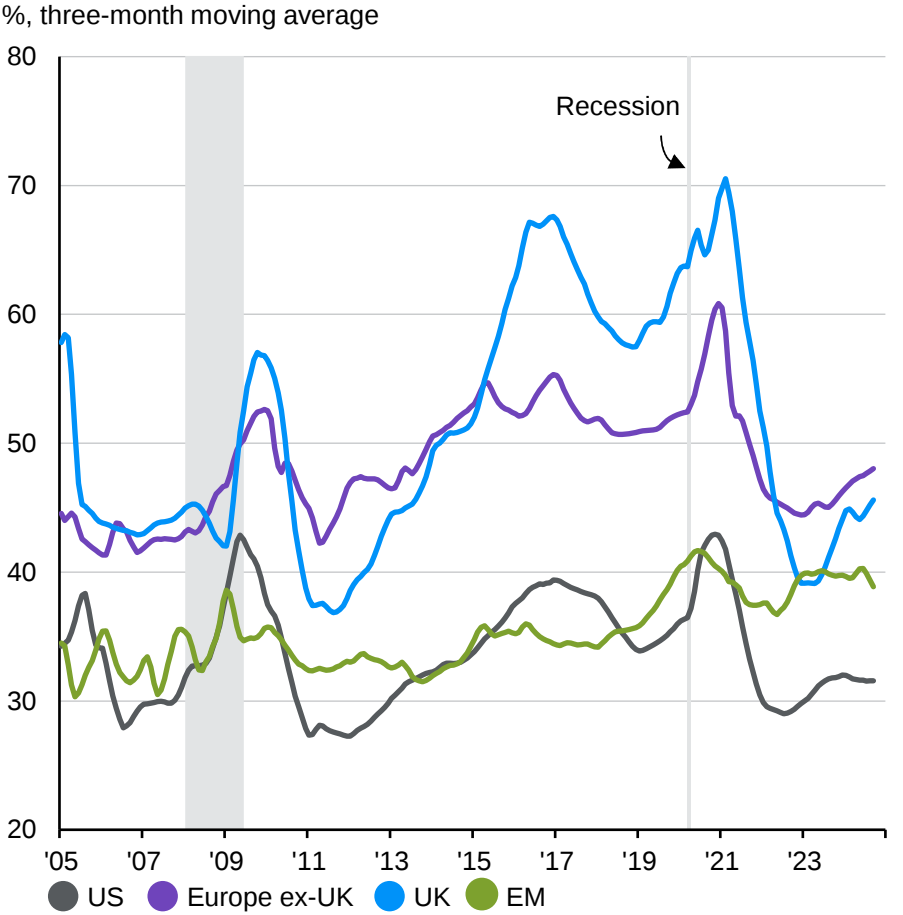
Global equity income

Equities

Buyback and dividend yields



Dividend payout ratios



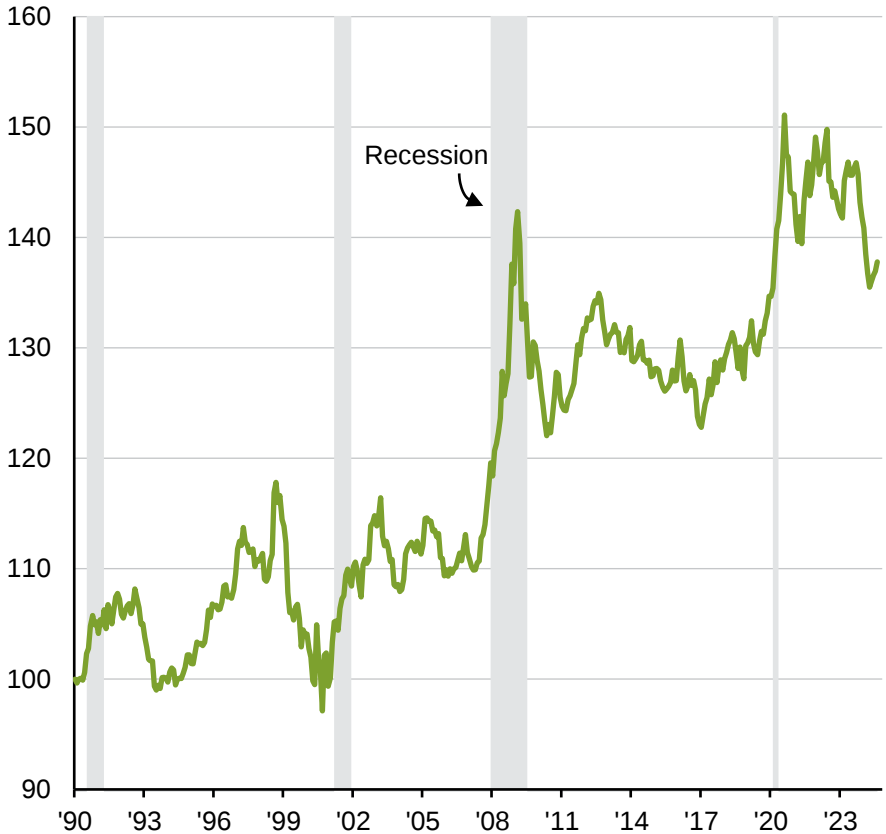
Source: (Left) Bloomberg, FTSE, LSEG Datastream, MSCI, S&P Global, J.P. Morgan Asset Management. US: S&P 500; Europe ex-UK: MSCI Europe ex-UK; UK: FTSE 100; EM: MSCI EM. Chart shows yields for the last quarter in which buyback data is fully available. Net buyback yield adjusts for share issuance. (Right) FTSE, LSEG Datastream, MSCI, S&P Global, J.P. Morgan Asset Management. US: S&P 500; Europe ex-UK: MSCI Europe ex-UK; UK: FTSE 100; EM: MSCI EM. Dividend payout ratio shows 12-month trailing dividend per share divided by 12-month trailing earnings per share. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Equity market factors

S&P 500 Quality/S&P 500 relative performance

Relative total return index level, rebased to 100 in January 1990



MSCI World Growth and Value forward P/E ratios

x, multiple

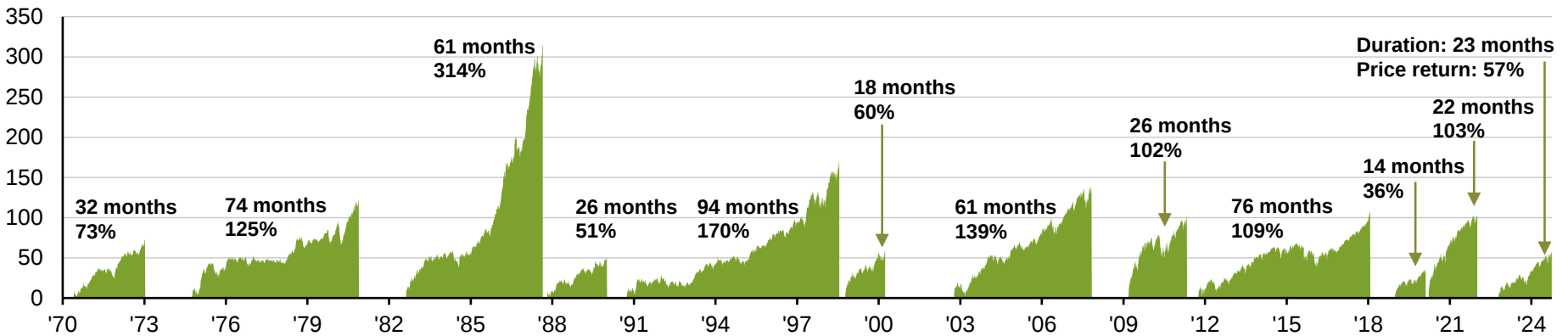


Source: (Left) J.P. Morgan Asset Management Quantitative Beta Solutions, S&P Global, J.P. Morgan Asset Management. S&P 500 Quality index is the top quartile quality stocks in the S&P 500 determined by J.P. Morgan Asset Management Quantitative Beta Strategies based on measures of profitability, financial risk and earnings quality. Periods of recession are defined using US National Bureau of Economic Research (NBER) business cycle dates. (Right) LSEG Datastream, MSCI, J.P. Morgan Asset Management. Forward P/E ratio is price to 12-month forward earnings, as published by MSCI. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

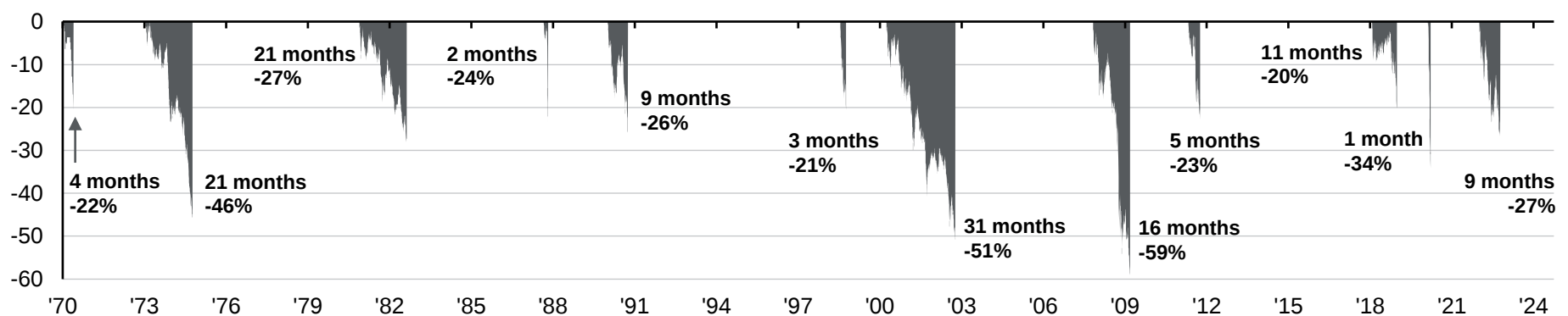


Bull and bear markets

MSCI World bull markets, %



MSCI World bear markets, %



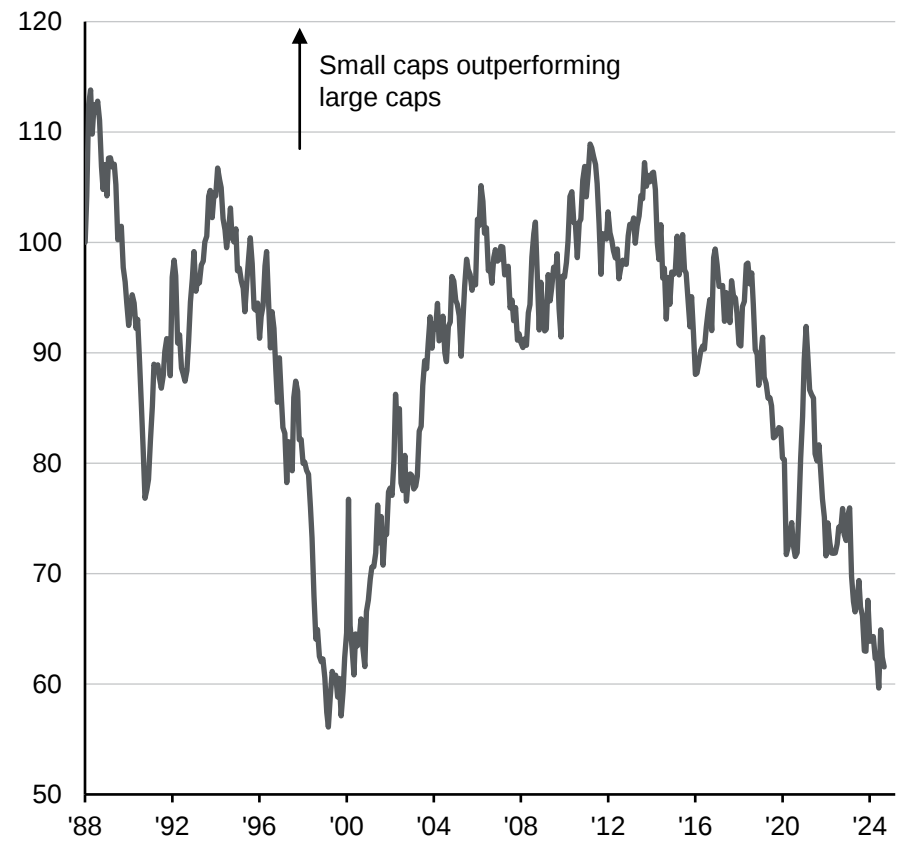
Source: (All charts) LSEG Datastream, MSCI, J.P. Morgan Asset Management. Charts and labels refer to price return. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Small caps

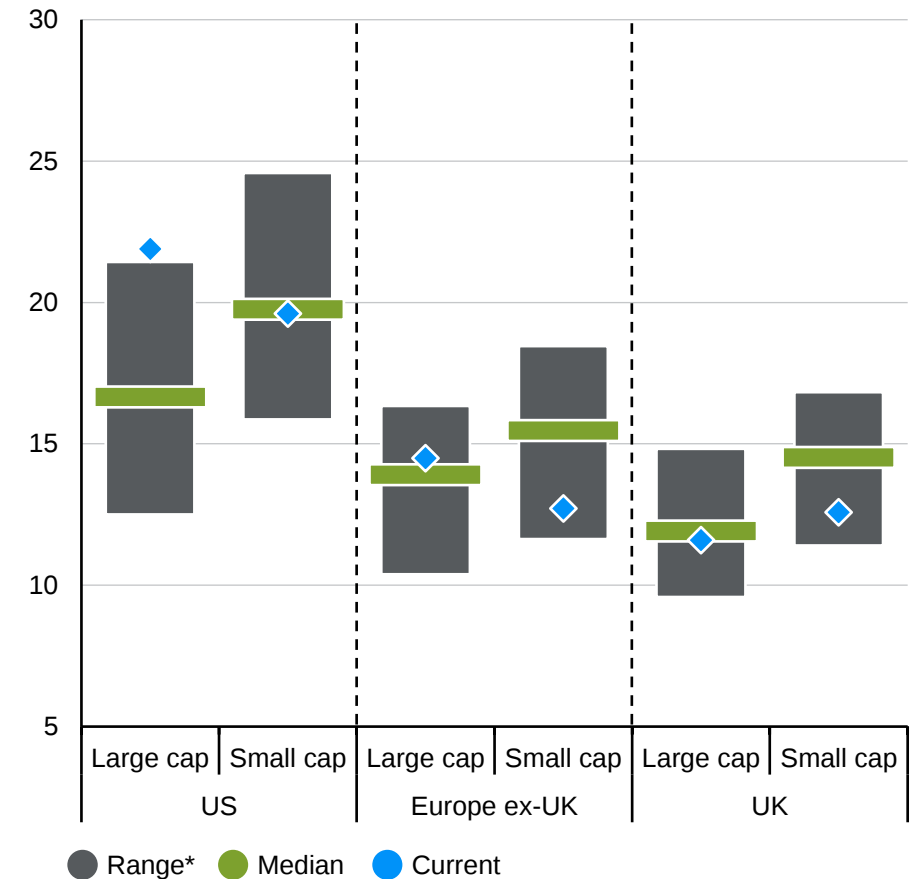
Relative performance of US small caps vs. large caps

Relative total return, rebased to 100 in January 1988



Regional large and small cap forward P/E ratios

x, multiple



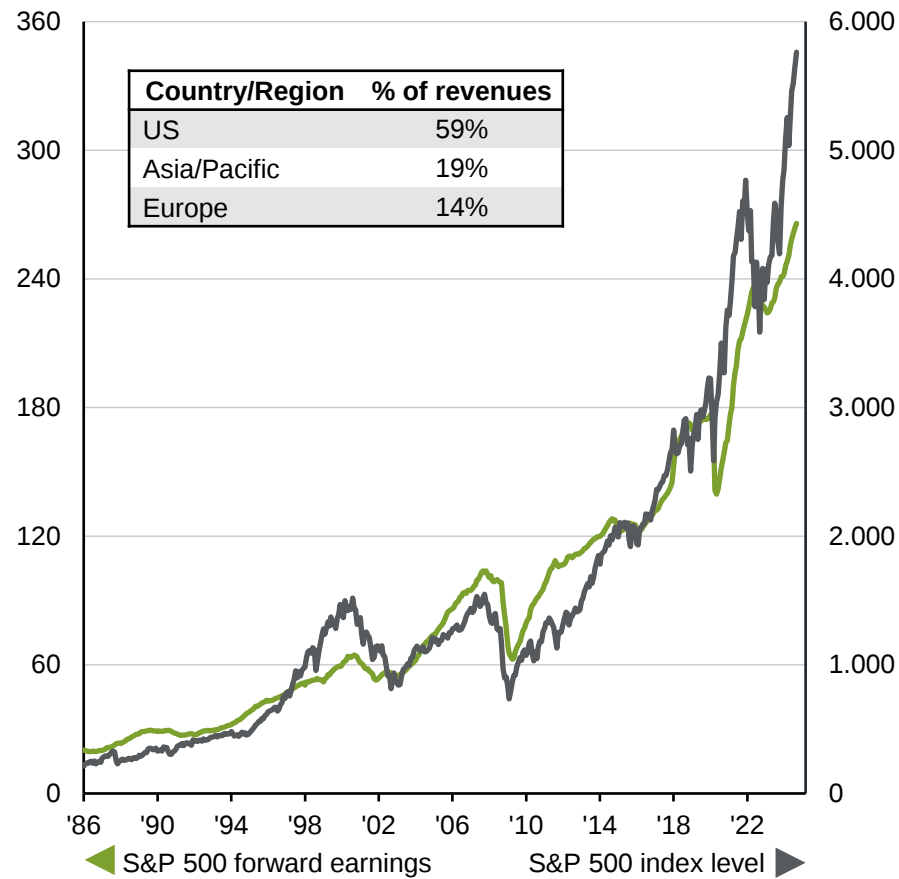
Source: (Left) LSEG Datastream, Russell, S&P Global, J.P. Morgan Asset Management. US small caps: Russell 2000; US large caps: S&P 500. (Right) FactSet, IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Forward P/E ratio is price to 12-month forward earnings. All indices are MSCI. P/E ratios for small cap indices are as published by FactSet. Other P/E ratios are calculated using IBES earnings estimates. Range and median calculated from 2008 due to data availability. *Range is 10th to 90th percentile. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



US earnings

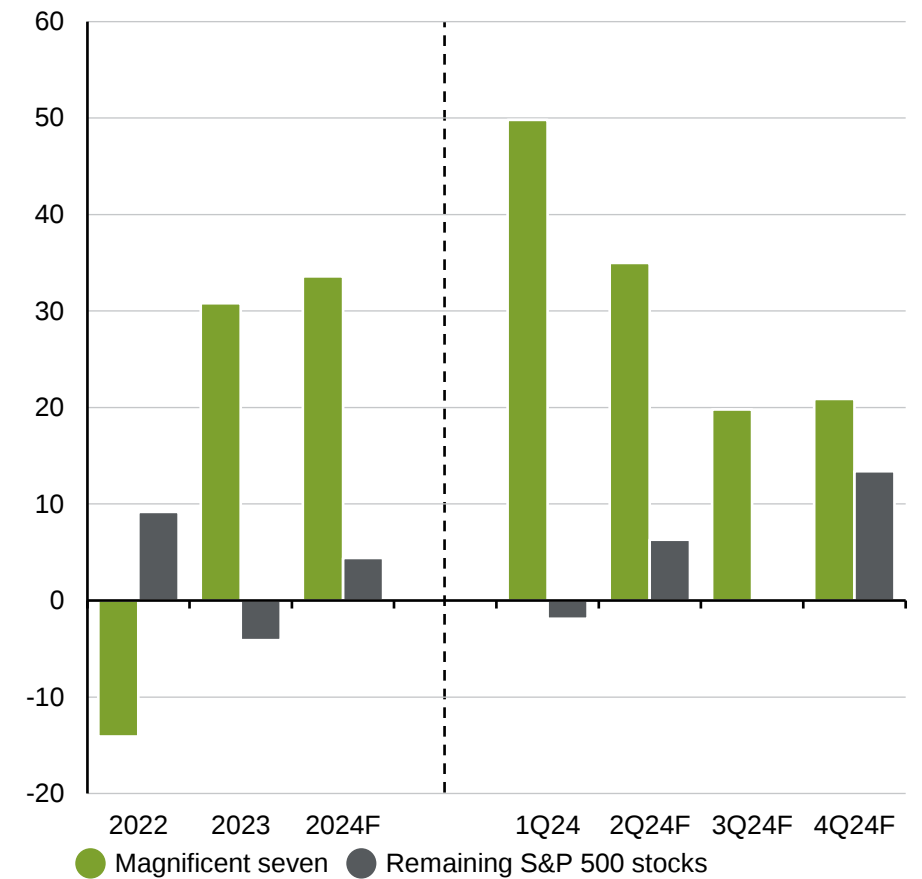
S&P 500 earnings and performance

Next 12 months' earnings per share estimates, USD (LHS); index level (RHS)



S&P 500 earnings growth

% change year on year



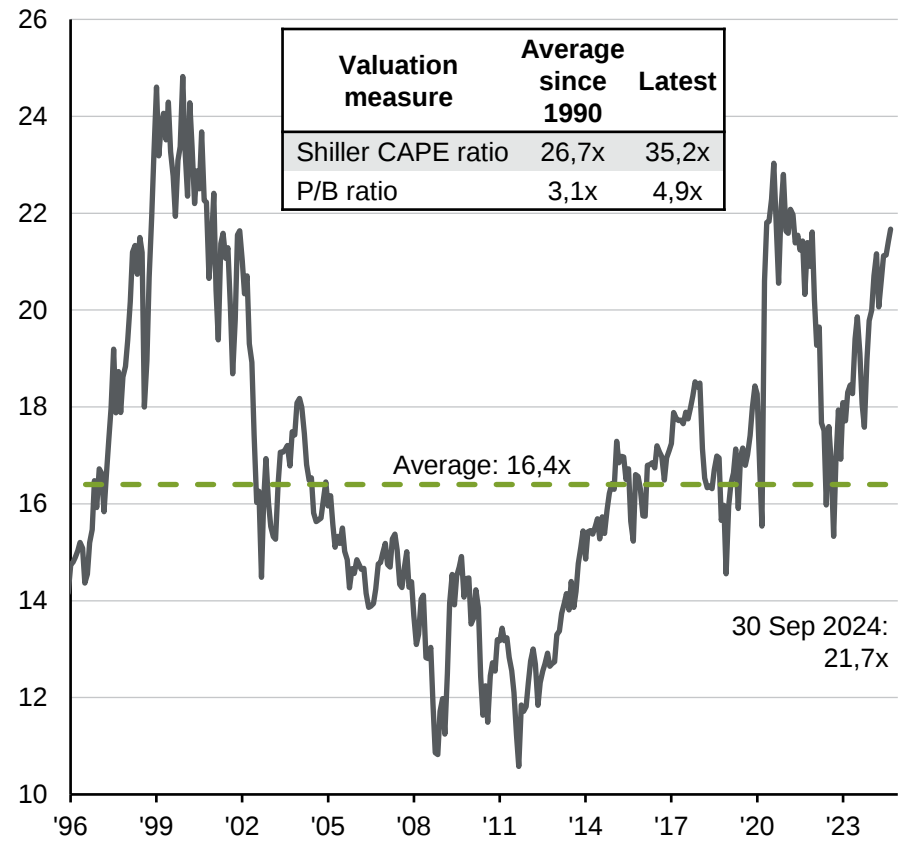
Source: (Left) FactSet, IBES, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. Earnings data is based on 12-month forward estimates. (Right) FactSet, S&P Global, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



US equity valuations

S&P 500 forward P/E ratio

x, multiple



Forward P/E ratio of the S&P 500 top 10 vs. the rest

x, multiple



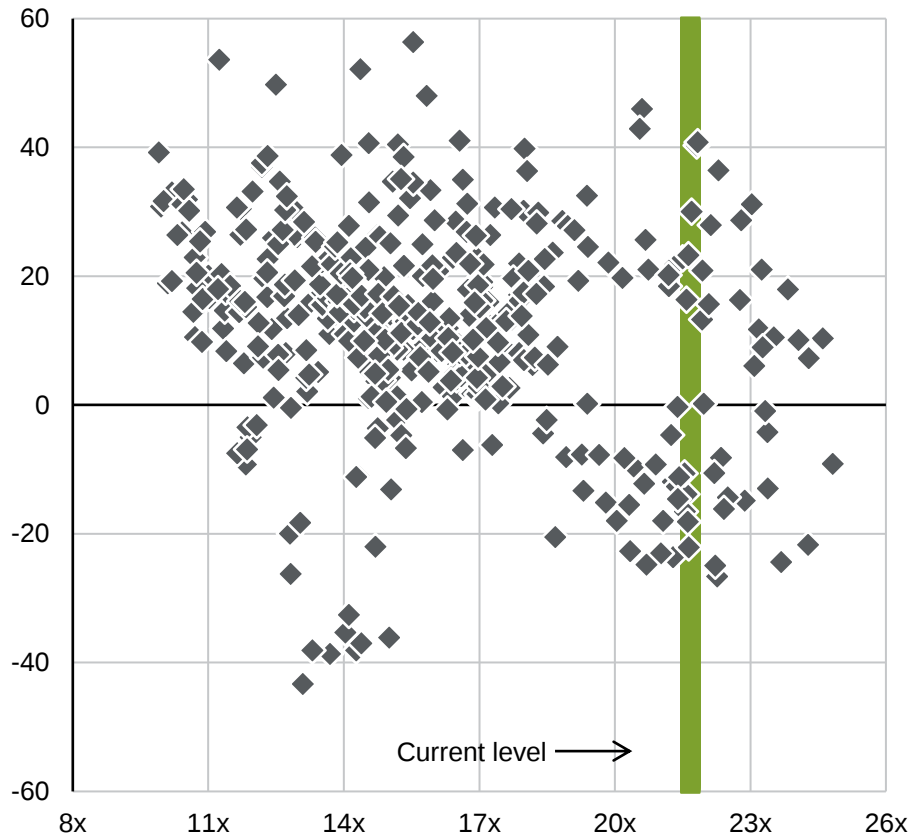
Source: (Left) IBES, LSEG Datastream, Robert Shiller, S&P Global, J.P. Morgan Asset Management. Forward P/E ratio is price to 12-month forward earnings, calculated using IBES earnings estimates. P/E data may differ from *Guide to the Markets - US*, which uses FactSet earnings estimates. Shiller cyclically adjusted P/E (CAPE) is price-to-earnings ratio adjusted using trailing 10-year average inflation-adjusted earnings. P/B ratio is price-to-book ratio. (Right) FactSet, S&P Global, J.P. Morgan Asset Management. The top 10 stocks are based on the 10 largest index constituents at the start of each month. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



US valuations and subsequent returns

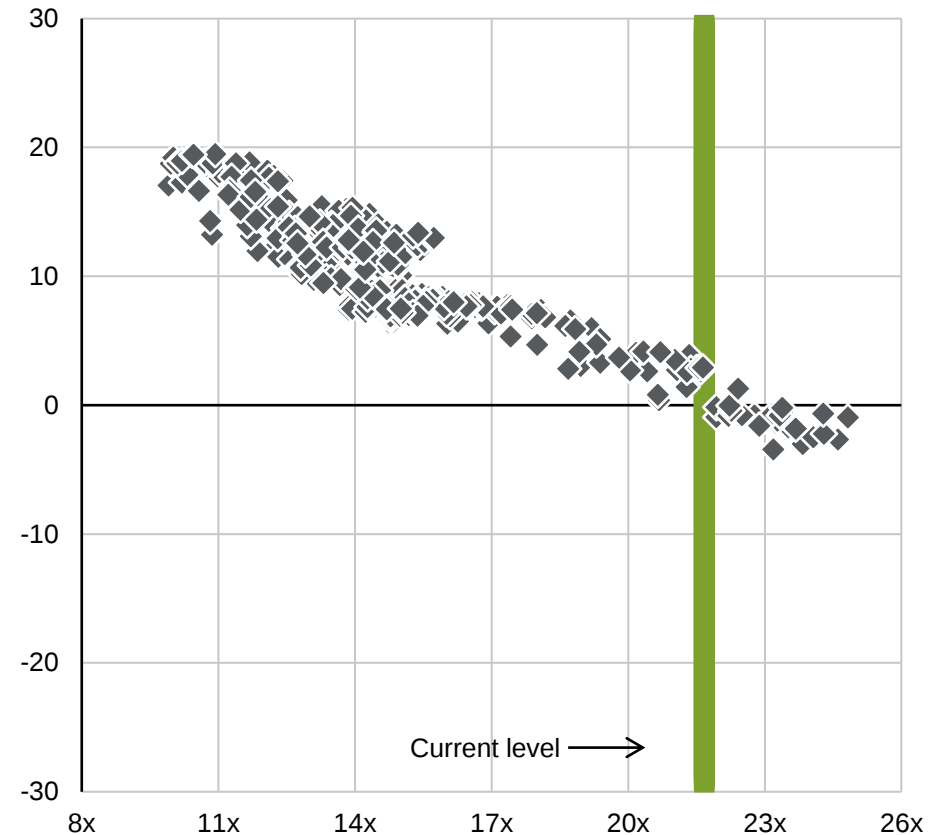
S&P 500 forward P/E ratios and subsequent 1-year returns

%, annualised total return*



S&P 500 forward P/E ratios and subsequent 10-year returns

%, annualised total return*



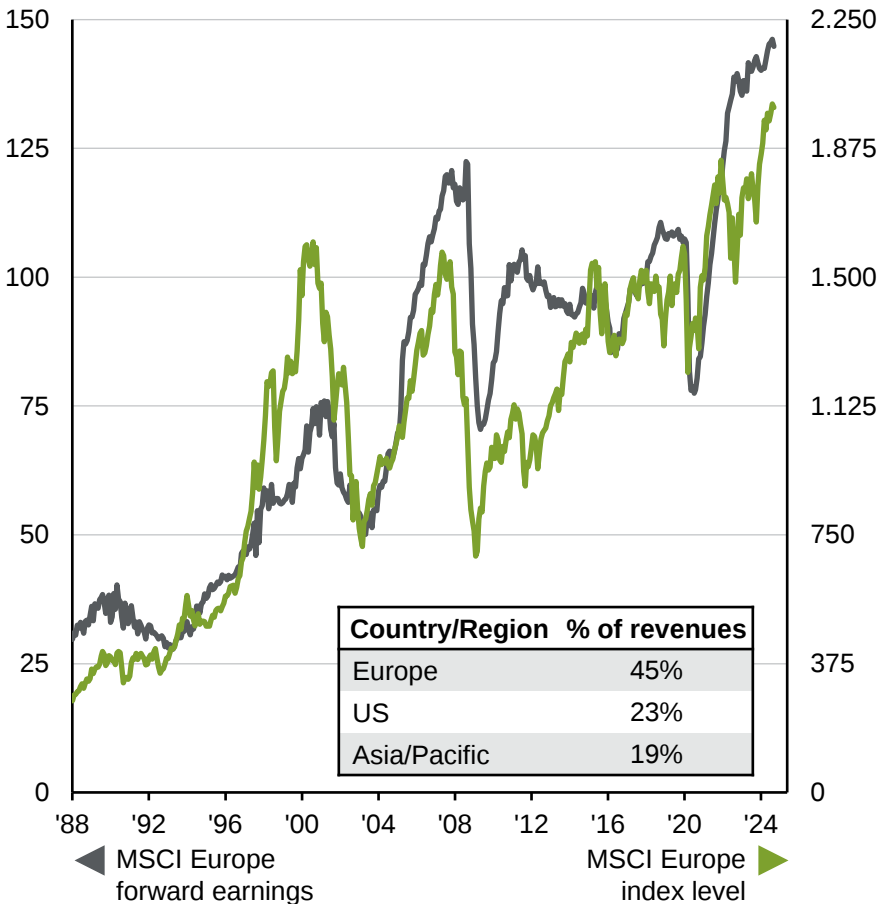
Source: (All charts) IBES, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. *Dots represent monthly data points since 1988, which is earliest available. Forward P/E ratio is price to 12-month forward earnings, calculated using IBES earnings estimates. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Europe earnings

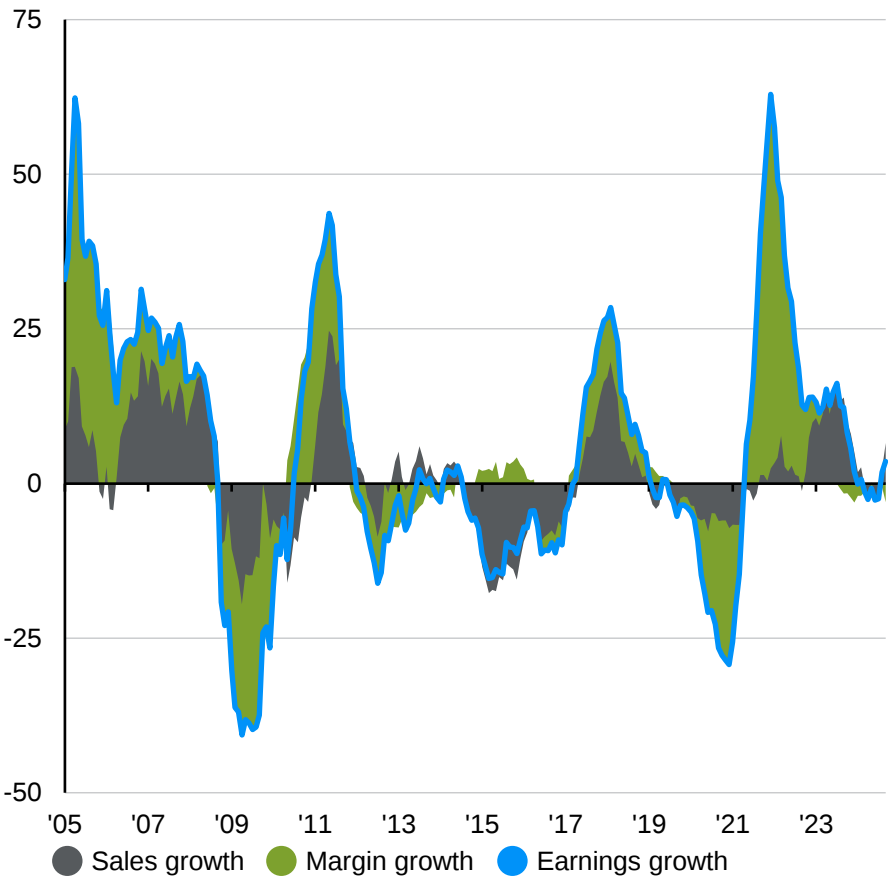
MSCI Europe earnings and performance

Next 12 months' earnings per share estimates, EUR (LHS); index level (RHS)



MSCI Europe earnings per share growth

% change year on year



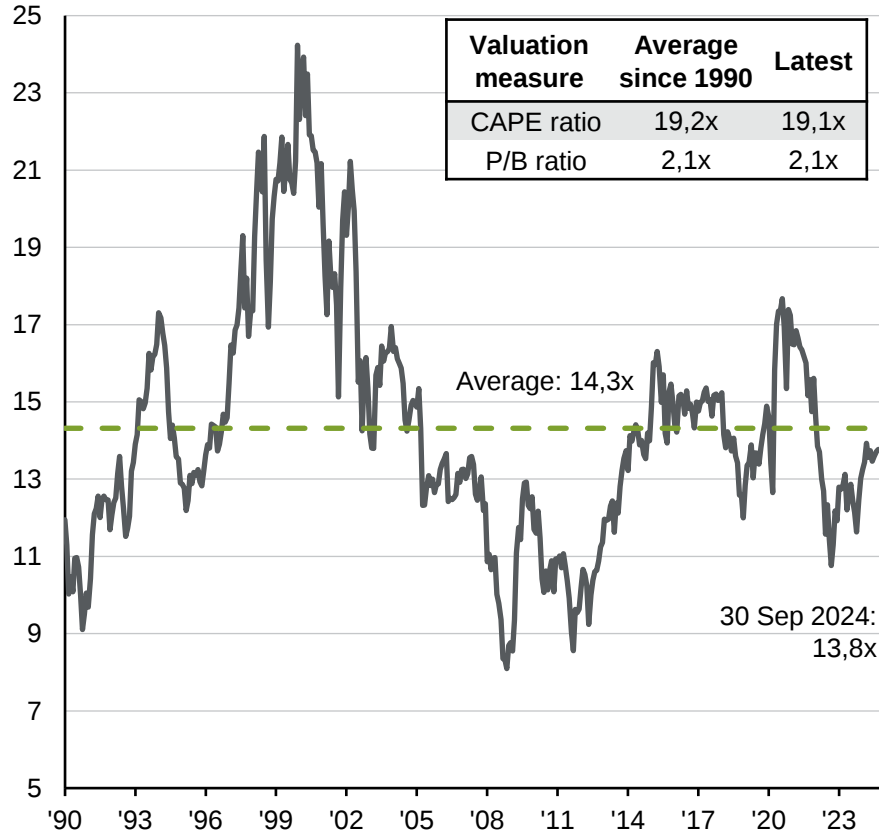
Source: (Left) FactSet, IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Earnings data are based on 12-month forward estimates. (Right) IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Earnings growth is based on 12-month trailing earnings. Margin growth is the growth rate of earnings per share divided by sales per share. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Europe equity valuations

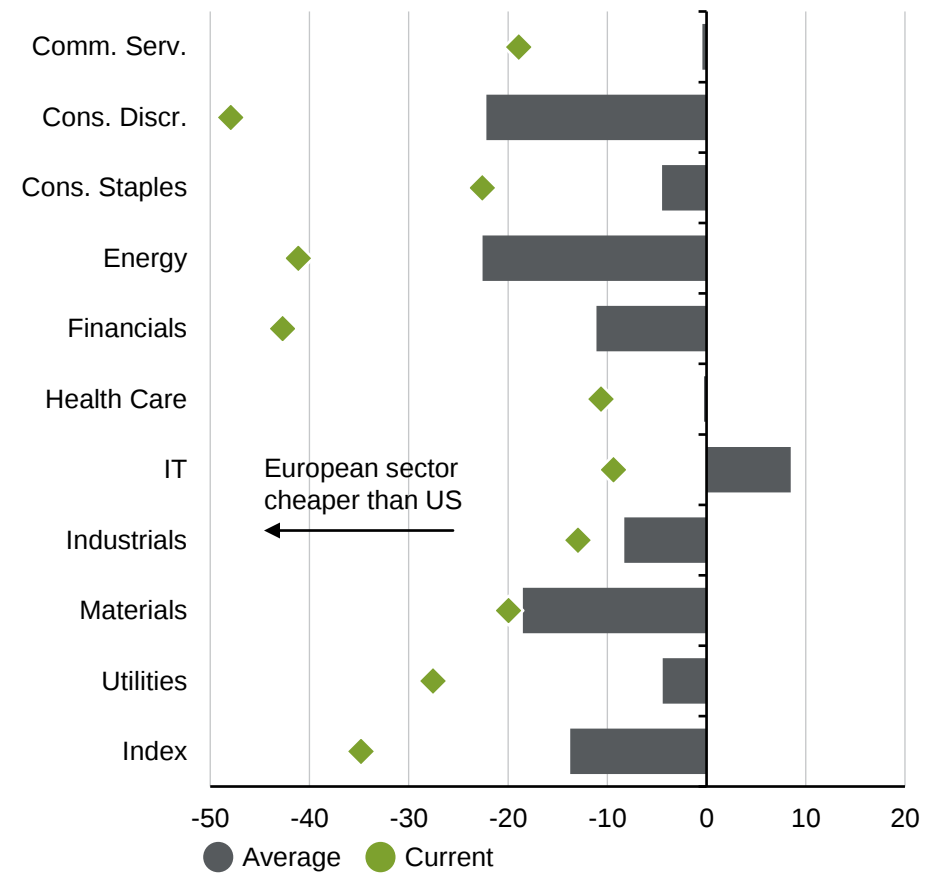
MSCI Europe forward P/E ratio

x, multiple



MSCI Europe relative valuation vs. the US

%, relative discount/premium based on 12-month forward P/E ratios



Source: (Left) IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Forward P/E ratio is price to 12-month forward earnings, calculated using IBES earnings estimates. Cyclically adjusted P/E (CAPE) is price-to-earnings ratio adjusted using trailing 10-year average inflation-adjusted earnings. P/B ratio is price-to-book ratio. (Right) LSEG Datastream, MSCI, S&P Global, J.P. Morgan Asset Management. The chart shows the current percentage discount of the index or sector 12-month forward P/E ratio vs. the equivalent for the S&P 500, and the average since 1995. Communication Services average is calculated using data from 1995 to 2000 inclusive and from 2005 to date, due to sector composition changes. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

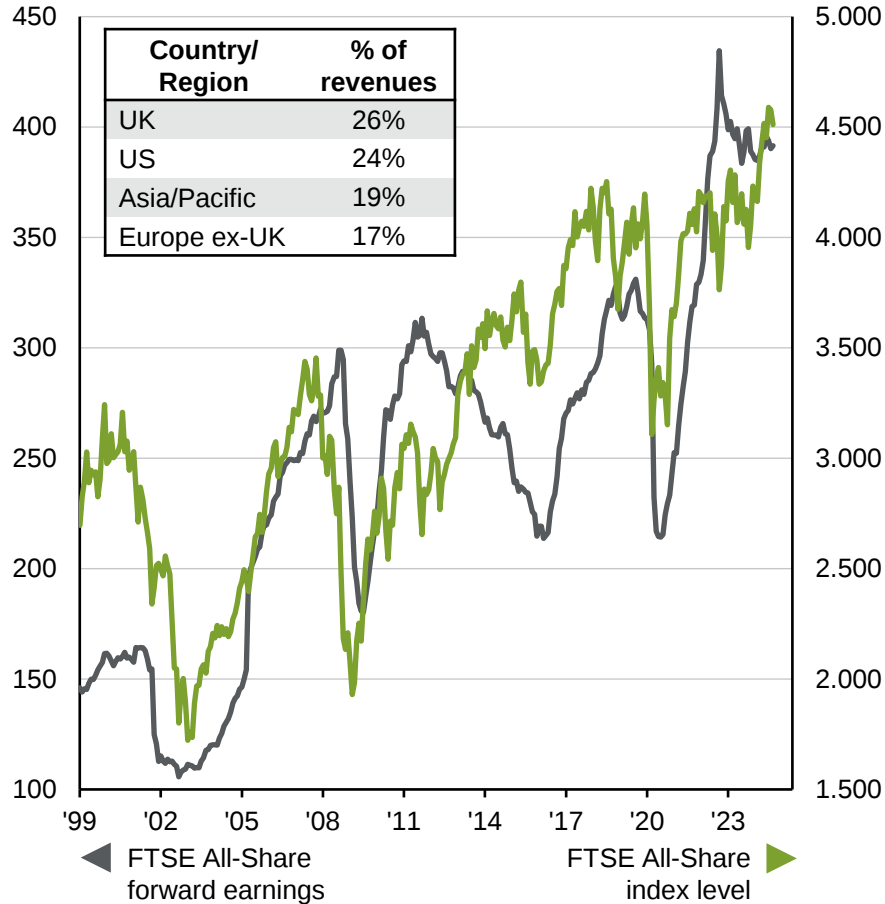


UK earnings

GTM Europe 59

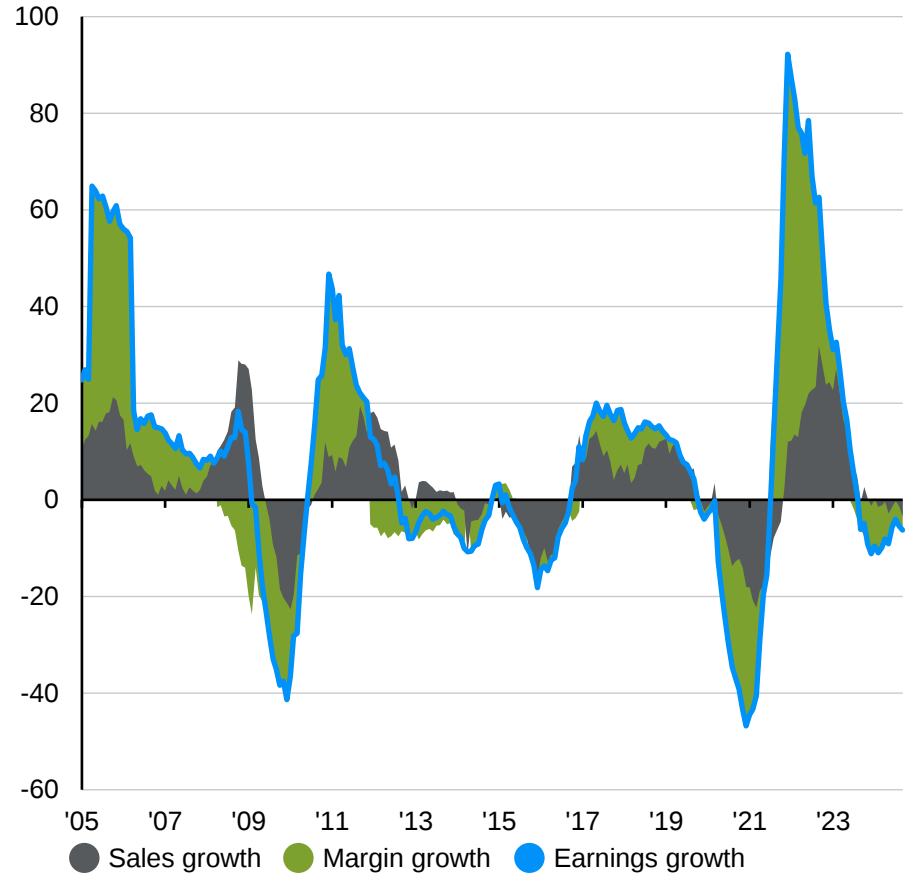
FTSE All-Share earnings and performance

Next 12 months' earnings per share estimates, GBP (LHS); index level (RHS)



FTSE All-Share earnings per share growth

% change year on year



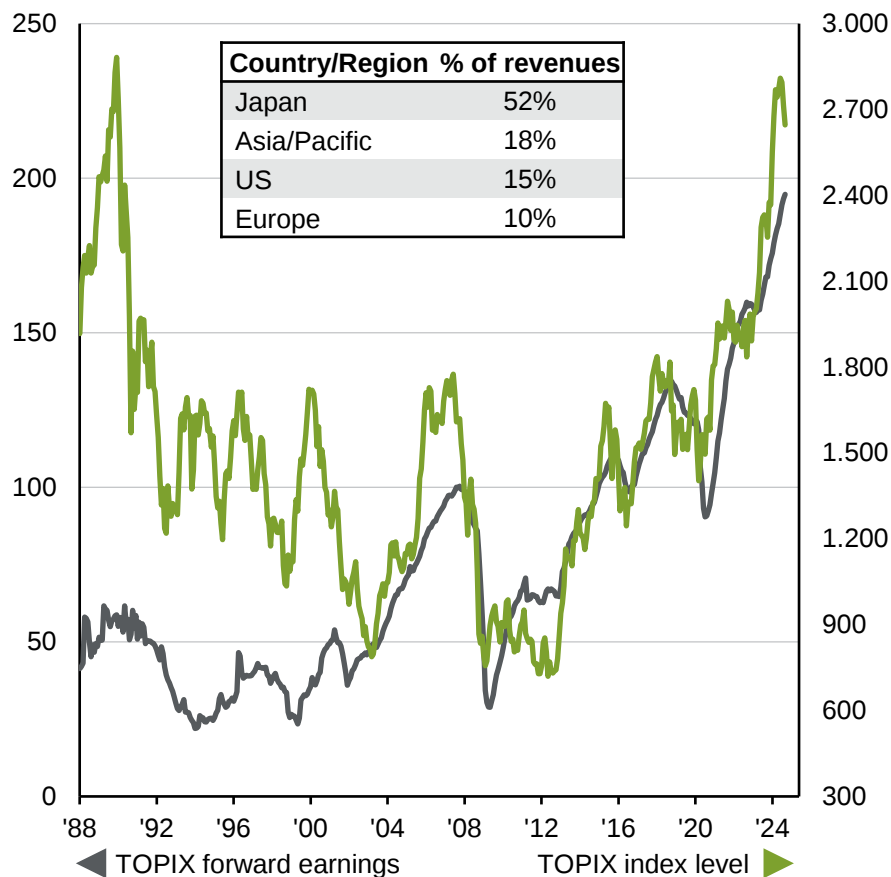
Source: (Left) FactSet, FTSE, IBES, LSEG Datastream, J.P. Morgan Asset Management. Earnings data are based on 12-month forward estimates. (Right) FTSE, IBES, LSEG Datastream, J.P. Morgan Asset Management. Earnings growth is based on 12-month trailing earnings. Margin growth is the growth rate of earnings per share divided by sales per share. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Japan equity market and currency

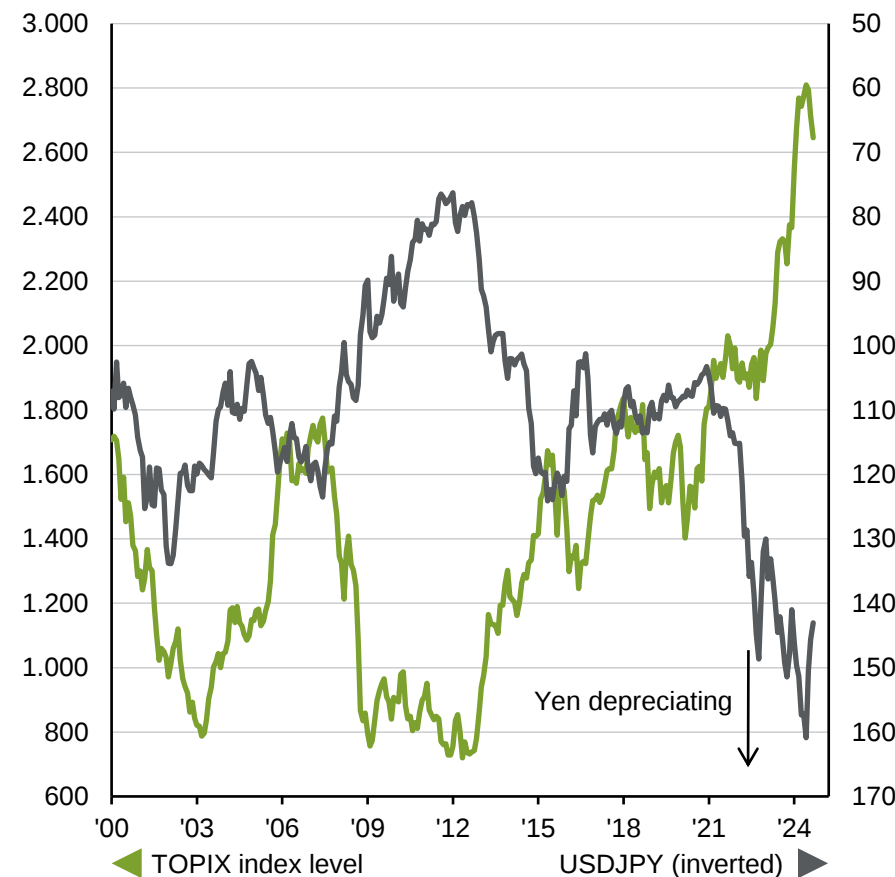
TOPIX earnings and performance

Next 12 months' earnings per share estimates, JPY (LHS); index level (RHS)



TOPIX and the yen vs. US dollar

Index level (LHS); JPY per USD (RHS)

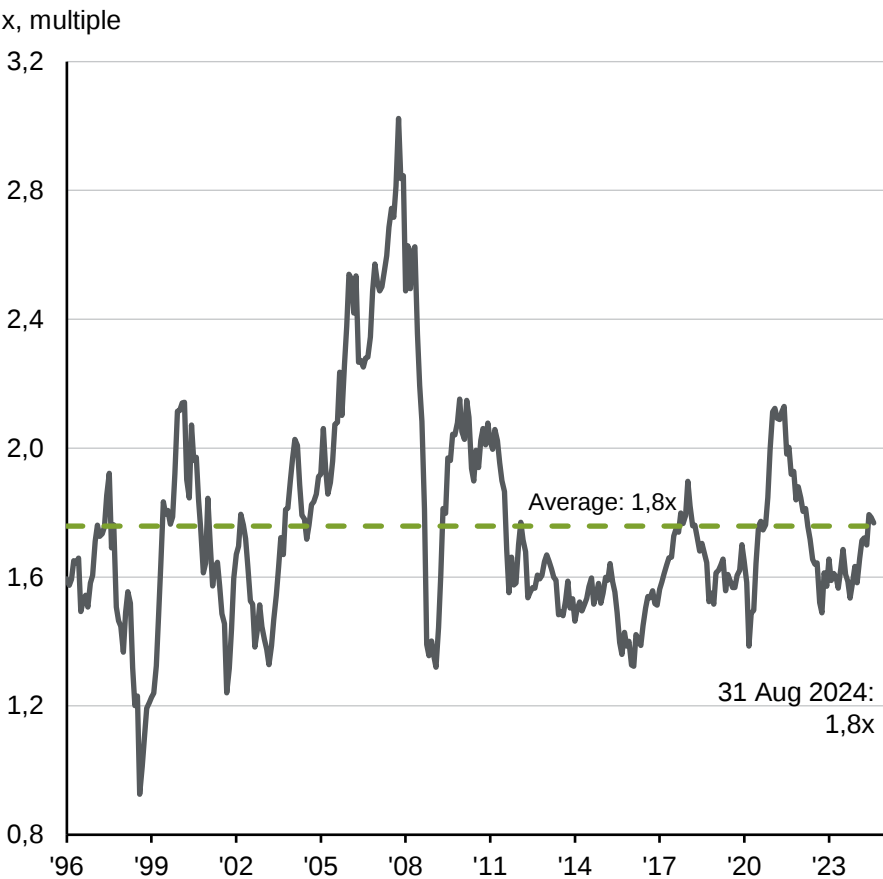


Source: (Left) FactSet, IBES, LSEG Datastream, TOPIX, J.P. Morgan Asset Management. Earnings data are based on 12-month forward estimates. (Right) LSEG Datastream, TOPIX, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

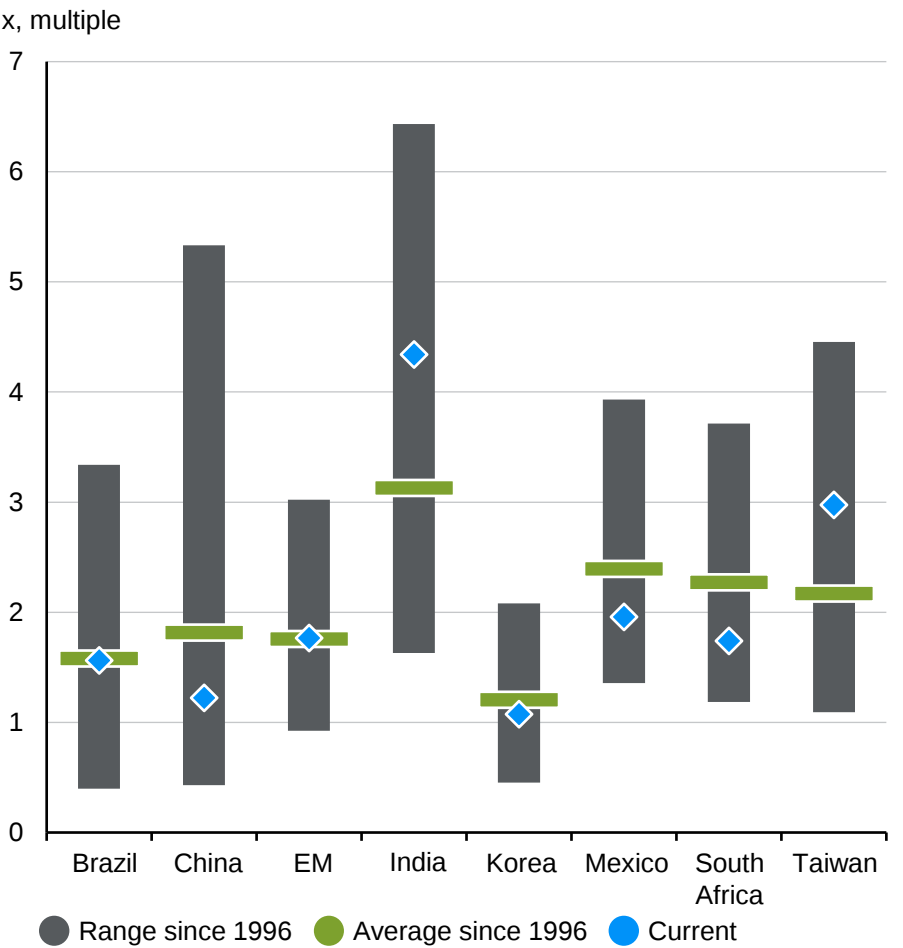


Emerging market equity valuations

MSCI EM price-to-book ratio



EM price-to-book ratios by country



Source: (All charts) IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. All indices are MSCI. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

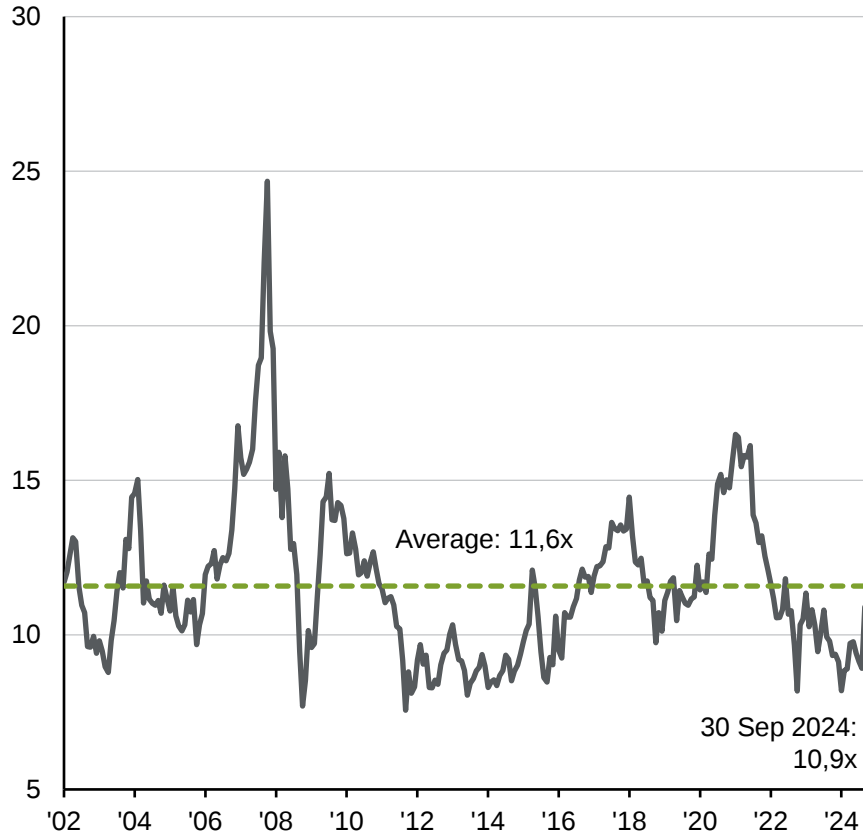


China equity valuations and earnings

GTM Europe 62

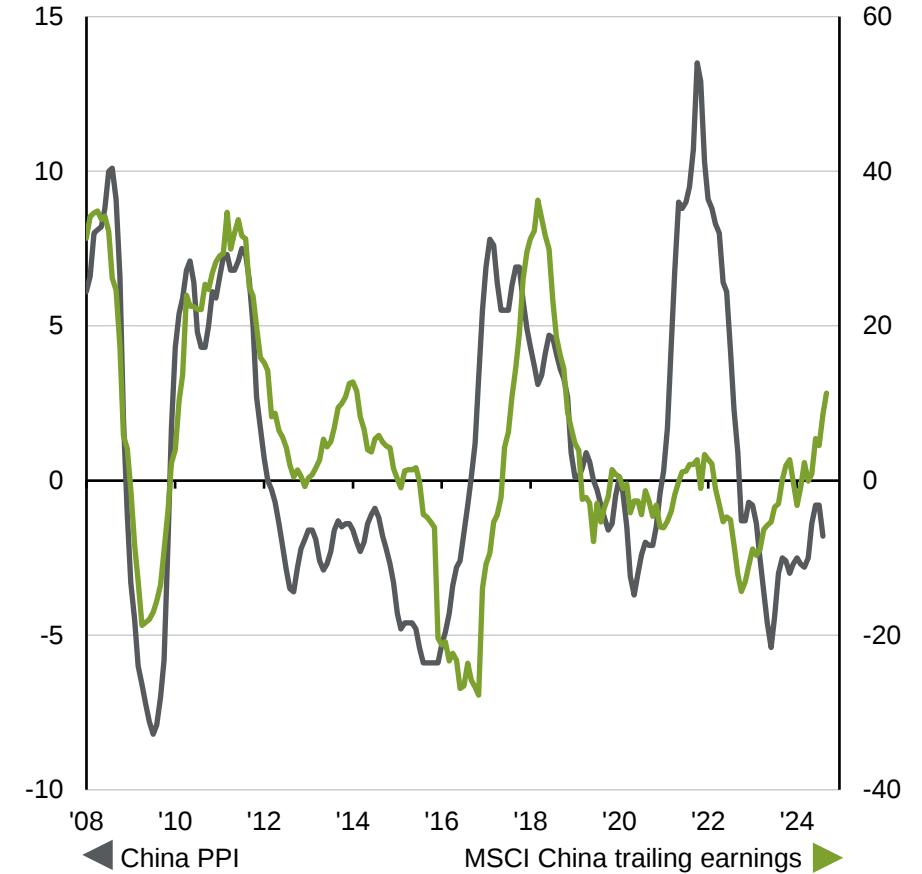
MSCI China forward P/E ratio

x, multiple



China producer price inflation and earnings growth

% change year on year



Source: (Left) IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Forward P/E ratio is price to 12-month forward earnings, calculated using IBES earnings estimates. (Right) Bloomberg, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Earnings data is last 12 months' earnings per share. Guide to the Markets - Europe. Data as of 30 September 2024.

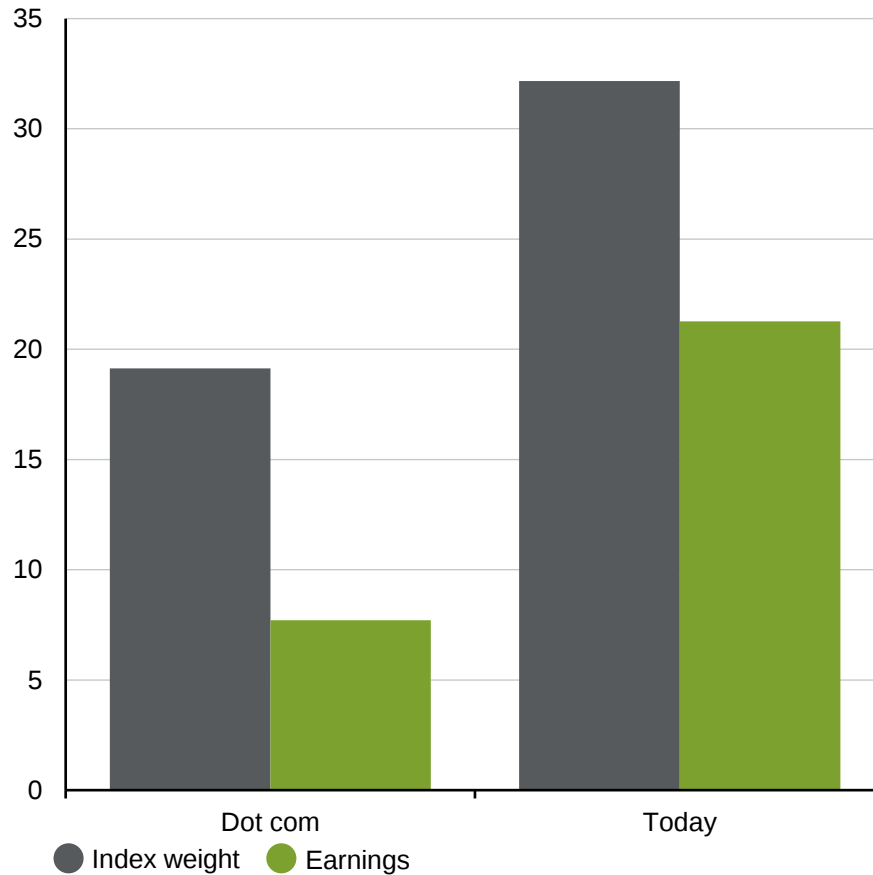


Equity focus: Navigating market concentration

GTM Europe 63

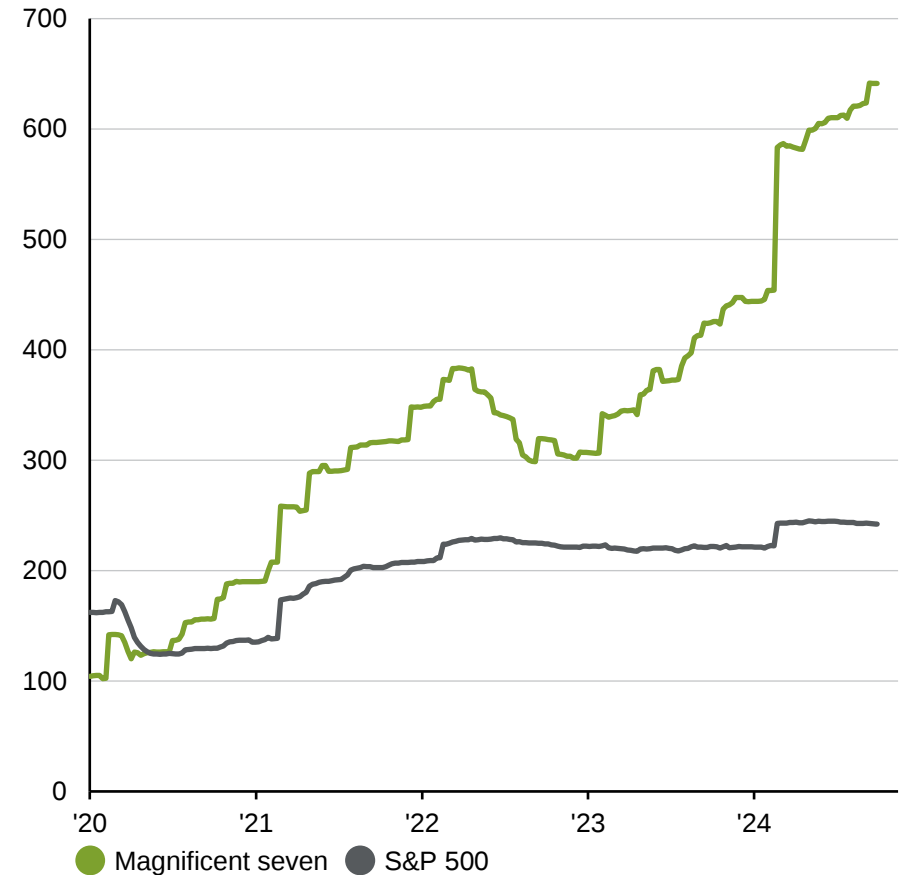
Contribution of largest seven 'tech' stocks to S&P 500

% contribution to S&P 500 market cap and trailing earnings



12-month forward earnings expectations

Next 12 months' earnings per share estimates, USD



Source: (Left) IBES, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. Dot com bubble peak represents the largest seven tech or tech-related firms in the S&P 500 by market cap, as of March 2000. We then show the same metrics for the 'Today' bars for the current largest seven tech or tech-related firms by market cap. (Right) Bloomberg, S&P Global, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. Guide to the Markets - Europe. Data as of 30 September 2024.



World stock market returns

GTM Europe 64

Equities

	2016	2017	2018	2019	2020	2021	2022	2023	3Q '24	YTD	10-year ann. return
EUR Local	15,3% S&P 500 12,0%	24,8% Asia ex-JP 35,9%	0,4% S&P 500 -4,4%	33,9% S&P 500 31,5%	15,0% Asia ex-JP 22,7%	38,5% S&P 500 28,7%	-8,9% Europe -8,0%	22,0% S&P 500 26,3%	6,2% Asia ex-JP 8,1%	20,8% S&P 500 22,1%	14,5% S&P 500 12,0%
	14,9% MSCI EM 10,1%	21,0% MSCI EM 31,0%	-6,8% Portfolio -9,1%	26,9% Portfolio 24,5%	8,9% MSCI EM 19,5%	25,9% Europe 23,3%	-9,3% TOPIX -2,4%	16,6% Europe 15,0%	4,6% MSCI EM 6,8%	20,3% Asia ex-JP 22,0%	9,2% Portfolio 8,4%
	9,5% Portfolio 8,5%	12,7% Portfolio 21,8%	-9,4% TOPIX -16,0%	26,9% Europe 24,6%	8,6% S&P 500 18,4%	22,5% Portfolio 17,8%	-11,5% Portfolio -12,2%	16,0% TOPIX 28,3%	2,9% Portfolio 3,7%	16,1% Portfolio 17,1%	7,8% TOPIX 8,6%
	8,9% Asia ex-JP 6,4%	11,2% TOPIX 22,2%	-9,8% Asia ex-JP -12,0%	21,4% TOPIX 18,1%	4,8% Portfolio 10,9%	8,8% TOPIX 12,7%	-12,8% S&P 500 -18,1%	15,3% Portfolio 18,2%	2,7% TOPIX -4,9%	16,0% MSCI EM 18,7%	7,1% Europe 7,0%
	6,6% TOPIX 0,3%	10,9% Europe 13,7%	-9,9% MSCI EM -9,7%	21,1% MSCI EM 18,5%	3,7% TOPIX 7,4%	5,2% MSCI EM 0,1%	-14,1% Asia ex-JP -15,1%	6,5% MSCI EM 10,3%	2,4% Europe 1,6%	12,2% Europe 11,6%	6,5% Asia ex-JP 5,2%
	3,2% Europe 7,9%	7,0% S&P 500 21,8%	-10,0% Europe -10,0%	20,7% Asia ex-JP 18,2%	-2,8% Europe -1,7%	2,8% Asia ex-JP -2,8%	-14,5% MSCI EM -15,2%	2,7% Asia ex-JP 6,8%	1,7% S&P 500 5,9%	11,4% TOPIX 14,2%	5,3% MSCI EM 5,6%

Source: LSEG Datastream, MSCI, S&P Global, TOPIX, J.P. Morgan Asset Management. Hypothetical portfolio (for illustrative purposes only and should not be taken as a recommendation): 35% Europe; 30% S&P 500; 15% EM; 10% Asia ex-Japan; 10% TOPIX. All indices are total return. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

J.P.Morgan
ASSET MANAGEMENT

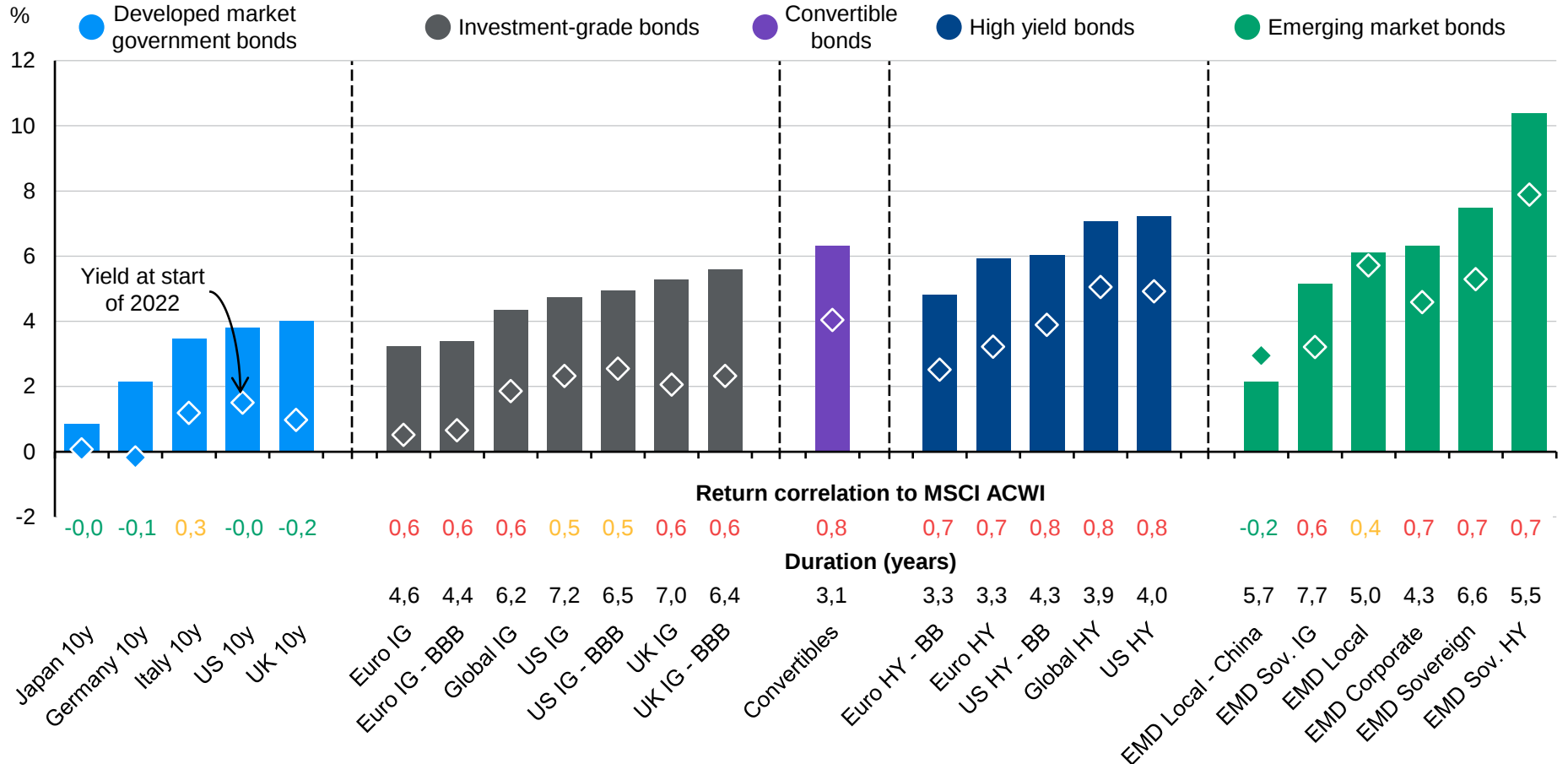


Fixed income yields

GTM Europe 65

Fixed income

Fixed income yields



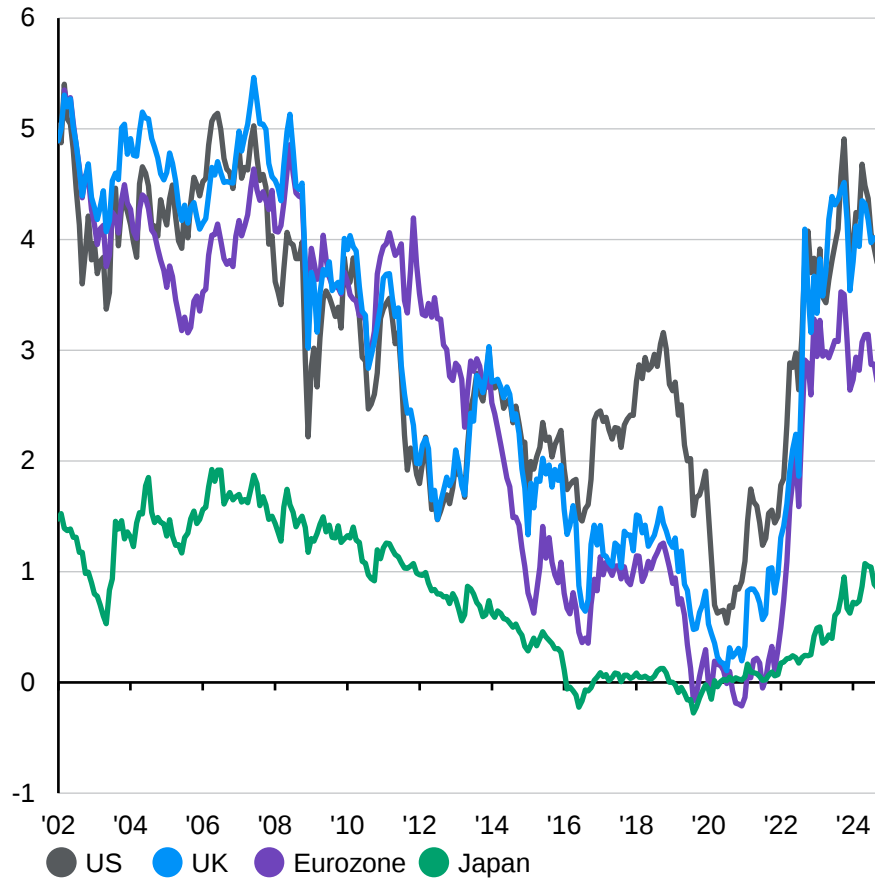
Source: Bloomberg, ICE BofA, J.P. Morgan Economic Research, LSEG Datastream, J.P. Morgan Asset Management. Return correlation to MSCI All-Country World Index is calculated using monthly total returns since 2008. Indices used are as follows: Euro IG: Bloomberg Euro-Aggregate Corporate; Global IG: Bloomberg Global Aggregate Corporate; UK IG: Bloomberg Sterling Aggregate Corporate; US IG: Bloomberg US Aggregate Corporate; Convertible bonds: Bloomberg Global Convertible Rate Sensitive hedged to USD; Euro HY: ICE BofA Euro Developed Markets Non-Financial High Yield Constrained Index; Global HY: ICE BofA Global High Yield Index; US HY: ICE BofA US High Yield Constrained Index; EMD corporate: CEMBI Broad Diversified; EMD local: GBI-EM Global Diversified; EMD local - China: J.P. Morgan GBI-EM Broad Diversified China; EMD sovereign: EMBI Global Diversified; EMD sov. IG: EMBI Global Diversified IG; EMD sov. HY: EMBI Global Diversified HY. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Global government bond yields and spreads

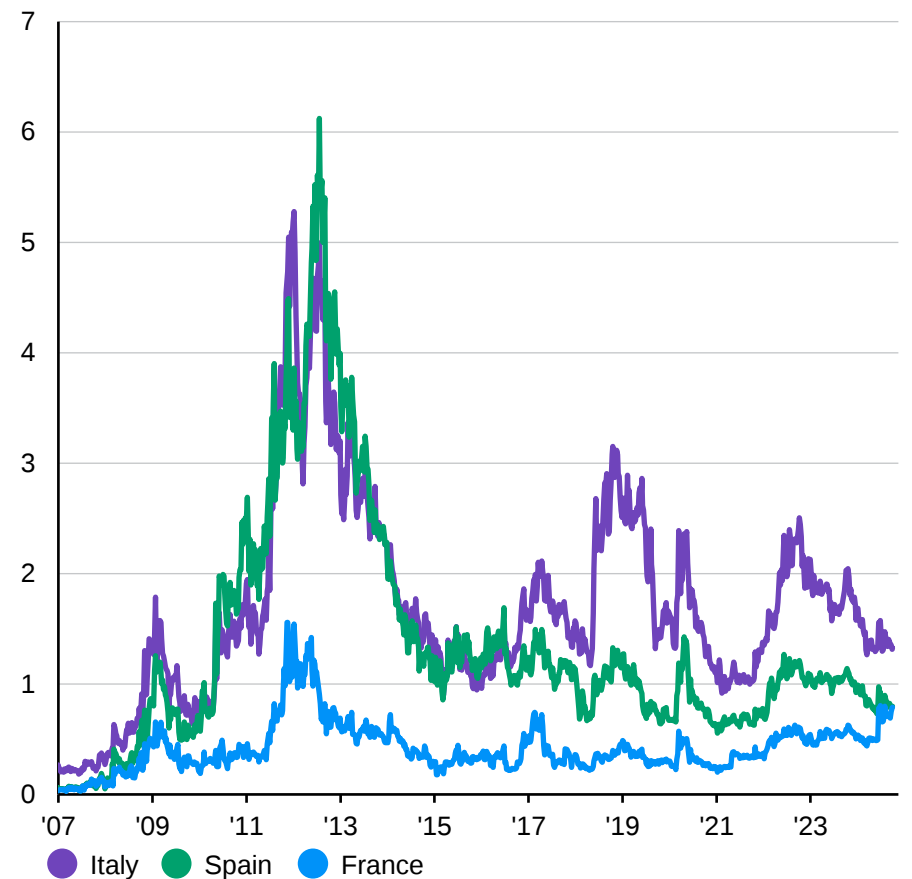
Nominal 10-year government bond yields

% yield



European 10-year government bond spreads over Germany

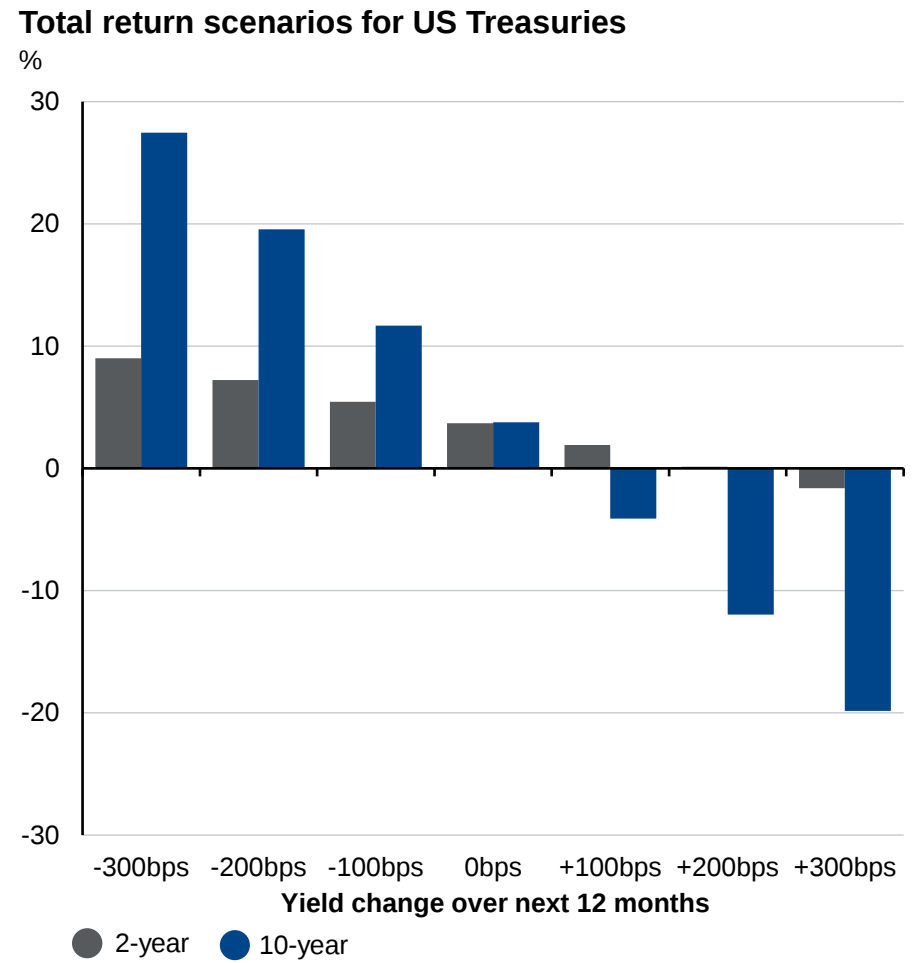
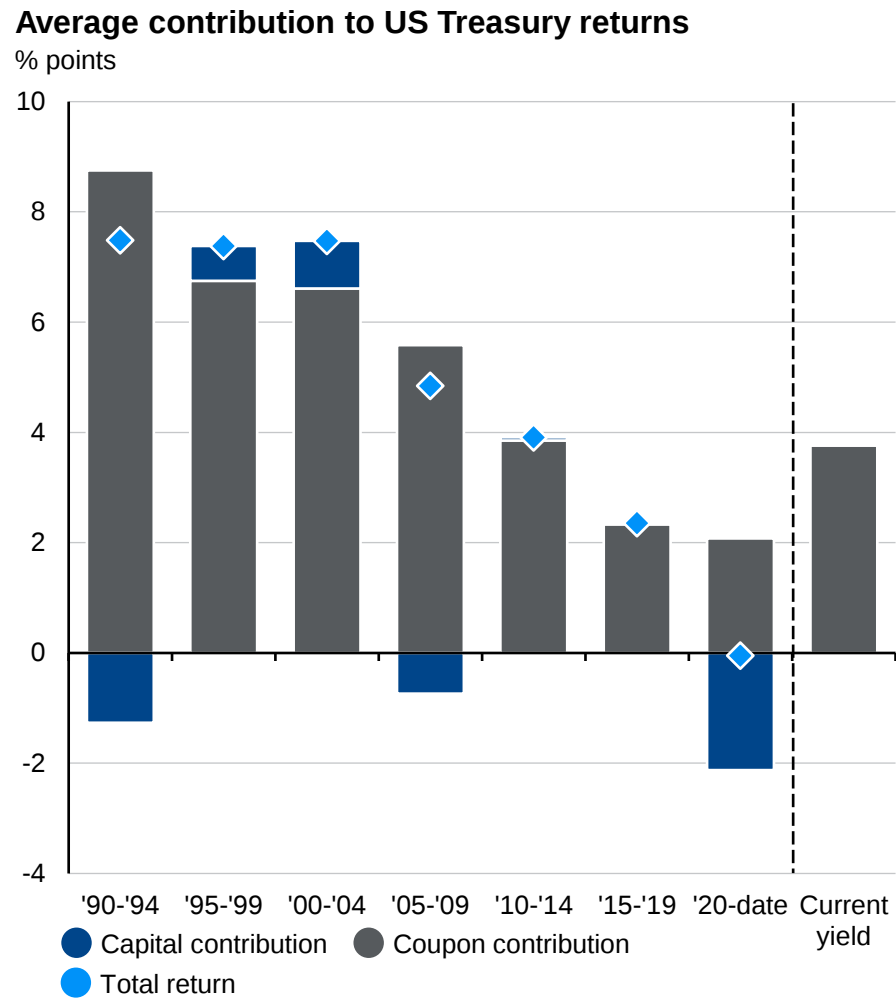
% point spread



Source: (Left) LSEG Datastream, J.P. Morgan Asset Management. Eurozone is a GDP-weighted average of the French, German, Italian and Spanish 10-year government bond yields. (Right) LSEG Datastream, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. Guide to the Markets - Europe. Data as of 30 September 2024.



Fixed income: Income and diversification



Source: (Left) Bloomberg, LSEG Datastream, J.P. Morgan Asset Management. Index used is the Bloomberg US Treasury index. Chart shows annualised returns and contributions in each period. Returns from 2020 to date include year-to-date annualised returns. (Right) LSEG Datastream, J.P. Morgan Asset Management. Chart indicates the calculated total return achieved by purchasing US Treasuries at the current yield and selling in 12 months' time given various changes in yield. For illustrative purposes only. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Fixed income yields and subsequent returns

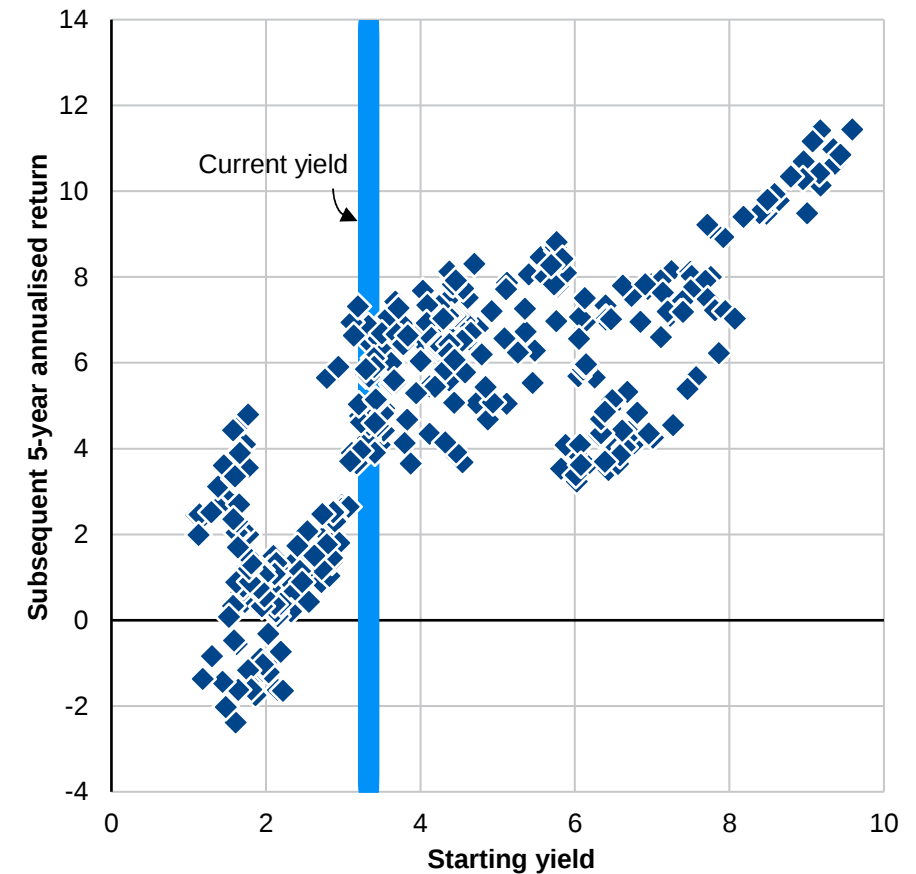
Global fixed income yield cushion

Basis point change over 12 months



Global fixed income yields and subsequent 5y returns

%, subsequent return is % change annualised



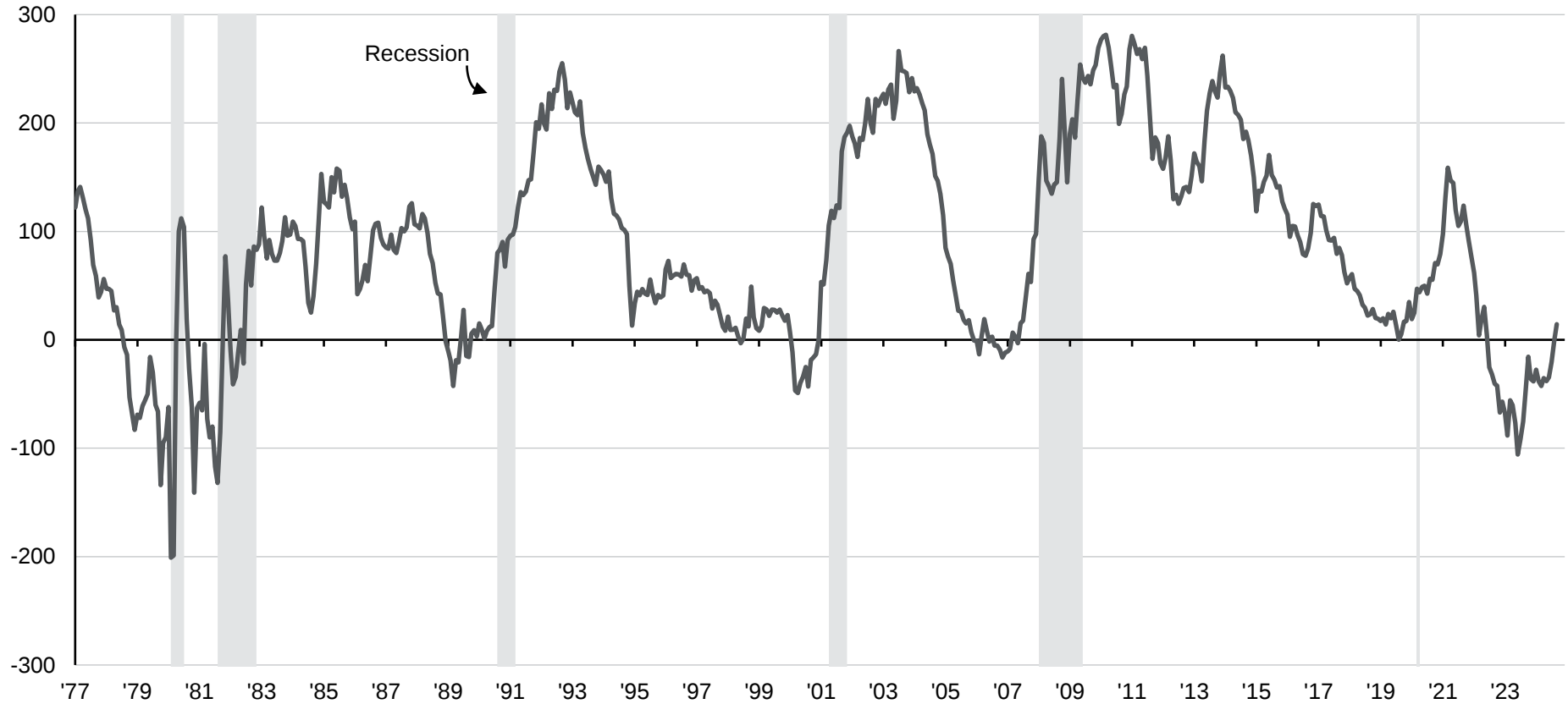
Source: (Left) Bloomberg, LSEG Datastream, J.P. Morgan Asset Management. Yield cushion refers to how far yields can rise before capital depreciation wipes out one year's worth of income. (Right) Bloomberg, J.P. Morgan Asset Management. Index used is the Bloomberg Global Aggregate index. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



US yield curve

US yield curve

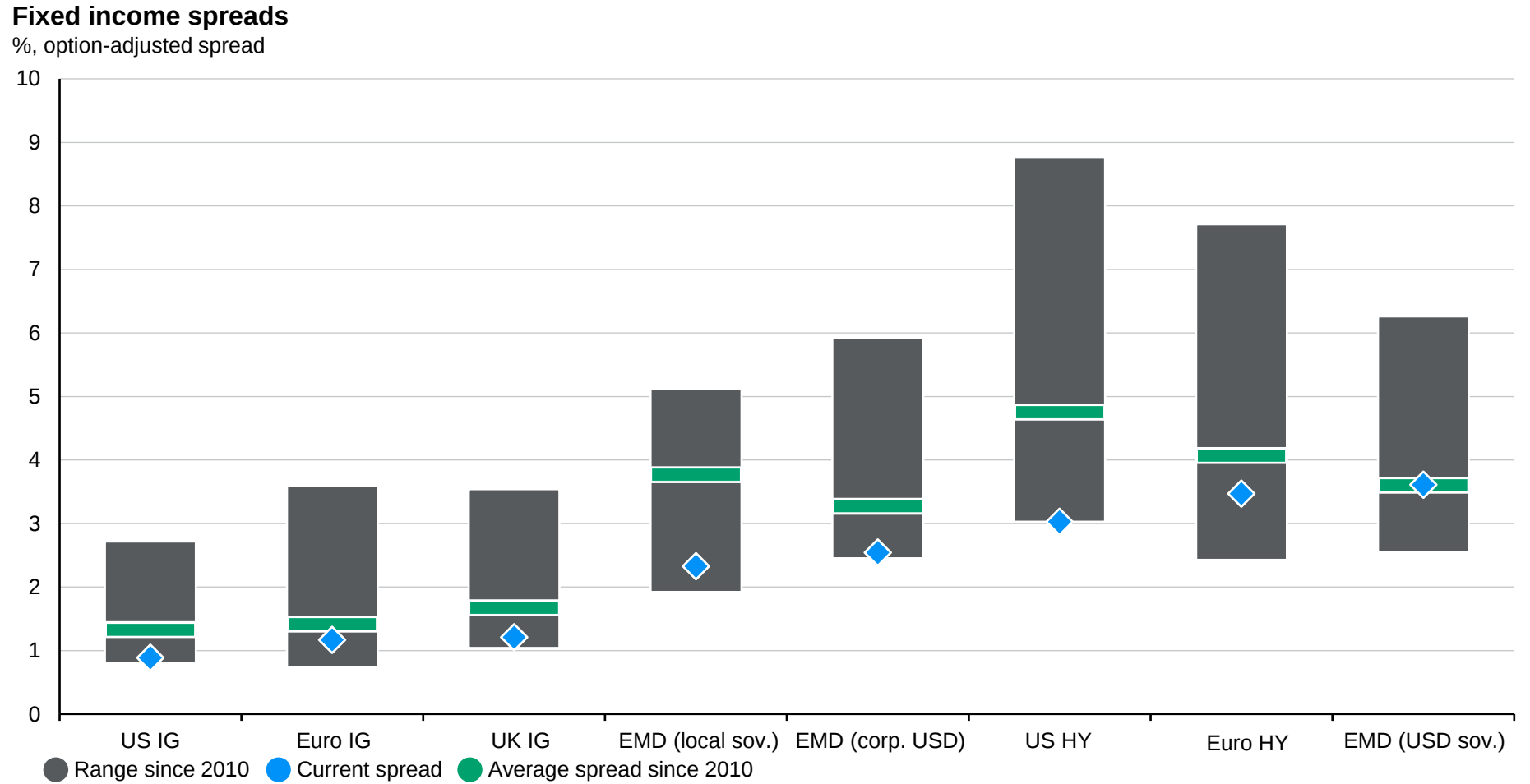
Basis points, 10-year Treasury yield minus 2-year Treasury yield





Global fixed income spreads

Fixed income



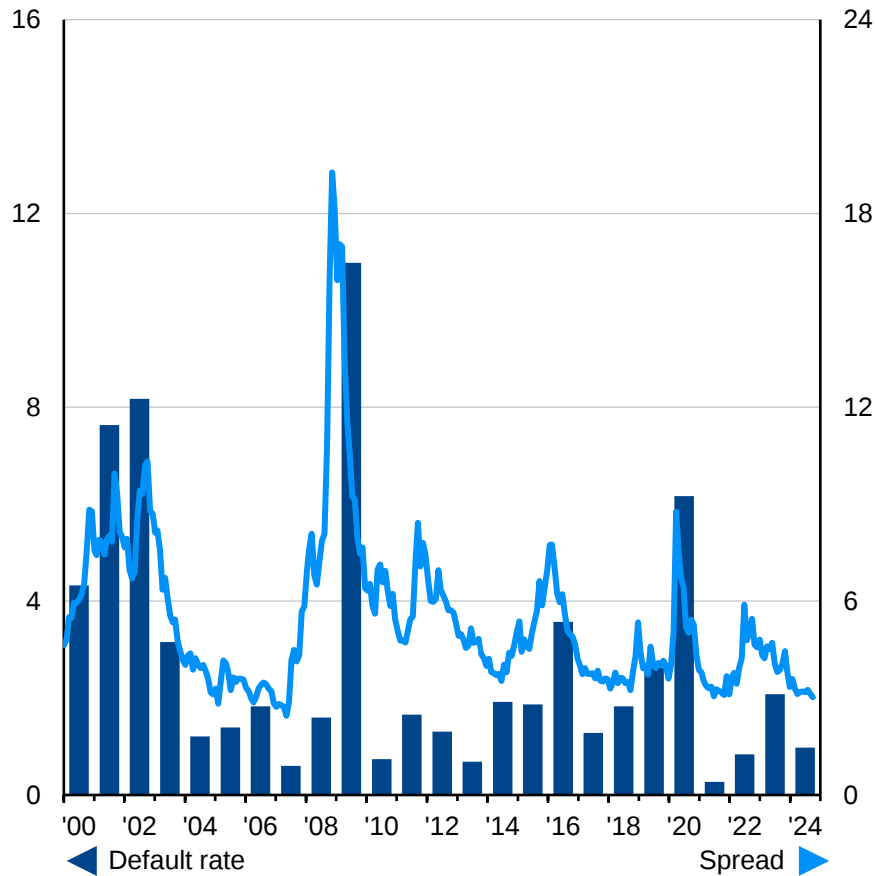
Source: Bloomberg, ICE BofA, J.P. Morgan Economic Research, LSEG Datastream, J.P. Morgan Asset Management. Euro IG: Bloomberg Euro Agg. Corporate; US HY: ICE BofA US High Yield Constrained; EM Debt: J.P. Morgan EMBI Global Diversified; Euro HY: ICE BofA Euro Developed Markets Non-Financial High Yield Constrained; US IG: Bloomberg US Agg. Corporate – Investment Grade; UK IG: Bloomberg Sterling Agg. Corporate; EMD local: J.P. Morgan GBI-EM Global Diversified; EMD corporate: J.P. Morgan CEMBI Broad Diversified. Past performance is not a reliable indicator of current and future results.
Guide to the Markets - Europe. Data as of 30 September 2024.



High yield bonds

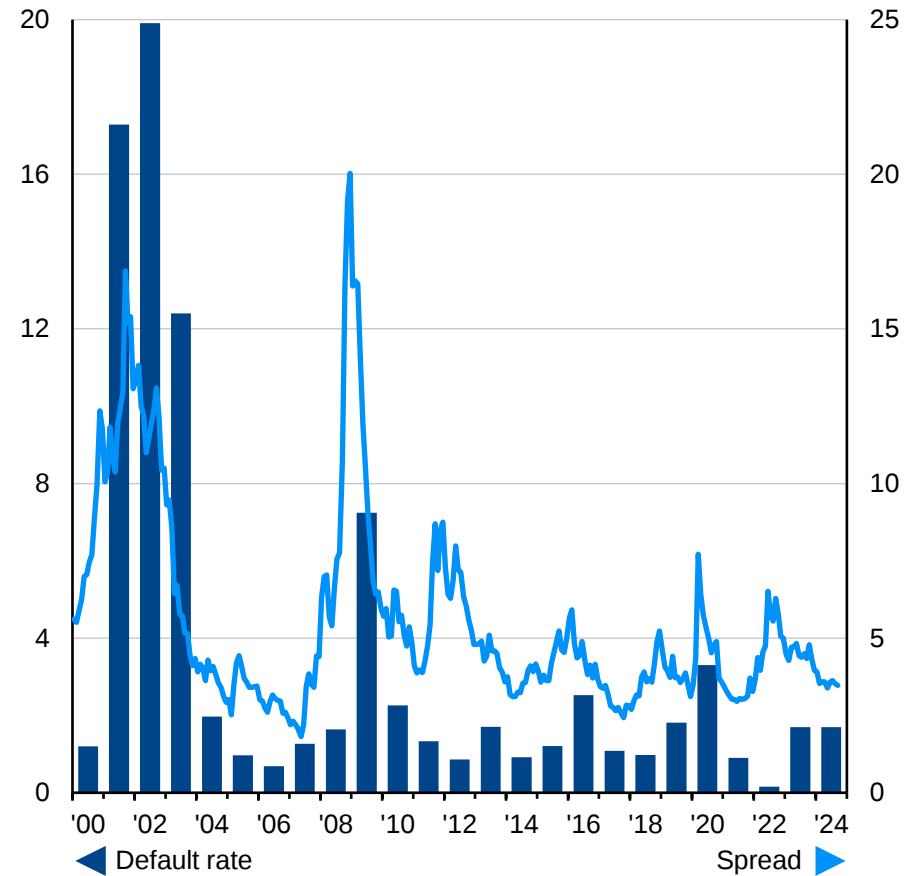
US high yield spread and defaults

%, default rate (LHS); %, option-adjusted spread (RHS)



Euro high yield spread and defaults

%, default rate (LHS); %, option-adjusted spread (RHS)



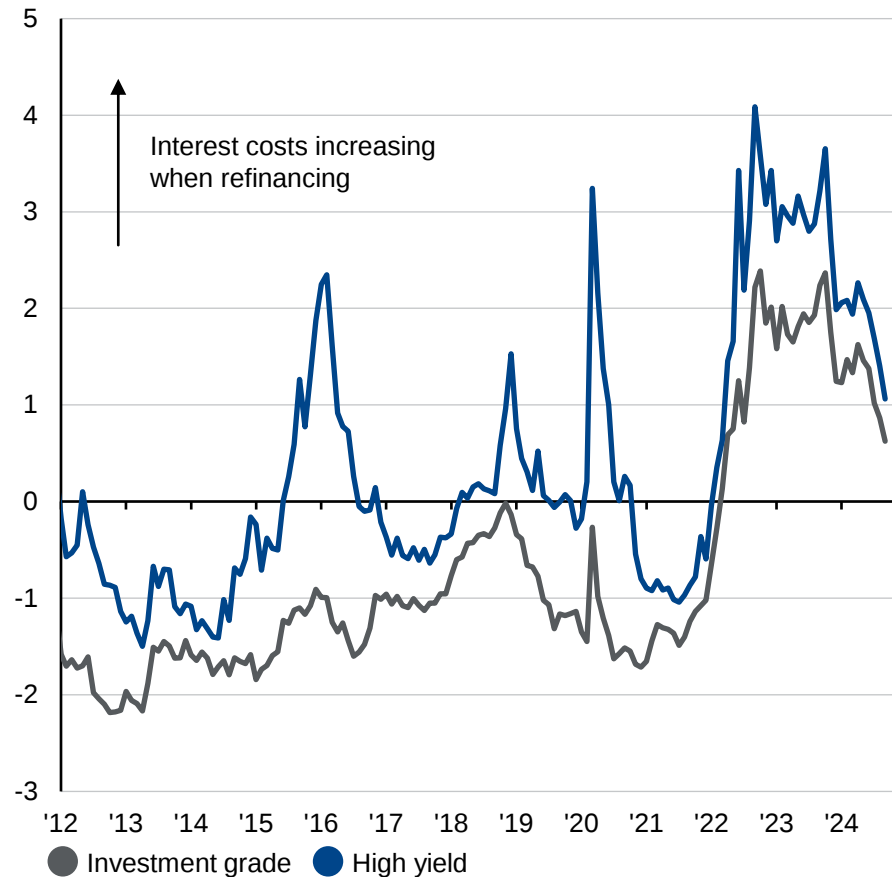
Source: (Left) ICE BofA, J.P. Morgan Securities Research, LSEG Datastream, J.P. Morgan Asset Management. US HY: ICE BofA US High Yield Constrained. US HY default rate is defined as the par value percentage of the total market trading at or below 50% of par value and includes any Chapter 11 filing, prepackaged filing or missed interest payments. (Right) Bloomberg, ICE BofA, J.P. Morgan Securities Research, J.P. Morgan Asset Management. Euro HY: ICE BofA Euro Developed Markets Non-Financial High Yield Constrained Index. Euro HY defaults occur when bonds are downgraded to C rating. The calculation universe is based on par value percentage of the EUR and GBP HY Non-Financials Corporate bond universe. Defaults include missed coupon payments, restructuring and distressed exchanges. Latest default rate is for the last 12 months of available data. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Fixed income focus: Corporate solvency risks

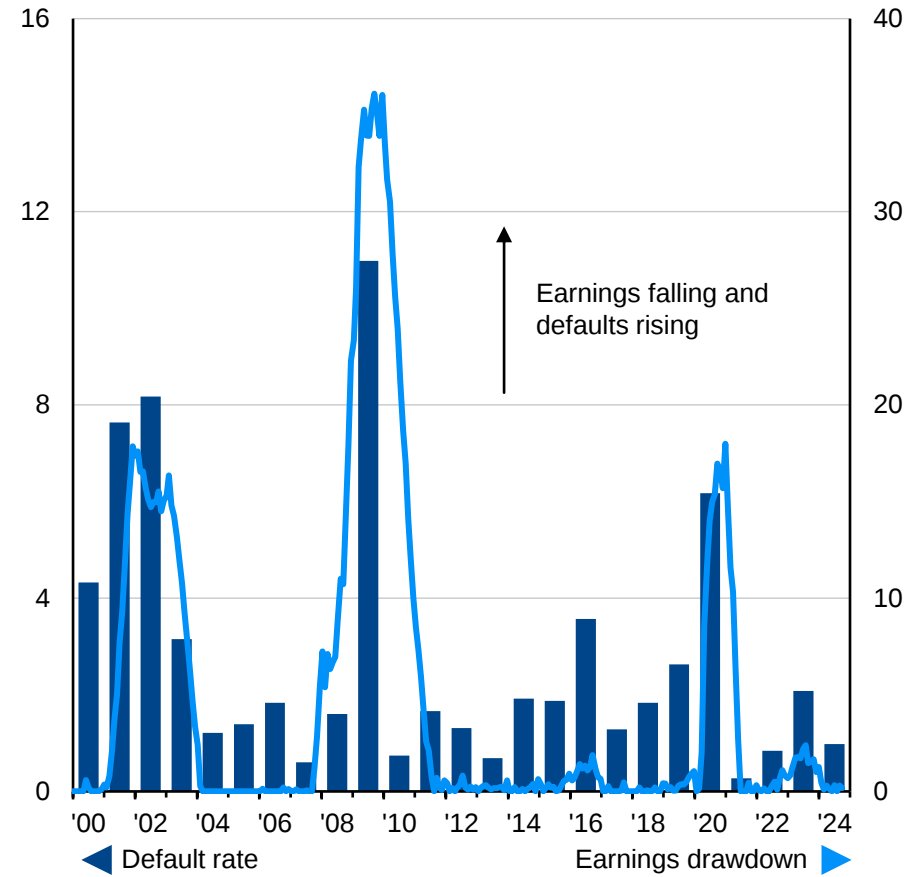
Global corporate refinancing costs

% point difference between current yields and average coupon



US earnings drawdowns and high yield default rates

% (LHS); % drawdown from previous peak (RHS)



Source: (Left) BofA, LSEG Datastream, J.P. Morgan Asset Management. Global Investment Grade: BofA Global Corporate Index; Global High Yield: BofA Global Developed Market Non-Financial High Yield Constrained Index. (Right) ICE BofA, J.P. Morgan Securities Research, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. US HY: ICE BofA US High Yield Constrained Index. Default rate is defined as the par value percentage of the total market trading at or below 50% of par value and includes any Chapter 11 filing, prepackaged filing or missed interest payments. Latest default rate is for the last 12 months of available data. Earnings drawdown is based on S&P 500 12-month trailing earnings per share. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Global fixed income returns

GTM Europe 73

	2016	2017	2018	2019	2020	2021	2022	2023	3Q '24	YTD	10-year ann. return
EUR	21,0% US HY 17,5%	6,3% Euro HY 6,3%	5,9% US Treas. 0,9%	17,2% EM Debt 15,0%	5,0% Euro Gov 5,0%	13,3% US HY 5,3%	-5,4% US HY -11,2%	11,8% Euro HY 11,8%	4,0% Euro Gov 4,0%	7,5% EM Debt 8,6%	6,8% US HY 4,5%
Local	13,4% EM Debt 10,2%	2,4% Euro IG 2,4%	2,7% US HY -2,3%	16,6% US IG 14,5%	3,1% Infl Linked 3,1%	6,5% US IG -1,0%	-6,7% US Treas. -12,5%	9,6% US HY 13,5%	3,3% Euro HY 3,3%	6,9% US HY 8,1%	5,5% EM Debt 3,2%
	10,2% Euro HY 10,2%	1,4% Infl Linked 1,4%	2,4% US IG -2,5%	16,5% US HY 14,4%	2,8% Euro IG 2,8%	6,4% Infl Linked 6,4%	-9,7% Infl Linked -9,7%	8,2% Euro IG 8,2%	3,3% Euro IG 3,3%	6,1% Euro HY 6,1%	5,3% US IG 3,0%
	9,3% US IG 6,1%	0,2% Euro Gov 0,2%	1,3% Portfolio -1,4%	11,2% Portfolio 10,1%	2,2% Euro HY 2,2%	5,7% EM Debt -1,8%	-10,2% US IG -15,8%	7,3% EM Debt 11,1%	2,9% Infl Linked 2,9%	4,2% US IG 5,3%	3,7% Portfolio 2,4%
	8,1% Portfolio 6,3%	-2,8% Portfolio 4,3%	1,0% Euro Gov 1,0%	10,9% Euro HY 10,9%	0,9% Portfolio 5,8%	5,1% US Treas. -2,3%	-11,3% Euro HY -11,3%	7,1% Euro Gov 7,1%	2,3% Portfolio 4,6%	4,0% Portfolio 4,6%	3,5% US Treas. 1,3%
	4,7% Euro IG 4,7%	-3,2% EM Debt 10,3%	0,6% EM Debt -4,3%	8,8% US Treas. 6,9%	0,8% US IG 9,9%	3,9% Portfolio -0,2%	-11,5% Portfolio -14,6%	6,3% Portfolio 8,3%	1,9% EM Debt 6,2%	3,8% Euro IG 3,8%	3,4% Euro HY 3,4%
	4,1% US Treas. 1,0%	-5,6% US HY 7,5%	-1,3% Euro IG -1,3%	6,8% Euro Gov 6,8%	-0,9% US Treas. 8,0%	3,4% Euro HY 3,4%	-12,4% EM Debt -17,8%	5,9% Infl Linked 5,9%	1,6% US IG 5,8%	2,8% US Treas. 3,8%	2,1% Infl Linked 2,1%
	3,8% Infl Linked 3,8%	-6,5% US IG 6,4%	-1,5% Infl Linked -1,5%	6,6% Infl Linked 6,6%	-2,7% US HY 6,1%	-1,0% Euro IG -1,0%	-13,6% Euro IG -13,6%	4,8% US IG 8,5%	1,1% US HY 5,3%	2,0% Euro Gov 2,0%	1,4% Euro IG 1,4%
	3,2% Euro Gov 3,2%	-10,1% US Treas. 2,3%	-4,0% Euro HY -4,0%	6,2% Euro IG 6,2%	-3,4% EM Debt 5,3%	-3,5% Euro Gov -3,5%	-18,5% Euro Gov -18,5%	0,5% US Treas. 4,1%	0,6% US Treas. 4,7%	0,7% Infl Linked 0,7%	1,3% Euro Gov 1,3%

Source: Bloomberg, ICE BofA, J.P. Morgan Economic Research, LSEG Datastream, J.P. Morgan Asset Management. UK IG: Bloomberg Sterling Agg. Corporate; US HY: ICE BofA US High Yield Constrained; EM Debt: J.P. Morgan EMBI Global Diversified; Euro HY: ICE BofA Euro Developed Markets Non-Financial High Yield Constrained; US IG: Bloomberg US Agg. Corporate – Investment Grade; US Treasuries: Bloomberg US Agg. Gov. Treasury; Euro IG: Bloomberg Euro Agg. Corporate; Euro Gov.: Bloomberg Euro Agg. Government; Infl Linked: Bloomberg Euro Gov. Inflation-Linked. Hypothetical portfolio (for illustrative purposes only and should not be taken as a recommendation): 20% Euro Gov.; 15% US Treasuries; 10% Linkers; 15% US IG; 10% Euro IG; 10% US HY; 5% Euro HY; 15% EM Debt. Returns are unhedged in euros and local currencies. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Oil

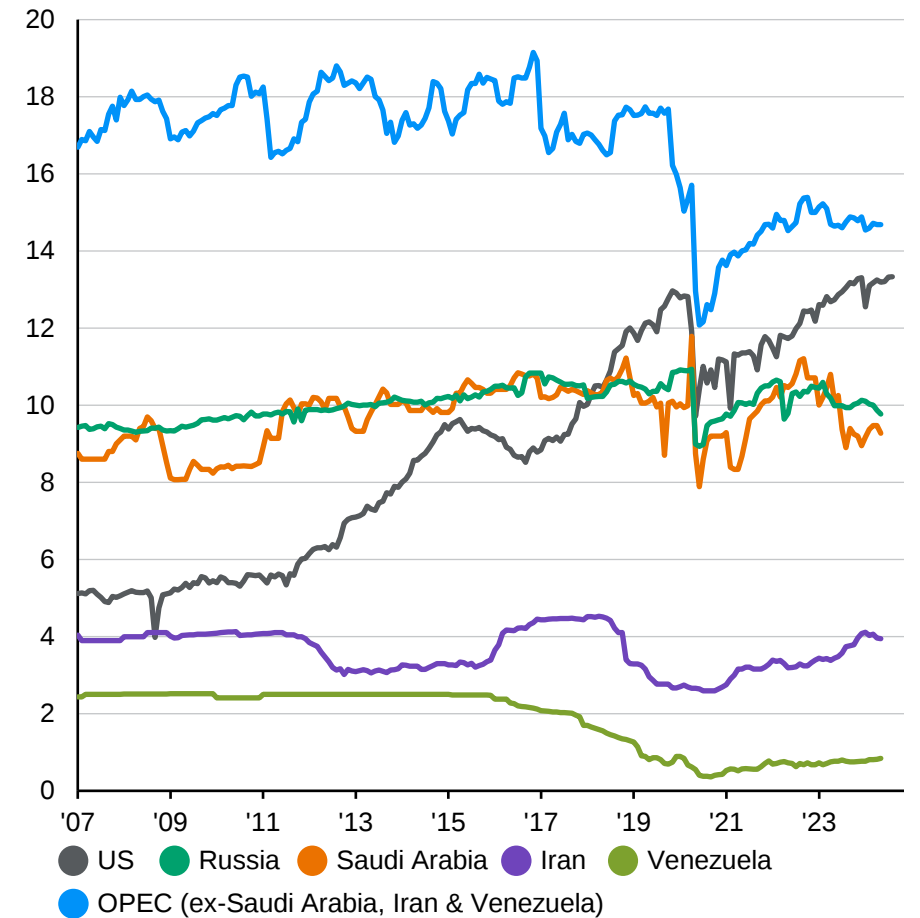
WTI crude oil price and US rig count

USD per barrel (LHS); number of rigs (RHS)



Crude oil production by country

Million barrels per day



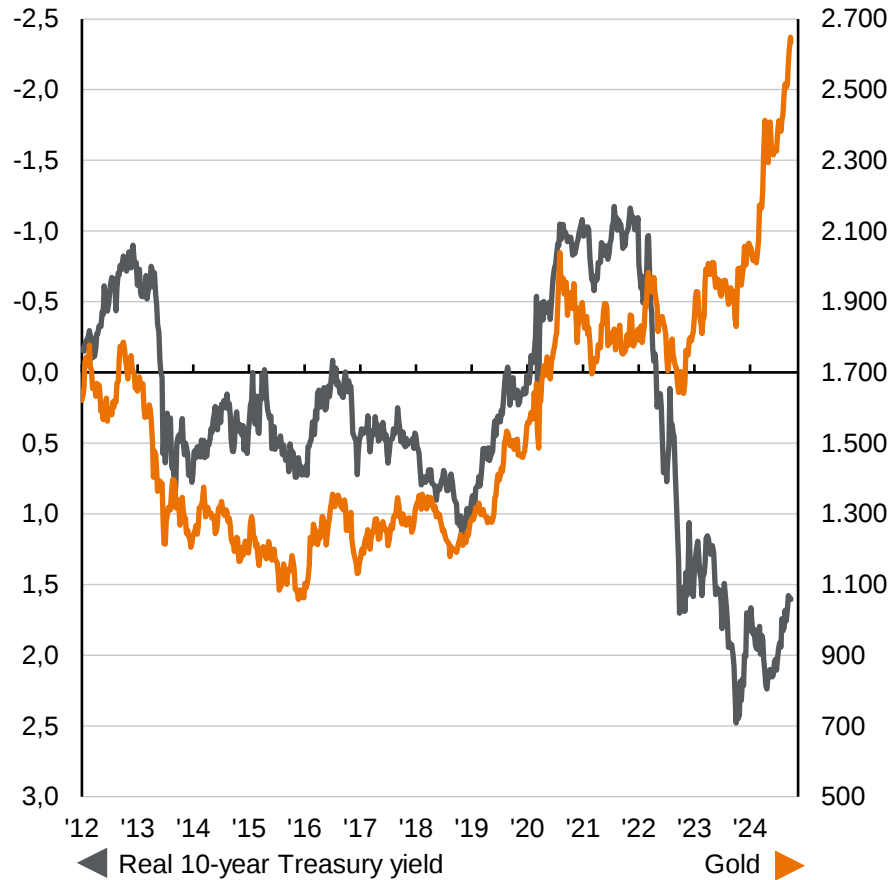
Source: (Left) Baker Hughes, Bloomberg, J.P. Morgan Asset Management. (Right) EIA, LSEG Datastream, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Commodities

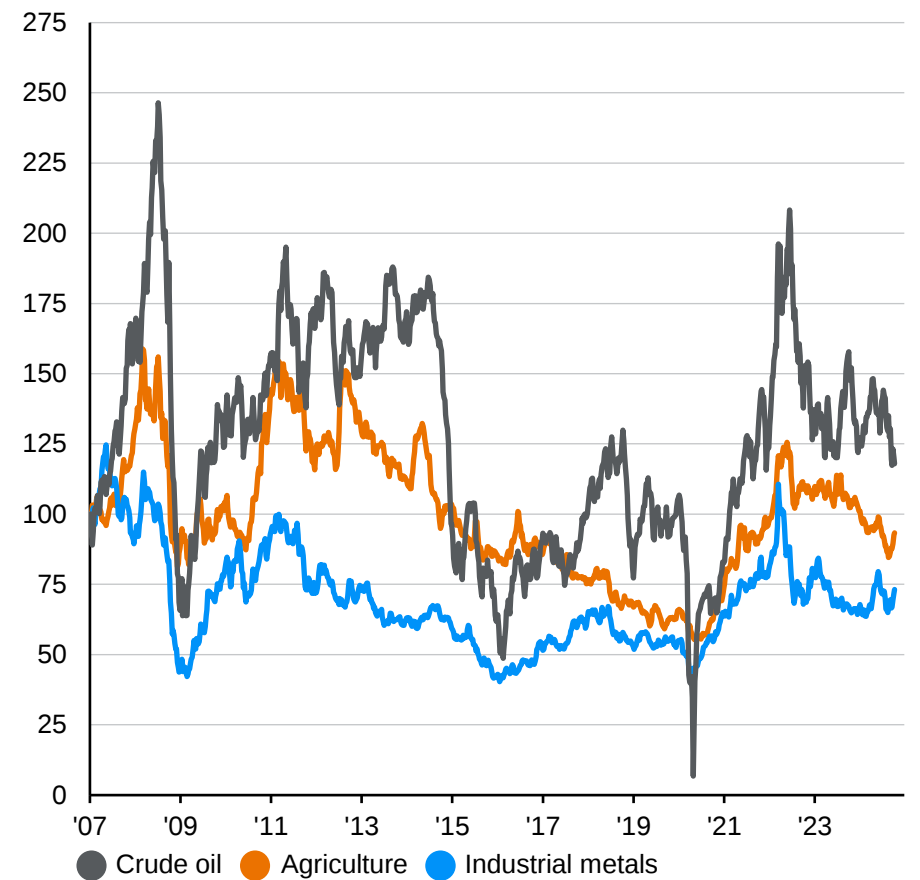
Real US 10-year Treasury yield vs. gold

%, inverted (LHS); USD per Troy ounce (RHS)



Commodity prices

Index level, rebased to 100 in January 2007



Source: (Left) LSEG Datastream, J.P. Morgan Asset Management. Real yield is the US 10-year Treasury inflation-protected security yield. (Right) Bloomberg, J.P. Morgan Asset Management. Industrial metals include aluminium, copper, nickel and zinc. Agriculture includes coffee, corn, soybeans, soybean oil, sugar and wheat. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

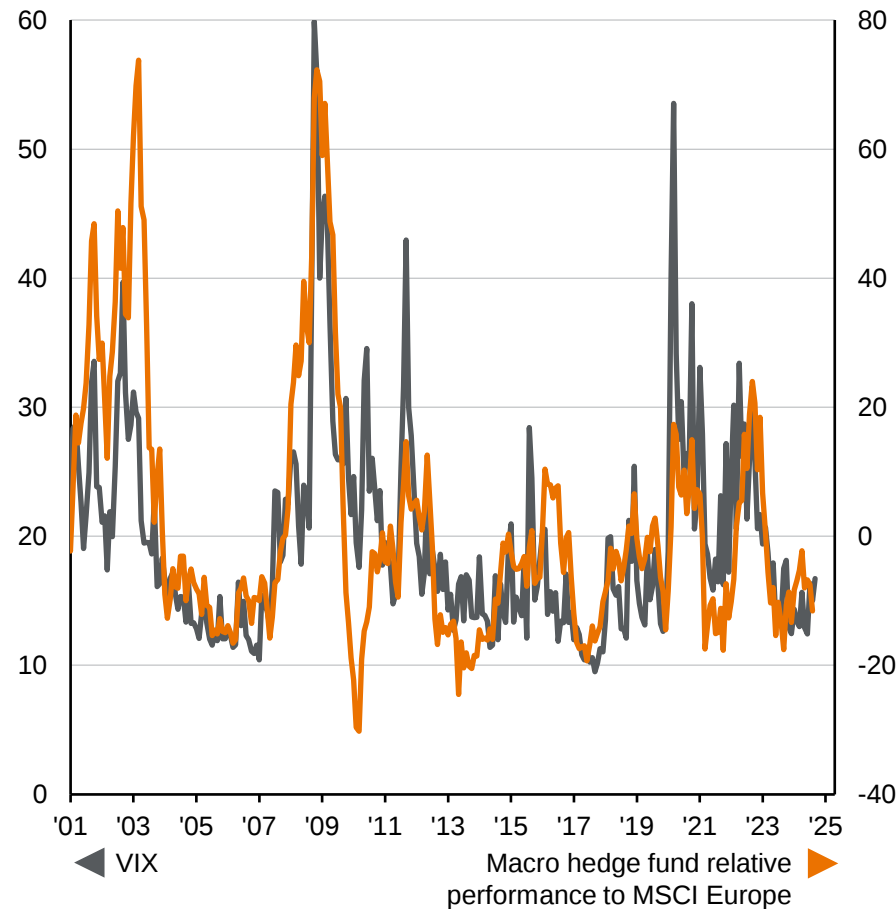


Volatility and alternative investments

Other assets

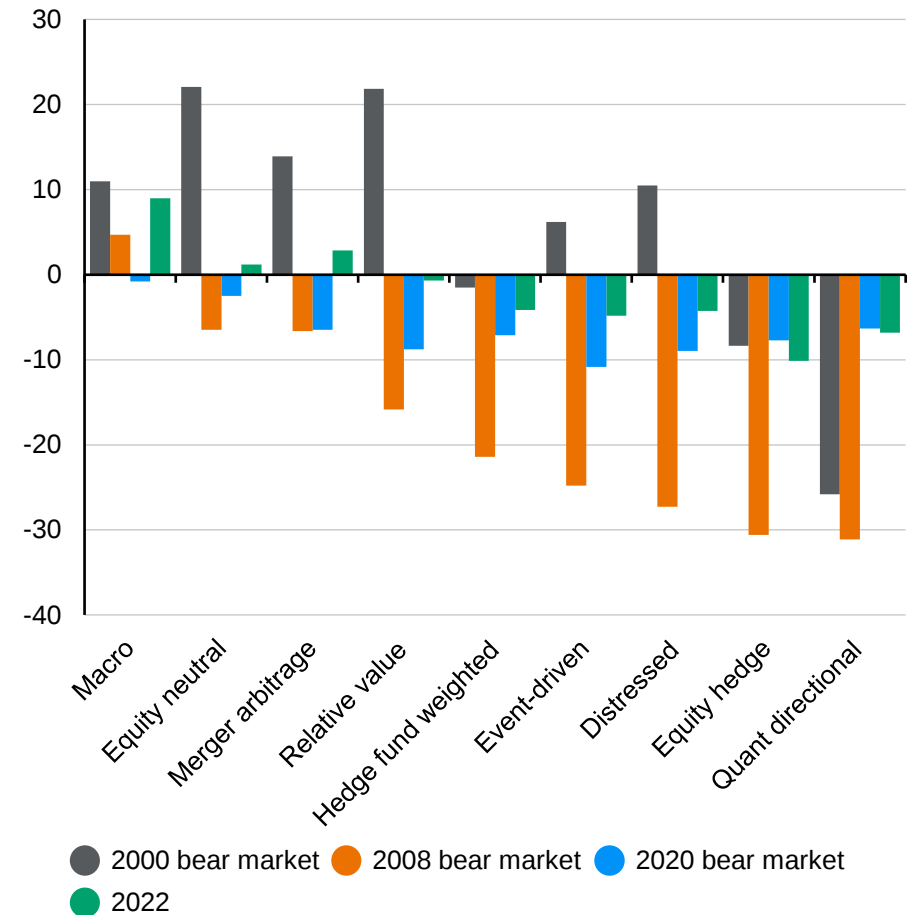
Macro hedge fund relative performance & volatility

Index level (LHS); % change year on year (RHS)



Hedge fund style returns during bear markets

% total return



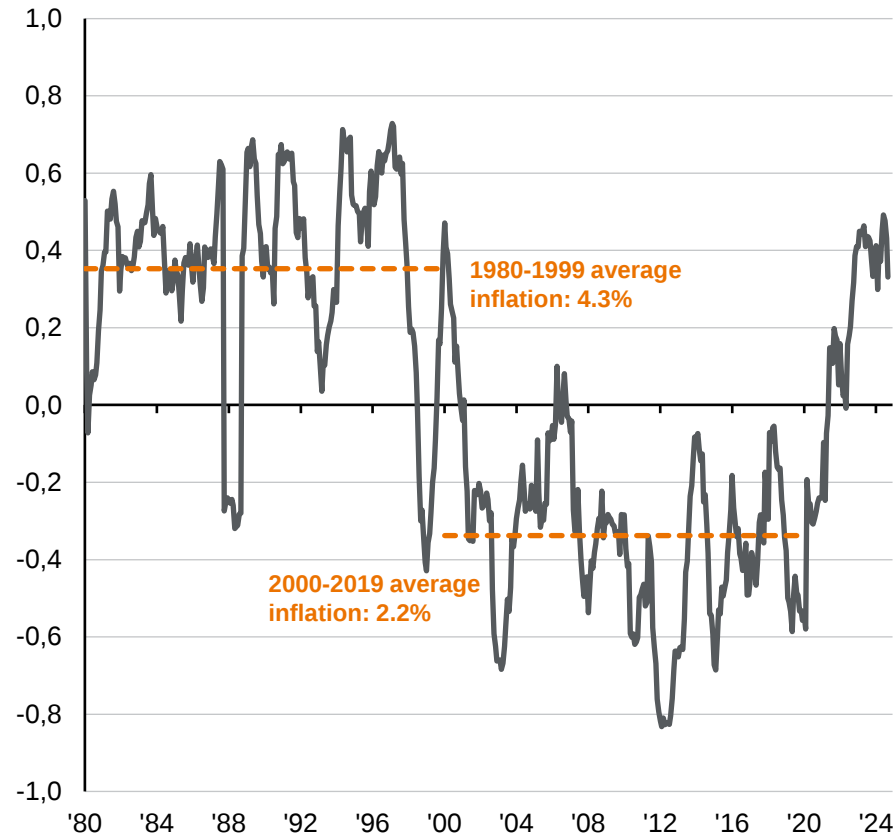
Source: (Left) CBOE, Hedge Fund Research Indices (HFRI), LSEG Datastream, MSCI, J.P. Morgan Asset Management. Macro hedge fund (total return in USD) relative performance is calculated relative to MSCI Europe (total return in local currency). VIX is the implied volatility of S&P 500 Index based on options pricing. (Right) Hedge Fund Research Indices (HFRI), LSEG Datastream, J.P. Morgan Asset Management. 2000 bear market is from 31 March 2000 to 31 October 2002, 2008 bear market is from 31 October 2007 to 28 February 2009, 2020 bear market is from 31 January 2020 to 30 April 2020. Hedge fund strategies are defined in the HFRI hedge fund strategy classification system. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Portfolio construction

S&P 500 / US 10-year Treasury correlations and US inflation

Rolling 1-year correlation based on weekly returns; % change year on year



Public and private market correlations

Correlation, quarterly returns

	2008 – 2Q24	Global Bonds	Global Equities
Financial assets	Global Bonds	1,0	
	Global Equities	0,4	1,0
Global real estate	U.S. Core RE	-0,3	0,0
	Europe Core RE	-0,2	0,1
Real assets	Commodities	0,1	0,6
	Global Core Infra	-0,1	0,1
	Transport	-0,2	0,0
	Timber	-0,2	-0,2
Private markets	Direct Lending	0,1	0,7
	Private Equity	0,3	0,8
Hedge funds	Equity Long/Short	0,3	0,9
	Macro	0,0	0,3

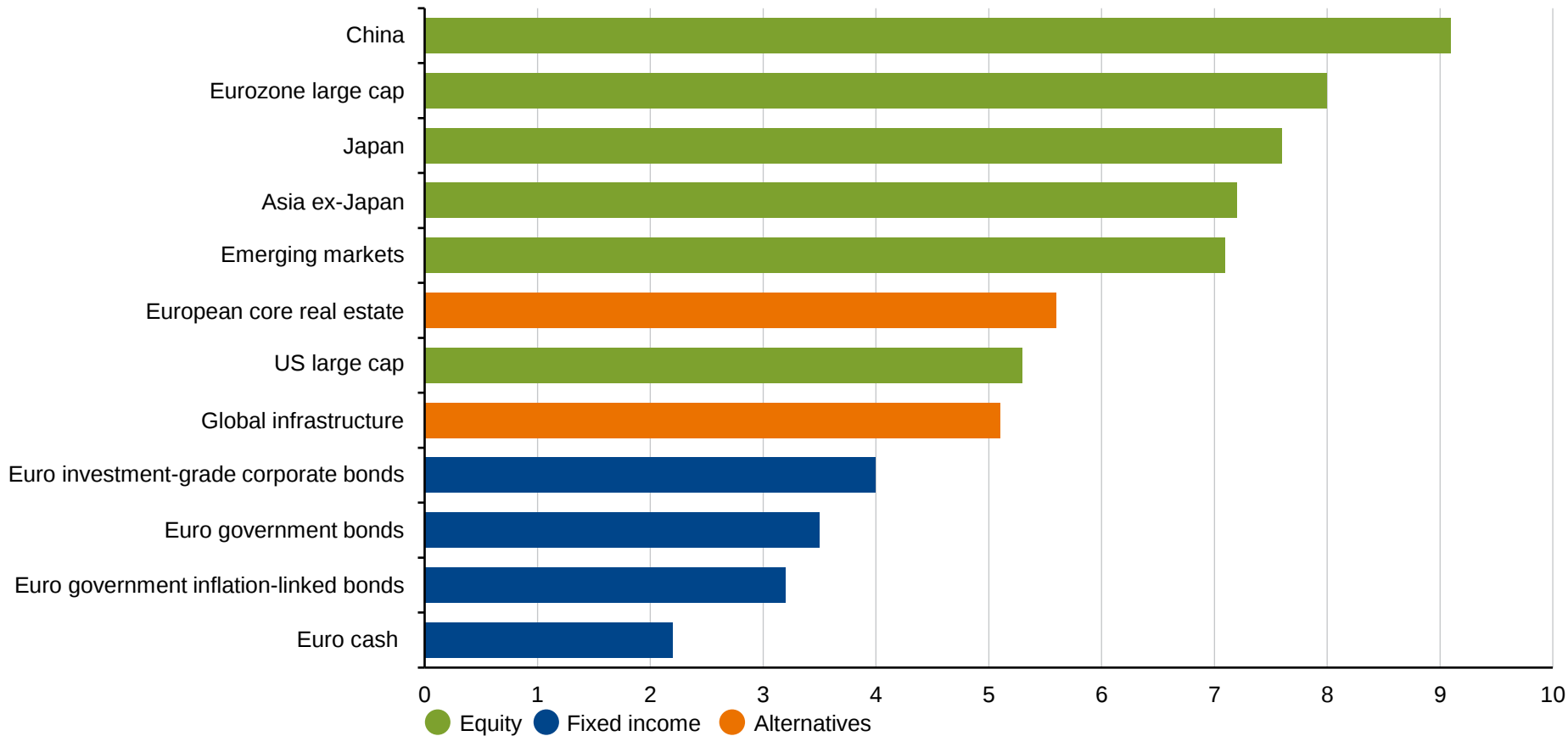
Source: (Left) BLS, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. US inflation refers to headline CPI. (Right) Bloomberg, Burgiss, Cliffwater, FactSet, HRFI, LSEG Datastream, MSCI, NCREIF, J.P. Morgan Asset Management. Global equities: MSCI AC World Index; Global bonds: Bloomberg Global Aggregate Index; US core real estate: NCREIF Property Index – Open End Diversified Core Equity; Europe core real estate: MSCI Global Property Fund Index – Continental Europe; Direct lending: Cliffwater Direct Lending Index; Global infrastructure: MSCI Global Quarterly Infrastructure Asset Index (equal-weighted blend); Timber: NCREIF Timberland Total Return Index; Commodities: Bloomberg Commodity Index. Private equity is time-weighted returns from Burgiss. Hedge fund indices are from HFRI. Transport returns are derived from a J.P. Morgan Asset Management index. Returns are denominated in USD. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Asset return expectations

2024 Long-Term Capital Market Assumptions expected returns in coming 10-15 years

%, annualised return in EUR

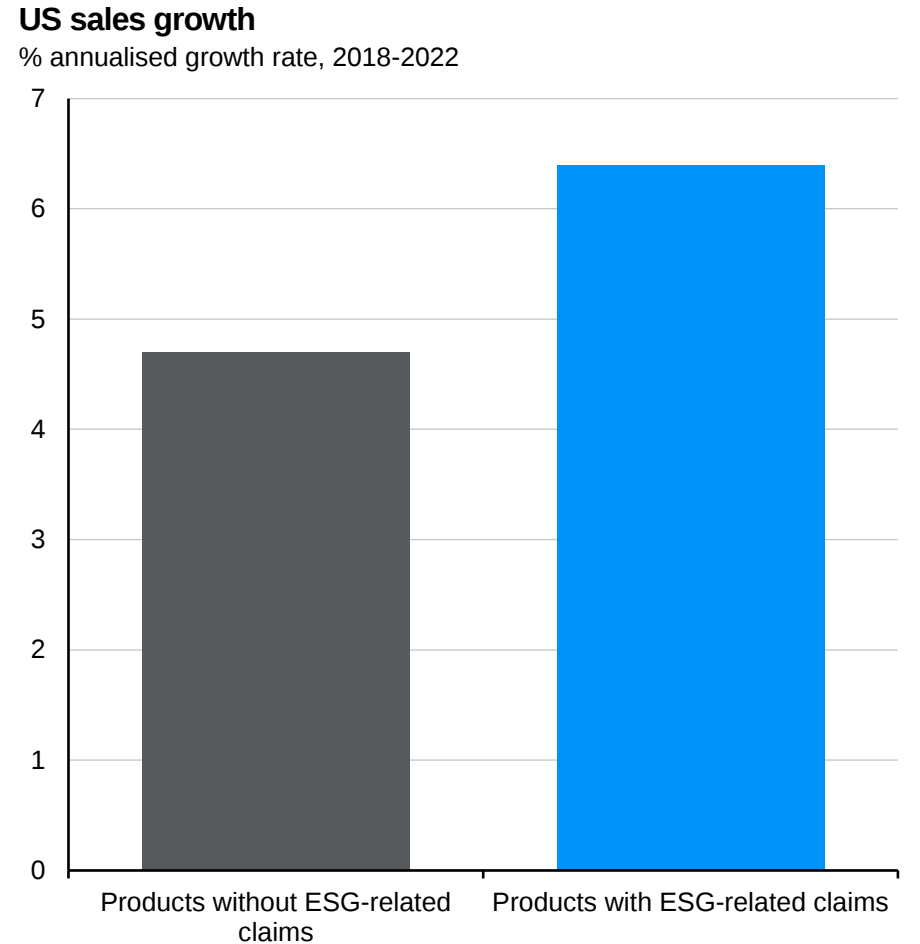
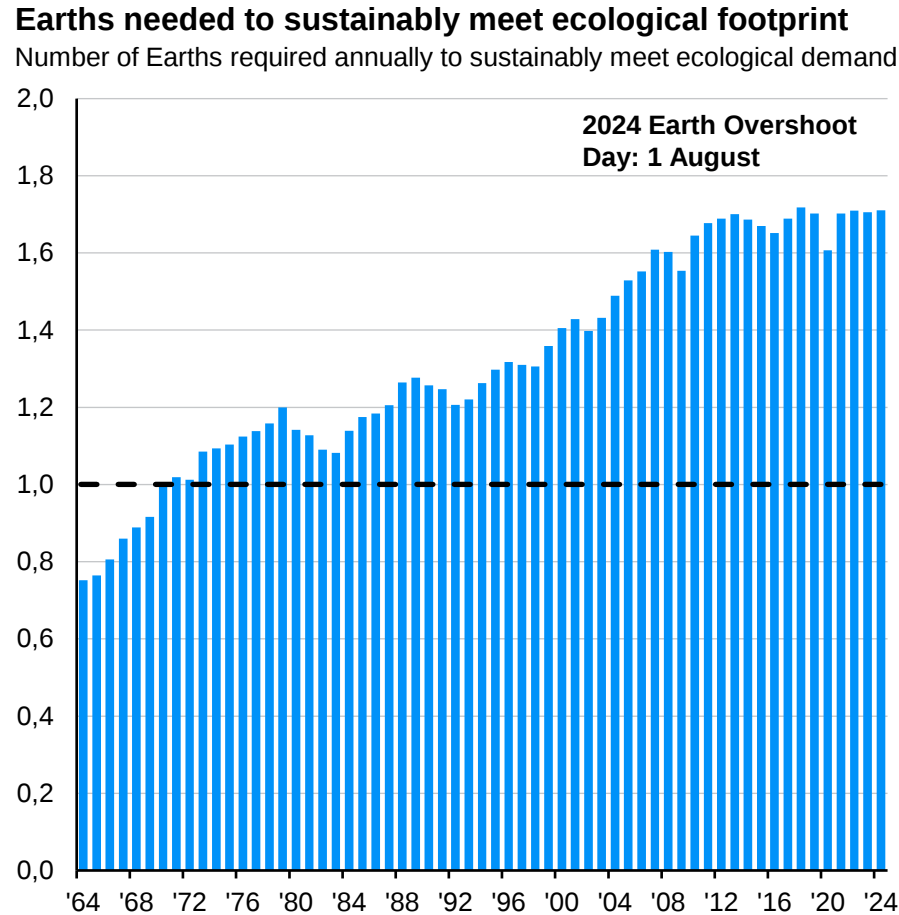


Other assets

Source: J.P. Morgan Asset Management Long-Term Capital Market Assumptions, J.P. Morgan Asset Management. Returns are nominal and in EUR. The projections in the chart above are based on J.P. Morgan Asset Management's proprietary Long-Term Capital Market Assumptions (10-15 years) for returns of major asset classes. The resulting projections include only the benchmark return associated with the portfolio and do not include alpha from the underlying product strategies within each asset class. The assumptions are presented for illustrative purposes only. Past performance and forecasts are not reliable indicators of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Ecological capacity and consumer concerns



Source: (Left) Global Footprint Network National Footprint and Biocapacity Accounts, J.P. Morgan Asset Management. The ecological footprint measures how fast the world's population consumes resources and generates waste, which is then compared to how fast nature can absorb waste and generate new resources. A score of more than one implies that the world has used more from nature than the planet can regenerate in the entire year. (Right) McKinsey & Company, NielsenIQ, J.P. Morgan Asset Management. The study covered 600,000 products representing USD 400 billion in annual retail revenues. *Guide to the Markets - Europe*. Data as of 30 September 2024.

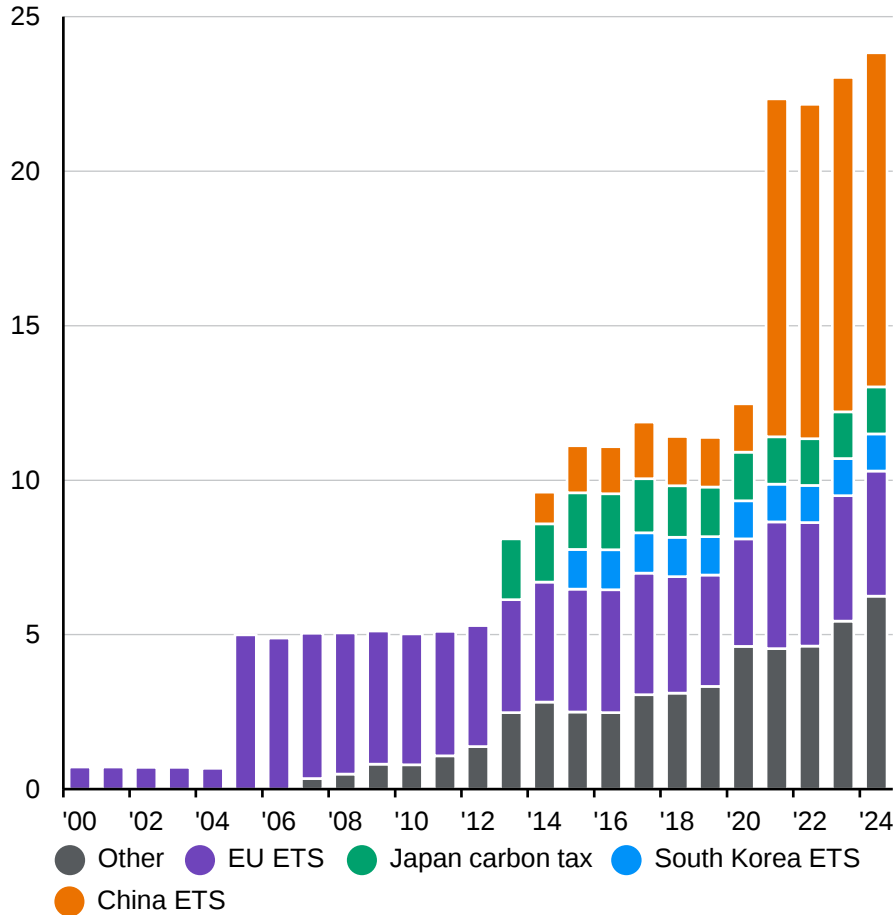
J.P.Morgan
ASSET MANAGEMENT



Carbon pricing

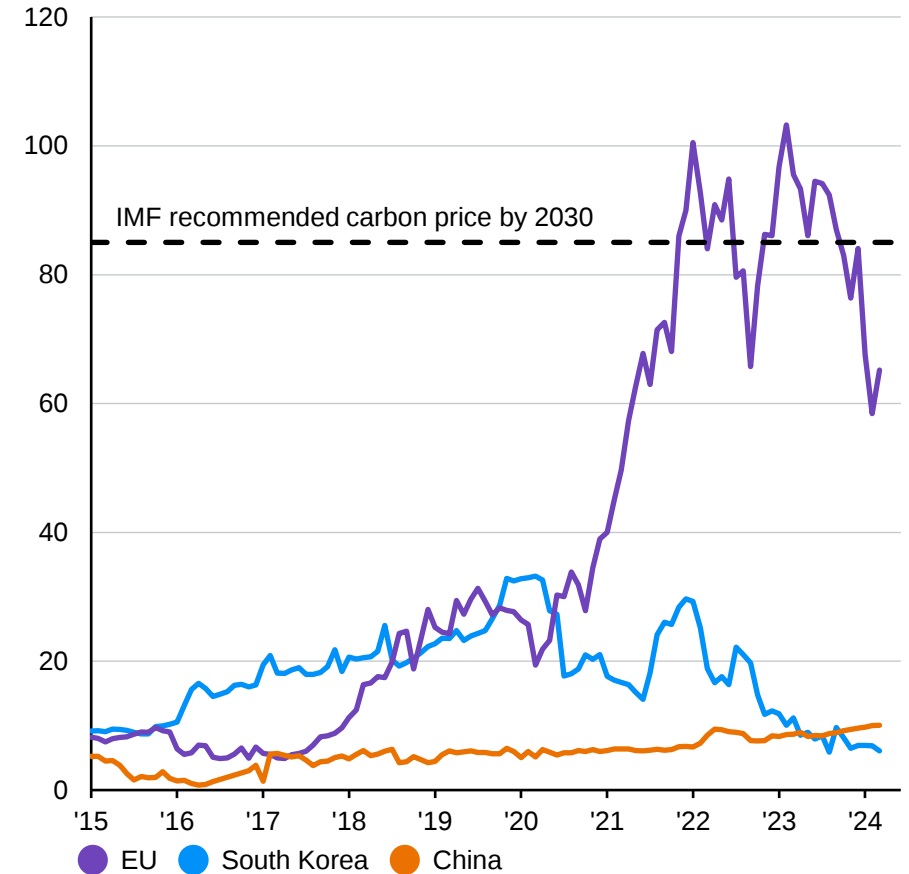
Global emissions covered by carbon pricing initiatives

% of global greenhouse gas emissions



Emissions trading system prices

USD per tonne of CO₂ equivalent



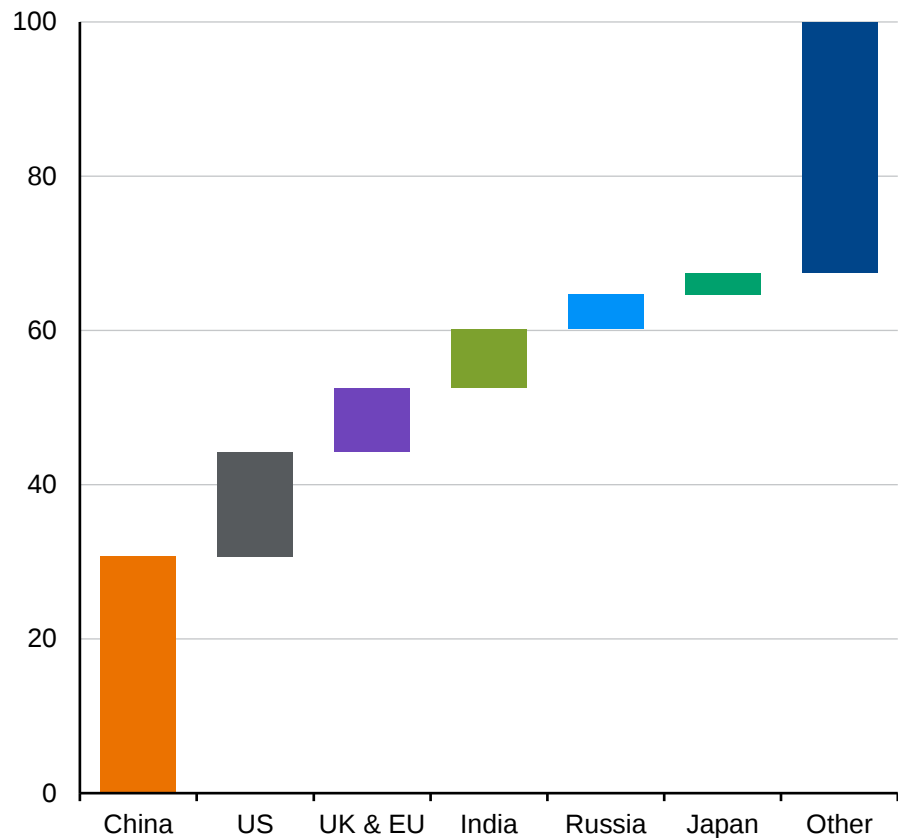
Source: (Left) World Bank, J.P. Morgan Asset Management. ETS is emissions trading system. (Right) IMF, International Carbon Action Partnership, J.P. Morgan Asset Management. China ETS price is the Shanghai ETS price up to July 2021, and the mainland price thereafter. USD 85 represents the IMF's recommendation for global average carbon prices by 2030 to limit global warming. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Global CO₂ emissions by country

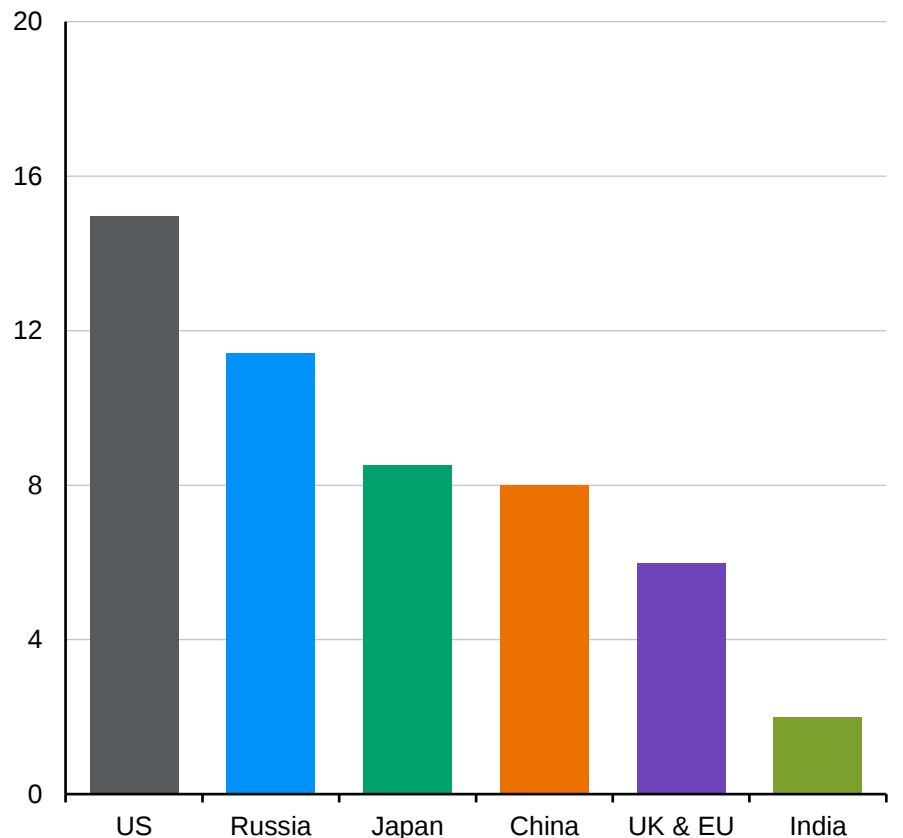
Share of global CO₂ emissions by country

%, 2022



Global CO₂ emissions per capita

Tonnes, 2022

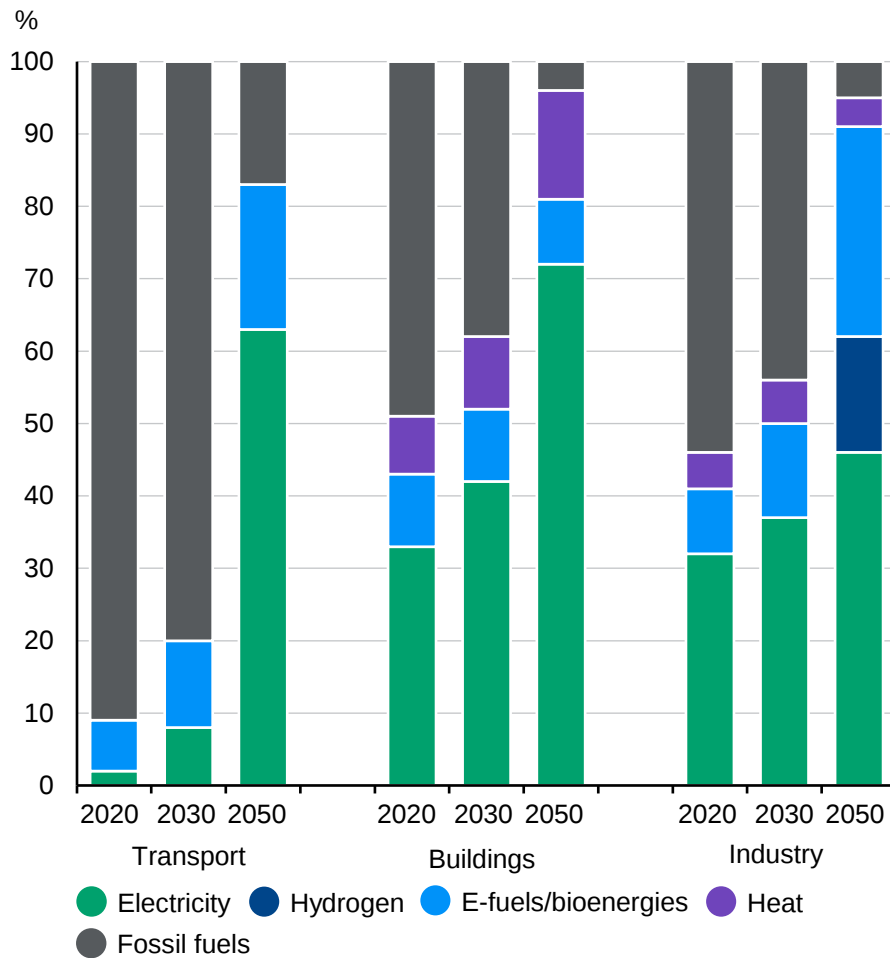


Source: (All charts) Gapminder, Global Carbon Project, Our World in Data, United Nations, J.P. Morgan Asset Management. CO₂ emissions are from the burning of fossil fuels for energy and cement production. Emission impact from land use change (such as deforestation) is not included. *Guide to the Markets - Europe*. Data as of 30 September 2024.



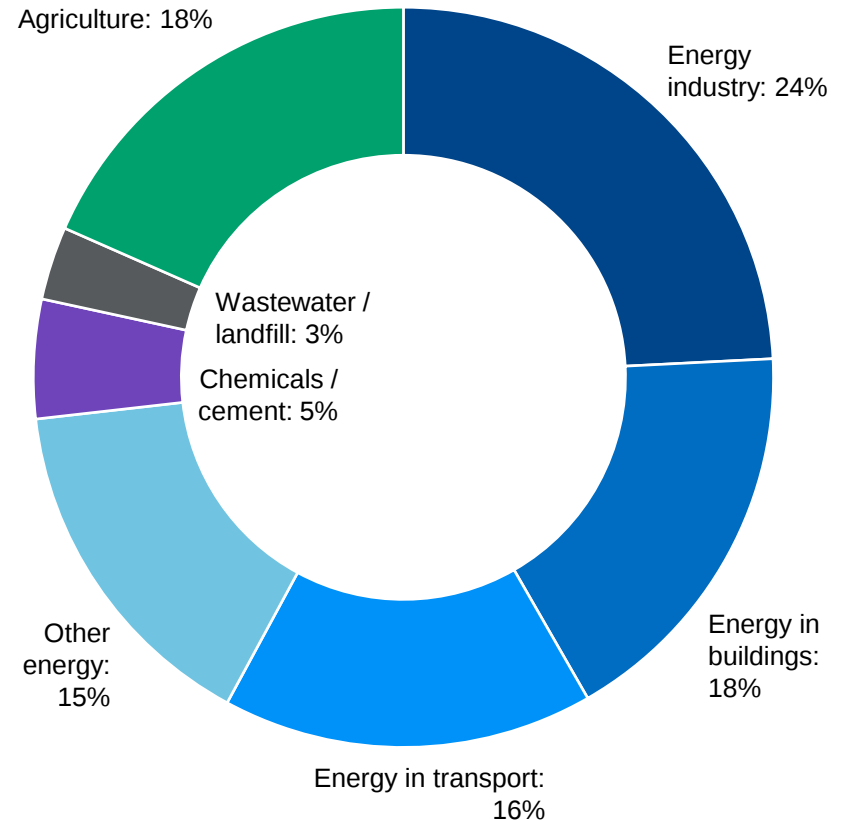
Energy mix and greenhouse gas emissions by sector

Share of energy carriers in end use sectors



Share of global greenhouse gas emissions by sector

% of global greenhouse gas emissions (2016), CO₂ equivalent tonnes

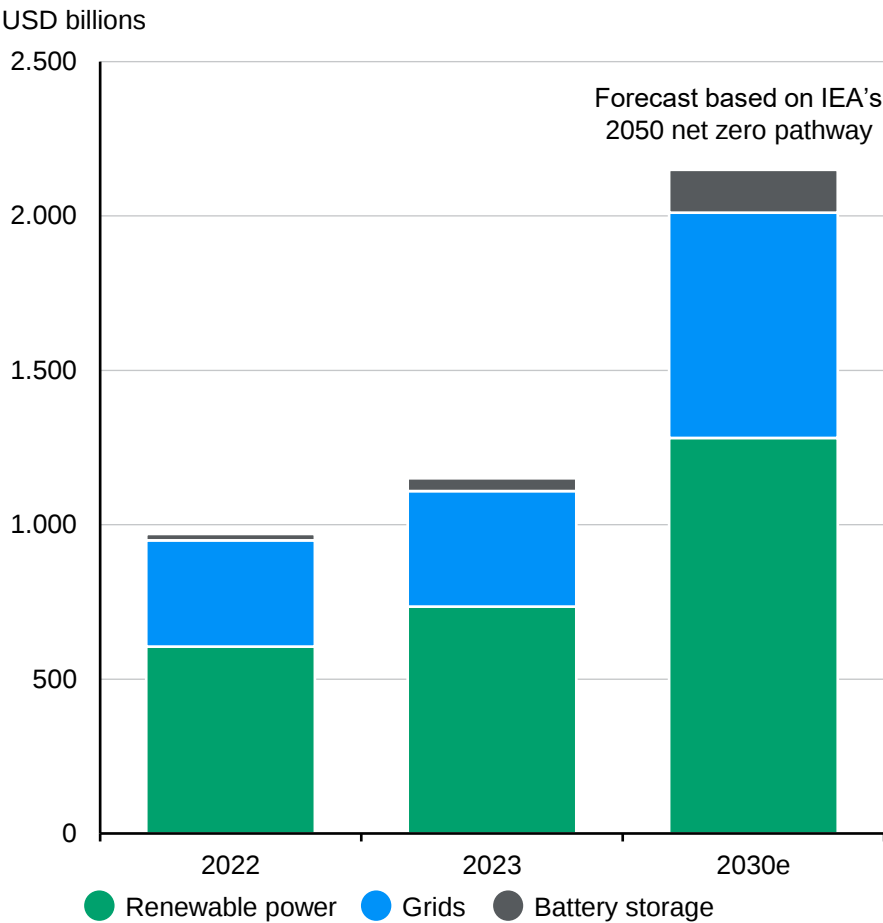


Source: (Left) Enel Group, European Commission Impact Assessment accompanying the communication on the 2030 Climate Target Plan (Sept 2020) and ENTSOE & ENTSG TYNDP 2020 Scenario Report (June 2020), J.P. Morgan Asset Management. (Right) Climate Watch, Our World in Data, World Resource Institute, J.P. Morgan Asset Management. Greenhouse gas emissions include CO₂, methane, nitrous oxide and fluorinated greenhouse gases. CO₂ equivalent tonnes standardise emissions to allow for comparison between gases. One equivalent tonne has the same warming effect as one tonne of CO₂ over 100 years. Guide to the Markets - Europe. Data as of 30 September 2024.

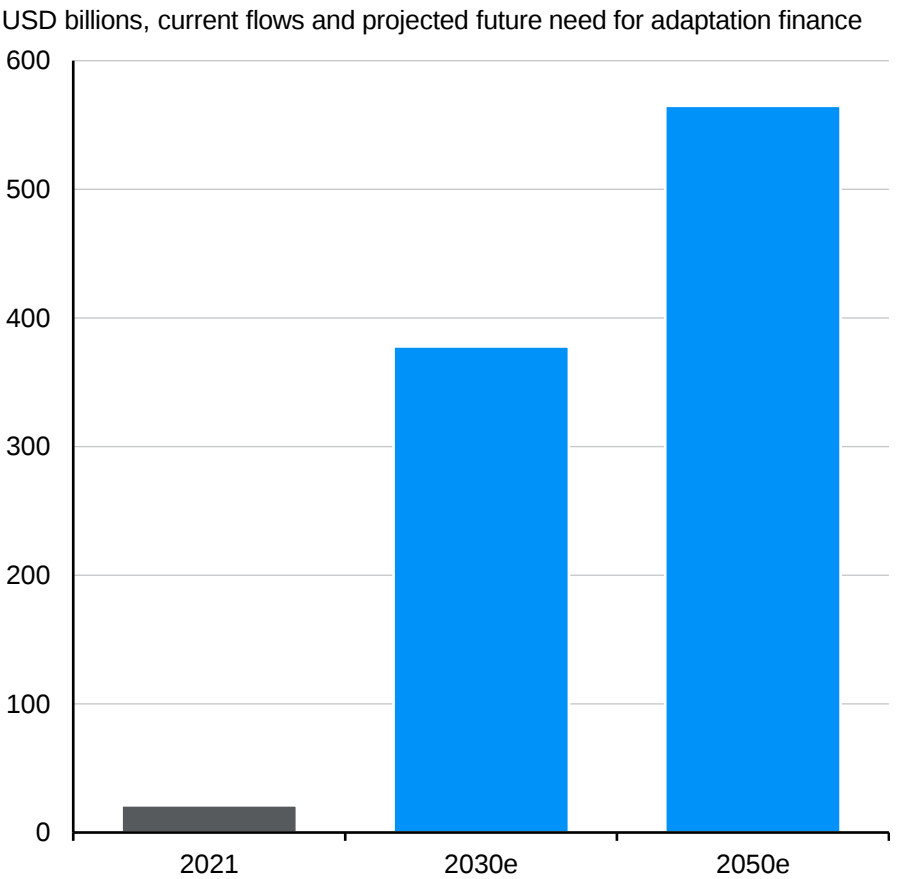


Investment in climate change mitigation and adaptation

Global investment in renewables, grids and battery storage



Adaptation financing gap for developing countries



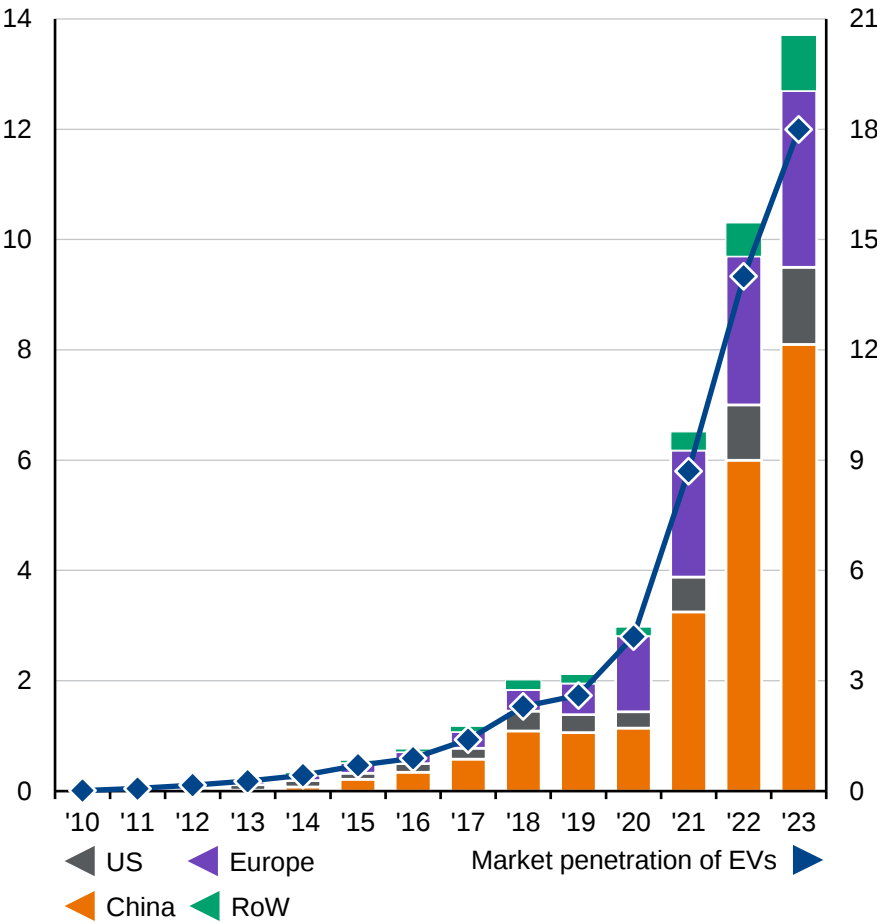
Source: (Left) IEA, J.P. Morgan Asset Management. Data is from the IEA's World Energy Investment 2024 report. 2030e is based on the IEA's net zero by 2050 scenario. (Right) United Nations Environment Programme Morgan Asset Adaptation Gap Report 2023, J.P. Morgan Asset Management. Guide to the Markets - Europe. Data as of 30 September 2024.



Electric vehicle sales and mineral content

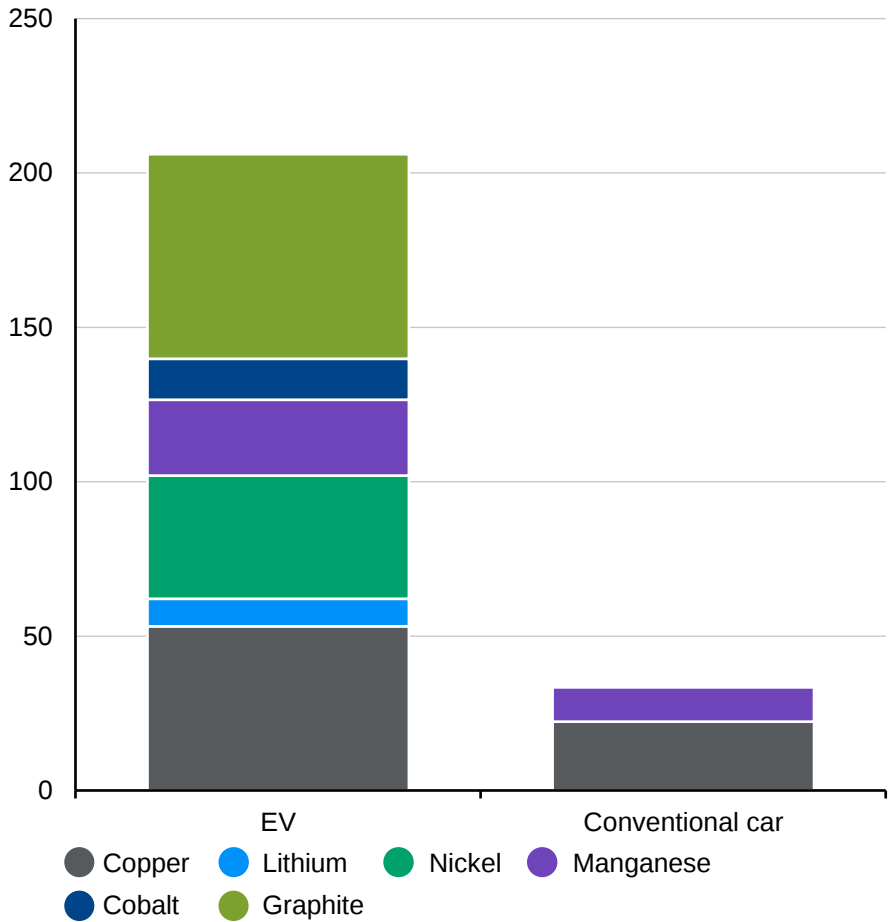
Global electric vehicle sales and market penetration

Millions (LHS); % (RHS)



Mineral content of electric vehicles and conventional cars

Kilograms per vehicle

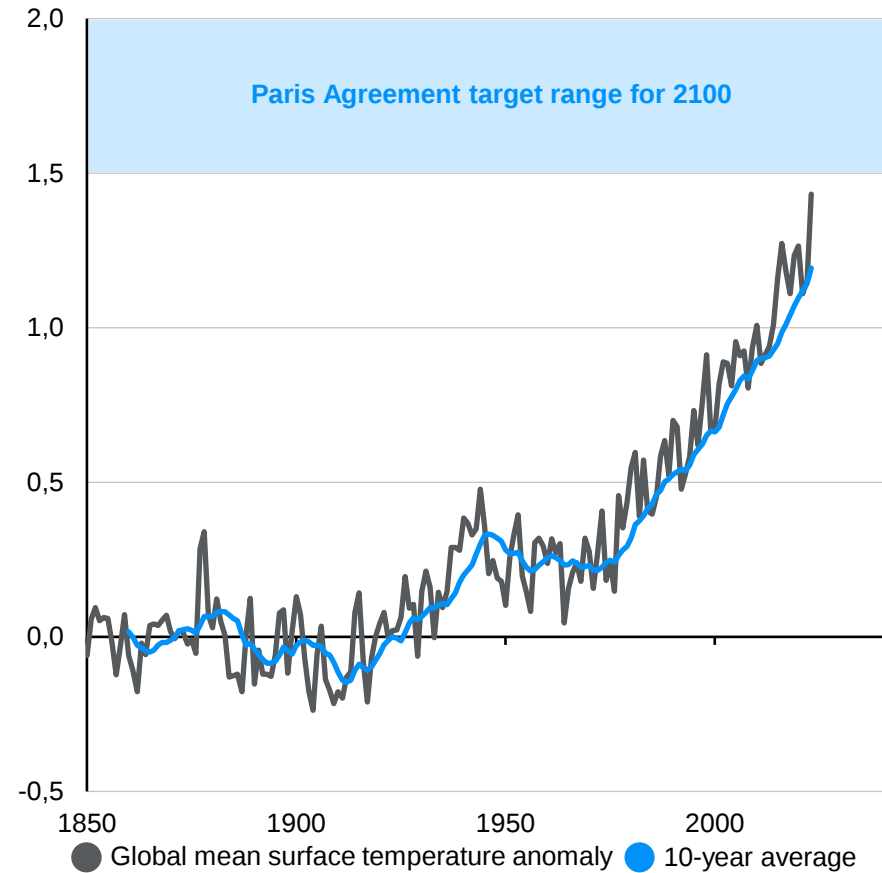




Global warming and energy consumption

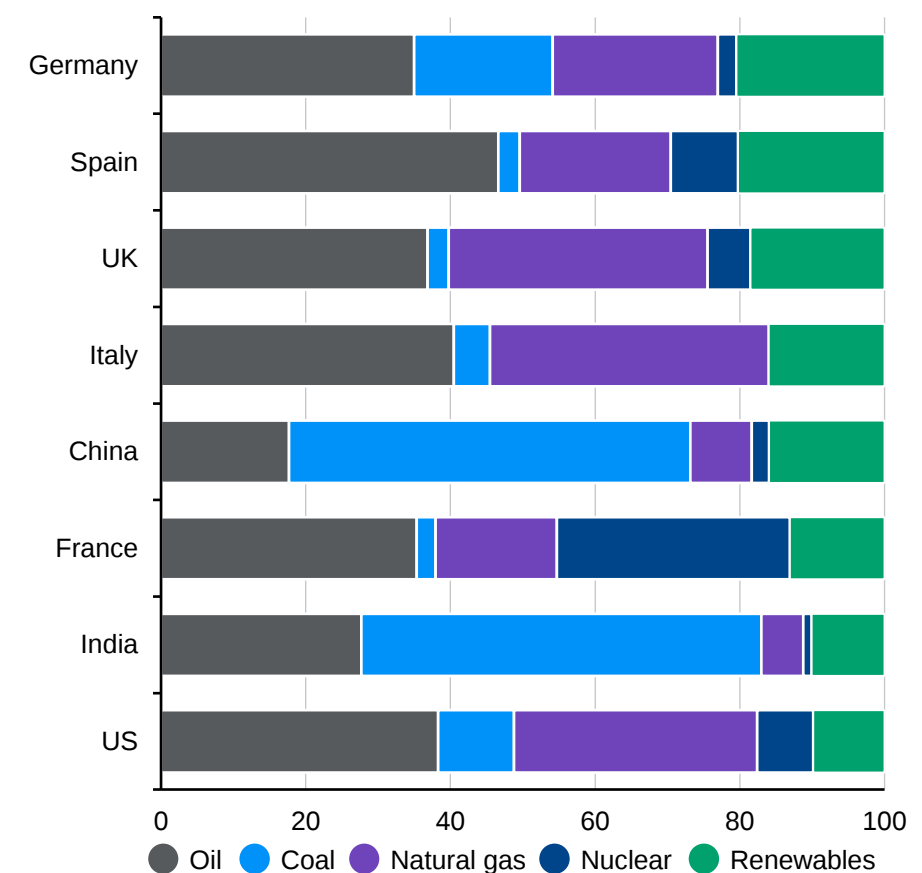
Global temperature anomalies vs. pre-industrial levels

Degrees Celsius



Global energy mix

% of primary energy consumption (2022)

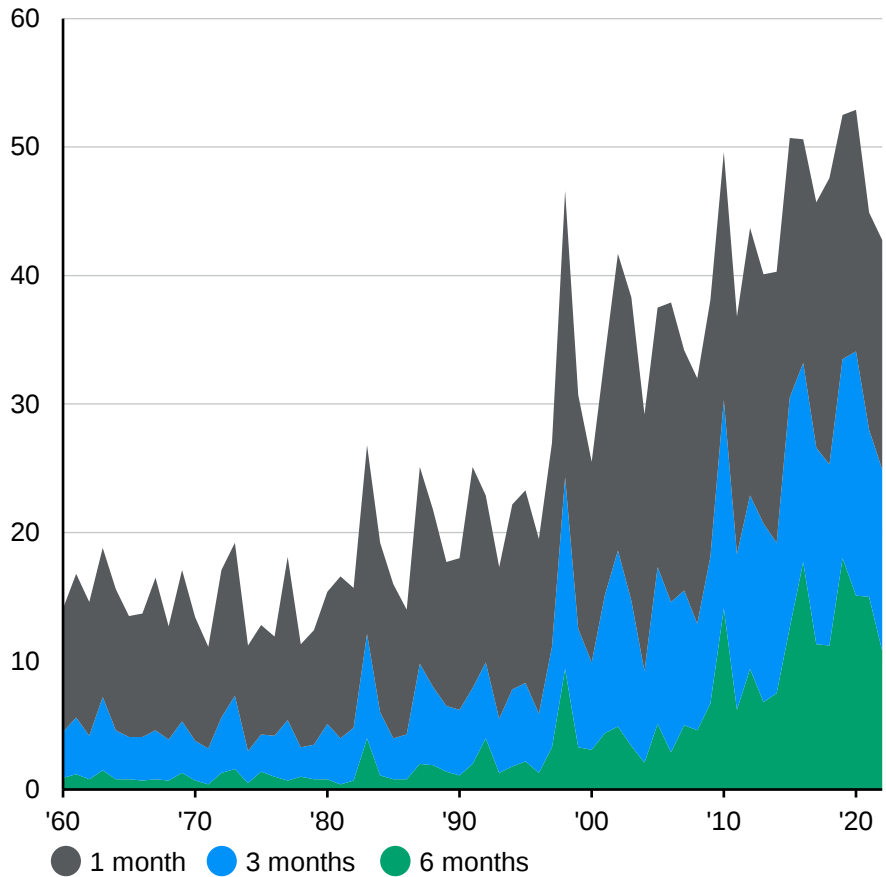




Droughts and food prices

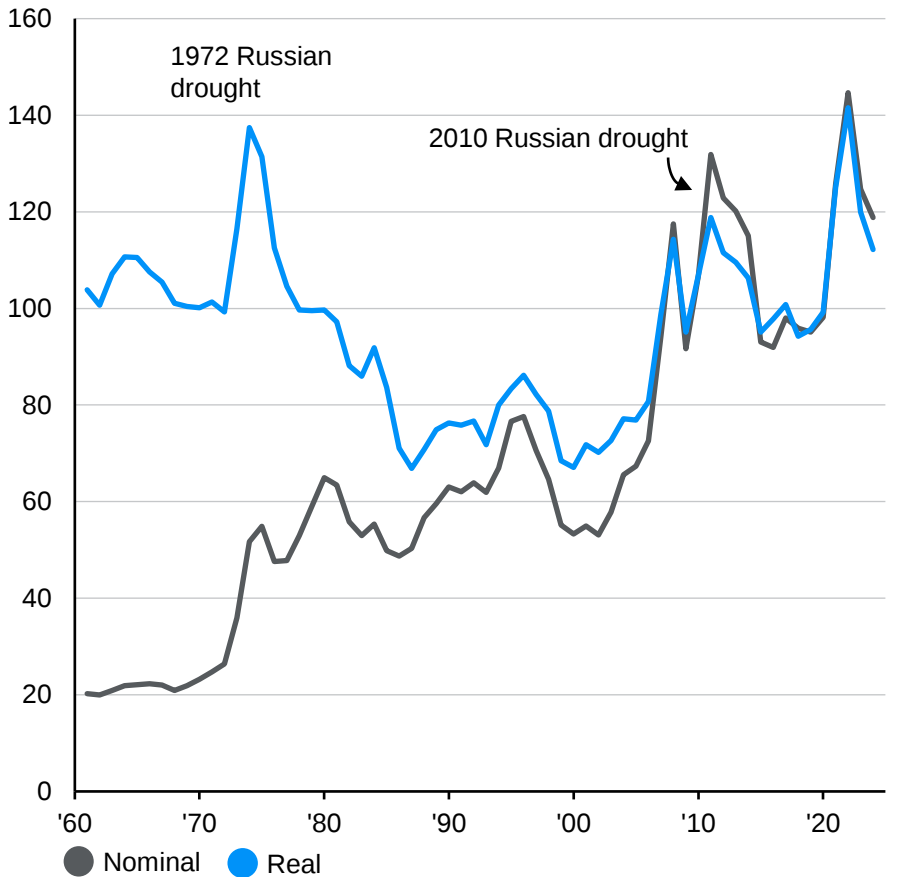
Land affected by droughts

% of global land affected by droughts per year



Food prices

Index level

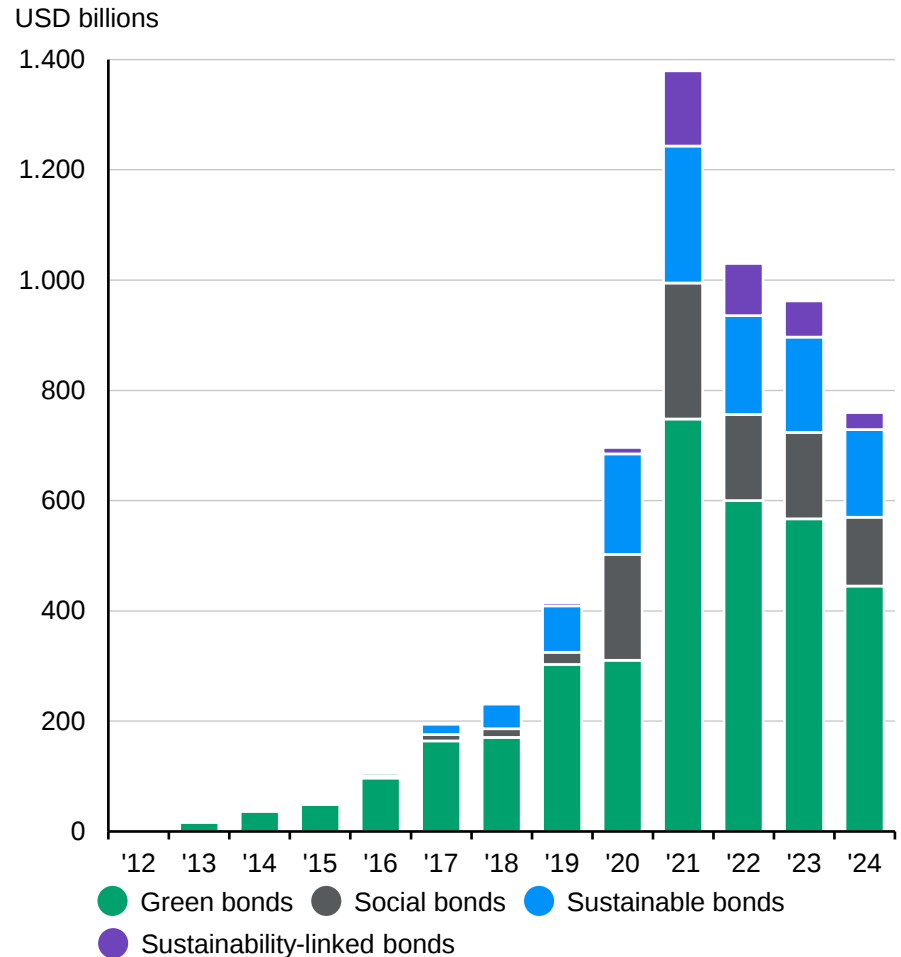


Source: (Left) Global Standardised Precipitation-Evapotranspiration Index Database, Beguería, S et al., The Lancet Countdown on Health and Climate Change, J.P. Morgan Asset Management. (Right) Food and Agriculture Organization of the United Nations, J.P. Morgan Asset Management. *Guide to the Markets - Europe*. Data as of 30 September 2024.

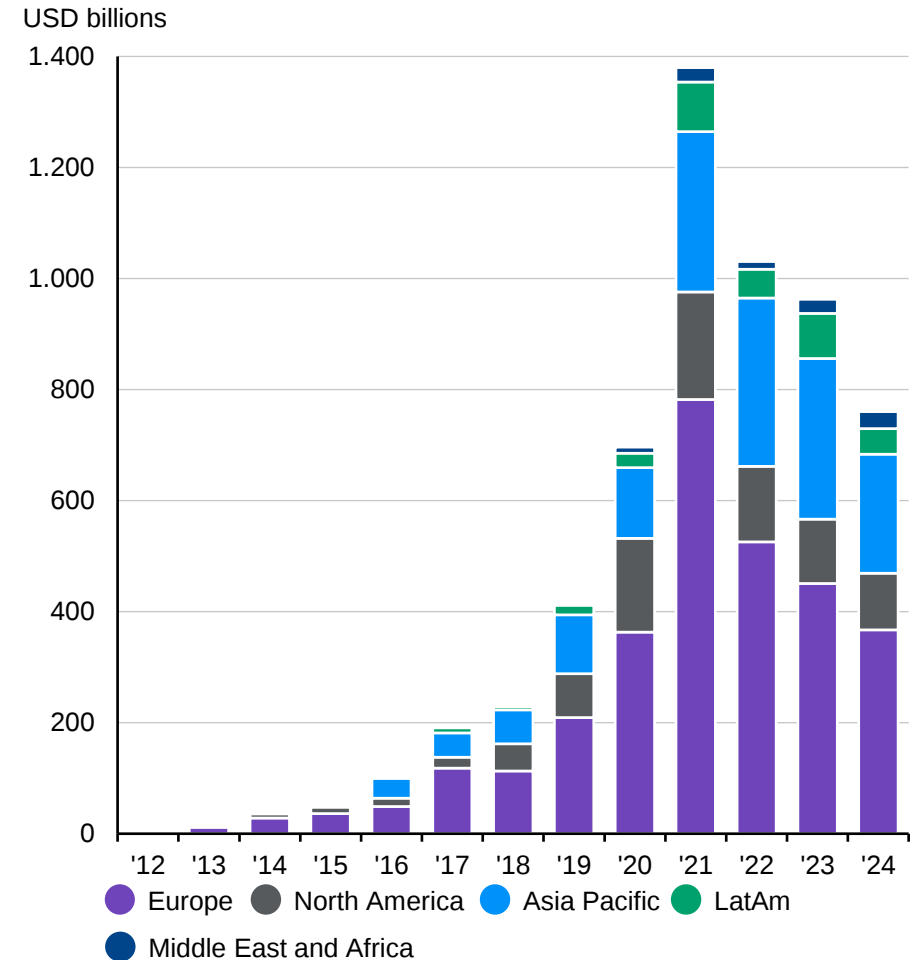


Green, social and sustainable bonds

Green, social and sustainable bond issuance by type



Green, social and sustainable bond issuance by region



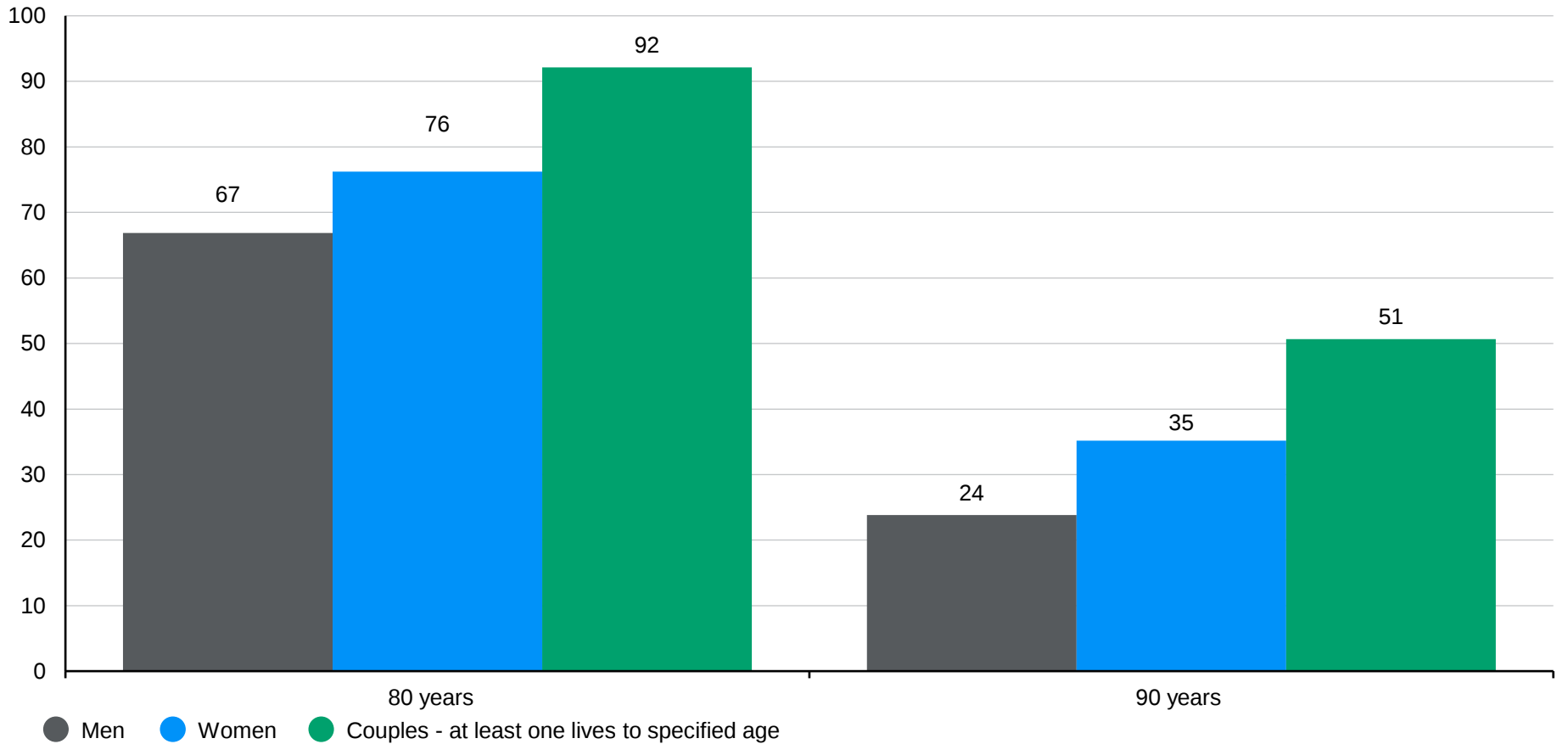
Source: (All charts) LSEG Eikon, J.P. Morgan Asset Management. Green bonds have their proceeds specifically directed to environmental projects. Social bonds have their proceeds directed to socially beneficial projects such as the provision of financing for affordable housing. Sustainable bonds can have their proceeds directed to a mix of green and social projects. Sustainability-linked bonds are general purpose instruments where the use of proceeds are not directed to specific projects, but where the issuer is required to meet predefined sustainability targets. Failure to meet such targets can result in a penalty for the issuer, such as a coupon step-up. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Life expectancy

Probability of reaching ages 80 and 90

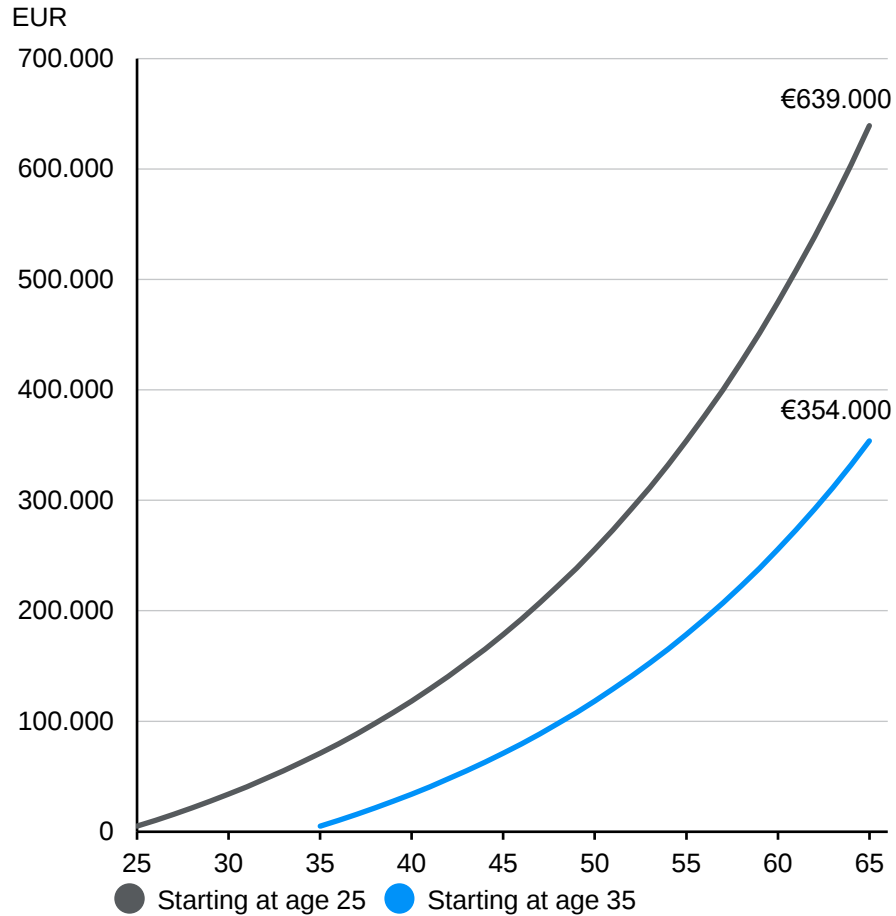
% probability, persons aged 65, by gender and combined couple



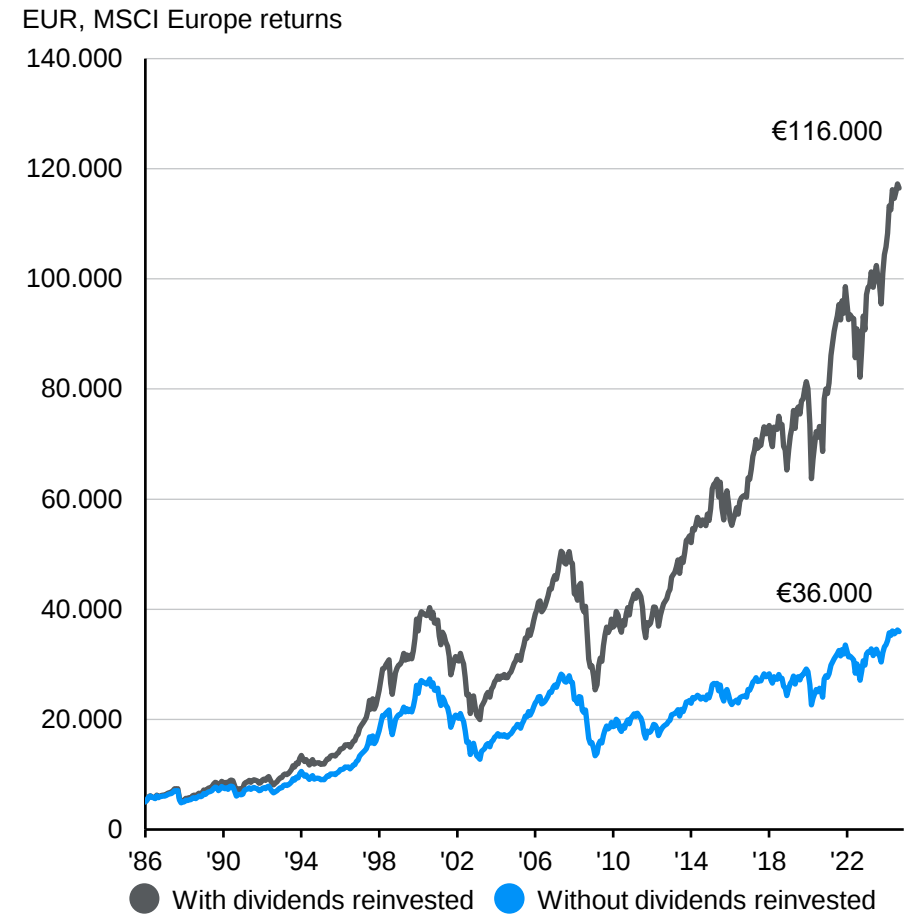


The effect of compounding

€5.000 invested annually with 5% growth per year



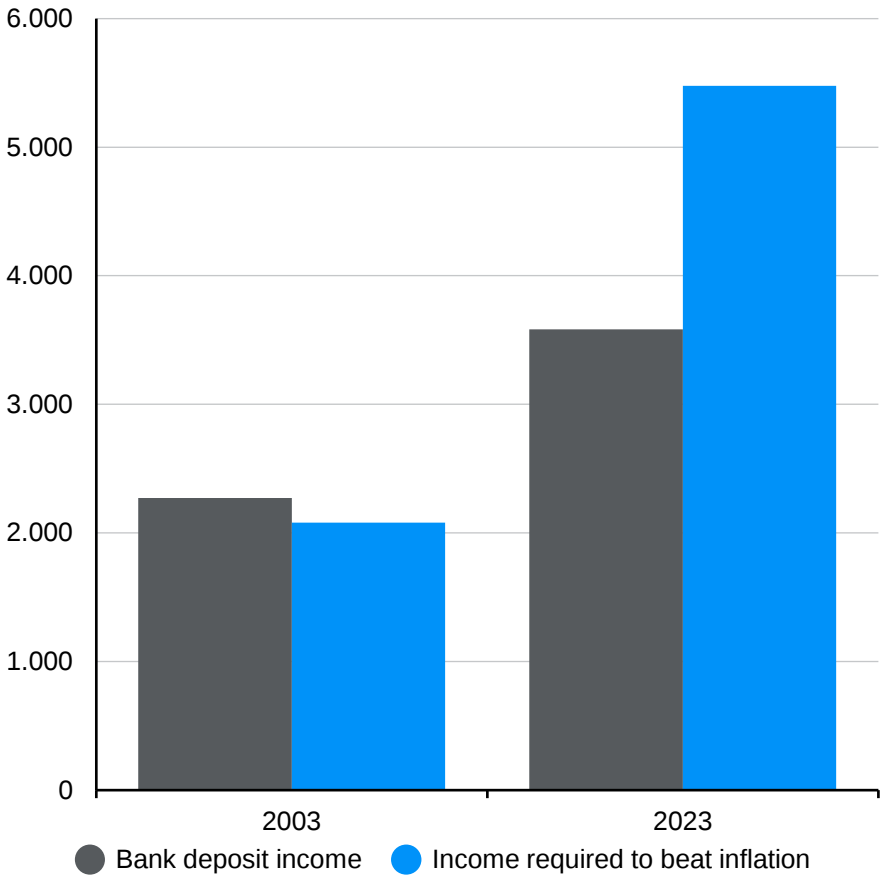
€5.000 investment with/without income reinvested



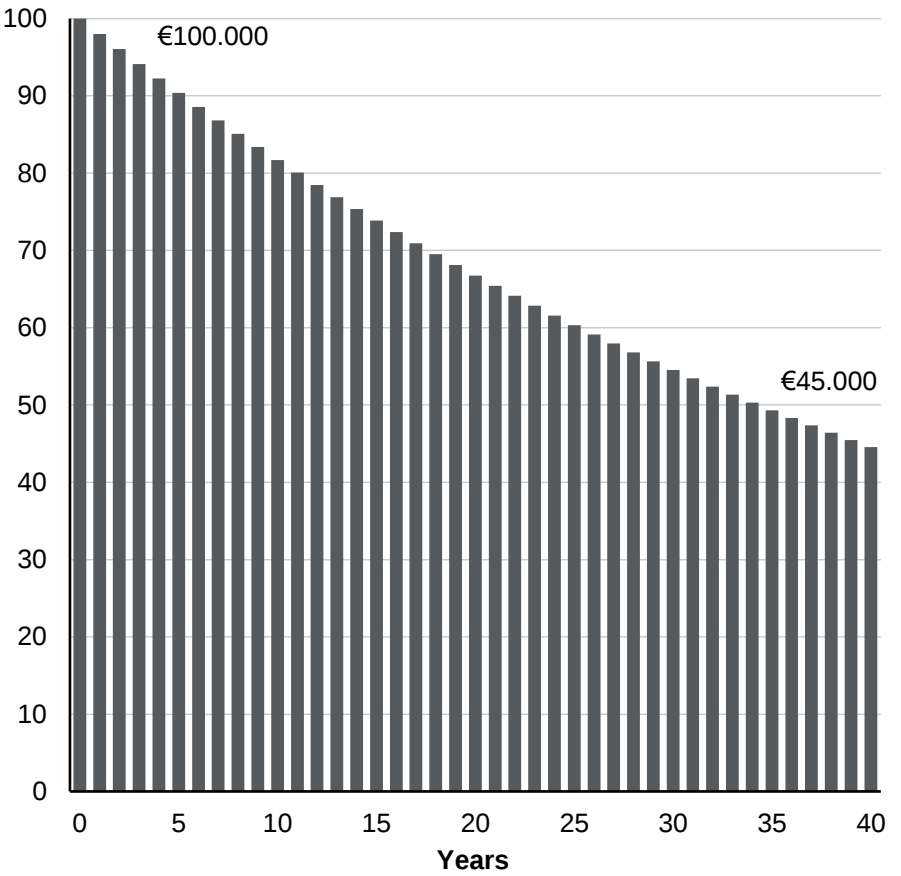


Cash investments

Income generated by €100.000 in a three-month bank deposit
EUR



Effect of 2% inflation on purchasing power of €100.000
EUR, thousands



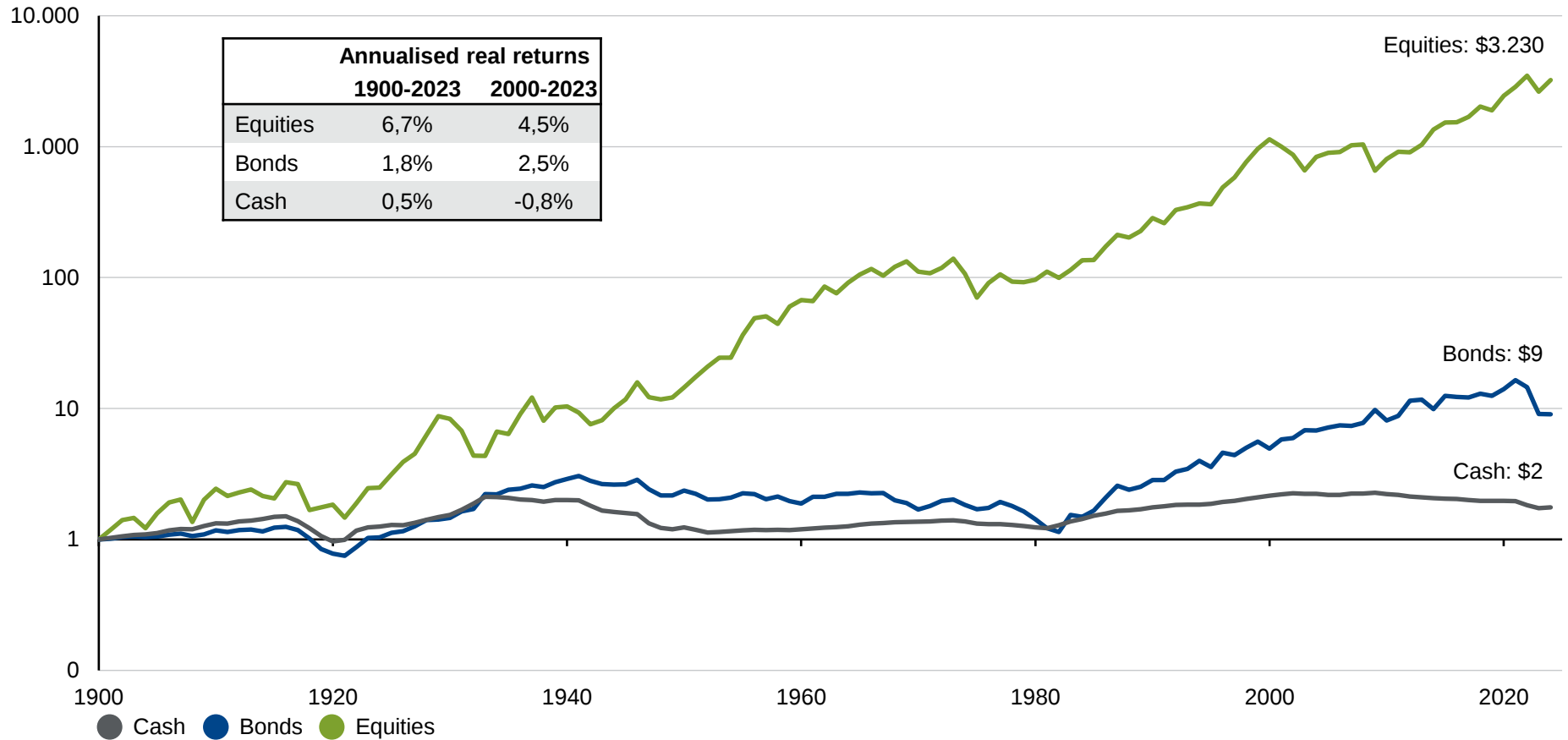
Source: (Left) Eurostat, LSEG Datastream, J.P. Morgan Asset Management. Data shown are averages over the course of the calendar year. (Right) J.P. Morgan Asset Management. For illustrative purposes only, assumes no return on cash and an inflation rate of 2%. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Long-term asset returns

Total return of \$1 in real terms

USD, log scale for total returns



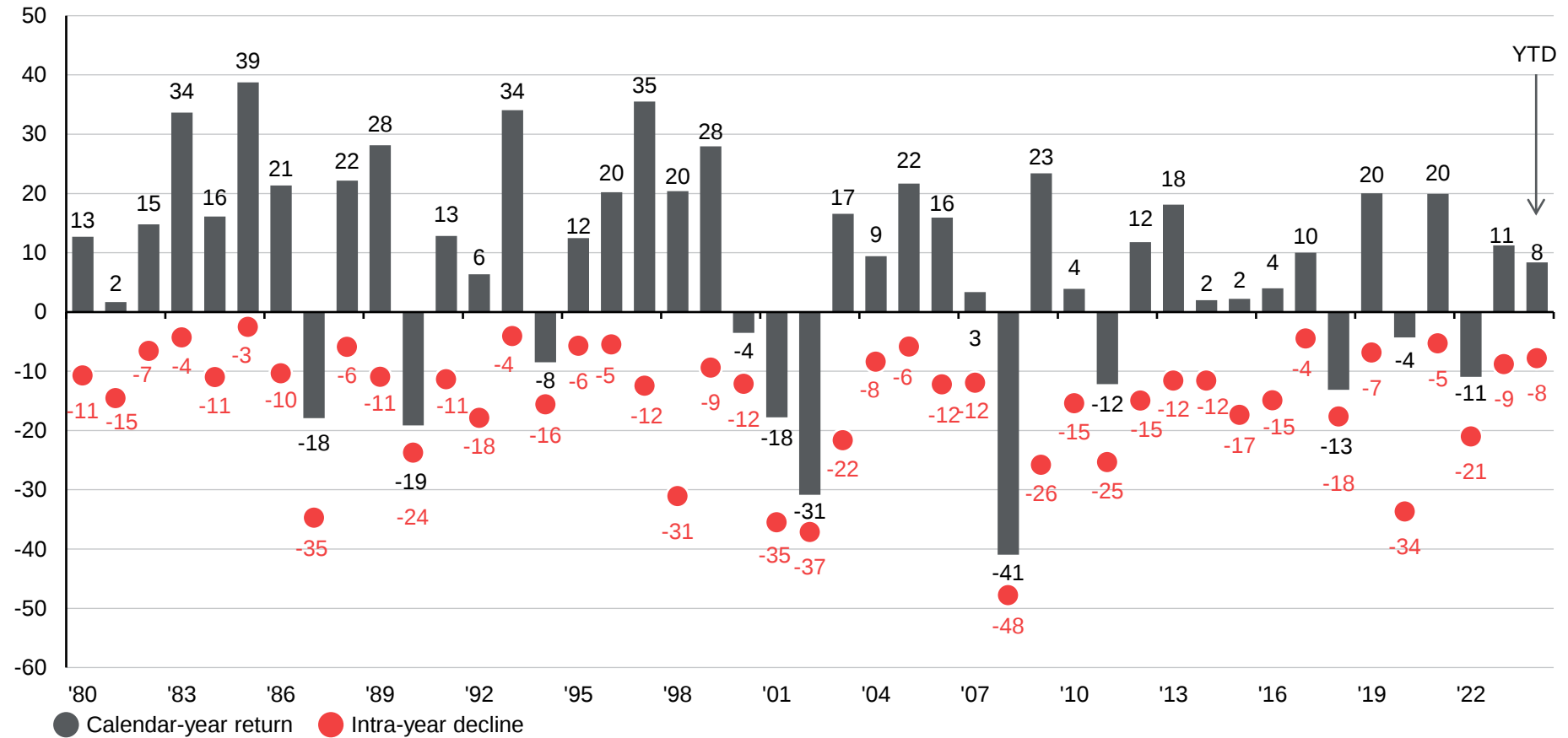


Annual returns and intra-year declines

GTM Europe 92

MSCI Europe intra-year declines vs. calendar-year returns

%; despite average intra-year drops of 15,4% (median 12,0%), annual returns are positive in 33 of 44 years

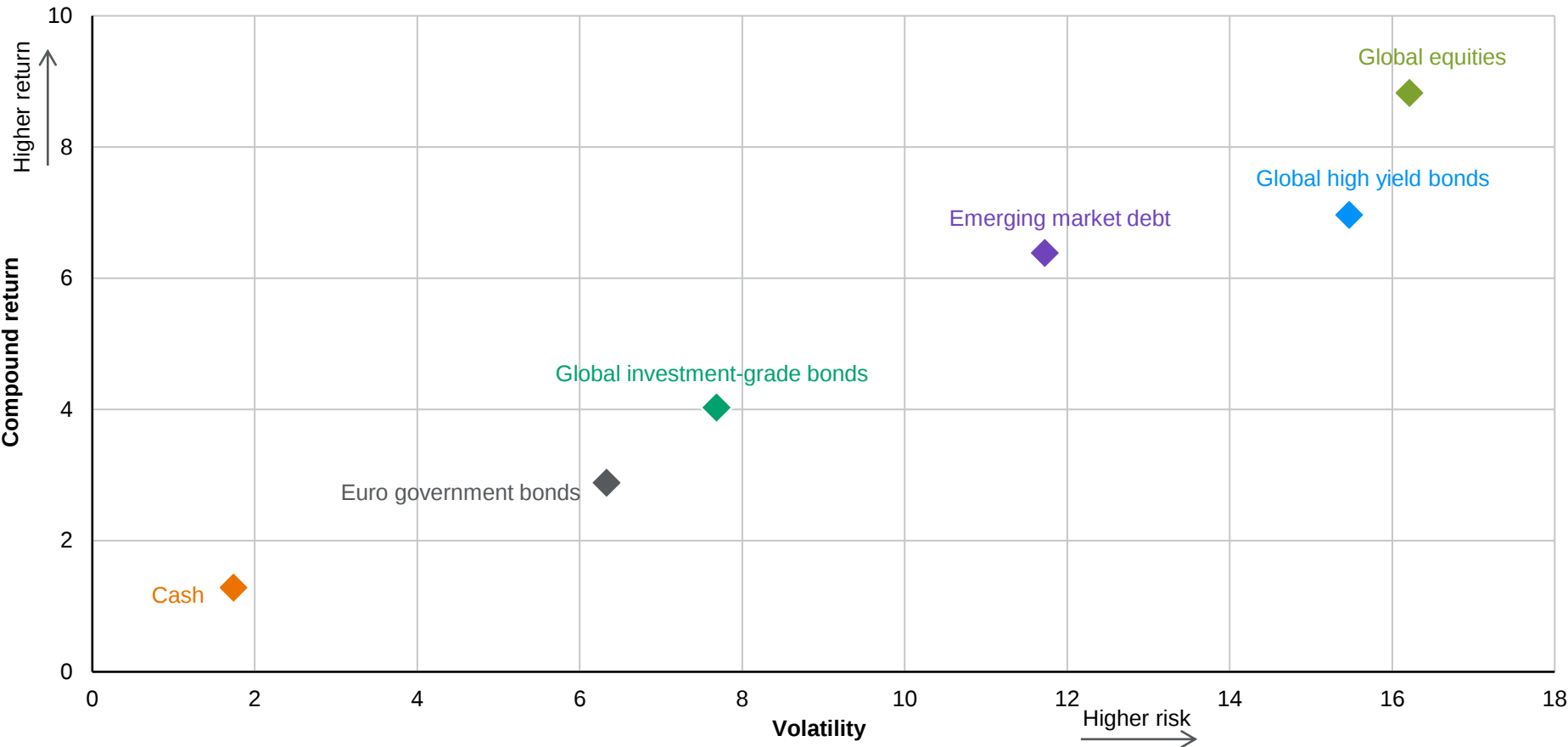




Asset class risk-return trade-off

Historic risk vs. return for selected asset classes

%, annualised return 2004-2023 in EUR



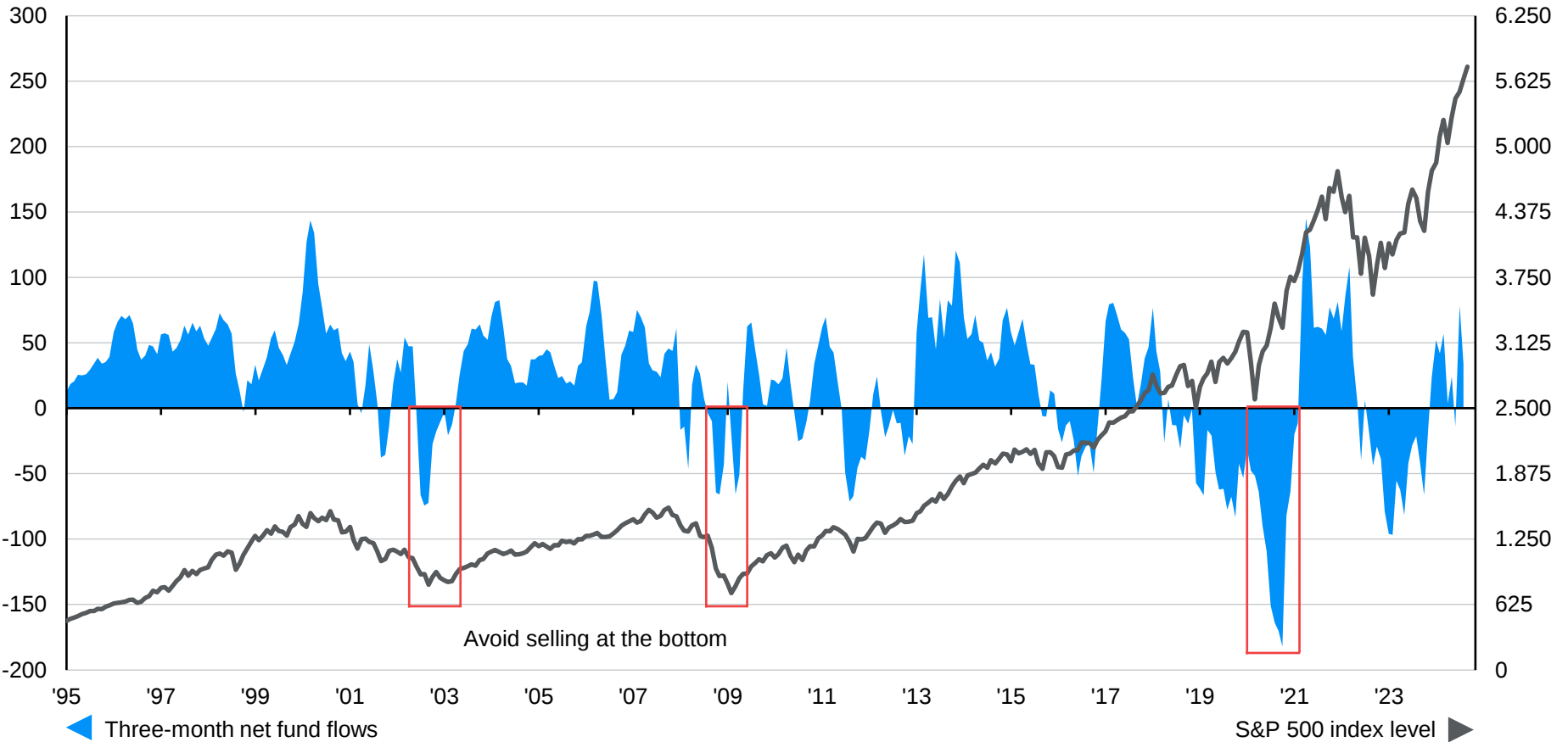
Source: Bloomberg, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Volatility is the standard deviation of annual returns since 2004. Cash: J.P. Morgan Cash EUR (3M); Euro government bonds: Bloomberg Euro Aggregate – Treasury; Global investment-grade bonds: Bloomberg Global Aggregate – Corporate; Emerging market debt: J.P. Morgan EMBI Global Diversified; Global high yield bonds: ICE BofA Global High Yield; Global equities: MSCI All-Country World Index (includes developed and emerging markets). Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



S&P 500 and fund flows

US mutual fund and ETF flows and S&P 500

USD billions, three-month net flows (LHS); index level (RHS)



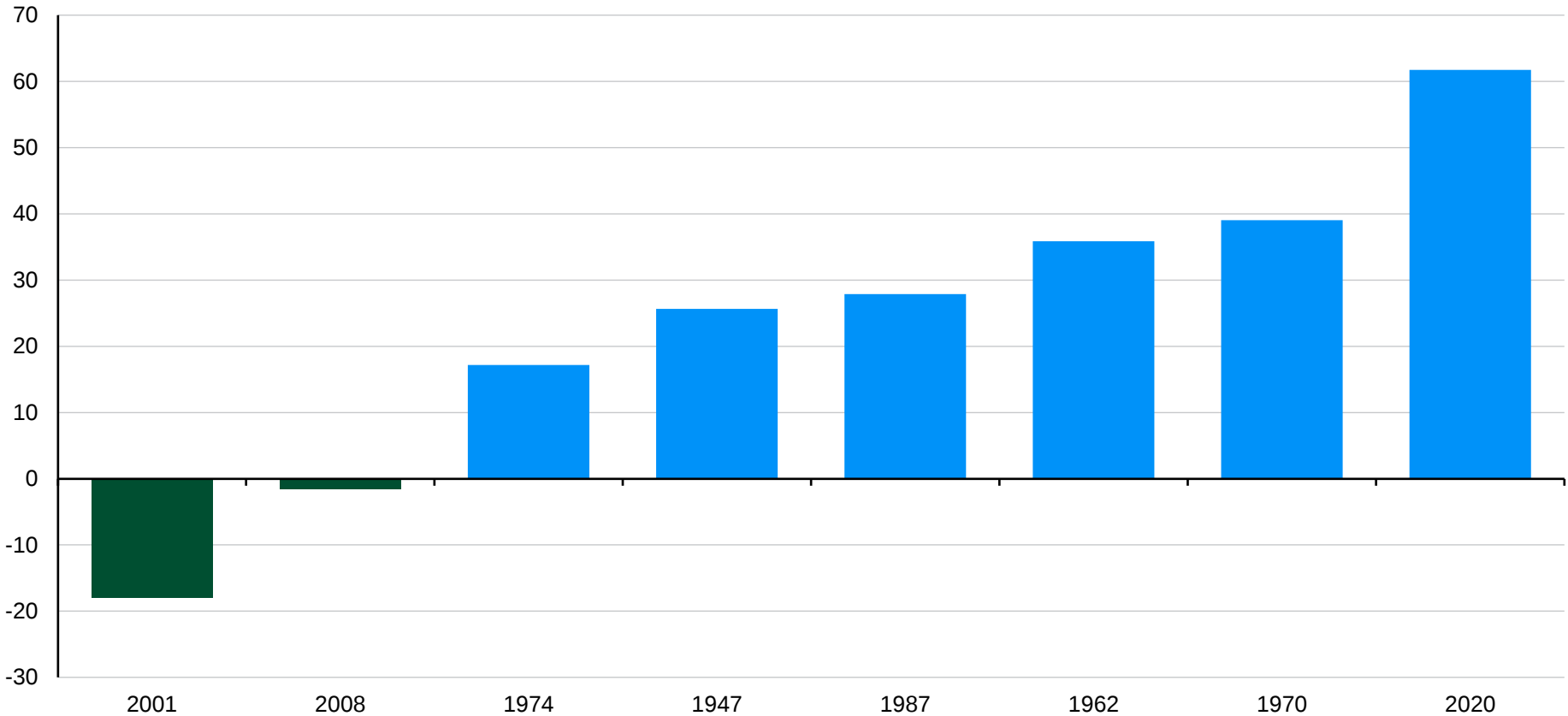
Source: Investment Company Institute, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. Fund flows are US long-term equity fund flows with ETF flows included from 2006 onwards. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



25% drawdowns and subsequent returns

Subsequent 12-month returns after 25% drawdowns

%, S&P 500 total return in USD

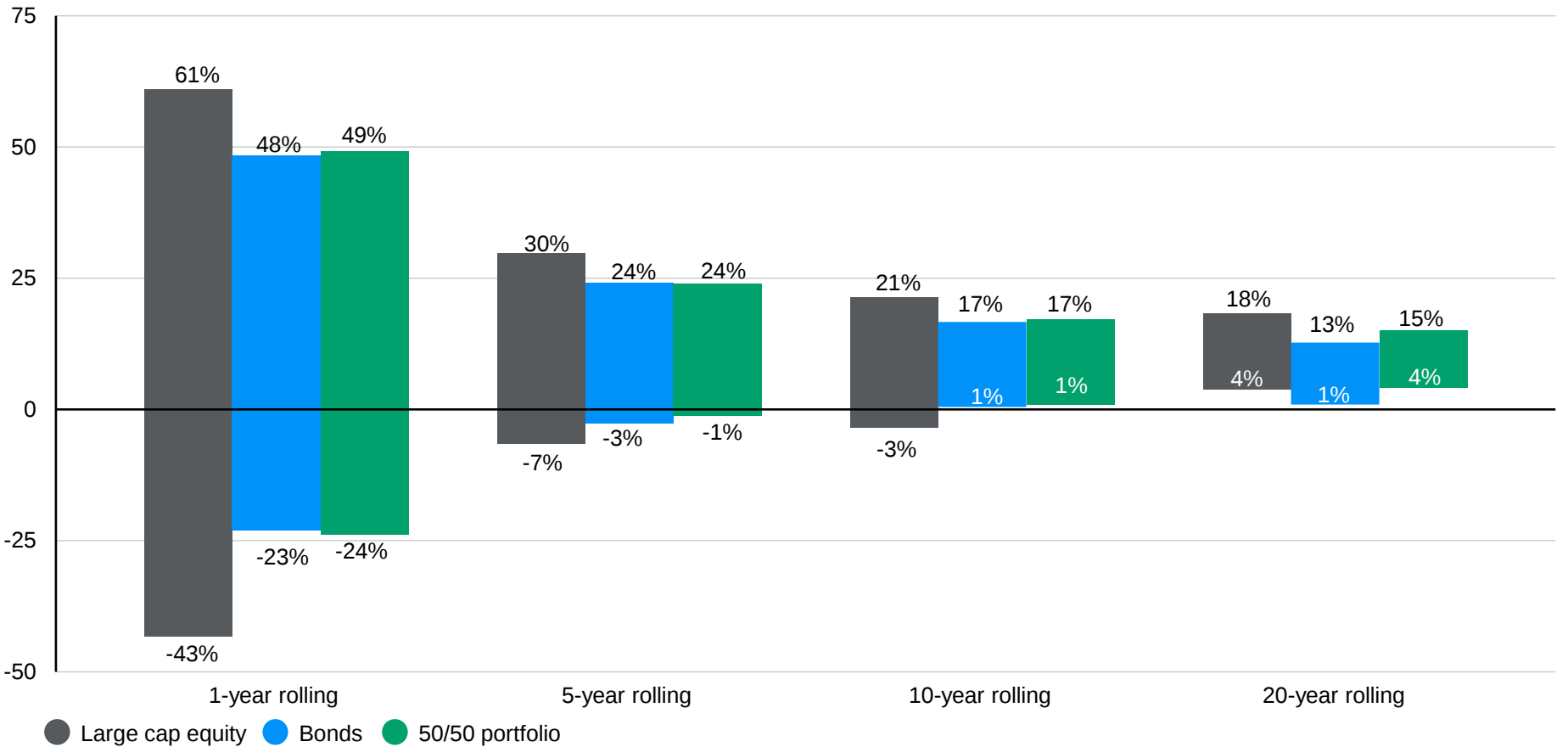




US asset returns by holding period

Range of equity and bond total returns

%, annualised total returns, 1950-present



Source: Bloomberg, LSEG Datastream, S&P Global, Strategas/Ibbotson, J.P. Morgan Asset Management. Large cap equity represents the S&P 500 Composite and Bonds represents the Strategas/Ibbotson US Government Bond Index, the US Long-term Corporate Bond Index until 2000 and the Bloomberg US Agg. Corporate – Investment Grade Index from 2000 onwards. Returns shown are per annum and are calculated based on monthly returns from 1950 to latest available and include dividends. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.



Asset class returns (EUR)

GTM Europe 97

Investing principles

2016	2017	2018	2019	2020	2021	2022	2023	3Q '24	YTD	10-year ann. return	Vol.
HY bonds 18,2%	EM equities 21,0%	Govt bonds 4,6%	DM equities 30,8%	EM equities 8,9%	REITs 50,5%	Cmdty 23,7%	DM equities 20,2%	REITs 11,6%	DM equities 18,1%	DM equities 11,6%	REITs 22,4%
Cmdty 15,1%	DM equities 8,1%	HY bonds 1,5%	REITs 30,4%	DM equities 6,9%	Cmdty 36,8%	Hedge funds 1,9%	HY bonds 9,6%	EM equities 4,6%	EM equities 16,0%	REITs 10,1%	Cmdty 16,9%
EM equities 14,9%	Portfolio 1,7%	IG bonds 1,3%	EM equities 21,1%	Portfolio 1,6%	DM equities 31,6%	Cash 0,0%	Portfolio 8,7%	Govt bonds 3,5%	REITs 12,5%	Portfolio 6,6%	DM equities 13,2%
EMD 13,4%	Cash -0,3%	REITs 0,7%	Portfolio 18,9%	IG bonds 1,3%	Portfolio 16,6%	HY bonds -7,6%	REITs 7,7%	Portfolio 2,5%	Portfolio 10,0%	HY bonds 6,0%	EM equities 11,7%
REITs 12,6%	EMD -3,2%	EMD 0,6%	EMD 17,2%	Govt bonds 0,5%	Hedge funds 11,5%	Portfolio -9,3%	EMD 7,3%	DM equities 2,2%	HY bonds 7,6%	EMD 5,5%	EMD 10,2%
DM equities 11,4%	HY bonds -3,2%	Cash -0,3%	HY bonds 15,8%	Cash -0,3%	HY bonds 9,1%	IG bonds -11,3%	EM equities 6,5%	IG bonds 2,1%	EMD 7,5%	EM equities 5,3%	Portfolio 8,5%
Portfolio 10,3%	REITs -4,0%	Portfolio -1,6%	IG bonds 13,6%	HY bonds -0,9%	EMD 5,7%	Govt bonds -12,1%	IG bonds 5,9%	EMD 1,9%	Cmdty 4,8%	IG bonds 4,0%	HY bonds 8,1%
IG bonds 7,4%	IG bonds -4,2%	Hedge funds -2,0%	Hedge funds 10,6%	Hedge funds -2,0%	EM equities 5,2%	DM equities -12,3%	Cash 3,3%	HY bonds 1,7%	IG bonds 4,3%	Hedge funds 3,7%	IG bonds 7,8%
Hedge funds 5,6%	Govt bonds -5,8%	DM equities -3,6%	Cmdty 9,7%	EMD -3,4%	IG bonds 4,5%	EMD -12,4%	Govt bonds 0,7%	Cash 1,0%	Hedge funds 4,1%	Govt bonds 1,9%	Govt bonds 6,8%
Govt bonds 4,7%	Hedge funds -6,9%	Cmdty -6,8%	Govt bonds 7,5%	Cmdty -11,1%	Govt bonds 0,5%	EM equities -14,5%	Hedge funds -0,4%	Hedge funds -1,8%	Cash 3,1%	Cmdty 1,1%	Hedge funds 6,4%
Cash -0,2%	Cmdty -10,7%	EM equities -9,9%	Cash -0,3%	REITs -13,6%	Cash -0,5%	REITs -20,2%	Cmdty -11,0%	Cmdty -3,3%	Govt bonds 1,5%	Cash 0,2%	Cash 1,1%

Source: Bloomberg, FTSE, J.P. Morgan Economic Research, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Vol. is the standard deviation of annual returns. Govt bonds: Bloomberg Global Aggregate Government Treasuries; HY bonds: ICE BofA Global High Yield; EMD: J.P. Morgan EMBI Global Diversified; IG bonds: Bloomberg Global Aggregate – Corporate; Cmdty: Bloomberg Commodity; REITs: FTSE NAREIT All REITS; DM equities: MSCI World; EM equities: MSCI EM; Hedge funds: HFRI Global Hedge Fund Index; Cash: J.P. Morgan Cash Index EUR (3M). Hypothetical portfolio (for illustrative purposes only and should not be taken as a recommendation): 30% DM equities; 10% EM equities; 15% IG bonds; 12,5% government bonds; 7,5% HY bonds; 5% EMD; 5% commodities; 5% cash; 5% REITs and 5% hedge funds. All returns are total return, in EUR, and are unhedged. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 30 September 2024.

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Unless otherwise stated, all data as of 30 September 2024 or most recently available.

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