

Guide to the Markets

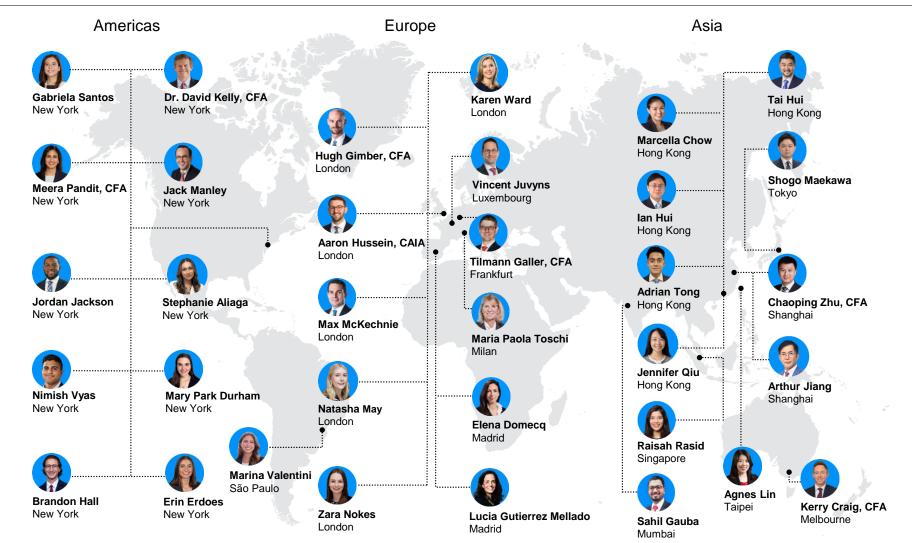
Europe | 2Q 2024 As of 31 March 2024





Global Market Insights Strategy team

GTM Europe



J.P.Morgan



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Global growth

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Consensus forecasts for real GDP growth **Composite Purchasing Managers' Index (PMI)** % change year on year Index level 6 70 65 5 60 4 3 50 45 2 40 1 35 30 '20 '12 '16 '18 '22 '24 UK US China '10 Eurozone Japan 2023 2024 Eurozone





Global Purchasing Managers' Index (PMI) for manufacturing

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2024

Global manufacturing PMI









Global inflation

GTM Europe

2023

ope 6

2024

Headline inflation

% change year on year

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

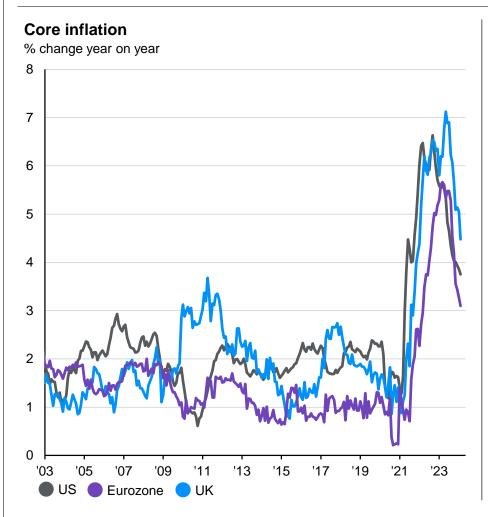
Source: Bank of Mexico, DGBAS, ECB, Federal Reserve, IBGE, India Ministry of Statistics & Programme Implementation, Japan Ministry of Internal Affairs & Communication, Korean National Statistical Office, LSEG Datastream, National Bureau of Statistics of China, ONS, Riksbank, Statistics Indonesia, Statistics 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 31 March 2024.

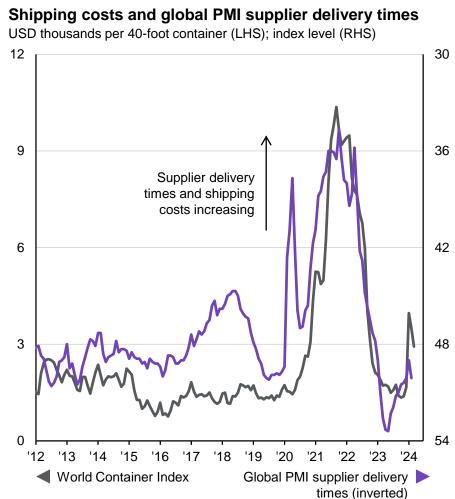
2022





Global inflationary pressures





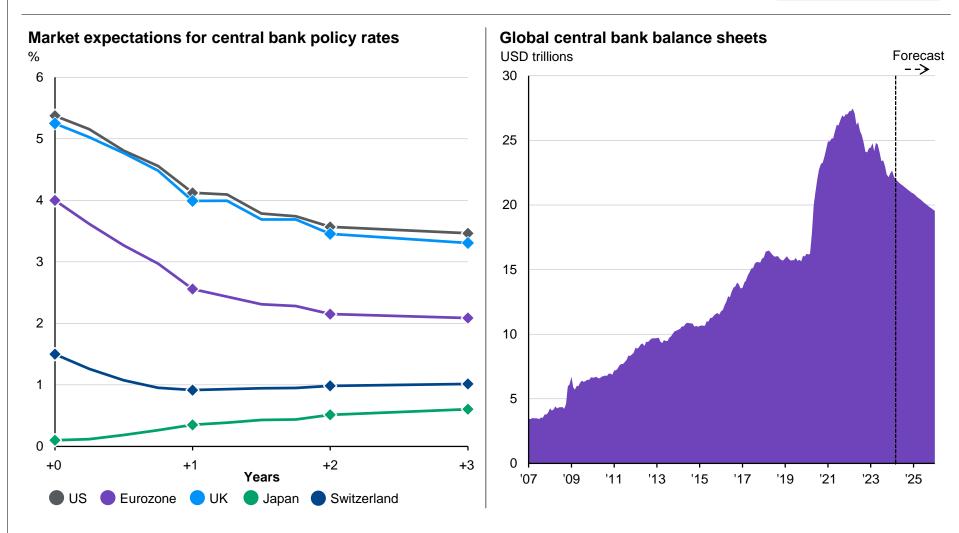






Global monetary policy

GTM Europe 8



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 31 March 2024.



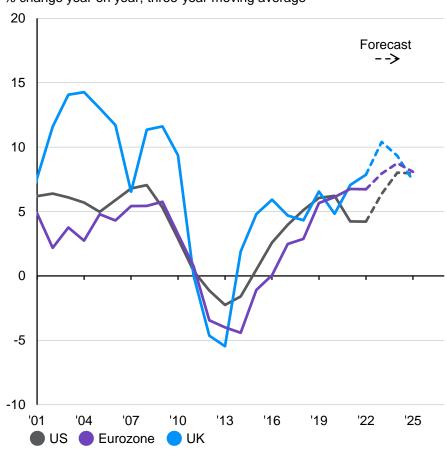


Global fiscal policy

GTM Europe 9

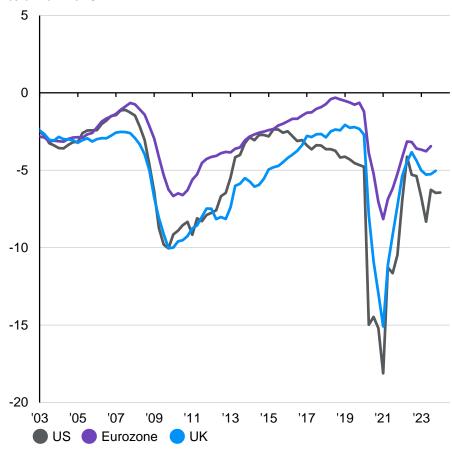


% change year on year, three-year moving average



Public sector budget balance

% of nominal GDP

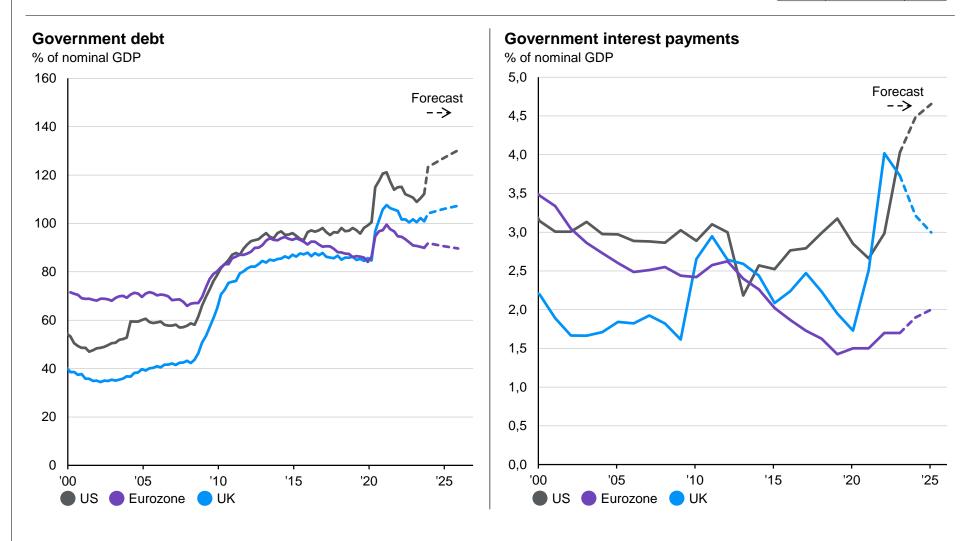






Global government debt

GTM Europe 10



Source: (Left) Bank for International Settlements, Eurostat, IMF, LSEG Datastream, J.P. Morgan Asset Management. Debt refers to gross debt at face value. Dotted lines represent the IMF forecasts for government debt to GDP in 2023 and 2024. (Right) LSEG Datastream, OECD, J.P. Morgan Asset Management. 2023 is OECD forecast. Eurozone refers to 17 OECD countries in the eurozone, which excludes Croatia, Cyprus and Malta. *Guide to the Markets - Europe*. Data as of 31 March 2024.

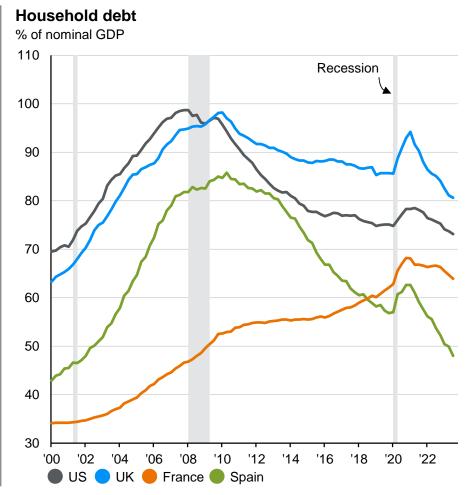




Global consumer balance sheets

GTM Europe 11

Nominal house prices Index level, rebased to 100 in 2015 250 200 150 100 50 '04 '06 '16 '18 '20 '22 '24 '14 Germany Sweden Spain France Italy







US dollar

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US dollar and interest rate differentials

Index level (LHS); % points (RHS)



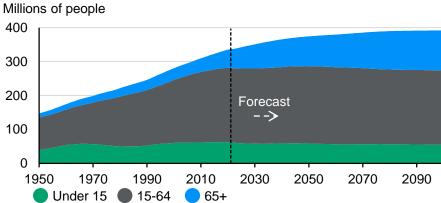


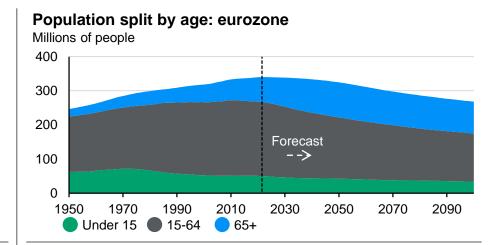


Global demographics

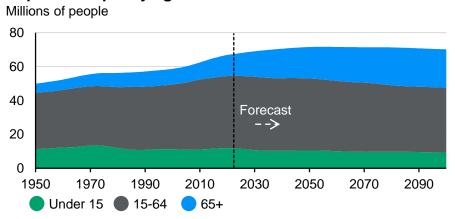
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Population split by age: US

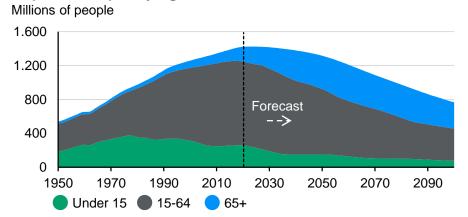




Population split by age: UK



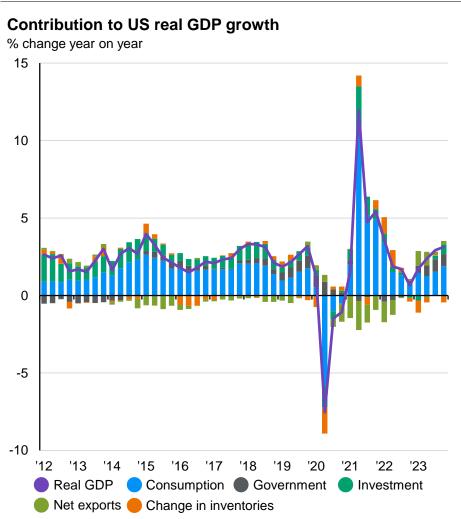


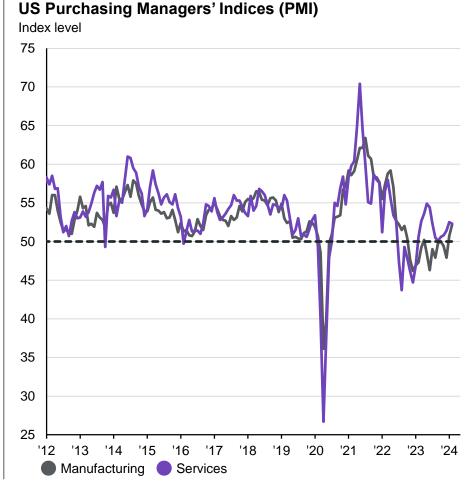






US GDP and business surveys









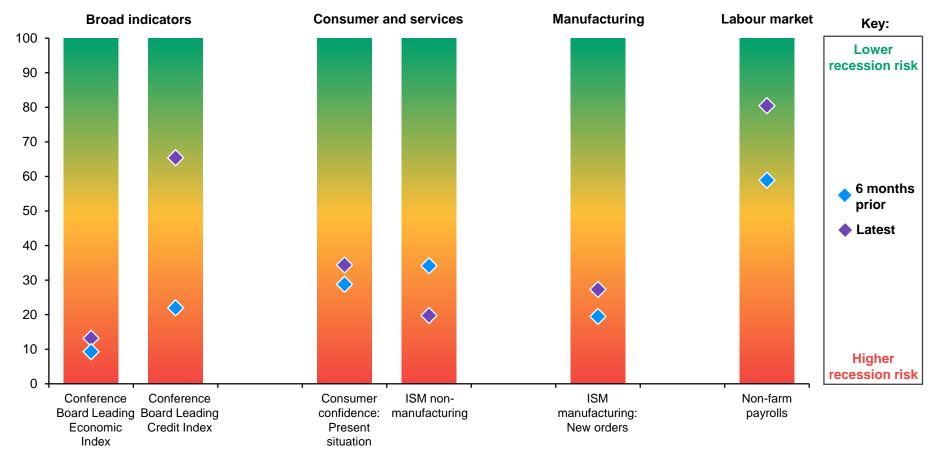
US Economic Monitor

GTM Europe

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US economic indicators

Percentile rank relative to historic data since 1990



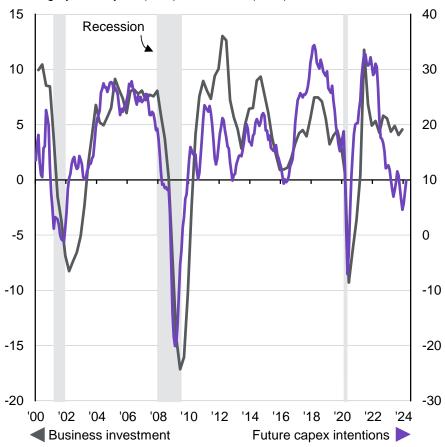




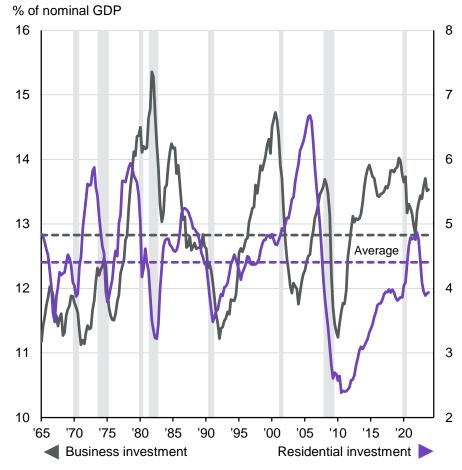
US business and residential investment

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US residential and business investment



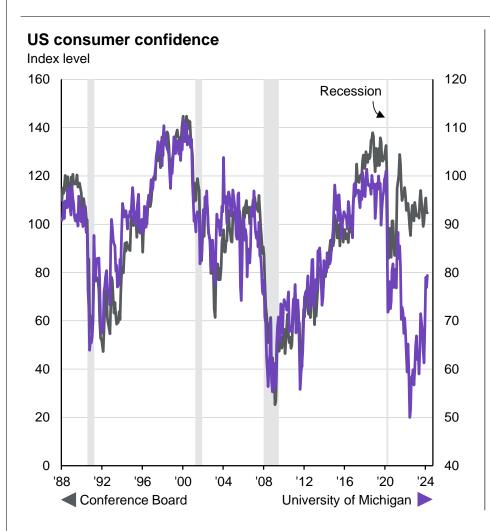
Source: (Left) BEA, Dallas Fed, Kansas City Fed, LSEG Datastream, New York Fed, Philadelphia Fed, Richmond Fed, J.P. Morgan Asset Management. Future capex intentions is an equally weighted average of the five aforementioned Fed districts' capex intentions measures, shown as a three-month moving average. (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 31 March 2024.

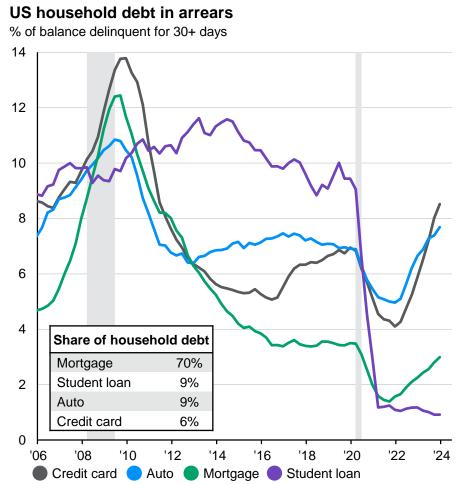




US consumer

GTM Europe 17





Source: (Left) Conference Board, LSEG Datastream, University of Michigan, J.P. Morgan Asset Management. The consumer confidence indices can diverge due to different emphasis in the surveys. The University of Michigan survey places a stronger weight on personal finances and buying conditions while the Conference Board index emphasises employment. (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 31 March 2024.

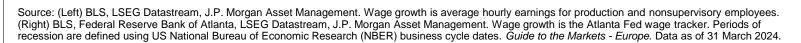




US labour market

GTM Europe 18

US unemployment and wage growth US job quits rate and wage growth %, wage growth is year on year %, three-month moving averages, wage growth is year on year 3,4 16 Recession 14 2,8 12 10 1,6 2 1,0 '80 '84 '96 '04 '08 '12 '22 '92 '00 '16 '20 '06 '08 '10 '12 '16 '18 '20 Atlanta Fed wage growth Quits rate Unemployment

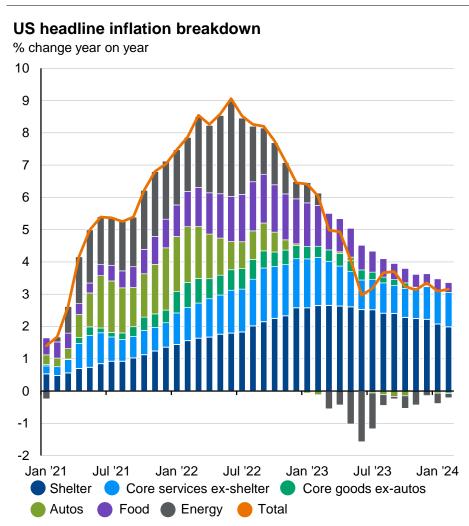


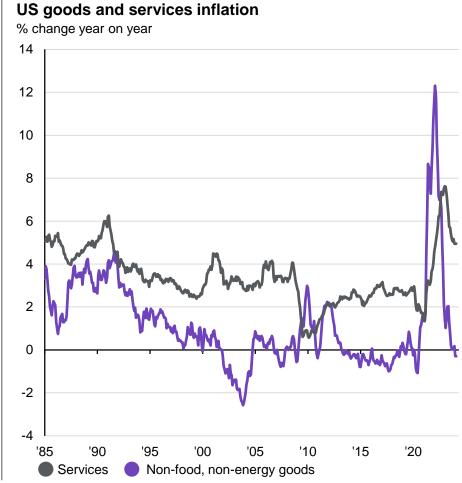
Wage growth





US inflation



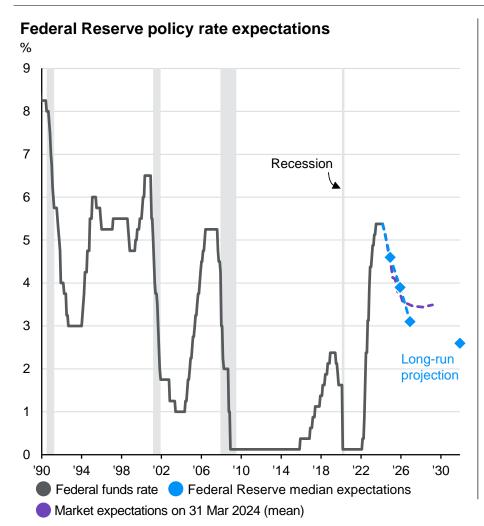


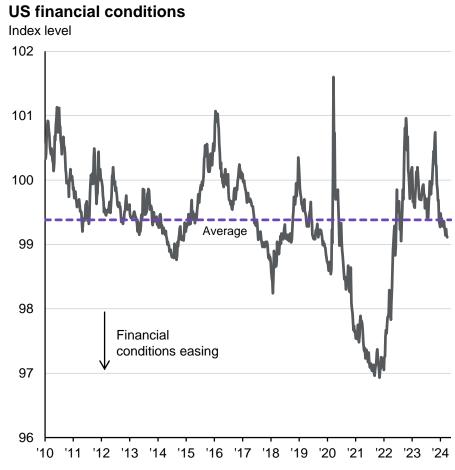




US Federal Reserve policy

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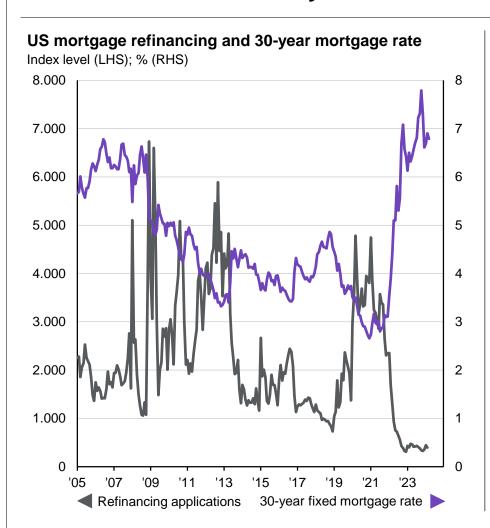


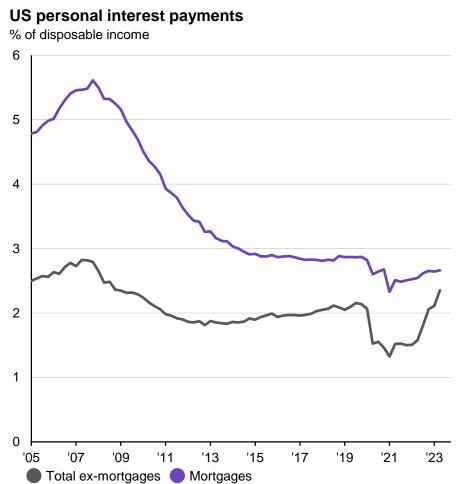
Source: (Left) Bloomberg, BLS, Federal Reserve, J.P. Morgan Asset Management. Market expectations are calculated using OIS forwards. The long-run projection represents the committee's median assessment of where the federal funds rate would be expected to converge to under the appropriate monetary policy 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 31 March 2024.





US interest rate sensitivity

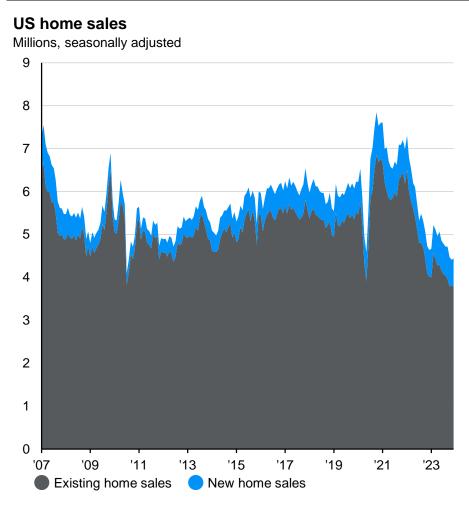








US housing activity and inventories

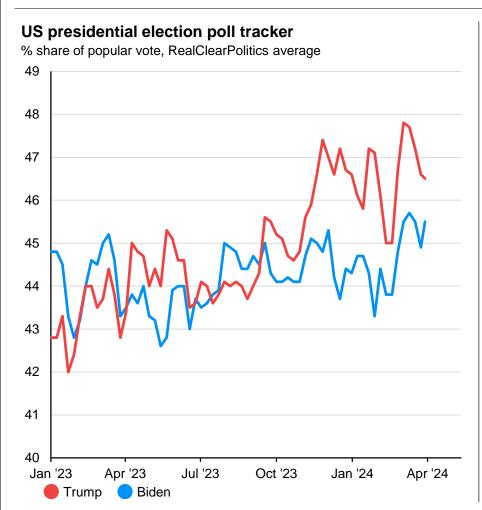


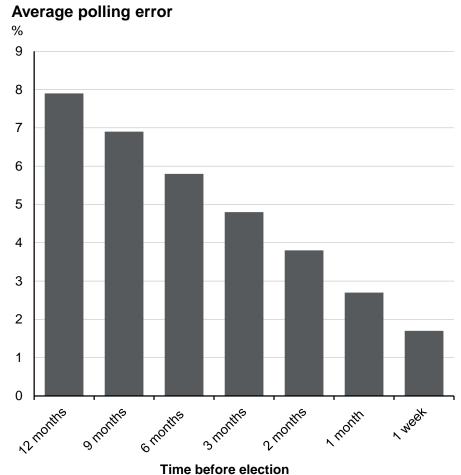






US politics

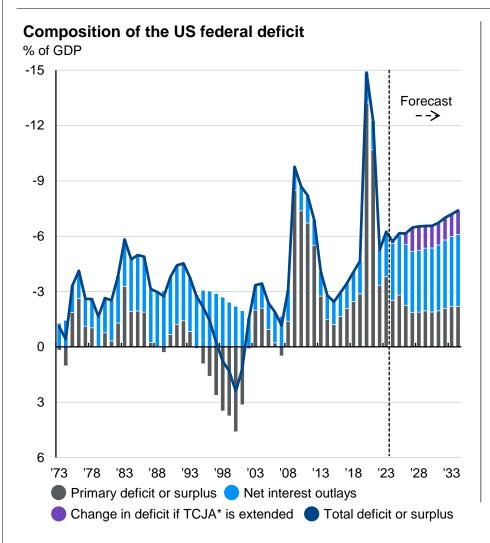


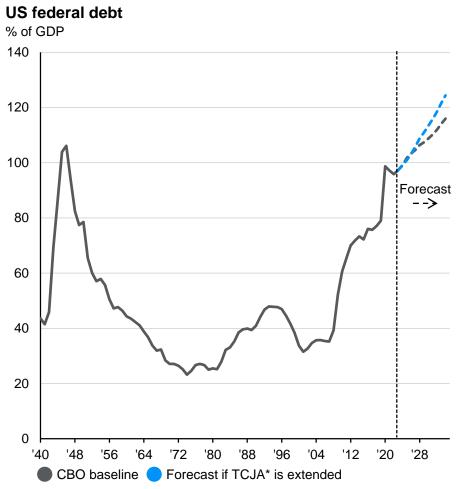






US focus: Fiscal challenges





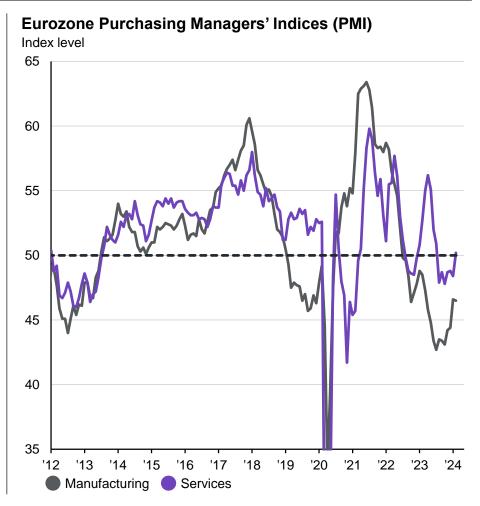




Eurozone GDP and business surveys

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Contribution to eurozone real GDP growth % change year on year 16 12 8 4 -4 -8 -12 -16 '23 Consumption Government Investment Real GDP Net exports Ohange in inventories







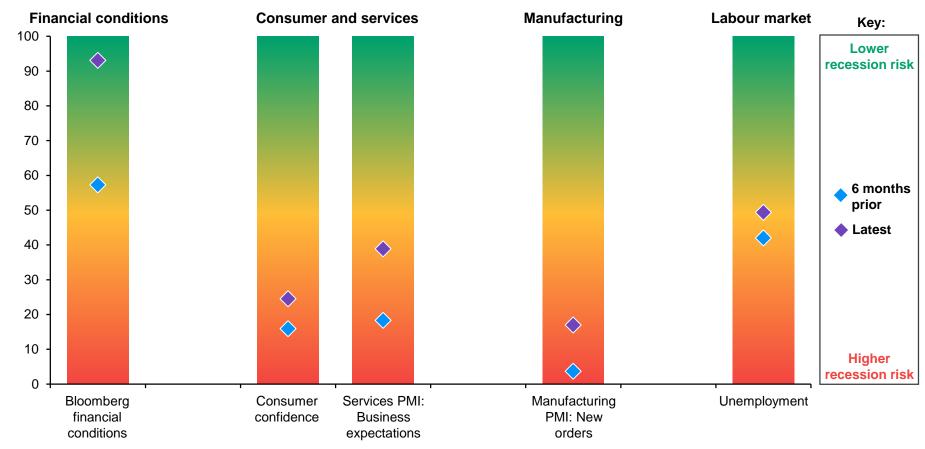
Eurozone Economic Monitor

Europe GTM

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Eurozone economic indicators

Percentile rank relative to historic data since 1999





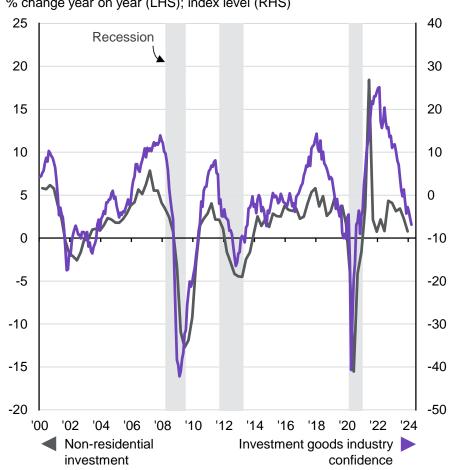


Eurozone business investment and credit conditions

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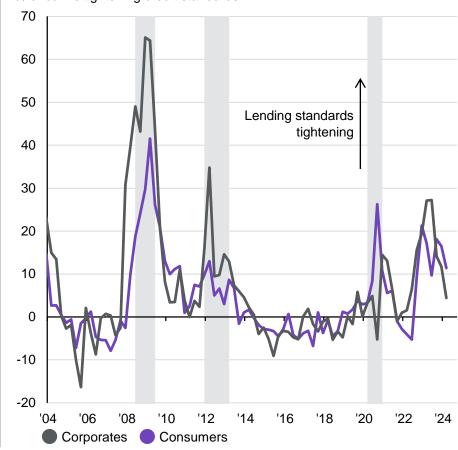
Eurozone real investment and investment confidence

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



Eurozone credit conditions

% of banks tightening credit standards

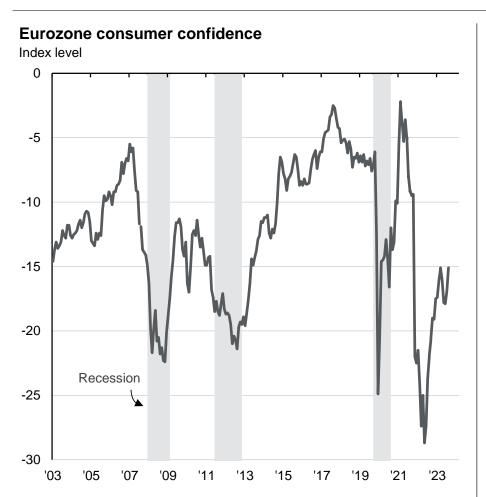


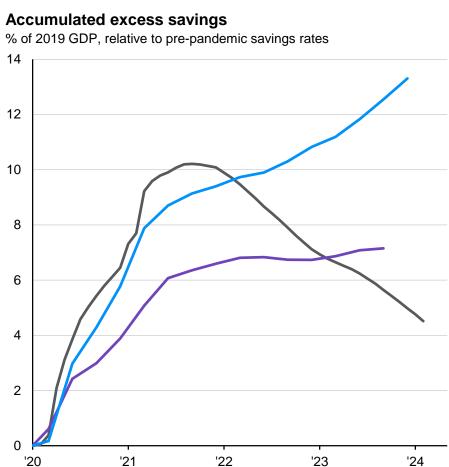




Eurozone consumer

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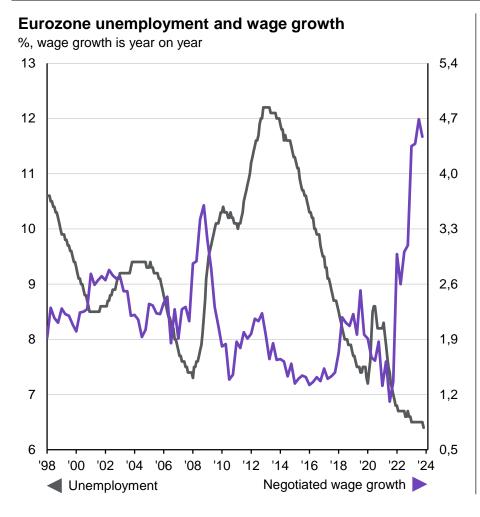
Eurozone

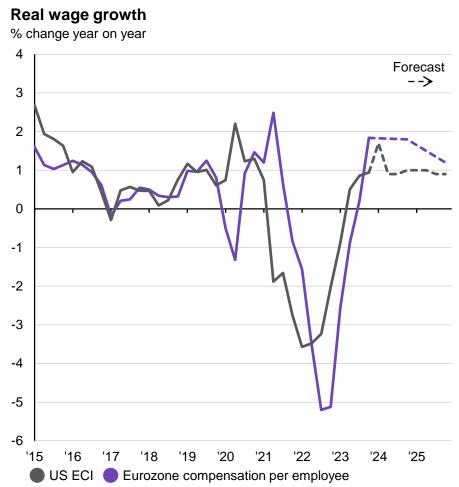




Eurozone labour market

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Source: (Left) European Central Bank, Eurostat, LSEG Datastream, J.P. Morgan Asset Management. Wage growth is based on negotiated wages. (Right) BLS, CBO, European Central Bank, European Commission, LSEG Datastream, J.P. Morgan Asset Management. US data is the Employment Cost Index, with forecasts from the CBO. Eurozone data is compensation per employee, with forecasts from the European Commission. The eurozone data is smoothed over 2020 and 2021 to remove distortions related to the pandemic. *Guide to the Markets - Europe*. Data as of 31 March 2024.



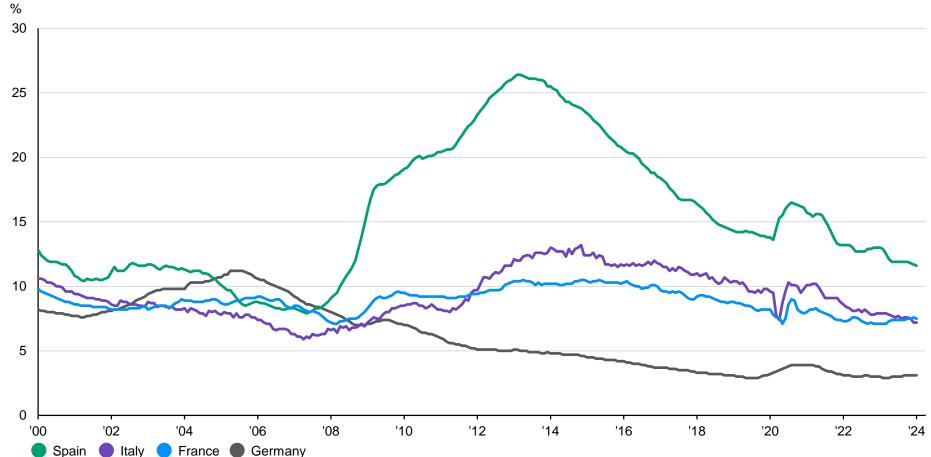


Eurozone unemployment

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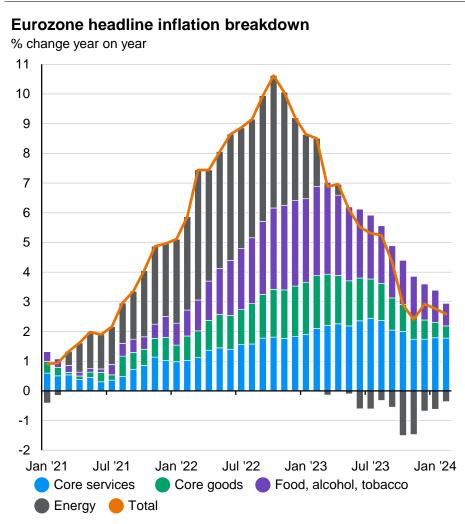


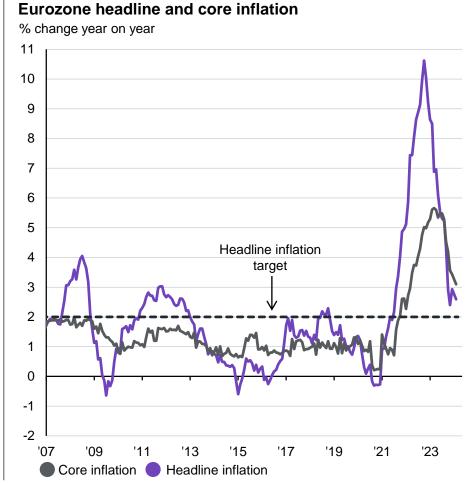






Eurozone inflation

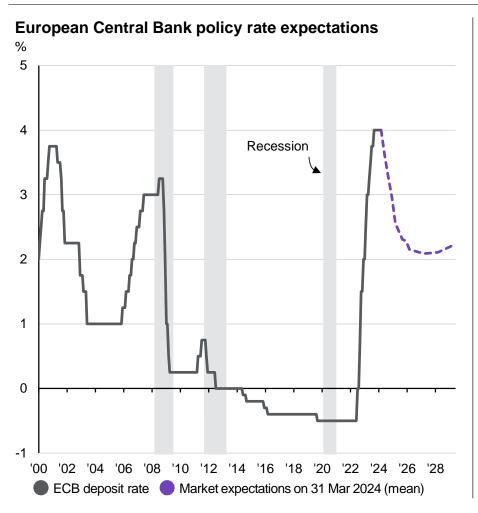


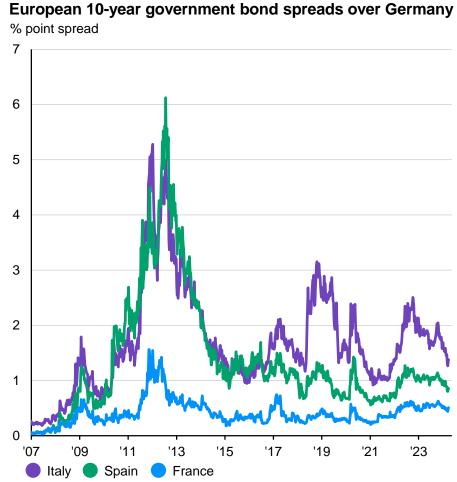






European Central Bank policy



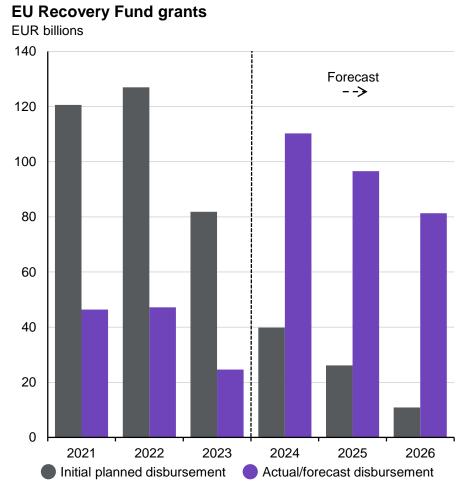






Eurozone focus: Economic surprises and Recovery Fund

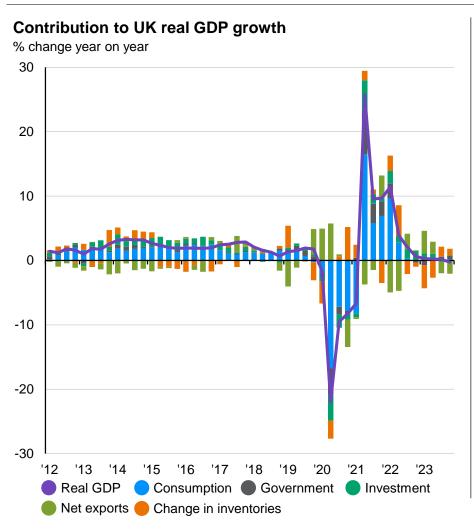


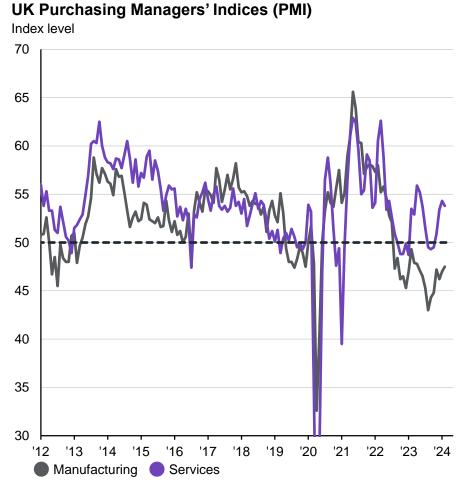






UK GDP and business surveys



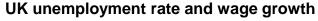


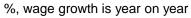


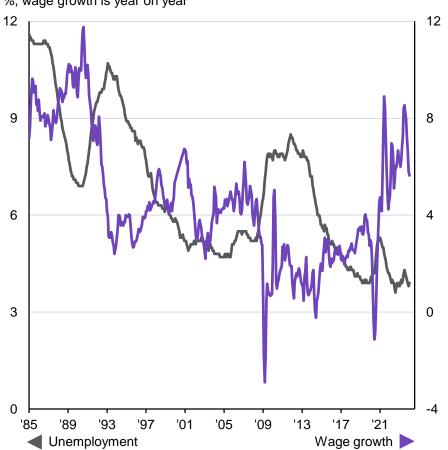


UK labour market

Europe GTM 35



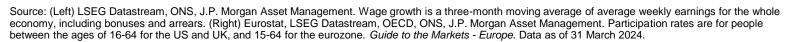




Labour force participation rates



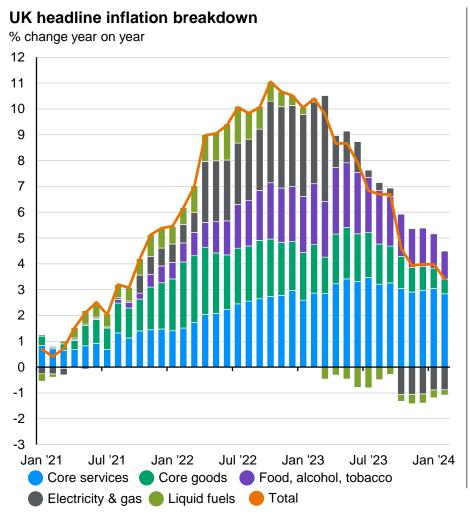


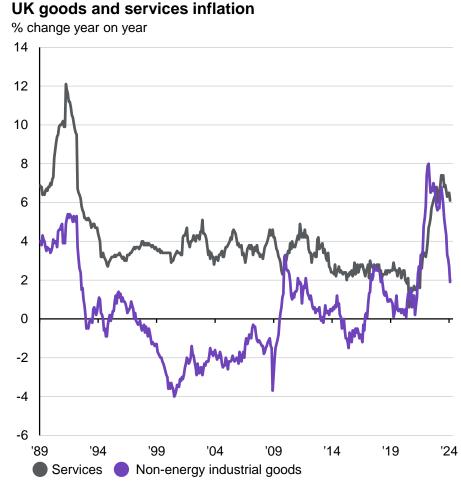






UK inflation







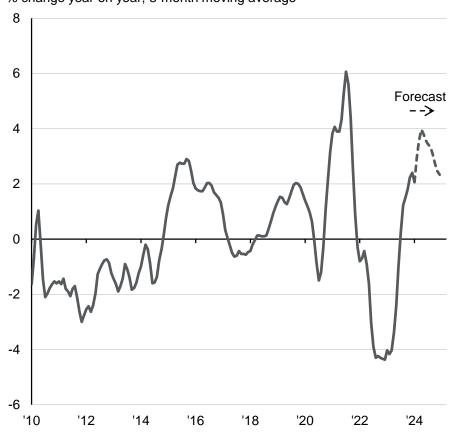


UK focus: Interest rate sensitivity

GTM Europe 37

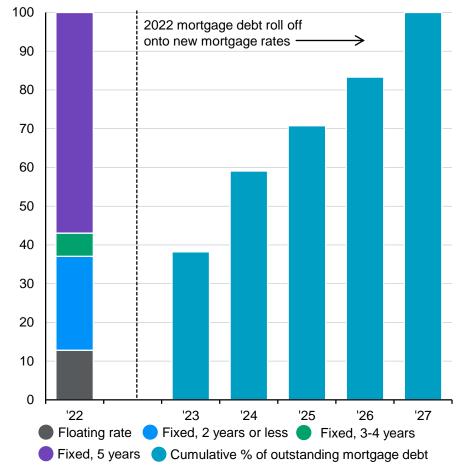
UK real wage growth

% change year on year, 3-month moving average



UK mortgages exposed to higher rates

% of mortgage stock, cumulative % of outstanding mortgage debt



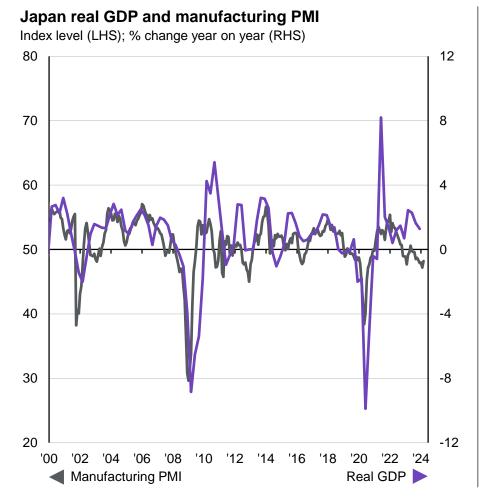
Source: (Left) LSEG Datastream, ONS, J.P. Morgan Asset Management. Real wages are calculated by deducting headline CPI from wage growth including bonuses and arrears. Forecasts are based on internal J.P. Morgan Asset Management estimates. (Right) Bank of England, J.P. Morgan Asset Management. Mortgages exposed to higher rates are based on internal J.P. Morgan Asset Management calculations and estimates. The first bar shows the proportion of UK mortgage debt as of 4Q 2022 that is either floating rate or with historical fixed rate agreements. The subsequent bars show the cumulative proportion of this debt that will be exposed to higher interest rates over time. *Guide to the Markets - Europe*. Data as of 31 March 2024.

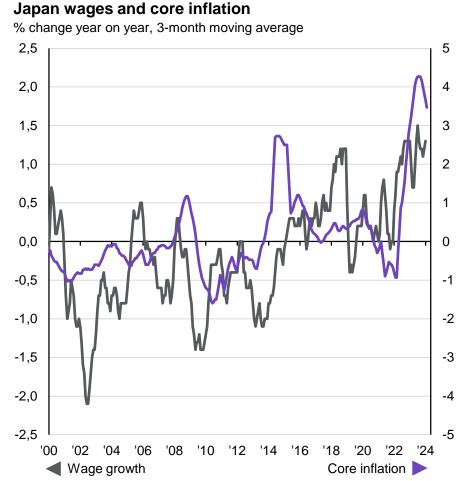




Japan GDP, inflation and wages

GTM Europe 38



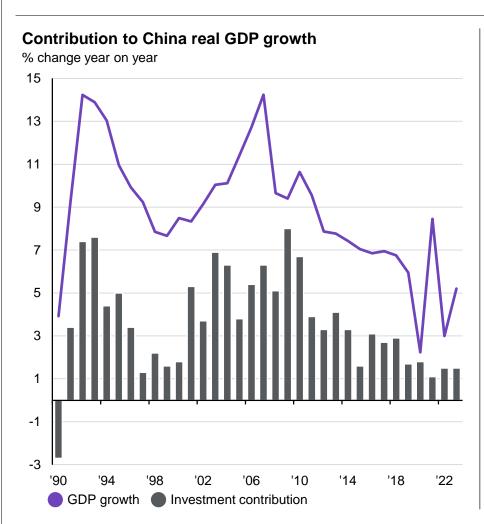


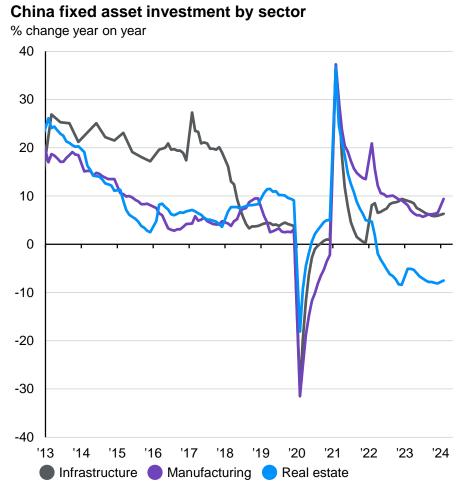
Source: (Left) Japan Cabinet Office, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. A score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. (Right) BoJ, Japan Ministry of Health, Labour and Welfare, LSEG Datastream, J.P. Morgan Asset 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 31 March 2024.





China growth drivers

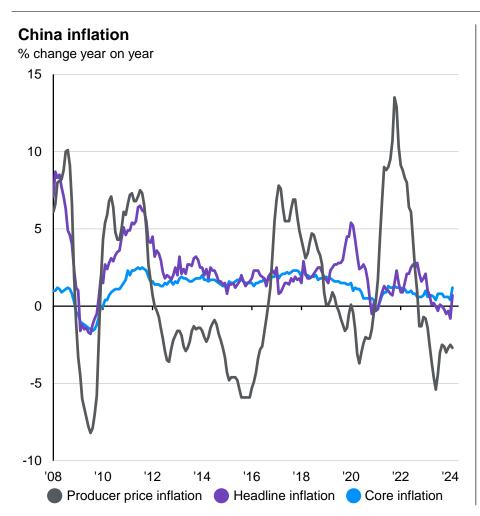




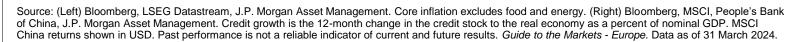




China inflation and credit dynamics





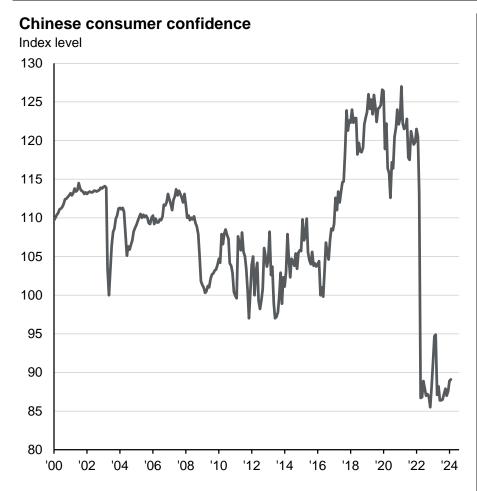




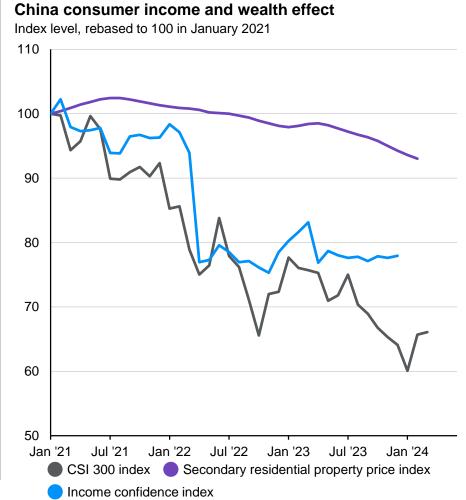


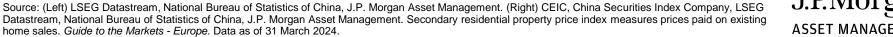
China consumer

Europe GTM 41



home sales. Guide to the Markets - Europe. Data as of 31 March 2024.

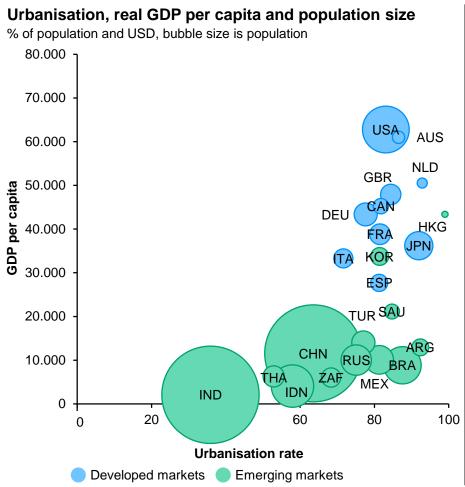


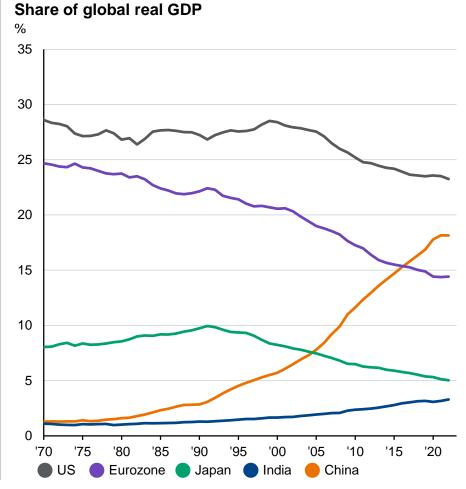






Emerging market structural dynamics



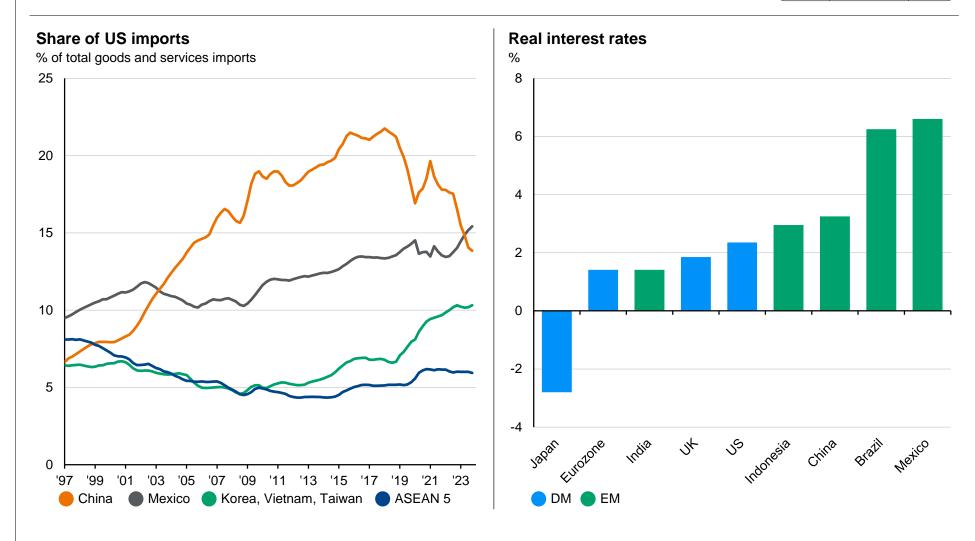






EM focus: Trade dynamics and real rates

GTM Europe 43



Source: (Left) LSEG Datastream, US Census Bureau, J.P. Morgan Asset Management. (Right) Banco Central Brasil, Banco de Mexico, Bank Indonesia, BLS, BoE, BoJ, ECB, Eurostat, Federal Reserve, IBGE, India Ministry of Statistics & Programme Implementation, INEGI, Japan Ministry of Internal Affairs & Communication, LSEG Datastream, National Bureau of Statistics of China, ONS, People's Bank of China, Reserve Bank of India, Statistics Indonesia, J.P. Morgan Asset Management. Real rates are calculated by deducting the headline inflation rate from the policy rate. *Guide to the Markets - Europe*. Data as of 31 March 2024.





World equity valuations

GTM Europe 44





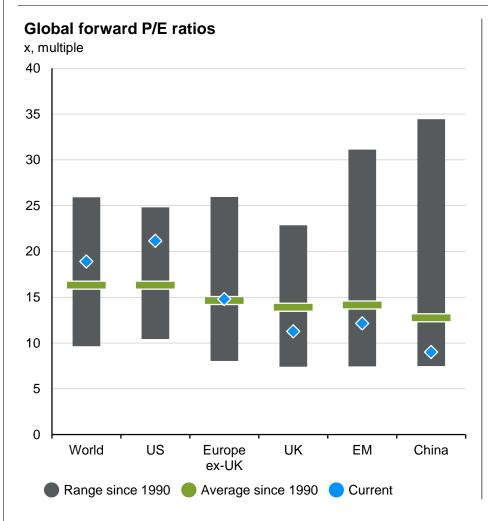
Source: (Left) IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Forward P/E ratio is price to 12-month forward earnings, calculated using IBES earnings estimates. (Right) BofA, IBES, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Developed market equities: MSCI World, Global BBB credit: BofA Global BBB Corporate Index. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe.* Data as of 31 March 2024.

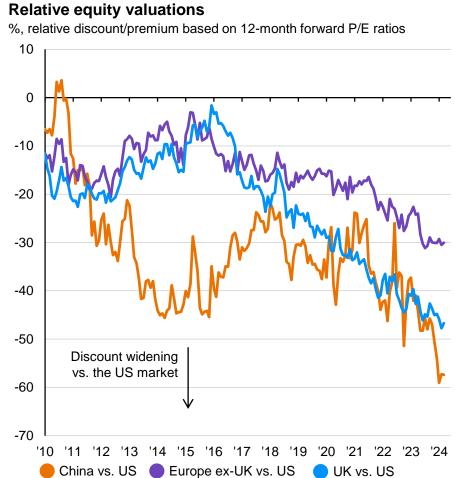




Regional equity valuations

GTM Europe 45





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 31 March 2024.

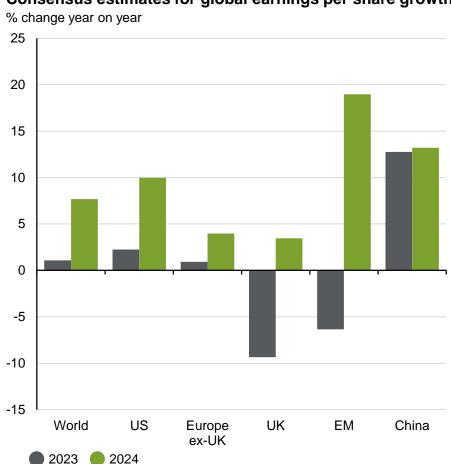




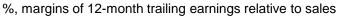
Regional earnings expectations and profit margins

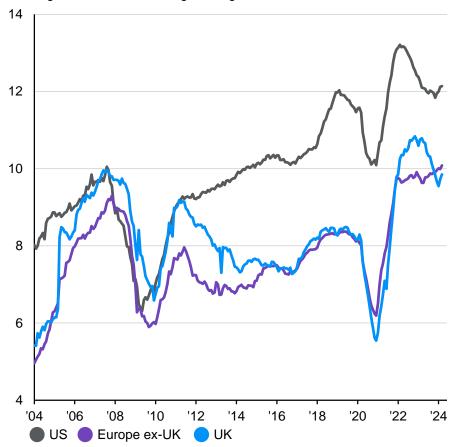
GTM Europe 46

Consensus estimates for global earnings per share growth



Profit margins





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, 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. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 March 2024.



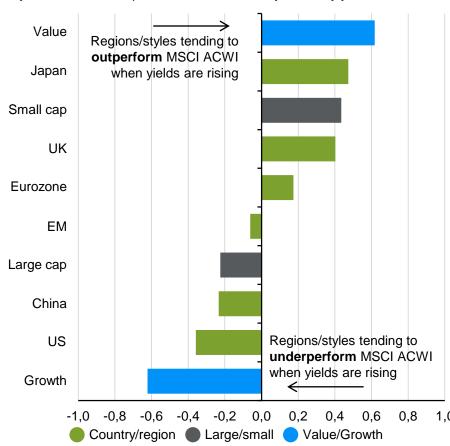


Global equity market correlations with Treasury yields

GTM Europe 47

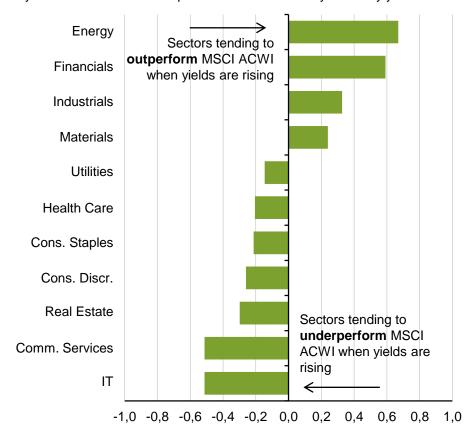
Correlation of regions and styles to US 10y Treasury yield

10y correlation of rel. performance with US 10y Treasury yield



Correlation of MSCI ACWI sectors to US 10y Treasury yield

10y correlation of sector rel. performance with US 10y Treasury yield



Source: (All charts) LSEG Datastream, MSCI, J.P. Morgan Asset Management. Correlation of regions and styles is calculated between the six-month change in US 10-year Treasury yields and the six-month relative performance of each region and style to MSCI All-Country World Index. Correlation of sectors is calculated between the six-month change in US 10-year Treasury yields and the six-month relative performance of each sector to MSCI All-Country World Index. All indices used are MSCI. Value and Growth as well as size indices used are for the MSCI All-Country World universe. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 March 2024.



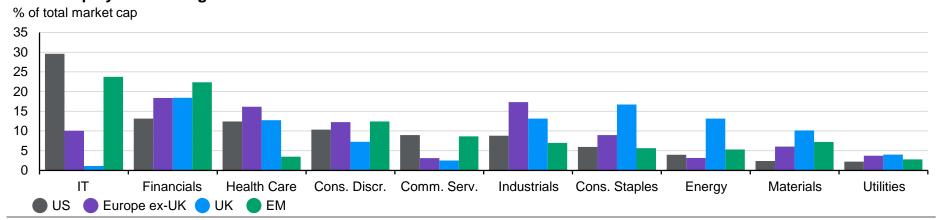


Global equity sector weights

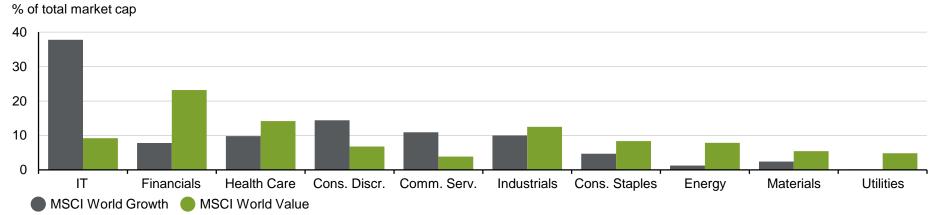
GTM Europe

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Global equity sector weights



MSCI World Growth and Value sector weights

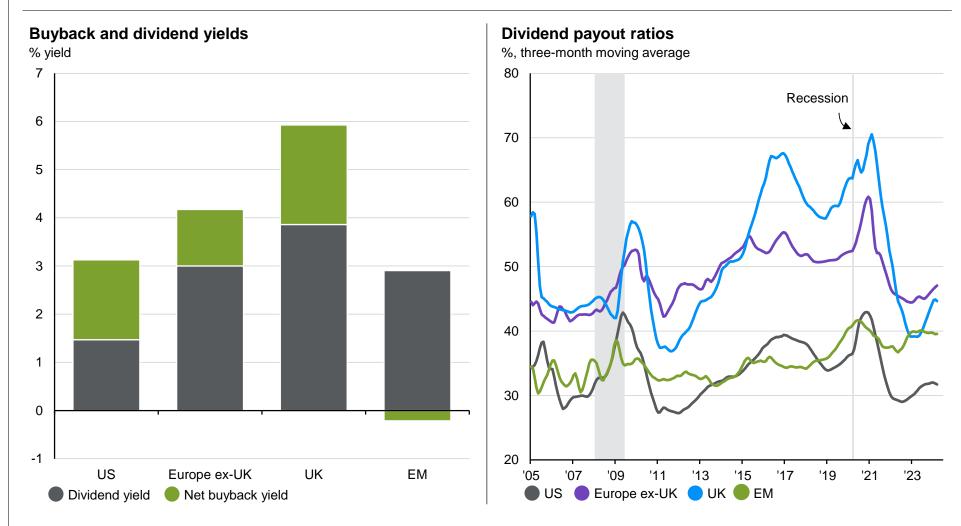






Global equity income

GTM Europe 49



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 31 March 2024.





Equity market factors

GTM Europe 50



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



MSCI World Growth and Value forward P/E ratios x, multiple 36 32 28 24 20 16 12 '07 '09 '11 '13 '15 '17 '19 '21 '23 Growth Value

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 31 March 2024.





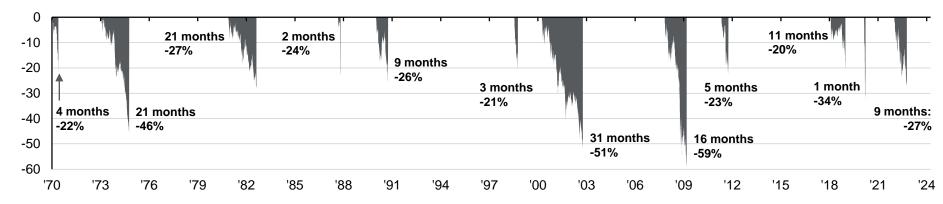
Bull and bear markets

GTM Europe 51

MSCI World bull markets, %



MSCI World bear markets, %

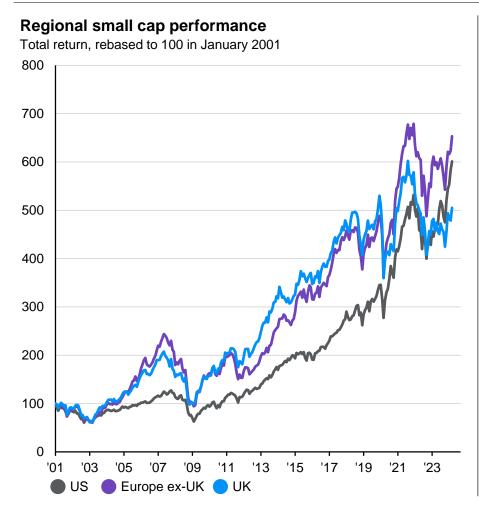


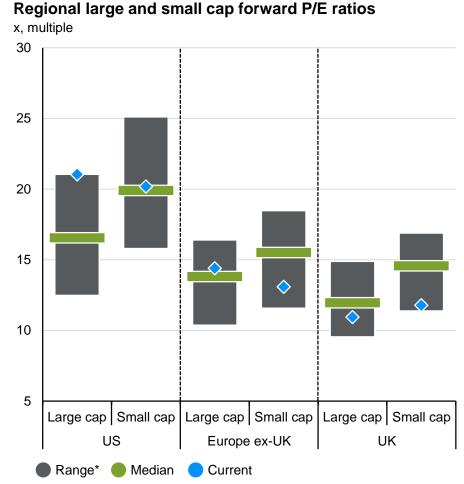




Small caps

GTM Europe 52





Source: (Left) LSEG Datastream, MSCI, J.P. Morgan Asset Management. All indices are MSCI Small Cap, in local currency. (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 31 March 2024.



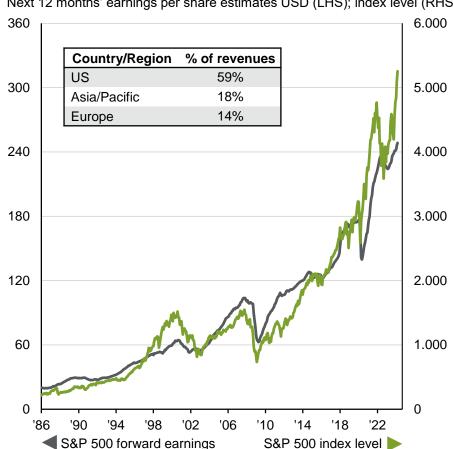


US earnings

GTM Europe 53

S&P 500 earnings and performance

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



US inflation and earnings growth

% change year on year



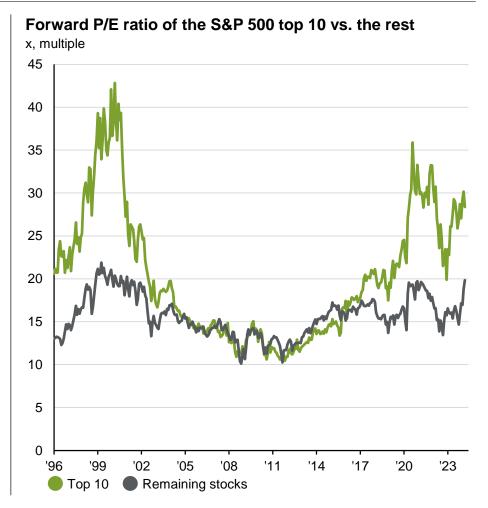




US equity valuations

GTM Europe 54

- la la .	Valuation measure	Average since 1990	Latest	
PWI.	Shiller CAPE ratio	26,6x	34,0x	1
TTL	P/B ratio	3,1x	4,5x	
#	Average:	16,3x		
	Average:	16,3x		31 Mar 202



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 trailing 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 31 March 2024.



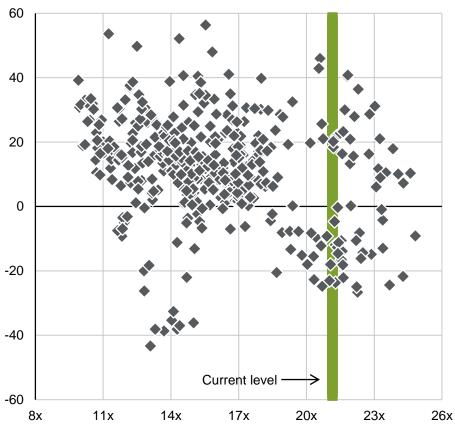


US valuations and subsequent returns

GTM Europe 55

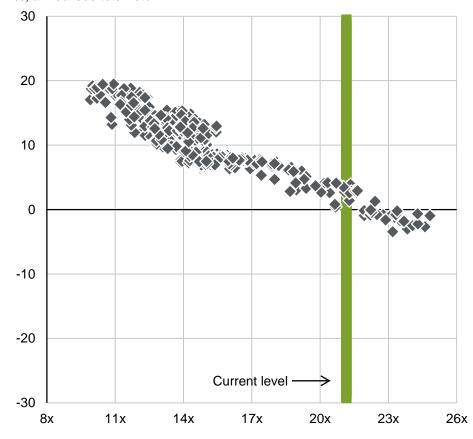
S&P 500 forward P/E ratios and subsequent 1-year returns

%, annualised total return*



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

%, annualised total return*





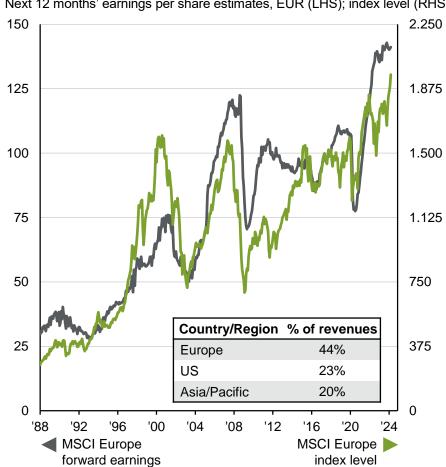


Europe earnings

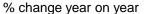
GTM Europe 56

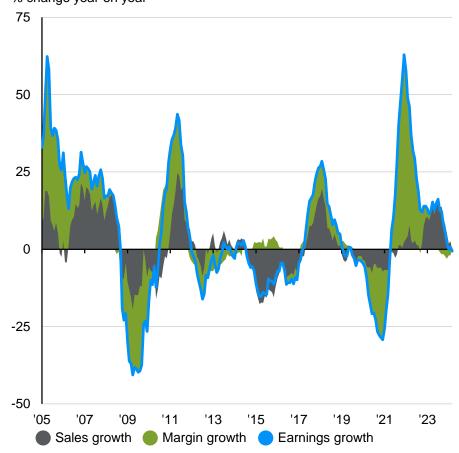
MSCI Europe earnings and performance





MSCI Europe earnings per share growth





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 31 March 2024.





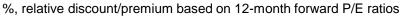
Europe equity valuations

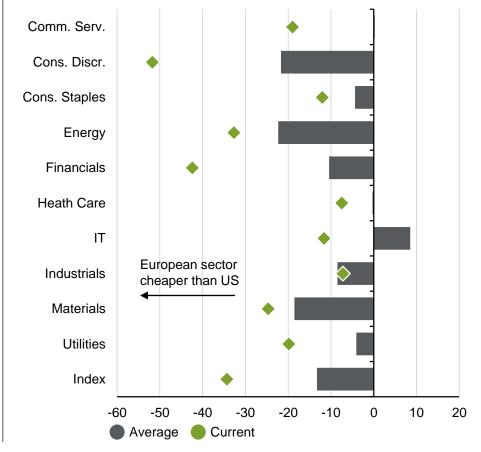
GTM Europe 57

MSCI Europe forward P/E ratio



MSCI Europe relative valuation vs. the US





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 trailing 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 31 March 2024.

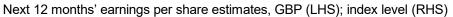


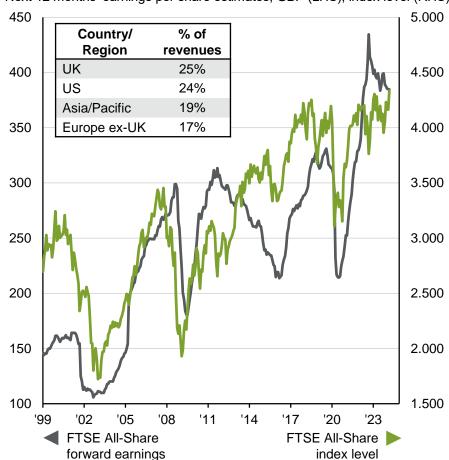


UK earnings

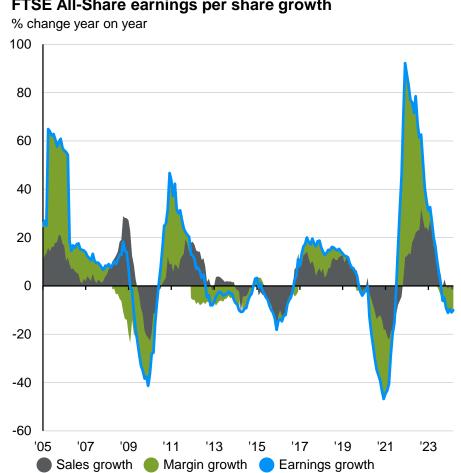
GTM Europe 58

FTSE All-Share earnings and performance





FTSE All-Share earnings per share growth

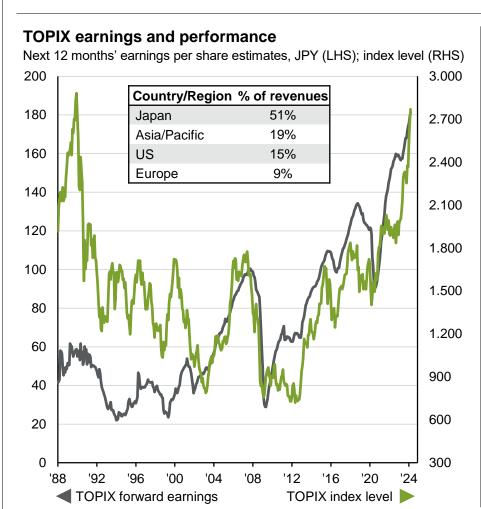


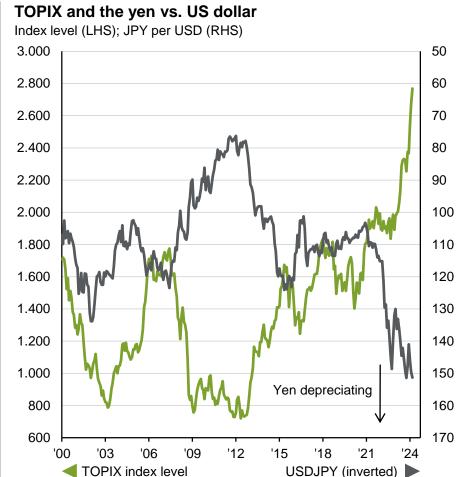
Source: (Left) FactSet, FTSE, IBES, LSEG Datastream, J.P. Morgan Asset Management. Earnings data are based on 12-month forward estimates. (Right) FTSE, IBES, LSEG Datastream, J.P. Morgan Asset Management. Earnings growth is based on 12-month trailing earnings. Margin growth is the growth rate of earnings 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 31 March 2024.





Japan equity market and currency



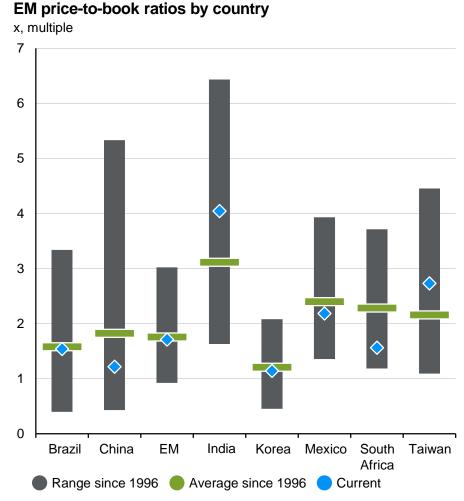






Emerging market equity valuations









China equity price-to-book ratio and drawdowns

GTM Europe

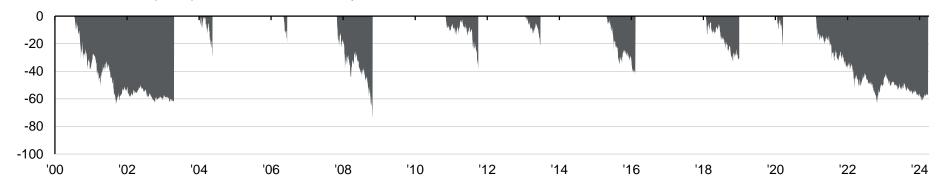
61

MSCI China price-to-book ratio



MSCI China historical drawdowns

% drawdown from local peak, price return in local currency





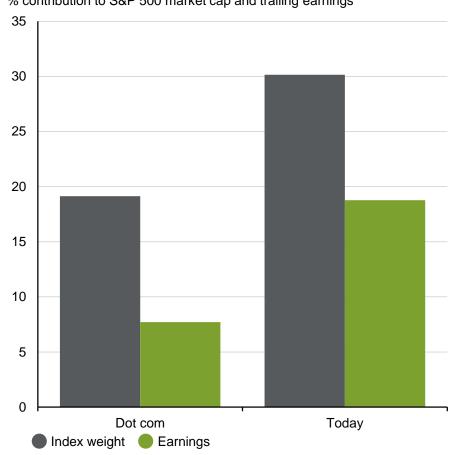


Equity focus: Navigating market concentration

GTM Europe 62

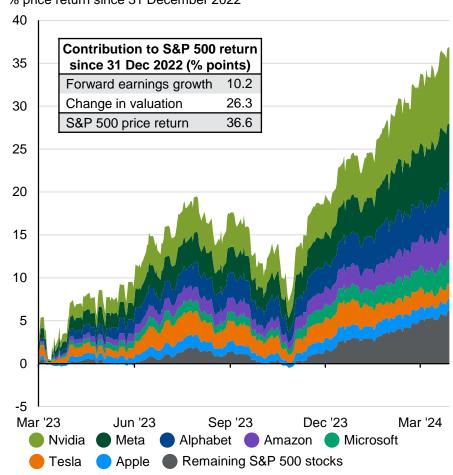
Contribution of largest seven 'tech' stocks to S&P 500

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



Contribution of 'magnificent 7' stocks to S&P 500 return

% price return since 31 December 2022



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) FactSet, IBES, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. Forward earnings growth is percentage change in IBES next 12 months' earnings per share estimates. Change in valuation is percentage change in price to 12-month forward earnings ratio, 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 31 March 2024.





World stock market returns

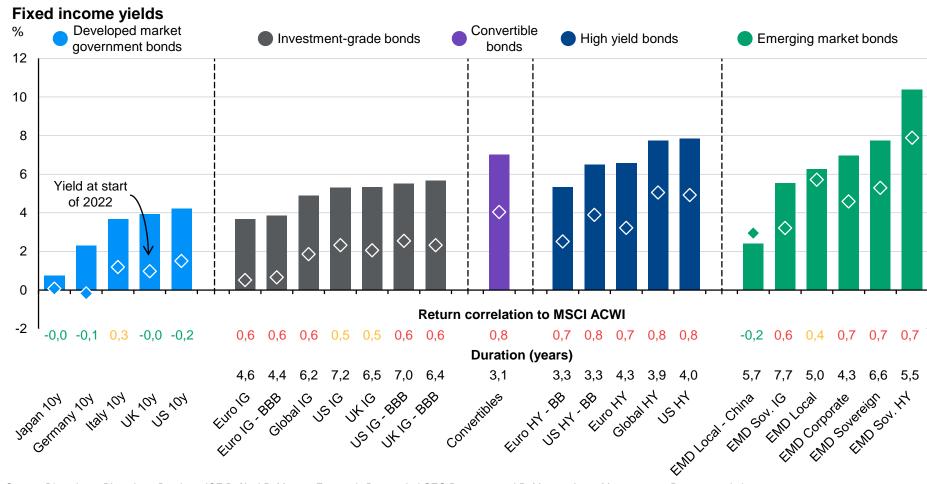
	2015	2016	2017	2018	2019	2020	2021	2022	2023	1Q '24	10-year ann. return
EUR Local	24,4% TOPIX 12,1%	15,3% S&P 500 12,0%	24,8% Asia ex-JP 35,9%	0,4% S&P 500 -4,4%	33,9% S&P 500 31,5%	15,0% Asia ex-JP 22,7%	38,5% S&P 500 28,7%	-8,9% Europe -8,0%	22,0% S&P 500 26,3%	13,1% S&P 500 10,6%	14,5% S&P 500 12,0%
	12,9% S&P 500 1,4%	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%	12,6% TOPIX 18,1%	9,2% Portfolio 8,4%
	8,8% Portfolio 2,2%	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%	9,1% Portfolio 9,1%	7,8% TOPIX 8,6%
	8,8% Europe 5,4%	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%	7,8% Europe 8,4%	7,1% Europe 7,0%
	1,5% Asia ex-JP -5,3%	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%	4,8% Asia ex-JP 4,5%	6,5% Asia ex-JP 5,2%
	-4,9% MSCI EM -5,4%	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%	4,8% MSCI EM 4,6%	5,3% MSCI EM 5,6%





Fixed income yields

GTM Europe 64

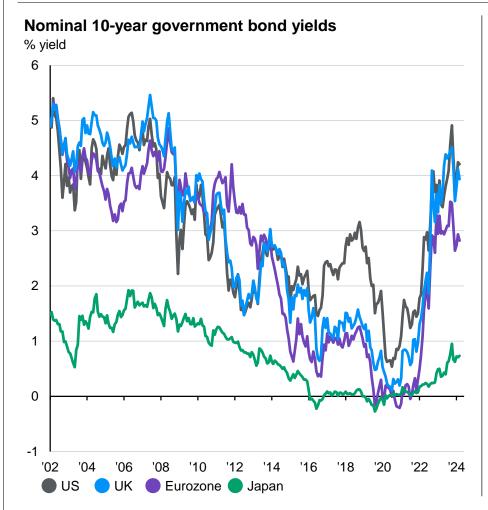


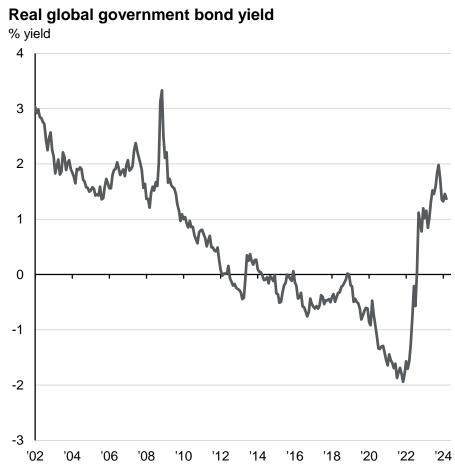
Source: Bloomberg, Bloomberg Barclays, ICE BofA, J.P. Morgan Economic Research, LSEG Datastream, J.P. Morgan Asset Management. Return correlation to MSCI All-Country World Index is calculated using monthly total returns since 2008. Indices used are as follows: Euro IG: Bloomberg Barclays Euro-Aggregate Corporate; Global IG: Bloomberg Barclays Global Aggregate Corporate; UK IG: Bloomberg Barclays Sterling Aggregate Corporate; US IG: Bloomberg Barclays US Aggregate Corporate; Convertible bonds: Bloomberg Barclays 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 HY. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 March 2024.

J.P.Morgan



Global government bond yields









US yield curve

GTM Europe

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US yield curve

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



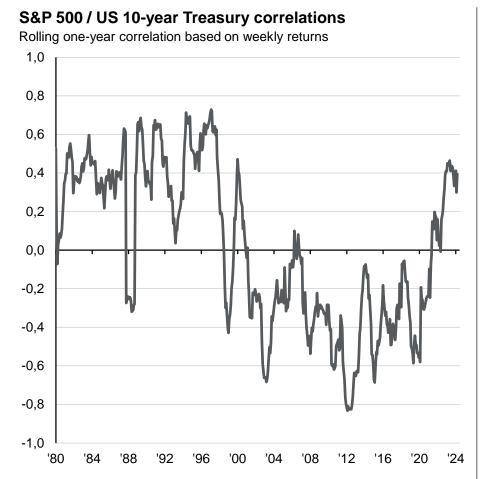
Yield curve inversion and recessions Number of months from

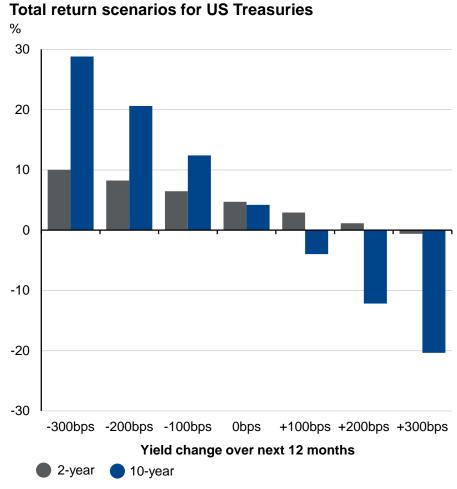
Yield curve inversion date	Curve inversion to S&P 500 peak before recession	S&P 500 peak to start of recession	Curve inversion to recession		
Aug '78	18	0	18		
Sep '80	3	8	11		
Dec '88	19	1	20		
May '98	22	12	34		
Dec '05	22	3	25		
Median	19	3	20		
Average	17	5	22		





US Treasury diversification potential







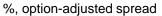


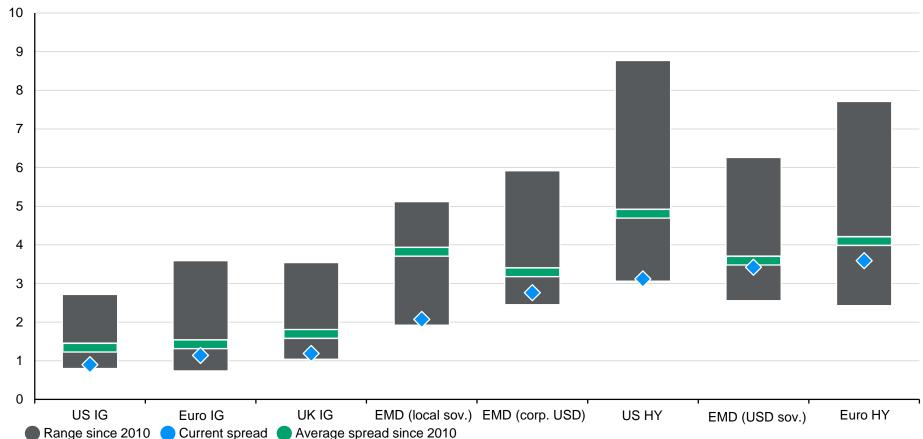
Global fixed income spreads

GTM Europe

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Fixed income spreads





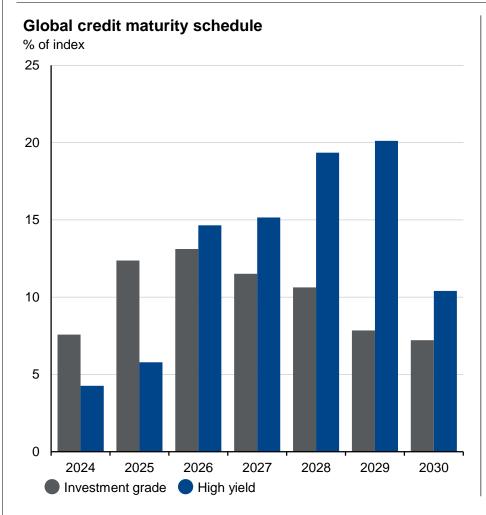
Source: Bloomberg, Bloomberg Barclays, ICE BofA, J.P. Morgan Economic Research, LSEG Datastream, J.P. Morgan Asset Management. Euro IG: Bloomberg Barclays Euro Agg. Corporate; US HY: ICE BofA US High Yield Constrained; EM Debt: J.P. Morgan EMBI Global Diversified; Euro HY: ICE BofA Euro Developed Markets Non-Financial High Yield Constrained; US IG: Bloomberg Barclays US Agg. Corporate – Investment Grade; UK IG: Bloomberg Barclays 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 31 March 2024.

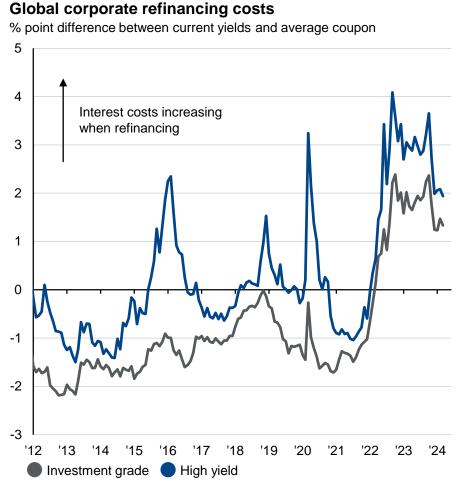




Corporate refinancing

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Source: (Left) Bloomberg, BofA, 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. 2024 and 2025 maturities include bonds that have now dropped out of the index given less than one year until maturity. (Right) 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. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe.* Data as of 31 March 2024.



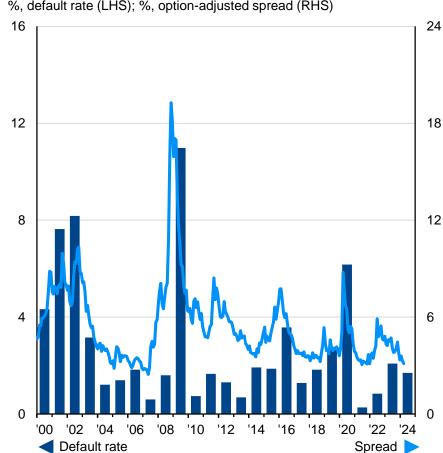


High yield bonds

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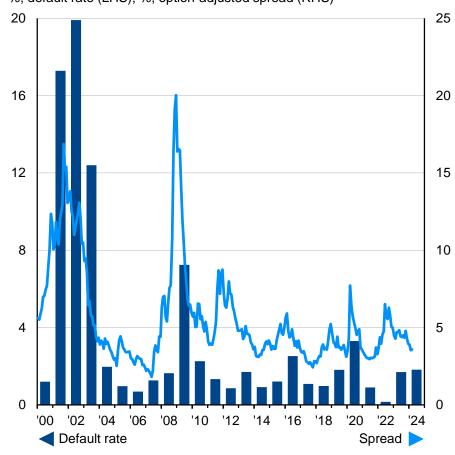
US high yield spread and defaults

%, 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. 2024 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 31 March 2024.

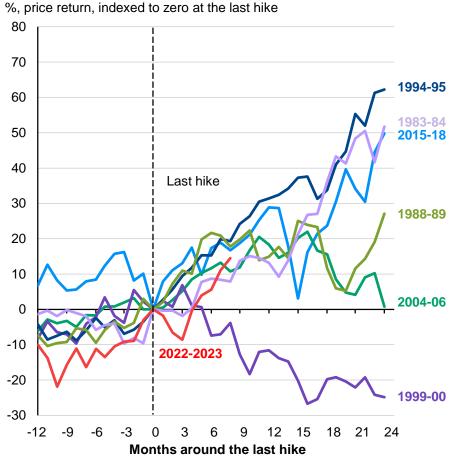




Equity and bond returns after Fed hiking cycles

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S&P 500 returns at the end of a Fed hiking cycle %, price return, indexed to zero at the last hike 80



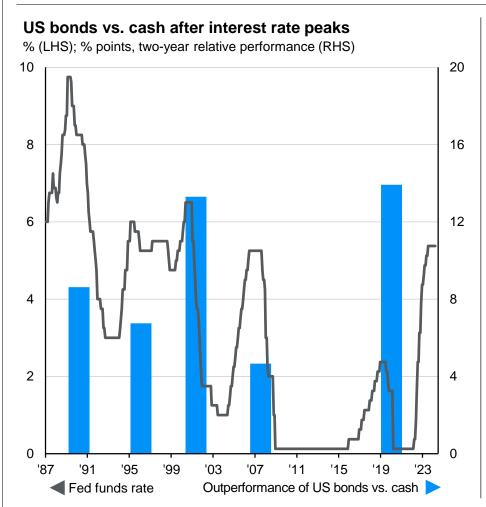
UST 10-year returns at the end of a Fed hiking cycle %, total return, indexed to zero at the last hike 80 1983-84 70 60 50 40 Last hike 30 1988-89 2015-18 20 2004-06 1999-00 1994-95 10 2022-2023 -10 -20 -30 -12 Months around the last hike

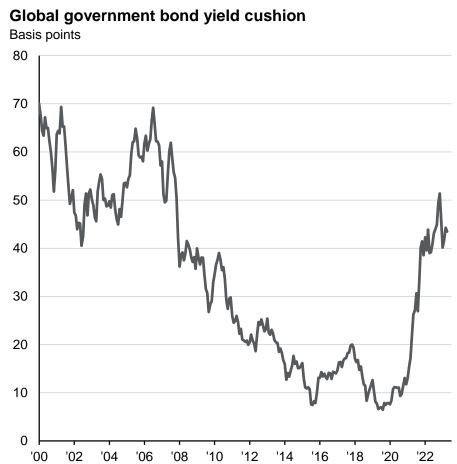




Fixed income focus: Bond performance beyond peak rates

GTM Europe 72





Source: (Left) Bloomberg, Bloomberg Barclays, Federal Reserve, ICE BofA, J.P. Morgan Asset Management. Cash: ICE BofA 3-Month Treasury Bill Index; US bonds: Bloomberg Barclays US Aggregate Index. (Right) 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. Index used is the Bloomberg Global Aggregate - Government index. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 March 2024.





Global fixed income returns

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	2015	2016	2017	2018	2019	2020	2021	2022	2023	1Q '24	10-year ann. return
EUR Local	12,7% EM Debt 1,2%	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%	4,4% EM Debt 2,0%	6,8% US HY 4,5%
	12,3%	13,4%	2,4%	2,7%	16,6%	3,1%	6,5%	-6,7%	9,6%	3,8%	5,5%
	US Treas.	EM Debt	Euro IG	US HY	US IG	Infl Linked	US IG	US Treas.	US HY	US HY	EM Debt
	0,8%	10,2%	2,4%	-2,3%	14,5%	3,1%	-1,0%	-12,5%	13,5%	1,5%	3,2%
	10,6%	10,2%	1,4%	2,4%	16,5%	2,8%	6,4%	-9,7%	8,2%	1,9%	5,3%
	US IG	Euro HY	Infl Linked	US IG	US HY	Euro IG	Infl Linked	Infl Linked	Euro IG	US IG	US IG
	-0,7%	10,2%	1,4%	-2,5%	14,4%	2,8%	6,4%	-9,7%	8,2%	-0,4%	3,0%
	6,4%	9,3%	0,2%	1,3%	11,2%	2,2%	5,7%	-10,2%	7,3%	1,5%	3,7%
	Portfolio	US IG	Euro Gov	Portfolio	Portfolio	Euro HY	EM Debt	US IG	EM Debt	Portfolio	Portfolio
	0,2%	6,1%	0,2%	-1,4%	10,1%	2,2%	-1,8%	-15,8%	11,1%	0,2%	2,4%
	6,3%	8,1%	-2,8%	1,0%	10,9%	0,9%	5,1%	-11,3%	7,1%	1,3%	3,5%
	US HY	Portfolio	Portfolio	Euro Gov	Euro HY	Portfolio	US Treas.	Euro HY	Euro Gov	Euro HY	US Treas.
	-4,6%	6,3%	4,3%	1,0%	10,9%	5,8%	-2,3%	-11,3%	7,1%	1,3%	1,3%
	1,6%	4,7%	-3,2%	0,6%	8,8%	0,8%	3,9%	-11,5%	6,3%	1,3%	3,4%
	Euro Gov	Euro IG	EM Debt	EM Debt	US Treas.	US IG	Portfolio	Portfolio	Portfolio	US Treas.	Euro HY
	1,6%	4,7%	10,3%	-4,3%	6,9%	9,9%	-0,2%	-14,6%	8,3%	-1,0%	3,4%
	1,4%	4,1%	-5,6%	-1,3%	6,8%	-0,9%	3,4%	-12,4%	5,9%	0,5%	2,1%
	Euro HY	US Treas.	US HY	Euro IG	Euro Gov	US Treas.	Euro HY	EM Debt	Infl Linked	Euro IG	Infl Linked
	1,4%	1,0%	7,5%	-1,3%	6,8%	8,0%	3,4%	-17,8%	5,9%	0,5%	2,1%
	0,8%	3,8%	-6,5%	-1,5%	6,6%	-2,7%	-1,0%	-13,6%	4,8%	-0,4%	1,4%
	Infl Linked	Infl Linked	US IG	Infl Linked	Infl Linked	US HY	Euro IG	Euro IG	US IG	Infl Linked	Euro IG
	0,8%	3,8%	6,4%	-1,5%	6,6%	6,1%	-1,0%	-13,6%	8,5%	-0,4%	1,4%
	-0,6%	3,2%	-10,1%	-4,0%	6,2%	-3,4%	-3,5%	-18,5%	0,5%	-0,6%	1,3%
	Euro IG	Euro Gov	US Treas.	Euro HY	Euro IG	EM Debt	Euro Gov	Euro Gov	US Treas.	Euro Gov	Euro Gov
	-0,6%	3,2%	2,3%	-4,0%	6,2%	5,3%	-3,5%	-18,5%	4,1%	-0,6%	1,3%

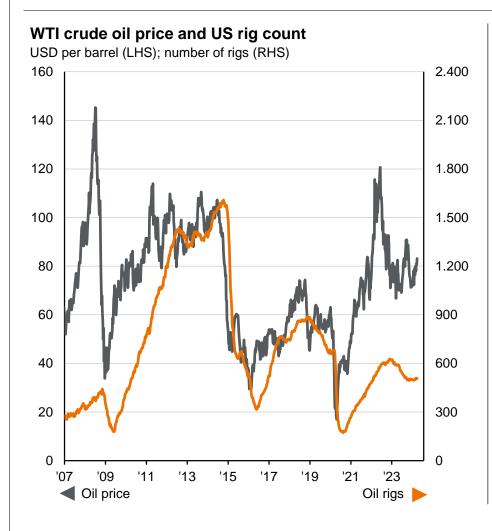
Source: Bloomberg, Bloomberg Barclays, ICE BofA, J.P. Morgan Economic Research, LSEG Datastream, J.P. Morgan Asset Management. UK IG: Bloomberg Barclays Sterling Agg. Corporate; US HY: ICE BofA US High Yield Constrained; EM Debt: J.P. Morgan EMBI Global Diversified; Euro HY: ICE BofA Euro Developed Markets Non-Financial High Yield Constrained; US IG: Bloomberg Barclays US Agg. Corporate – Investment Grade; US Treasuries: Bloomberg Barclays US Agg. Gov. Treasury; Euro IG: Bloomberg Barclays Euro Agg. Corporate; Euro Gov.: Bloomberg Barclays Euro Agg. Government; Infl Linked: Bloomberg Barclays 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; 15% Euro HY; 15% EM Debt. Annualised return covers period 2014 to 2023 inclusive. 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 31 March 2024.

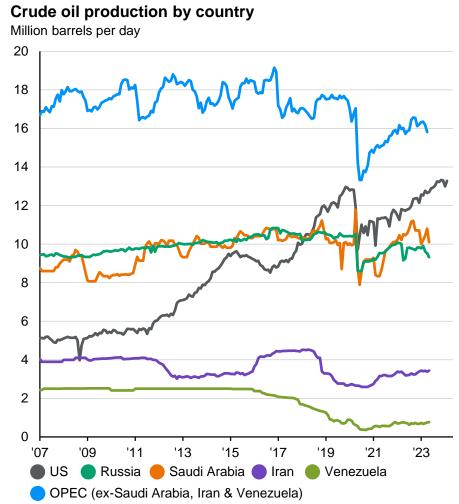




Oil

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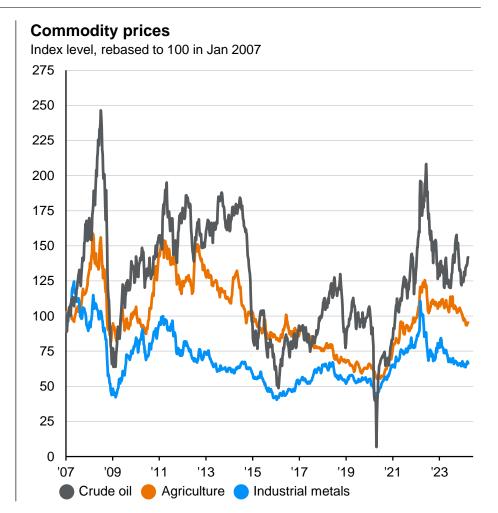




Commodities

GTM Europe 75

Real US 10-year Treasury yield vs. gold %, inverted (LHS); USD per Troy ounce (RHS) -1,5 2.300 2.100 -1,0 -0,5 1.900 0,0 1.700 0,5 1.500 1.300 1,0 1,5 1.100 2.0 900 2,5 700 3,0 500 '23 '24 Real 10-year Treasury yield Gold

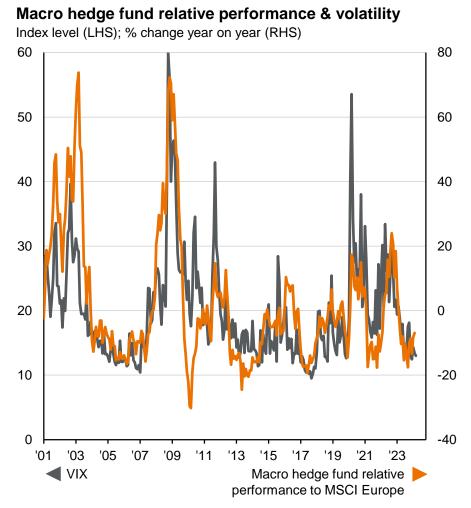


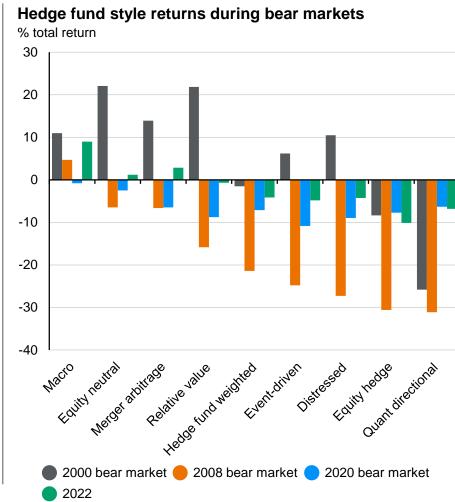




Volatility and alternative investments

GTM Europe 76





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 31 March 2024.



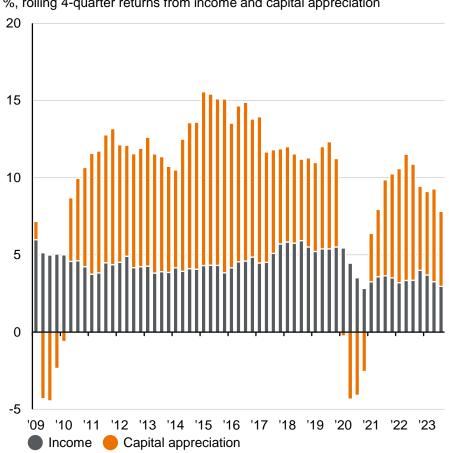


Inflation protection and alternative investments

GTM Europe

Global core infrastructure returns

%, rolling 4-quarter returns from income and capital appreciation



Public and private market correlations

Correlation, quarterly returns

	2008 - 2023	Global Bonds	Global Equities
Financial	Global Bonds	1,0	
assets	Global Equities	0,4	1,0
Global real	U.S. Core RE	-0,3	0,0
estate	Europe Core RE	-0,2	0,1
	Commodities	0,1	0,6
Deel ecosto	Global Core Infra	-0,1	0,1
Real assets	Transport	-0,2	0,0
	Timber	-0,2	-0,1
Private markets	Direct Lending	0,0	0,7
Private markets	Private Equity	0,3	0,9
Hodgo funde	Equity Long/Short	0,3	0,9
Hedge funds	Macro	0,0	0,3

Source: (Left) MSCI, J.P. Morgan Asset Management. Infrastructure returns represented by the MSCI Global Quarterly Infrastructure Asset Index "low risk" category. Rolling one-year returns from income and capital appreciation. (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 timeweighted 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 31 March 2024.



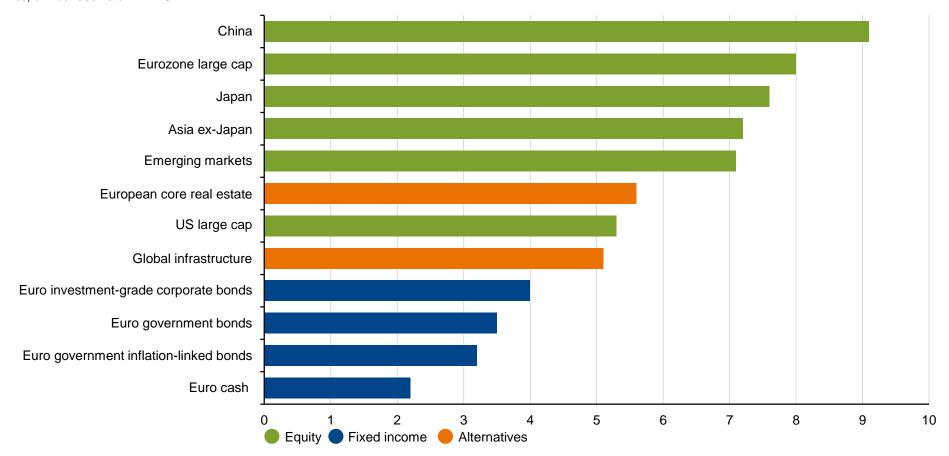


Asset return expectations

GTM Europe 78

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

%, annualised return in EUR



Source: 2024 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 31 March 2024.

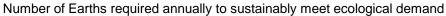


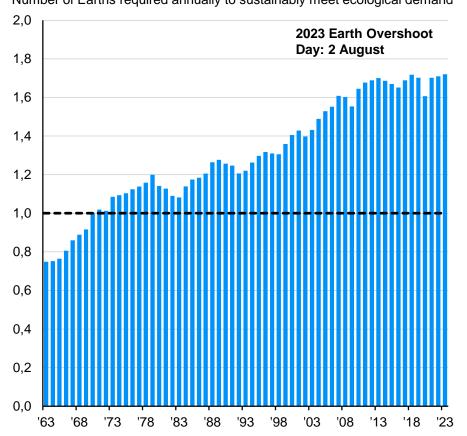


Ecological capacity and consumer concerns

GTM Europe 79

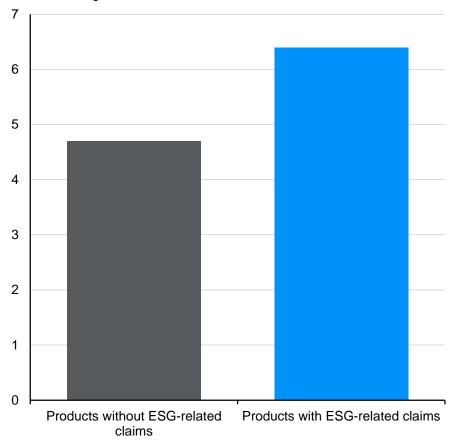
Earths needed to sustainably meet ecological footprint





US sales growth

%, annualised growth rate from 2018 - 2022



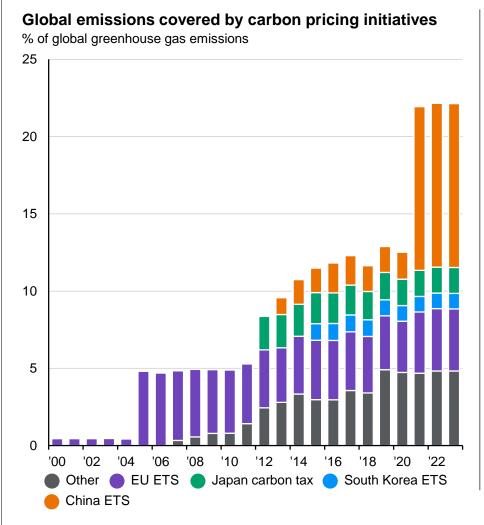
Source: (Left) Global Footprint Network National Footprint and Biocapacity Accounts 2022 Edition, J.P. Morgan Asset Management. The ecological footprint measures how fast the world's population consumes resources and generates waste, which is then compared to how fast nature can absorb waste and generate 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 31 March 2024.

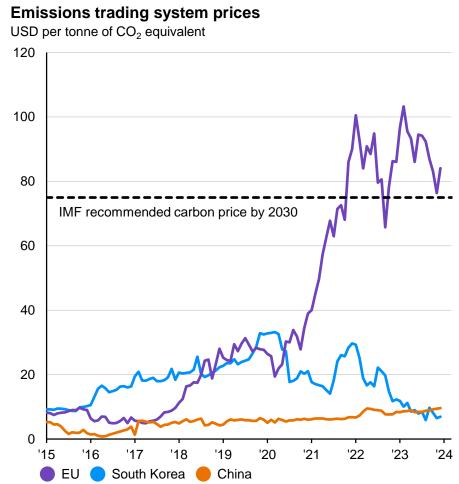




Carbon pricing

GTM Europe 80





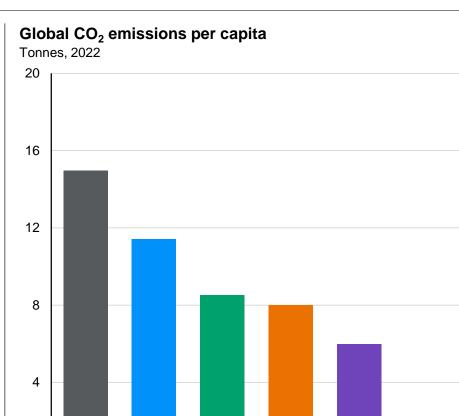
Source: (Left) World Bank, J.P. Morgan Asset Management. ETS is emissions trading system. (Right) IMF, International Carbon Action Partnership, J.P. Morgan Asset Management. China ETS price is the Shanghai ETS price up to July 2021, and the mainland price thereafter. USD 75 represents the IMF's recommendation for global average carbon prices by 2030 to limit global warming. 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 31 March 2024.

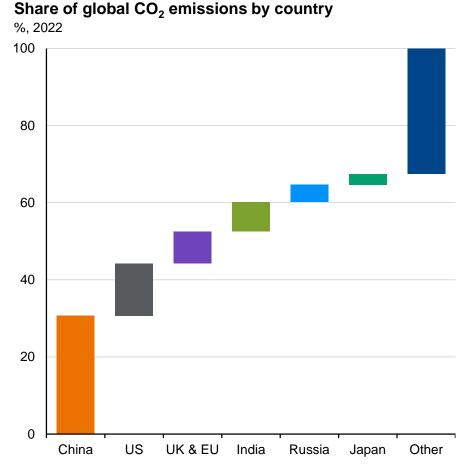


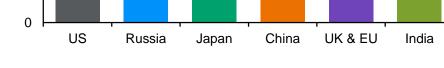


Global CO₂ emissions by country

GTM Europe 81





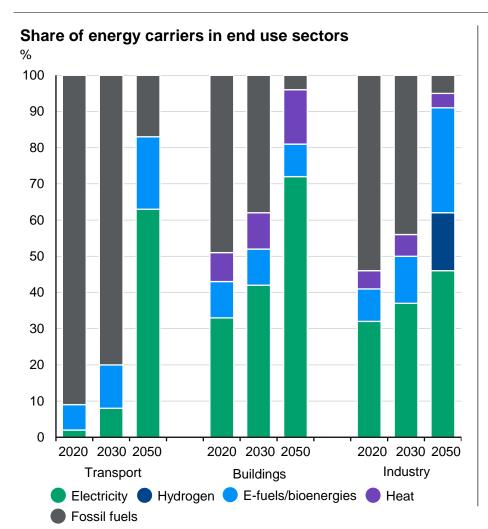






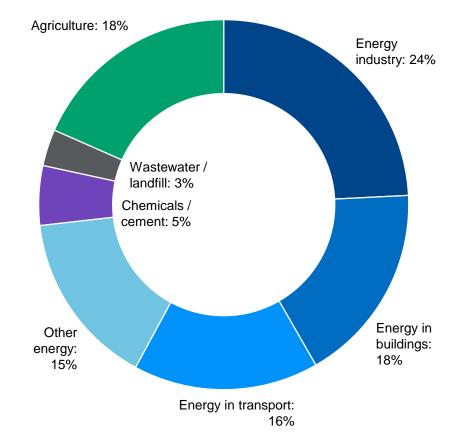
Energy mix and greenhouse gas emissions by sector

GTM Europe 82



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 & ENTSOG 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 31 March 2024.



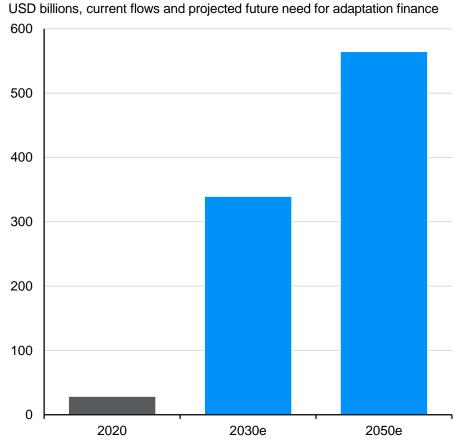


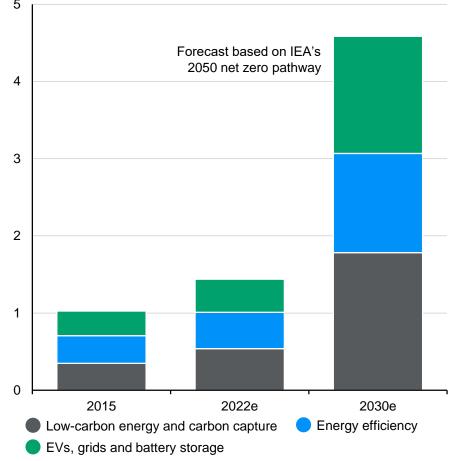
Investment in climate change mitigation and adaptation

GTM Europe 83

Global investment in clean energy and energy efficiency USD trillions 5 Forecast based on IEA's 2050 net zero pathway 4

Adaptation financing gap for developing countries





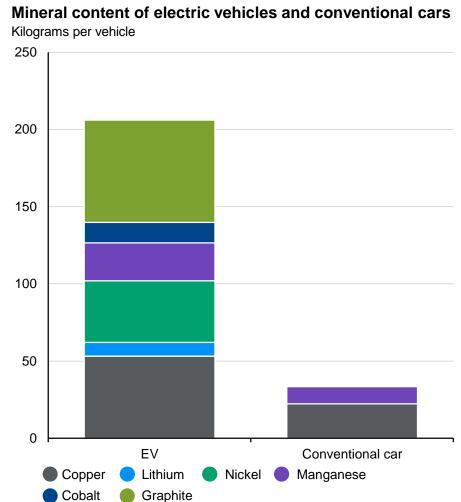




Electric vehicle sales and mineral content

GTM Europe 84

Global electric vehicle sales and market penetration Millions (LHS); % (RHS) 12 250 18 10 15 200 8 12 150 6 100 6 50 2 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 Market penetration of EVs Europe Copper China < RoW</p> Cobalt



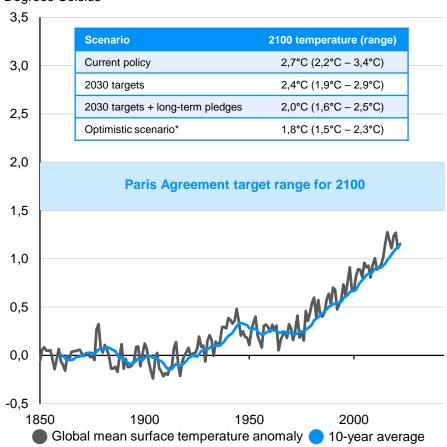




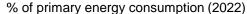
Global warming and energy consumption

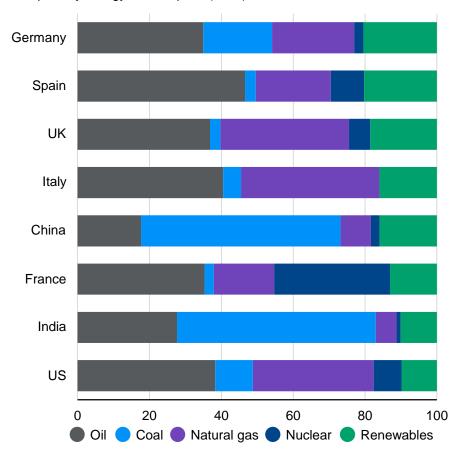
GTM Europe 85

Global temperature anomalies vs. pre-industrial levels Degrees Celsius



Global energy mix





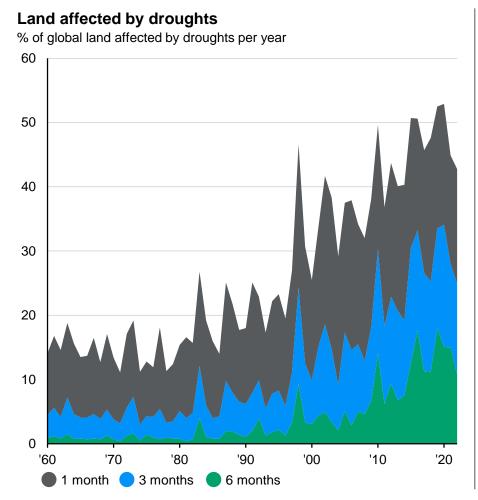
Source: (Left) Climate Action Tracker, Climate Change Tracker, Indicators of Global Climate Change 2022, J.P. Morgan Asset Management. Scenarios are based on the November 2022 update of the Climate Action Tracker Thermometer. 2030 targets are based on nationally determined contributions (NDCs). *Optimistic scenario represents Climate Action Tracker's best case scenario, and assumes full implementation of all announced targets including net zero targets, long-term climate strategies (LTS) and NDCs. (Right) Our World in Data, J.P. Morgan Asset Management. Renewables include hydro, wind, solar and biomass fuels. *Guide to the Markets - Europe*. Data as of 31 March 2024.

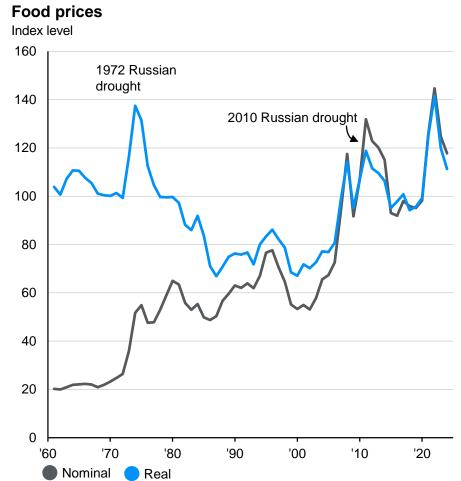




Droughts and food prices

GTM Europe 86



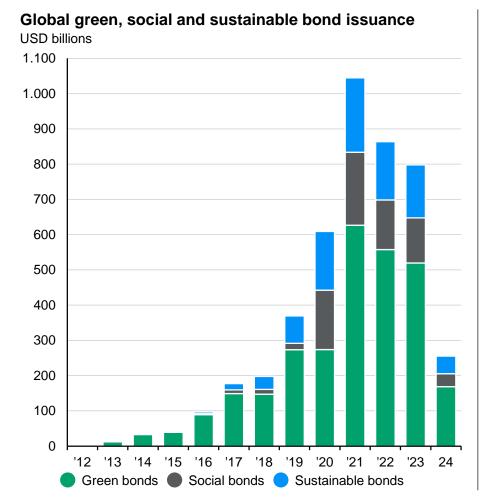


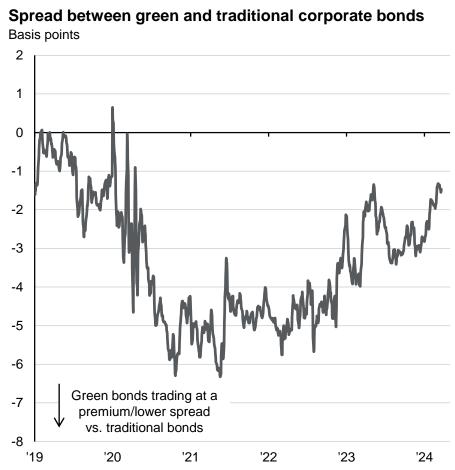




ESG and capital markets

GTM Europe 87





Source: (Left) LSEG Eikon, J.P. Morgan Asset Management. Green bonds have 100% of the net bond proceeds allocated to green projects. Social bond proceeds have a focus on delivering positive social outcomes. Sustainable bonds are either where proceeds are directed to a mix of both green and social projects, or where the bond coupon/characteristics can vary based on achieving predefined sustainability targets. (Right) Barclays Research, J.P. Morgan Asset Management. Data shown is latest available for a Barclays Research custom universe of green and non-green, USD and EUR denominated investment-grade credits, matched by issuer, currency, seniority and maturity. Spread difference is measured using the option-adjusted spread. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 March 2024.





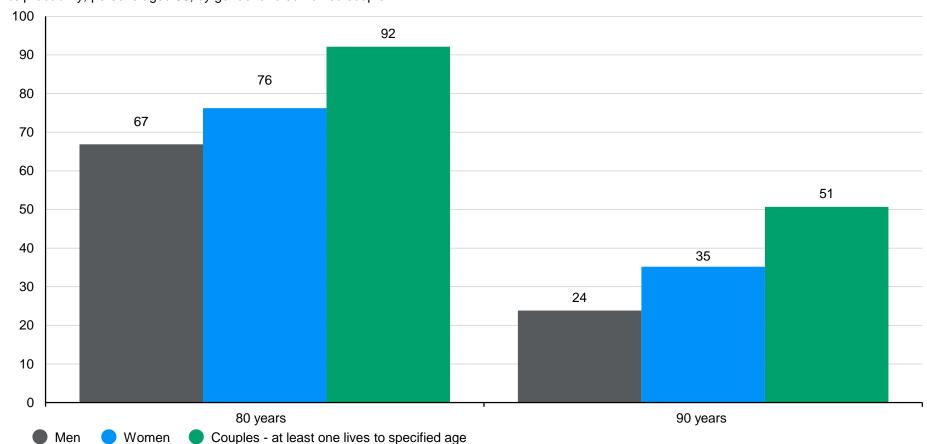
Life expectancy

GTM | Europe

88

Probability of reaching ages 80 and 90

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

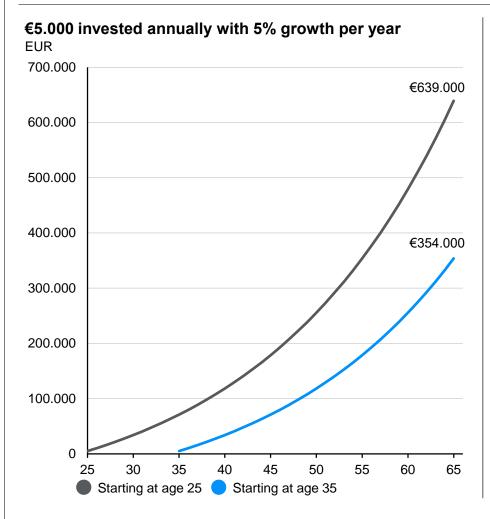


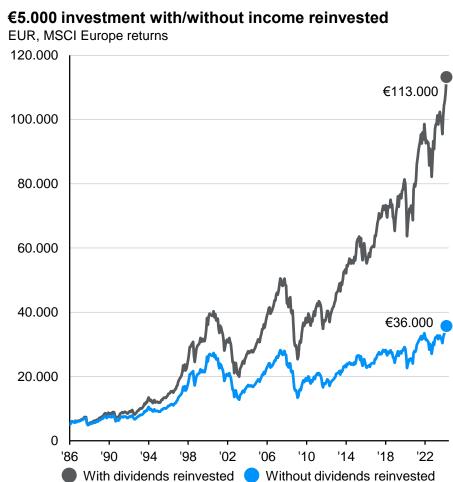




The effect of compounding

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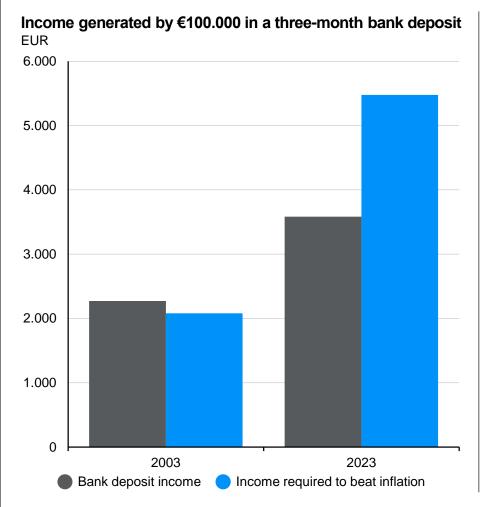


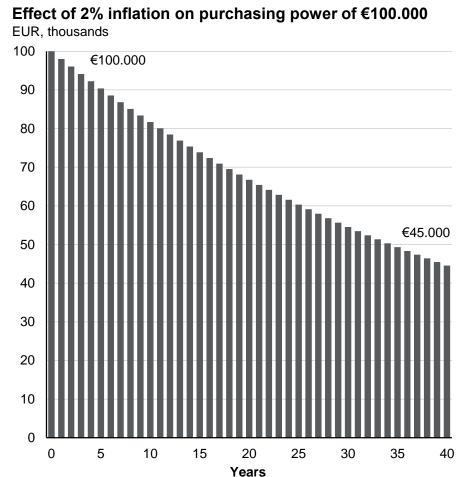




Cash investments

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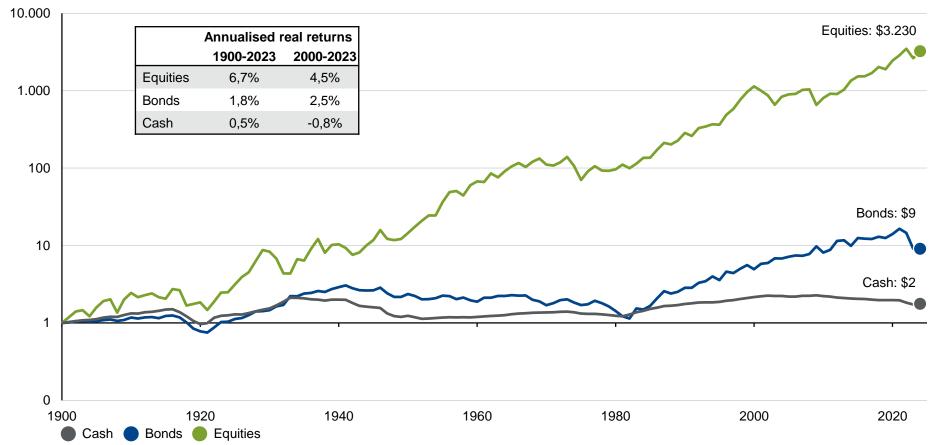
Long-term asset returns

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91

Total return of \$1 in real terms

USD, log scale for total returns







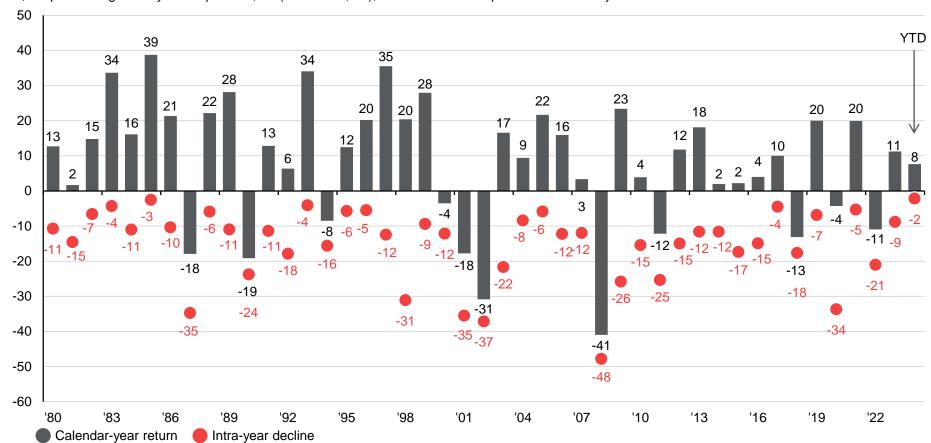
Annual returns and intra-year declines

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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





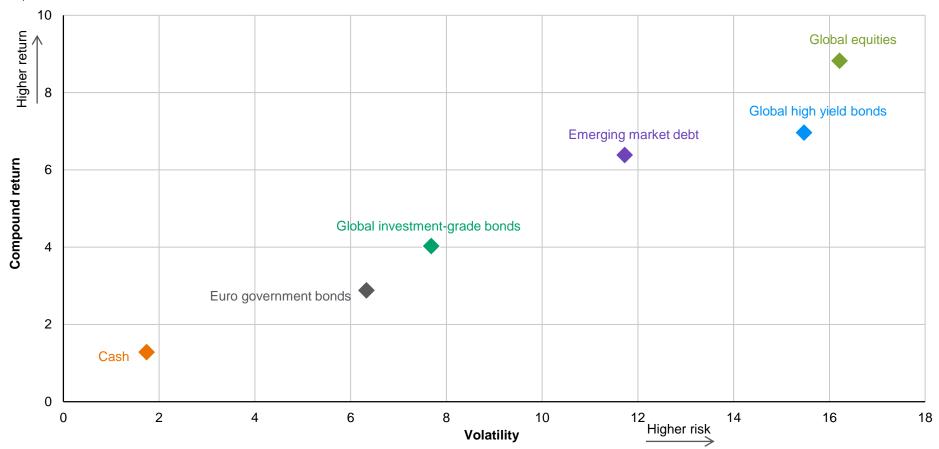


Asset class risk-return trade-off

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Historic risk vs. return for selected asset classes

%, annualised return 2004 - 2023 in EUR



Source: Bloomberg Barclays, 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 Barclays Euro Aggregate – Treasury; Global investment-grade bonds: Bloomberg Barclays 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 31 March 2024.



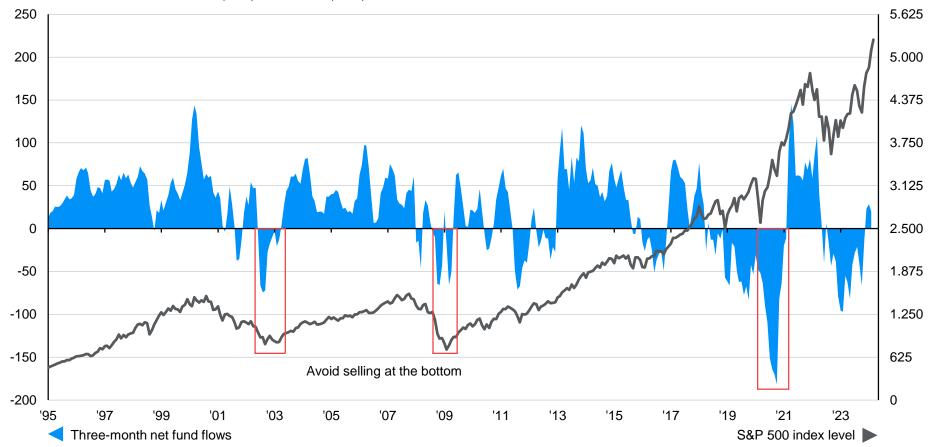


S&P 500 and fund flows

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US mutual fund and ETF flows and S&P 500

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



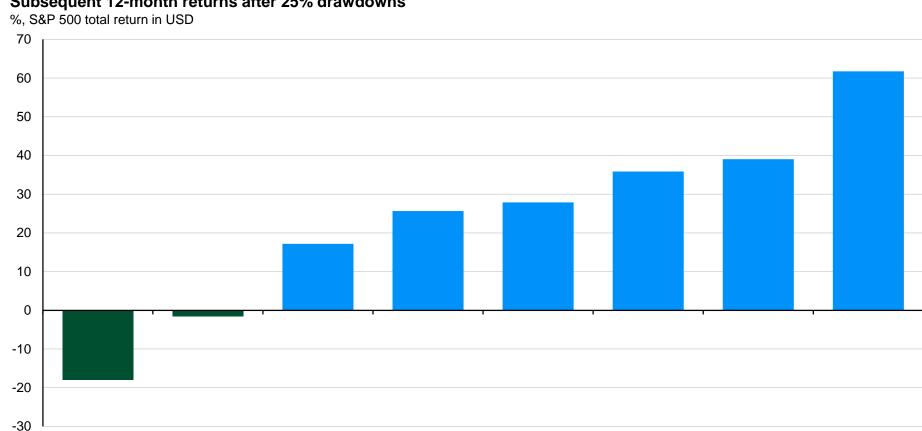




25% drawdowns and subsequent returns

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Subsequent 12-month returns after 25% drawdowns





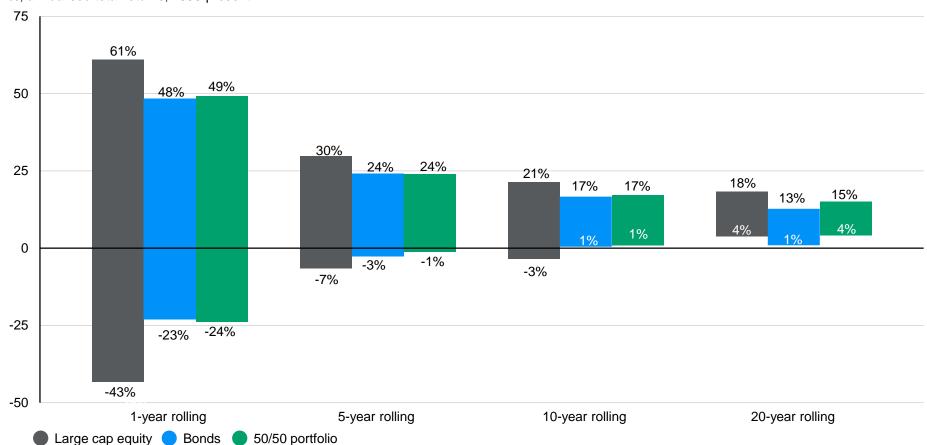


US asset returns by holding period

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Range of equity and bond total returns

%, annualised total returns, 1950-present



Source: Bloomberg Barclays, 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 Barclays 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 31 March 2024.





Asset class returns (EUR)

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10-year ann. return Vol.

DM equities 11,6%
REITS 22,4%

REITs	Cmdty
10,1%	16,9%
Portfolio	DM

6,6%	13,2%
HY bonds	EM equitie

EMD	EM
5,5%	10,2

11,7%

HY bonds 8,1%

Govt bonds

EM equities 5,3%	Portfolio 8,5%
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IG bonds	
4,0%	

Hedge funds 3,7%	IG bonds 7,8%

Govt bonds 1,9%	
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Cmdty 1,1%	Hedge funds 6,4%

Cash 1,1%

2015	2016	2017	2049	2019	2020	2024	2022	2022	40 224
2015	2010		2018		2020	2021	2022	2023	1Q '24
REITs 13,9%	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%	DM equities 11,5%
EMD 12,7%	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%	Portfolio 5,1%
DM equities 11,0%	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%	Hedge funds 4,8%
Govt bonds 7,7%	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%	EM equities 4,8%
IG bonds 7,4%	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%	Cmdty 4,5%
Hedge funds 7,3%	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%	EMD 4,4%
HY bonds 6,7%	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%	HY bonds 3,8%
Portfolio 6,3%	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%	IG bonds 1,5%
Cash 0,1%	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%
EM equities -4,9%	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%	REITs 1,0%
Cmdty -16,1%	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%	Govt bonds -0,7%

Source: Bloomberg Barclays, FTSE, J.P. Morgan Economic Research, LSEG Datastream, MSCI, J.P. Morgan Asset Management. Annualised return and volatility covers the period from 2014 to 2023. Vol. is the standard deviation of annual returns. Govt bonds: Bloomberg Barclays Global Aggregate Government Treasuries; HY bonds: ICE BofA Global High Yield; EMD: J.P. Morgan EMBI Global Diversified; IG bonds: Bloomberg Barclays 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 31 March 2024.





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