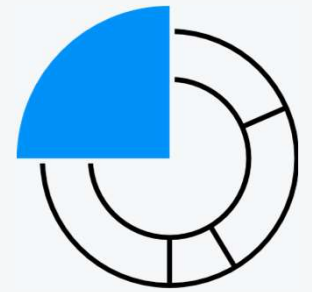


April 2022

Global Market Outlook

China and the Russian invasion of Ukraine



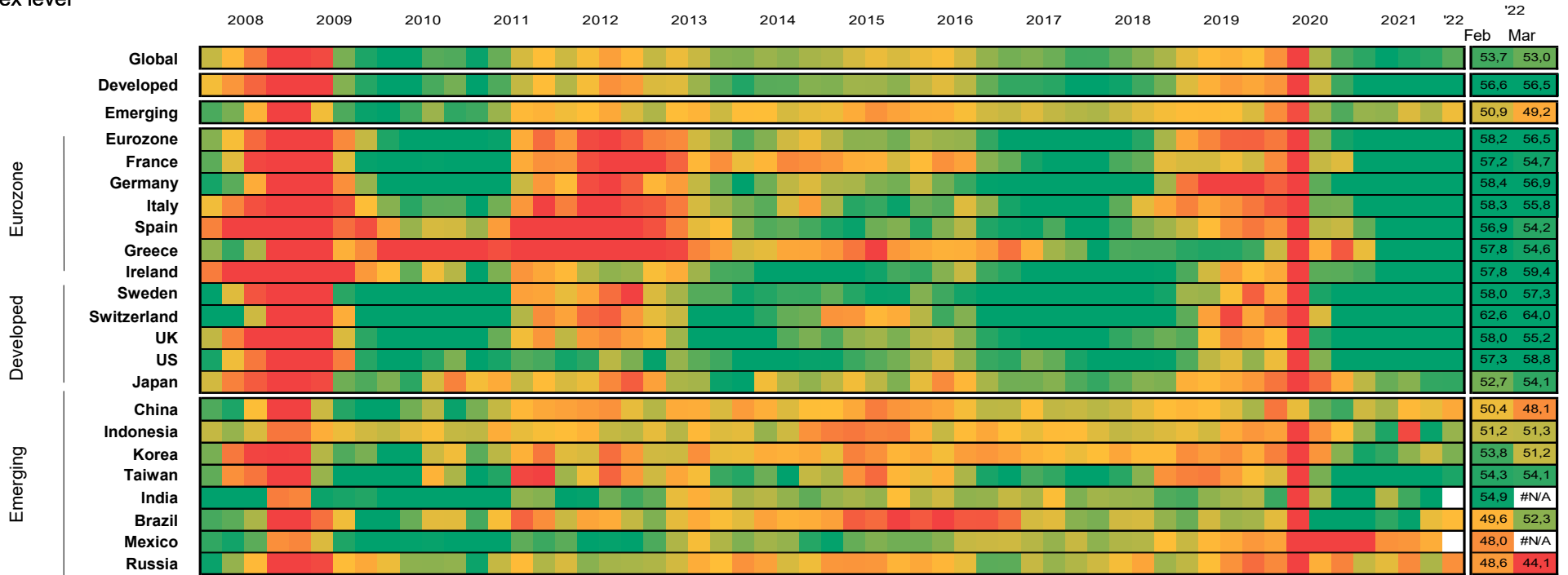
Vincent Juvyns
Global Market Strategist
Market Insights Team

J.P.Morgan
ASSET MANAGEMENT

The global economy entered this geopolitical crisis in a position of strength

Global manufacturing PMI

Index level

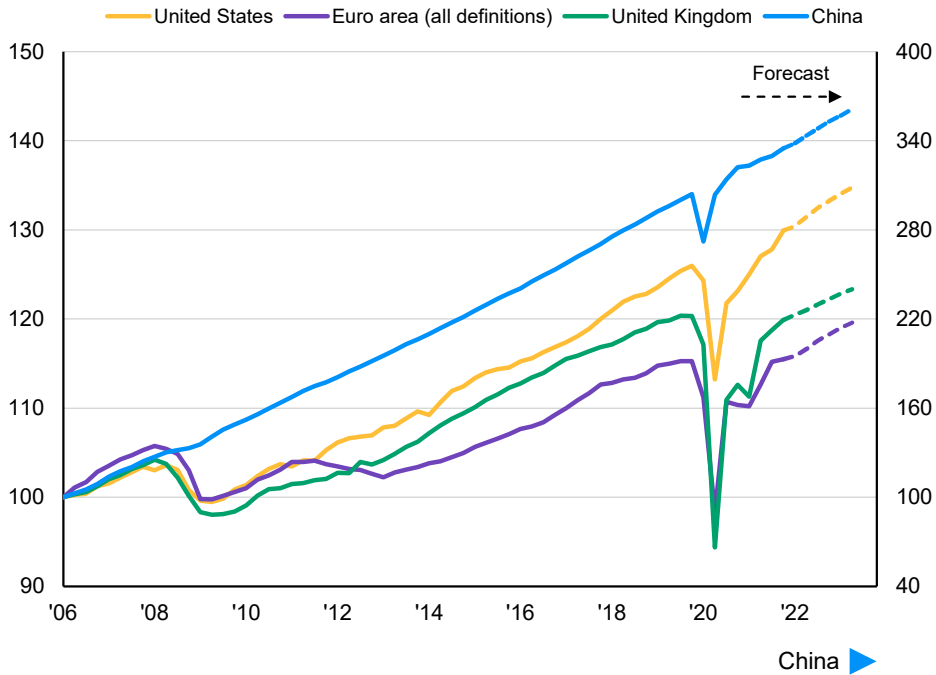


Source: Markit, J.P. Morgan Asset Management. The Global Purchasing Managers' Index (PMI) for manufacturing assesses the economic health of the sector by surveying manufacturing businesses regarding output, new orders, stocks of purchases, supplier delivery times and employment. A score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. The 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 31 March 2022.

We now expect 2022 global growth nearer trend and a 5% growth in China

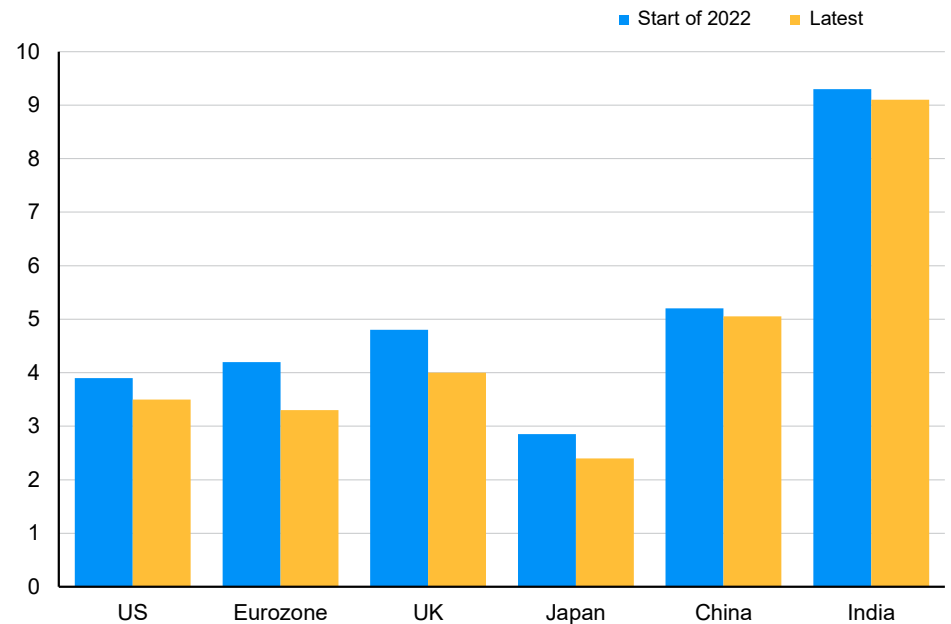
Real GDP growth

Index level, rebased to 100 at 1Q 2006



Consensus forecasts for 2022 real GDP growth

% change year on year

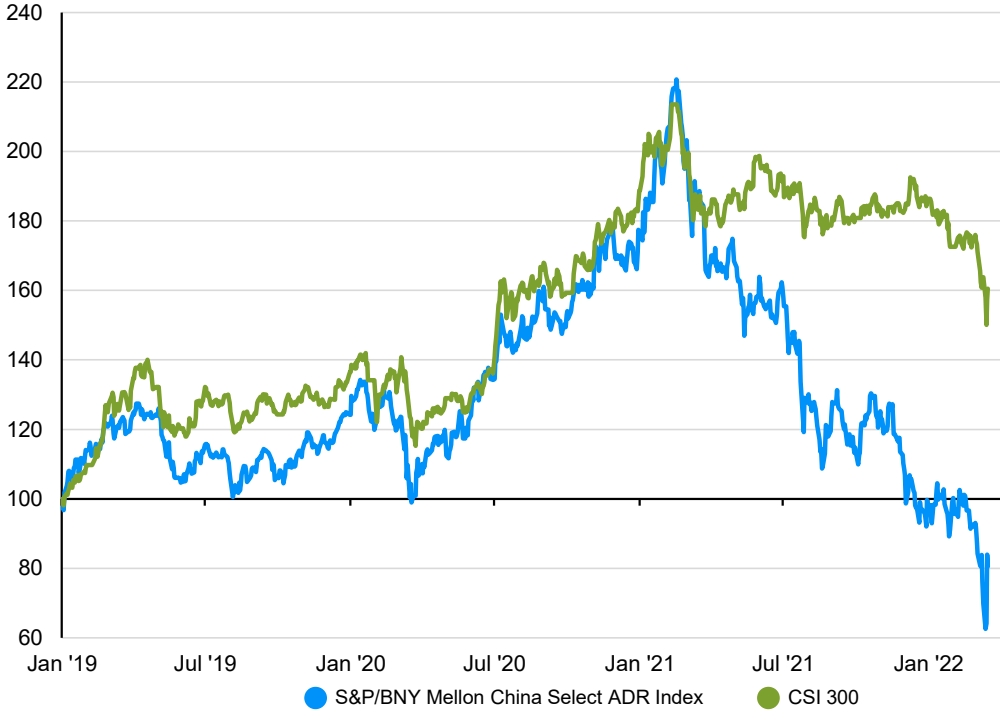


Source: (Left) BEA, Bloomberg, Eurostat, National Bureau of Statistics of China, ONS, J.P. Morgan Asset Management. (Right) Bloomberg, J.P. Morgan Asset Management. Forecasts are from Bloomberg contributor composite. *Guide to the Markets - Europe*. Data as of 31 March 2022.

China: Regulation, COVID, and real estate hurt growth and markets

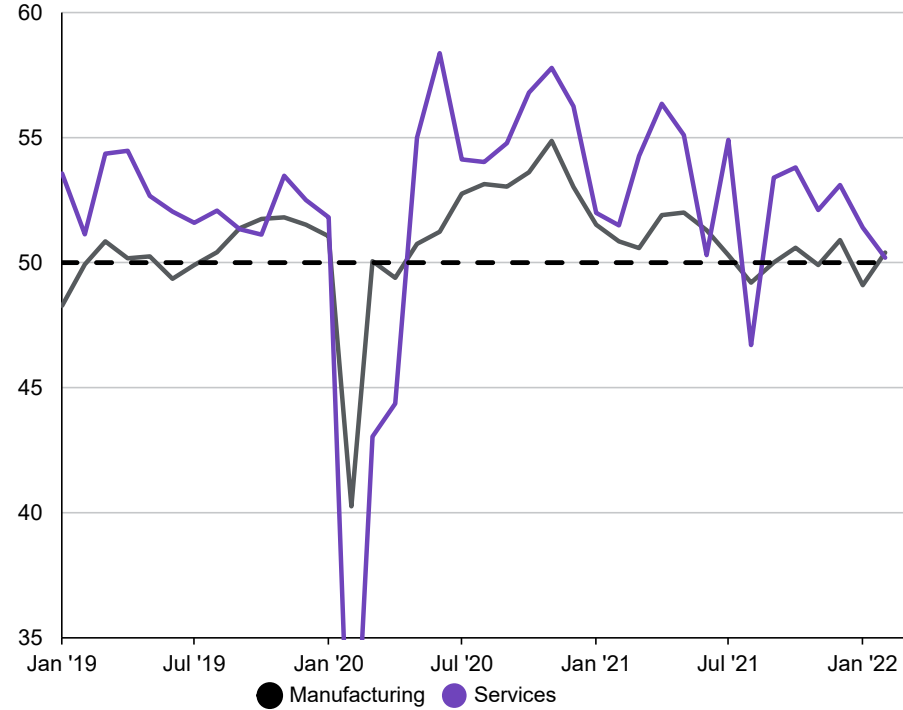
Chinese stock performance by listing

Total return index, 100=Jan. 2019, U.S. dollars, daily



China manufacturing and services PMIs

Index level

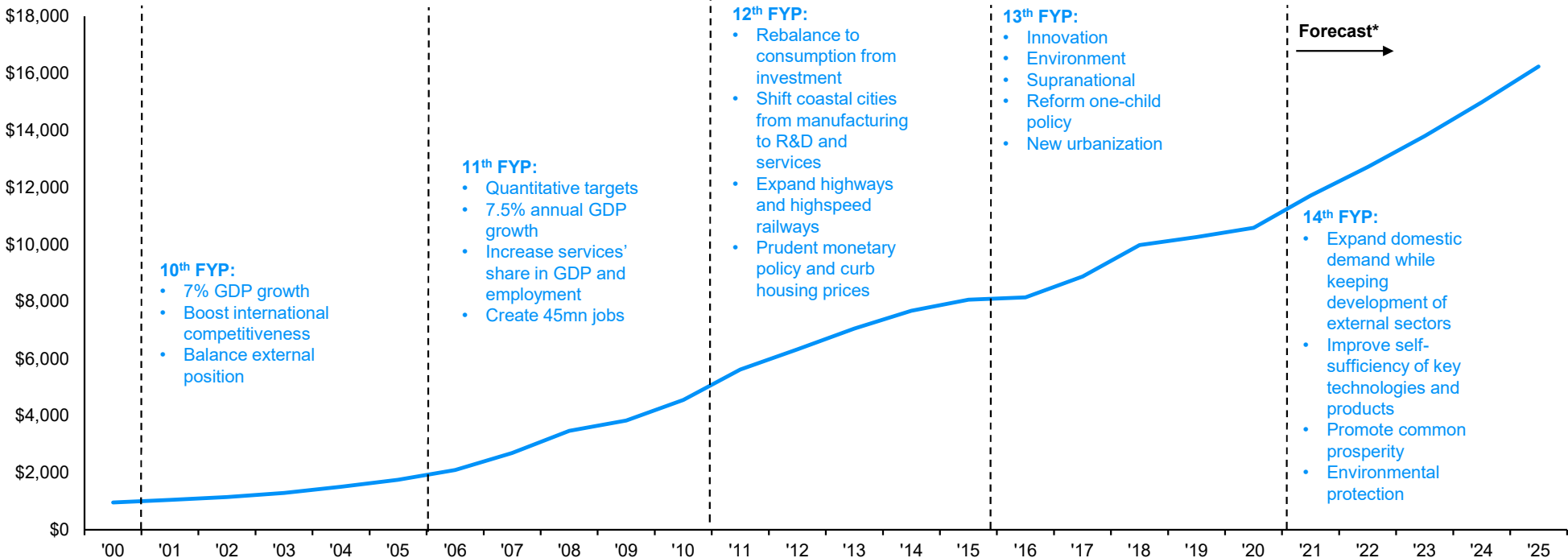


Source: (Left) Bloomberg, J.P. Morgan Asset Management. (Right) Markit, J.P. Morgan Asset Management. PMI is Purchasing Managers' Index where a score of 50 indicates that economic activity is neither expanding nor contracting, above 50 indicates expansion. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 18 March 2022.

Five-Year Plans: China long term growth ambitions remain unchanged

China's GDP per capita vs. Five Year Plans (FYP)

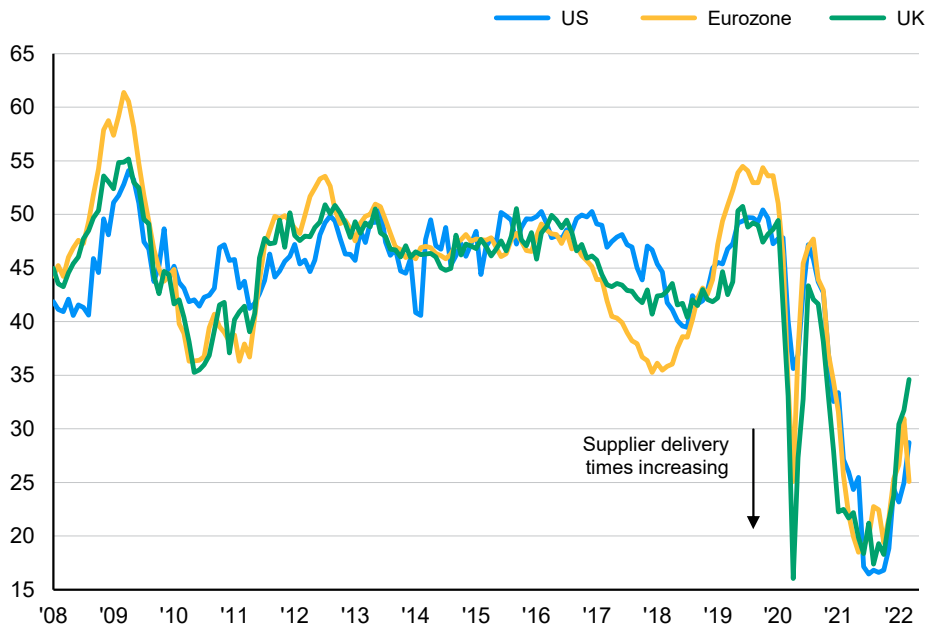
Nominal, U.S. dollars



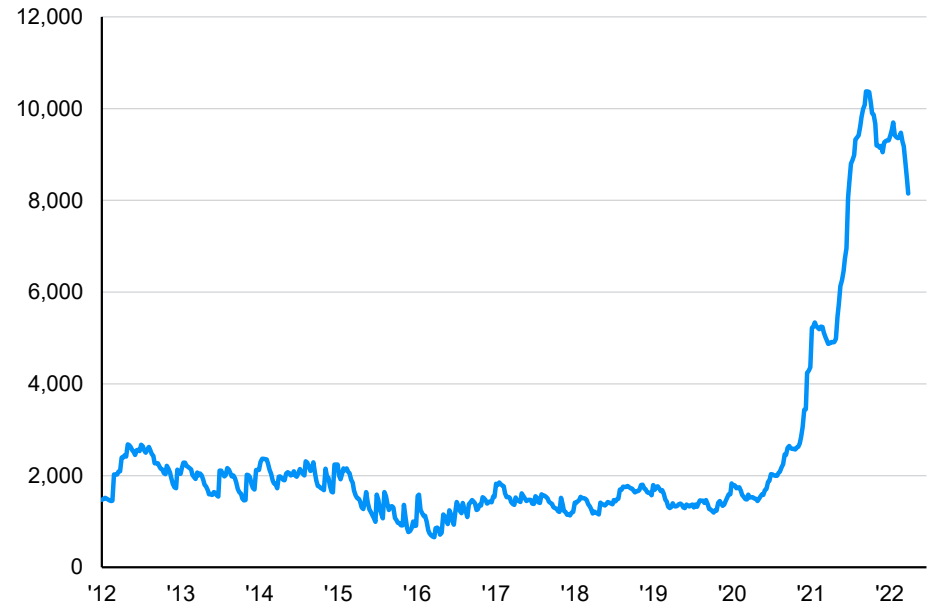
Source: CEIC, IMF-World Economic Outlook, J.P. Morgan Asset Management. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated. *Nominal GDP per capita forecast from the IMF. Guide to China. Data are as of January 31, 2022.

In the near term, China's zero Covid policy could lead to new disruptions in global value chains

Manufacturing PMI: Supplier delivery times
Index level



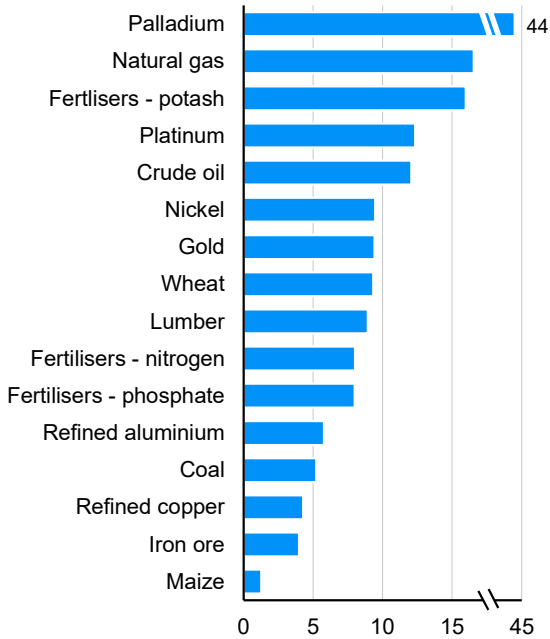
World Container Index
USD per 40ft container



Source: (Left) Markit, J.P. Morgan Asset Management. (Right) Bloomberg, Drewry, J.P. Morgan Asset Management. The World Container Index assessed by Drewry reports actual spot container freight rates for eight major East-West trade routes as a weighted average by volume. Guide to the Markets - Europe. Data as of 31 March 2022.

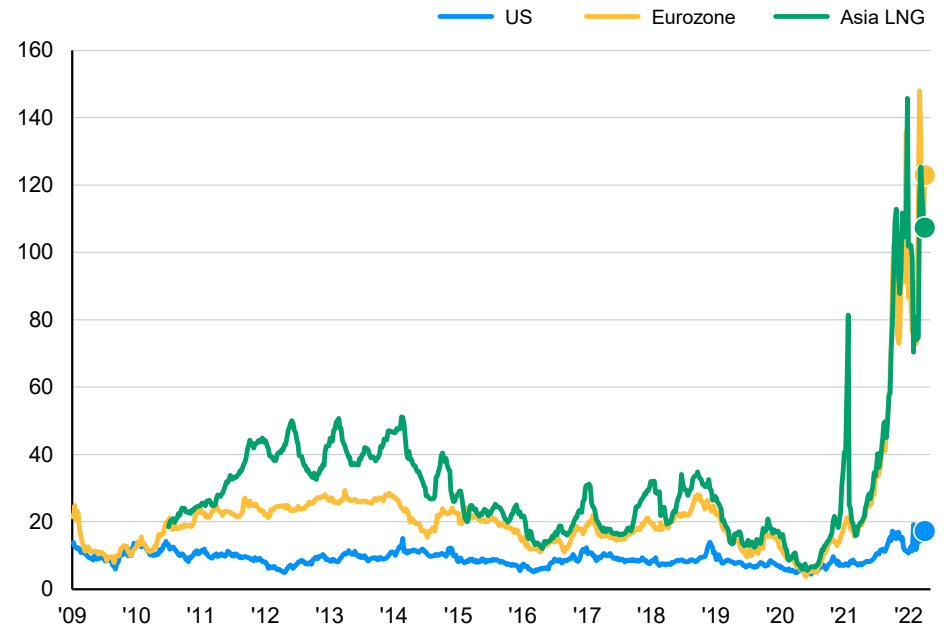
Ukraine conflict poses clear risk of a commodity shock

Russian commodity production % of global production, 2020



% of EU imports from		
Product	Russia	Ukraine
All goods	6%	1%
Natural gas	38%	0%
Oil and petroleum	23%	0%
Fertilisers	28%	2%
Wheat	6%	12%

US, European and Asian gas prices EUR per MWh

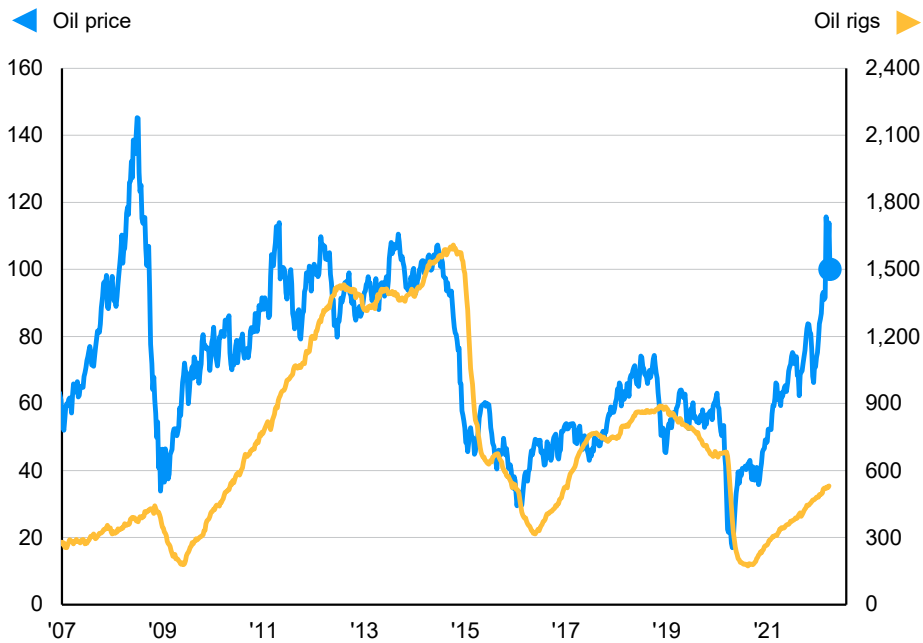


Source: (Left) Eurostat, J.P. Morgan Securities Research, World Bank, J.P. Morgan Asset Management. Data for 2020 or latest available. (Right) Refinitiv Datastream, J.P. Morgan Asset Management. US gas prices are the New York Mercantile Exchange generic one month futures contract. European gas prices are the Dutch TTF natural gas generic one month futures contract. Asian LNG is the on-board price. Guide to the Markets - Europe. Data as of 31 March 2022.

If supply from Russia is reduced there is only limited scope to offset from other regions

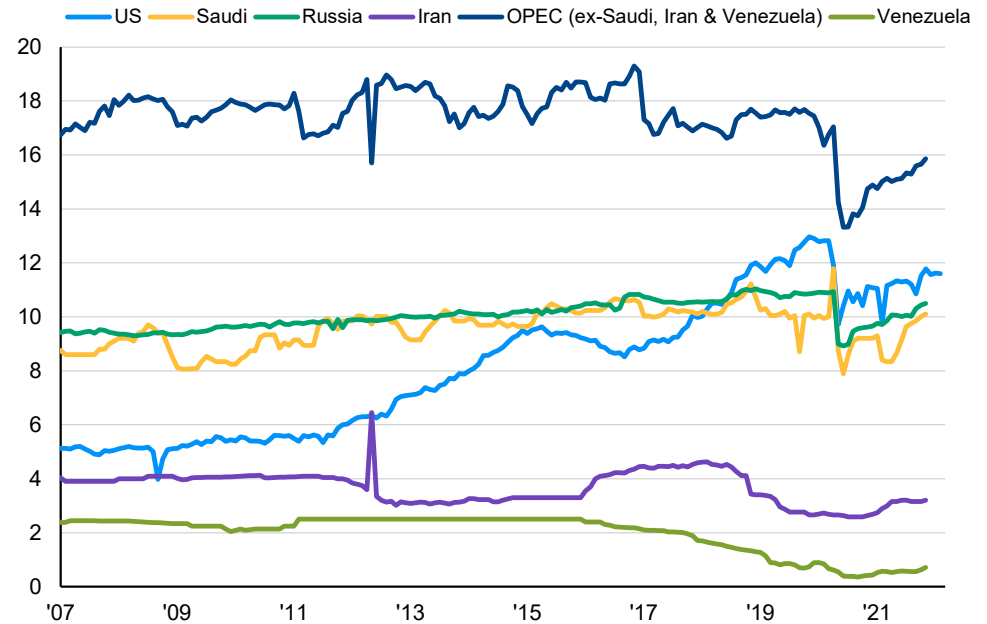
WTI crude oil price and US rig count

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



Crude oil production by country

Million barrels per day

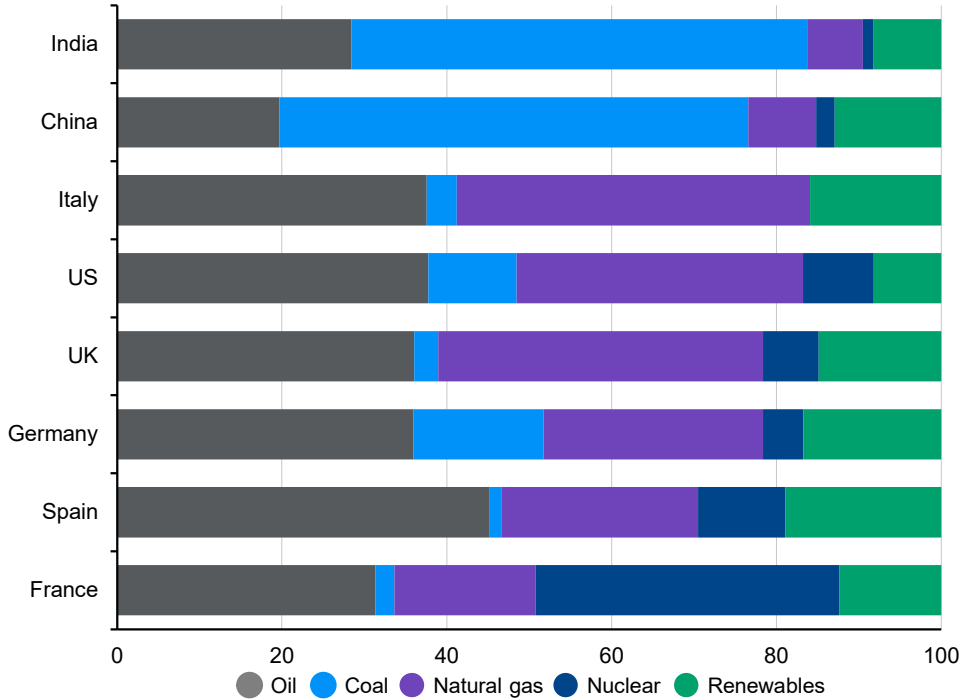


Source: (Left) Baker Hughes, Bloomberg, J.P. Morgan Asset Management. (Right) EIA, Refinitiv Datastream, J.P. Morgan Asset Management. *Guide to the Markets - Europe*. Data as of 31 March 2022.

China is less dependent on (Russian) Gas in its energy mix

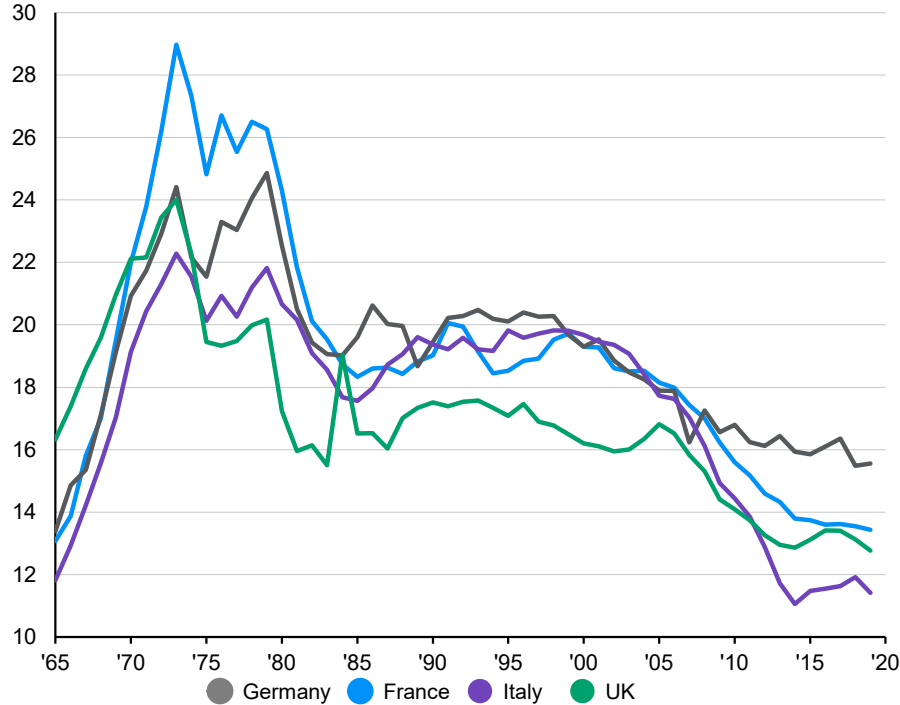
Global energy mix of selected countries

% primary energy consumption



Oil consumption per capita of selected countries

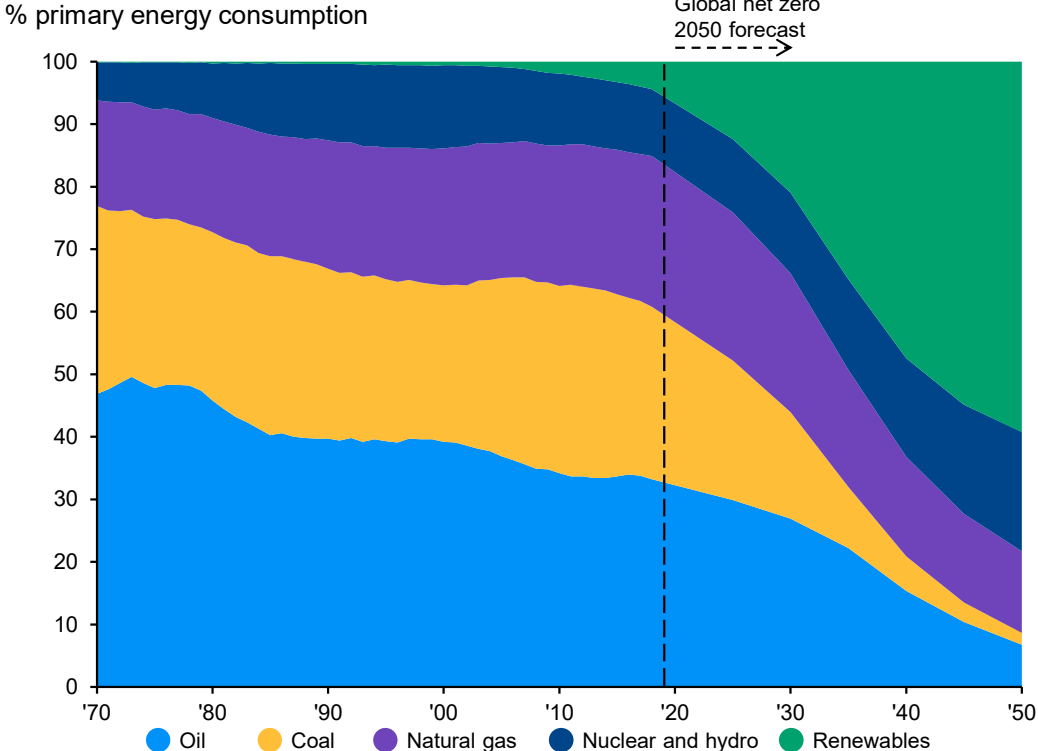
Thousand MWh per person per year, average oil consumption



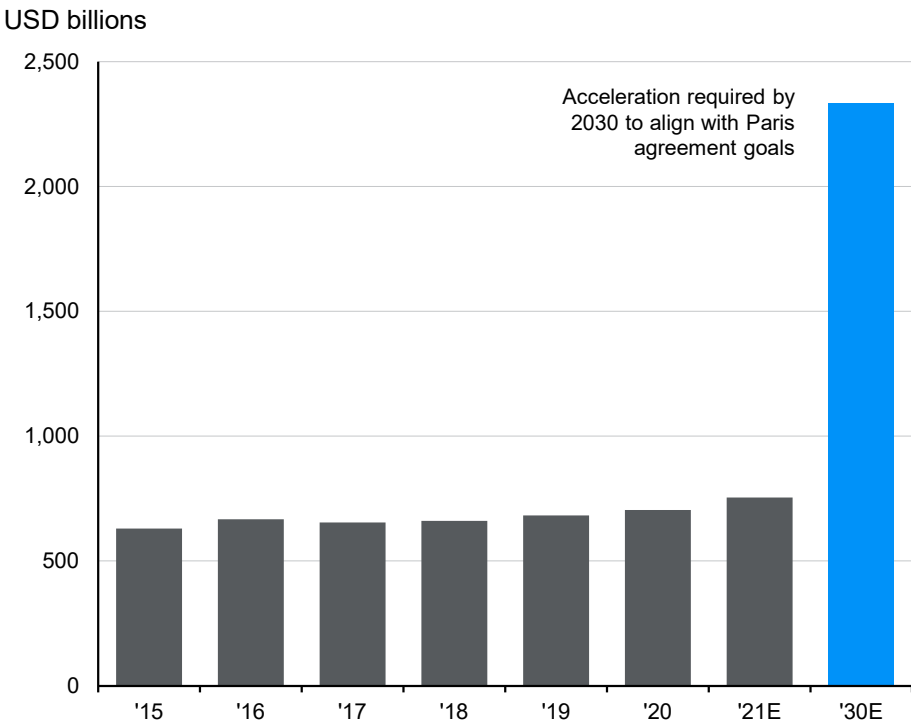
Source: (All charts) Our World in Data, J.P. Morgan Asset Management. Renewables includes hydro, wind, solar and other renewables. MWh is megawatt-hours. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 March 2022.

Global policymakers will accelerate the energy transition

Global energy mix



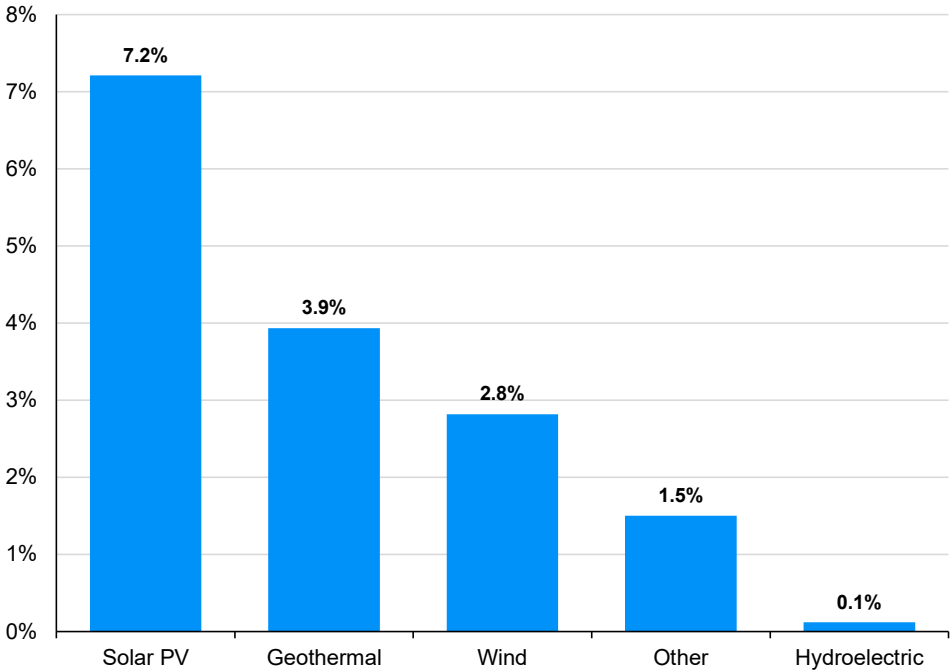
Global investment in clean energy and energy efficiency



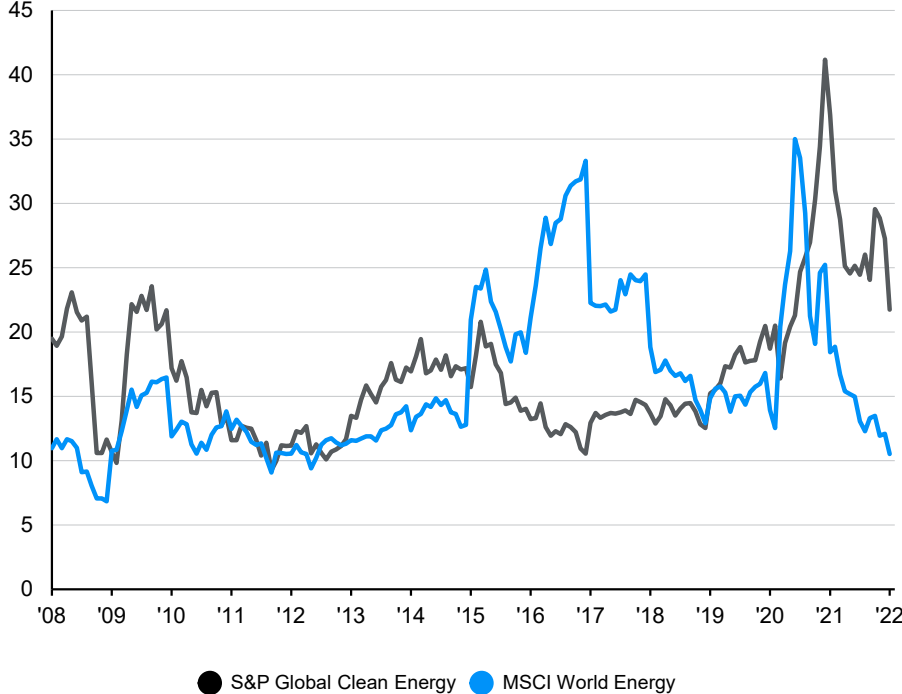
Source: (Left) BP Energy Outlook 2020, J.P. Morgan Asset Management. Forecast is based on BP's scenario for global net zero emissions by 2050. (Right) International Energy Agency (2021), World Energy Investment 2021, J.P. Morgan Asset Management. 2030 forecast based on annual average investment needs in the electricity sector for 2026-2030 in the International Energy Agency's "net zero emissions by 2050" scenario. For illustrative purposes only. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - Europe*. Data as of 31 March 2022.

The massive investment required to finance the energy transition will provide a major tailwind for the renewable energy sector

Expected growth in renewable electricity generation
2020 – 2050 CAGR



S&P Global Clean Energy and MSCI World Energy P/E ratios
x, multiple

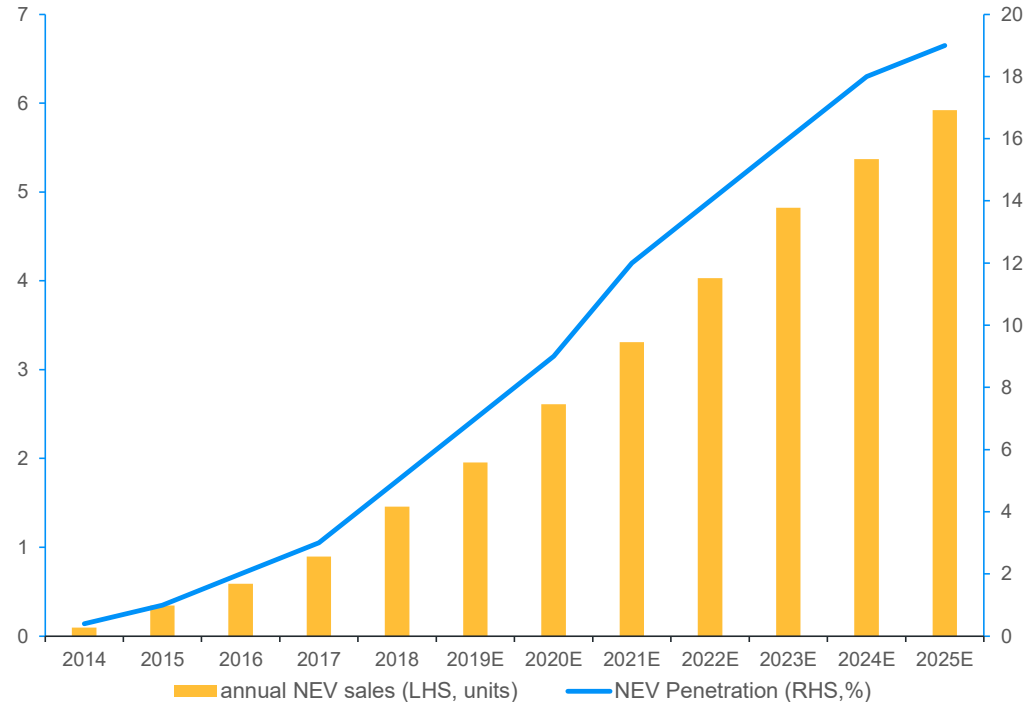


Source: (Left) EIA, Pitchbook Data Inc., J.P.Morgan Asset Management. CAGR is compound annual growth rate. "Introduction to Climate Tech: A Taxonomy Overview", Pitchbook, October 2021, Guide to Alternatives 4Q 2021. (Right) Bloomberg, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Price-to-earnings ratios shown are Bloomberg's 12-month forward adjusted positive price/earnings ratio. Past performance is not a reliable indicator of current and future results.. Data as of 31 January 2022.

Carbon Neutrality: Opportunities in China

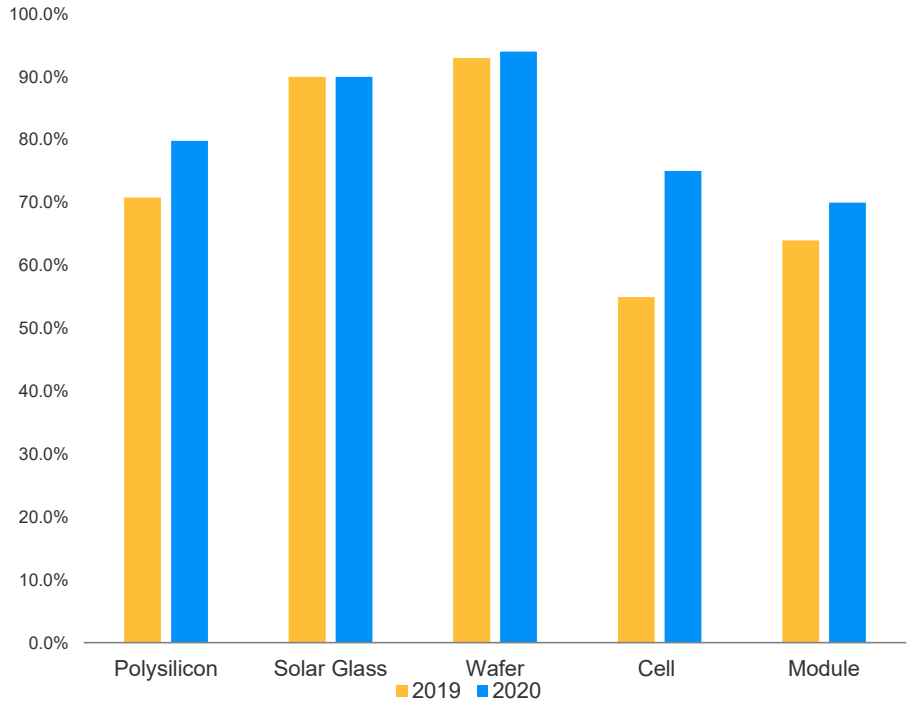
Electric Vehicles sales in China

(LHS) Millions – (RHS) - %



China is a leader in Climate tech

China production as % of global

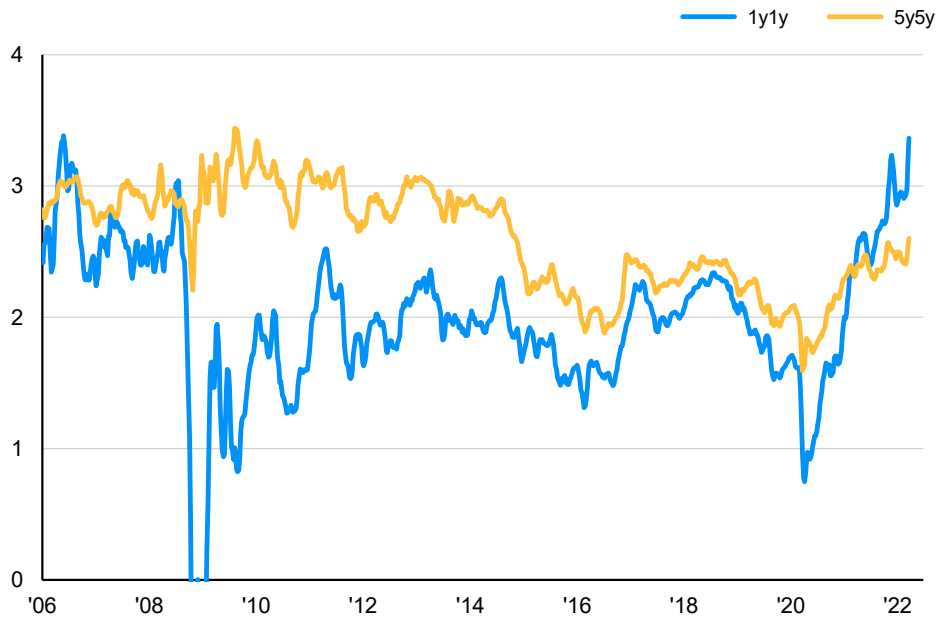


Source: (LHS) China Association of Automobile Manufacturers, J.P.Morgan Asset Management NEV = New energy vehicle; Forecasts and estimates are indicative and may or may not come to pass. (Right) WIND, J.P.Morgan Asset Management. As of September 2021.

The energy crisis should support inflation in the short-term but long-term Inflation expectations don't point (yet) to a new inflation regime

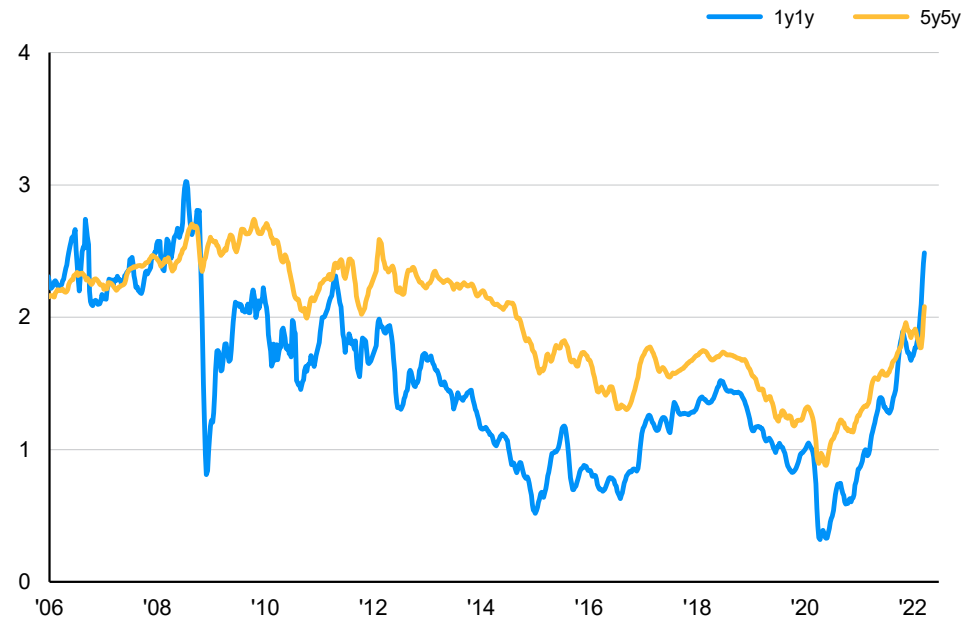
US inflation expectations

%, USD inflation swap rates



Eurozone inflation expectations

%, EUR inflation swap rates

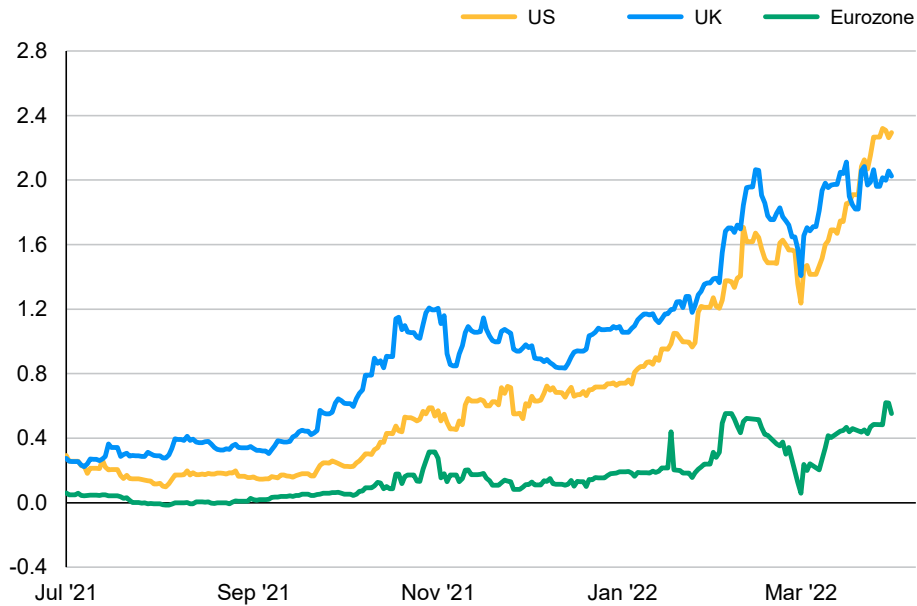


Source: (All charts) Bloomberg, J.P. Morgan Asset Management. The 1y1y inflation swap rate is a measure of average inflation expectations for one year, starting in one year's time. The 5y5y inflation swap rate is a measure of average inflation expectations for five years, starting in five years' time. Data shown are four-week rolling averages. Guide to the Markets - Europe. Data as of 31 March 2022.

Developed market central banks continue to move in a hawkish direction

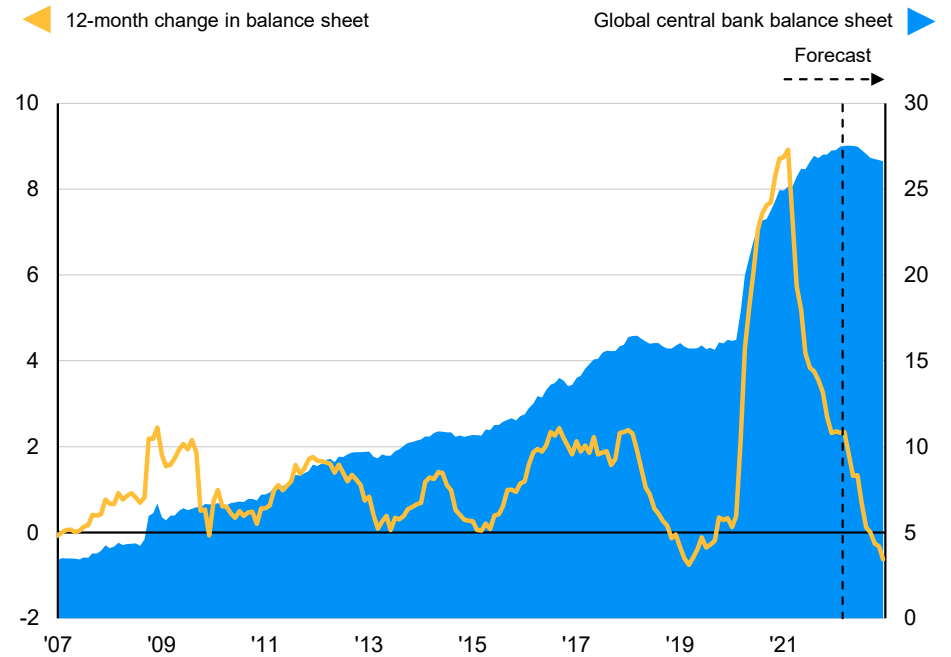
Market pricing for central bank hikes by the end of 2022

% points, hikes priced for the period Jul 2021 – Dec 2022



Central bank balance sheets

USD trillions

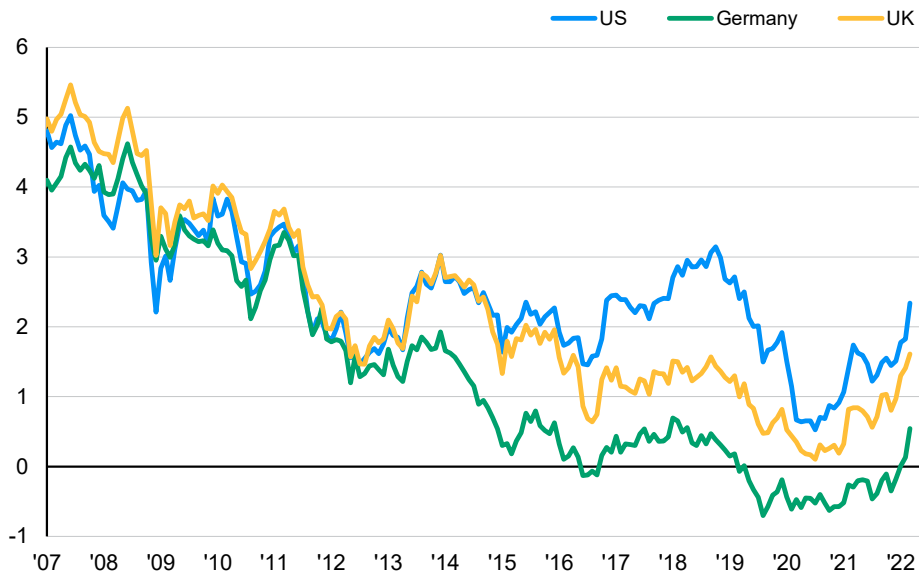


Source: (Left) Bloomberg, J.P. Morgan Asset Management. End of 2022 hikes is calculated using the OIS forward for end of 2022 relative to OIS at the start of the period. (Right) BoE, BoJ, ECB, Fed, Refinitiv Datastream, Swiss National Bank (SNB), J.P. Morgan Asset Management. Global central bank balance sheet is the sum of the balance sheets of the BoE, BoJ, ECB, Fed and SNB. Forecast from J.P. Morgan Asset Management. *Guide to the Markets - Europe*. Data as of 31 March 2022.

Base case still sees government bond yields moving higher

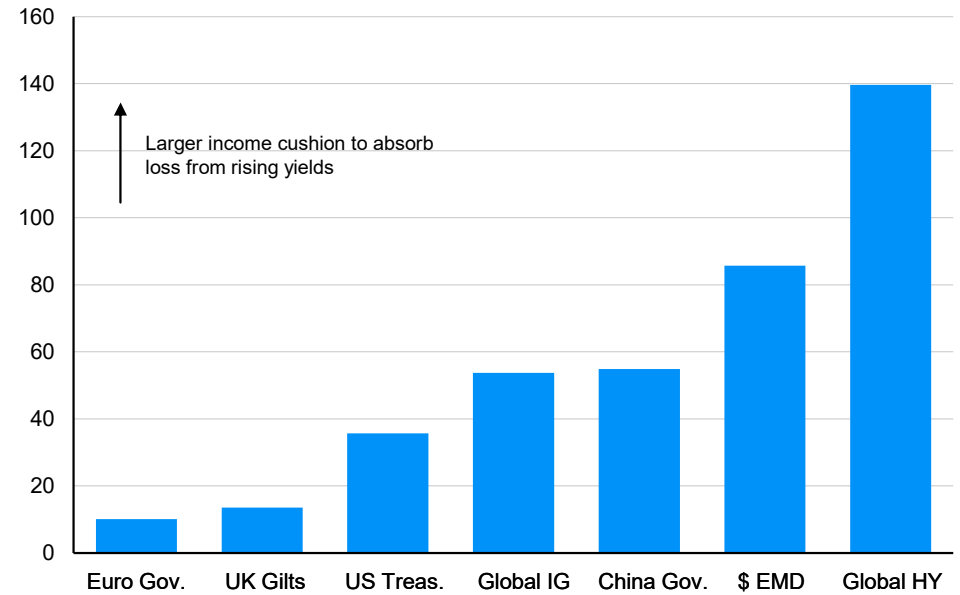
Nominal 10-year government bond yields

% yield



Fixed income yield cushion

Basis points, how far yields can rise before a year's worth of income is wiped out

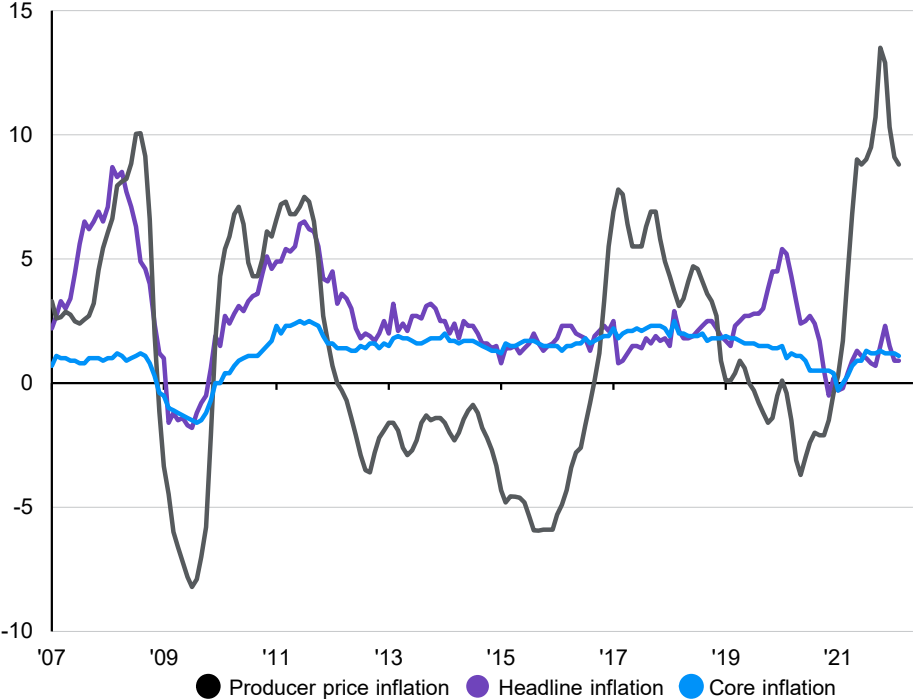


Source: (Left) Bloomberg, J.P. Morgan Asset Management. (Right) Bloomberg Barclays, ICE BofA, J.P. Morgan Economic Research, MSCI, Refinitiv Datastream, J.P. Morgan Asset Management. Indices used are as follows: US Treasury: Bloomberg Barclays US Agg. Gov. – Treasury; UK Gilts: Bloomberg Barclays Sterling Gilts; Euro Gov.: Bloomberg Barclays Euro Agg. Government; Euro HY: ICE BofA Euro Developed Markets Non-Financial High Yield Constrained; China Gov.: JPM GBI-EM Broad Diversified China; EMD: J.P. Morgan EMBIG Diversified (USD); Global HY: ICE BofA Global High Yield (USD); Global IG: Bloomberg Barclays Global Aggregate – Corporates (USD). Indices are in local currency unless specified otherwise. **Past performance is not a reliable indicator of current and future results.** *Guide to the Markets - Europe*. Data as of 31 March 2022.

China's new 5.5% GDP growth target will require additional policy stimulus

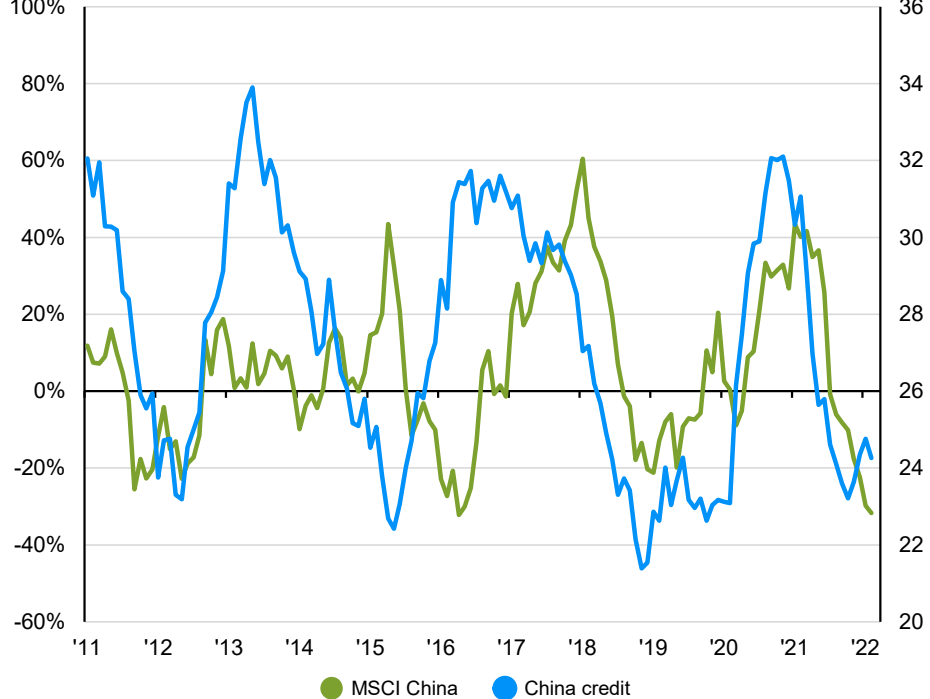
China inflation

% change year on year



China equities vs. credit growth

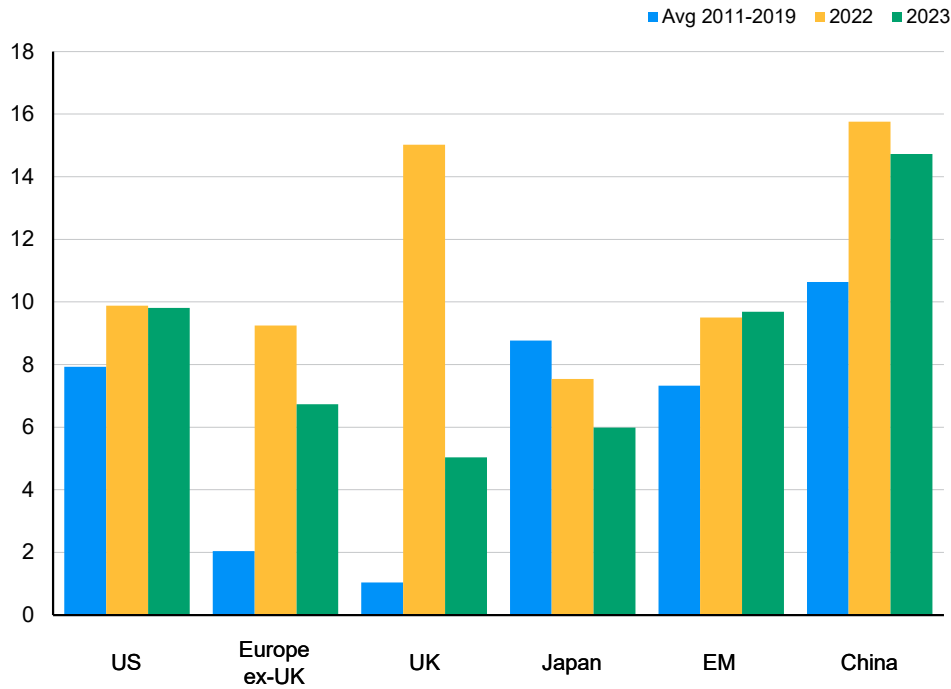
% change year on year (LHS); % of nominal GDP (RHS)



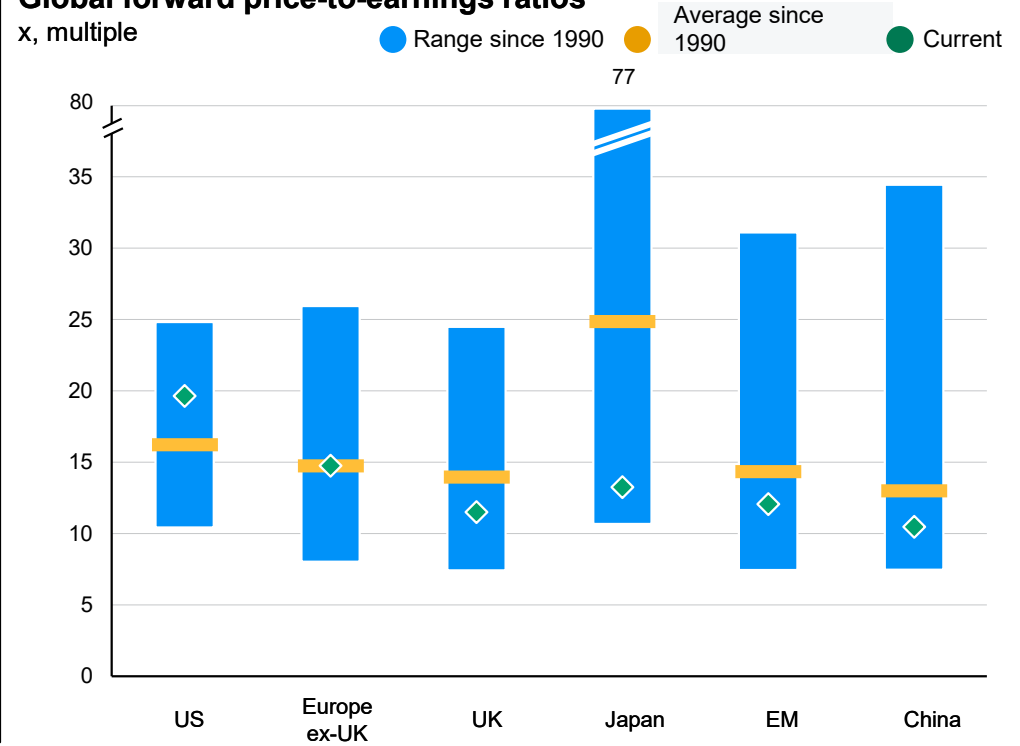
Source: (Left) Bloomberg, Refinitiv Datastream, J.P. Morgan Asset Management. CPI is the Consumer Price Index. Core CPI is defined as CPI excluding food and energy. PPI is the Producer Price Index. (Right) Bloomberg, MSCI, People's Bank of China (PBoC), J.P. Morgan Asset Management. Credit growth is 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 18 March 2022.

China equities have underperformed YTD but , Earnings estimates are being revised down and valuations have corrected accordingly

Consensus estimates for global earnings per share growth
% change year on year



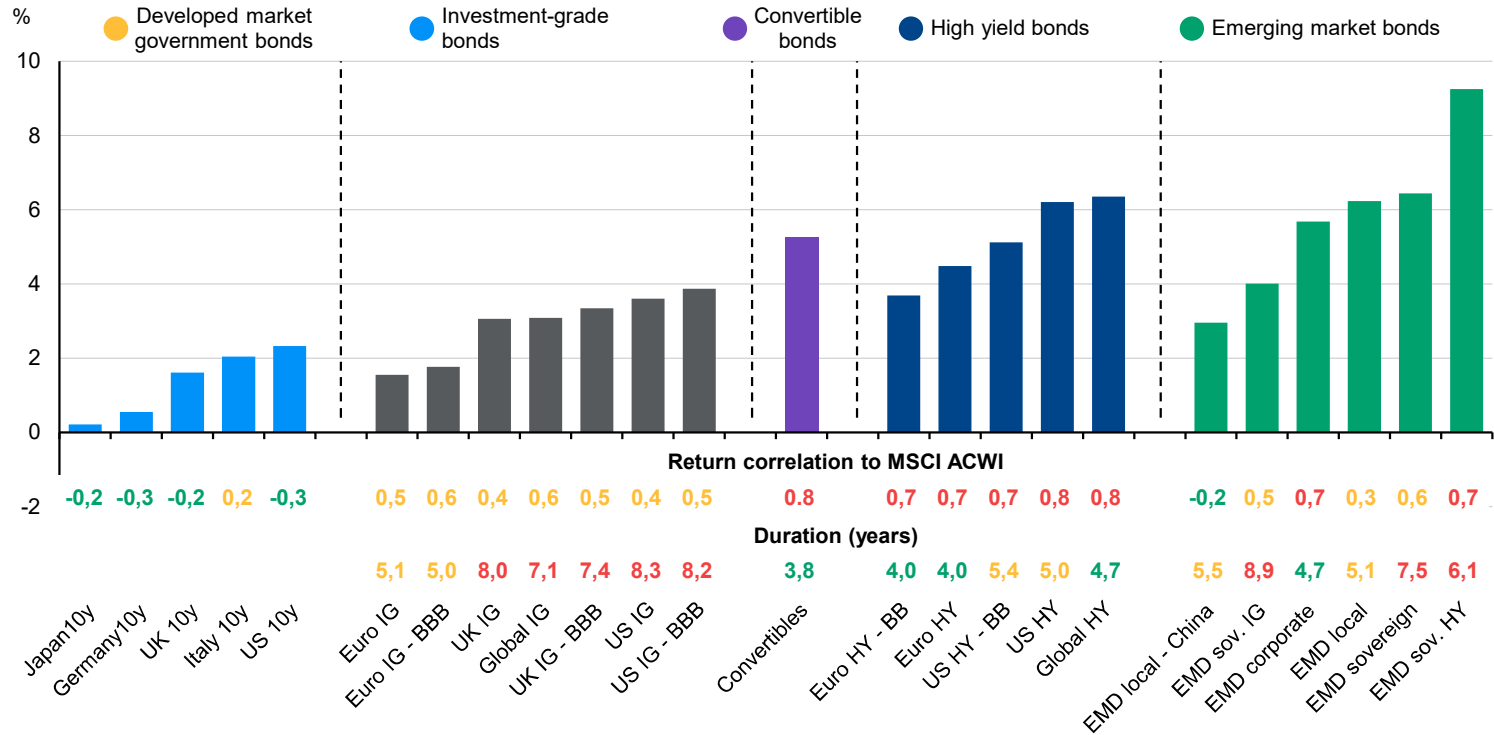
Global forward price-to-earnings ratios
x, multiple



Source: (Left) FTSE, IBES, MSCI, Refinitiv Datastream, Standard & Poor's, TOPIX, J.P. Morgan Asset Management. MSCI indices are used for Europe ex-UK, EM and China. UK is FTSE All-Share, US is S&P 500 and Japan is TOPIX. (Right) IBES, MSCI, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. MSCI indices are used for all regions/countries (due to data availability), except for the US, which is represented by the S&P 500. Range and average for China is since 1996, due to data availability. *Guide to the Markets - Europe*. Data as of 31 March 2022.

In this context China duration is also good option for investors

Fixed income yields



Source: Bloomberg, Bloomberg Barclays, ICE BofA, J.P. Morgan Economic Research, Refinitiv 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: JP 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 31 March 2022.



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- Unless otherwise stated, all data as of 31 March 2022 or most recently available.
- Guide to the Markets - Europe
- JP-LITTLEBOOK
- Material ID : 09oy221204152800