

Seven essentials of ESG investing

UK | Q3 2021 | As of 30 June 2021

J.P. Morgan

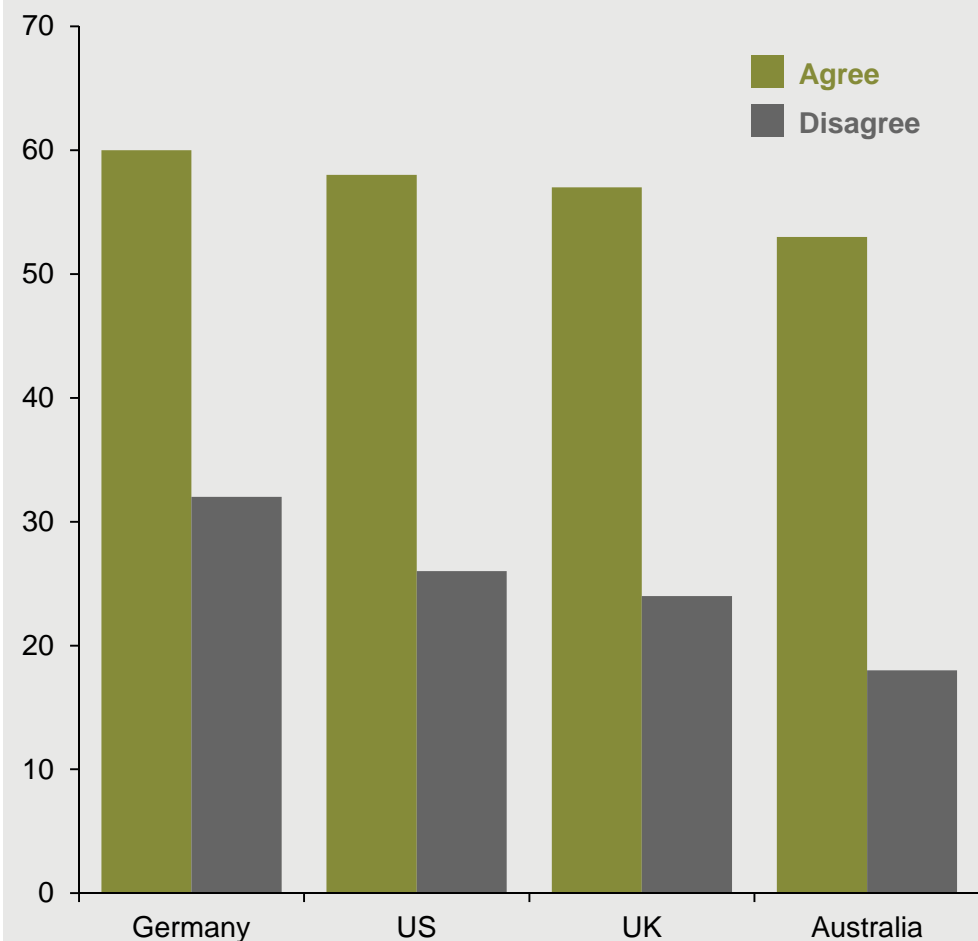


Seven essentials of ESG investing

- 1. ESG considerations are affecting consumer preferences and public attitudes**
- 2. Policymakers are setting environmental and social goals**
- 3. For some, the shift to sustainability may be a headwind**
- 4. ESG creates significant opportunities for those at the forefront of change**
- 5. ESG covers more than climate—the focus on Social and Governance is growing too**
- 6. ESG is affecting the investment landscape**
- 7. ESG is changing the nature of investment flows**

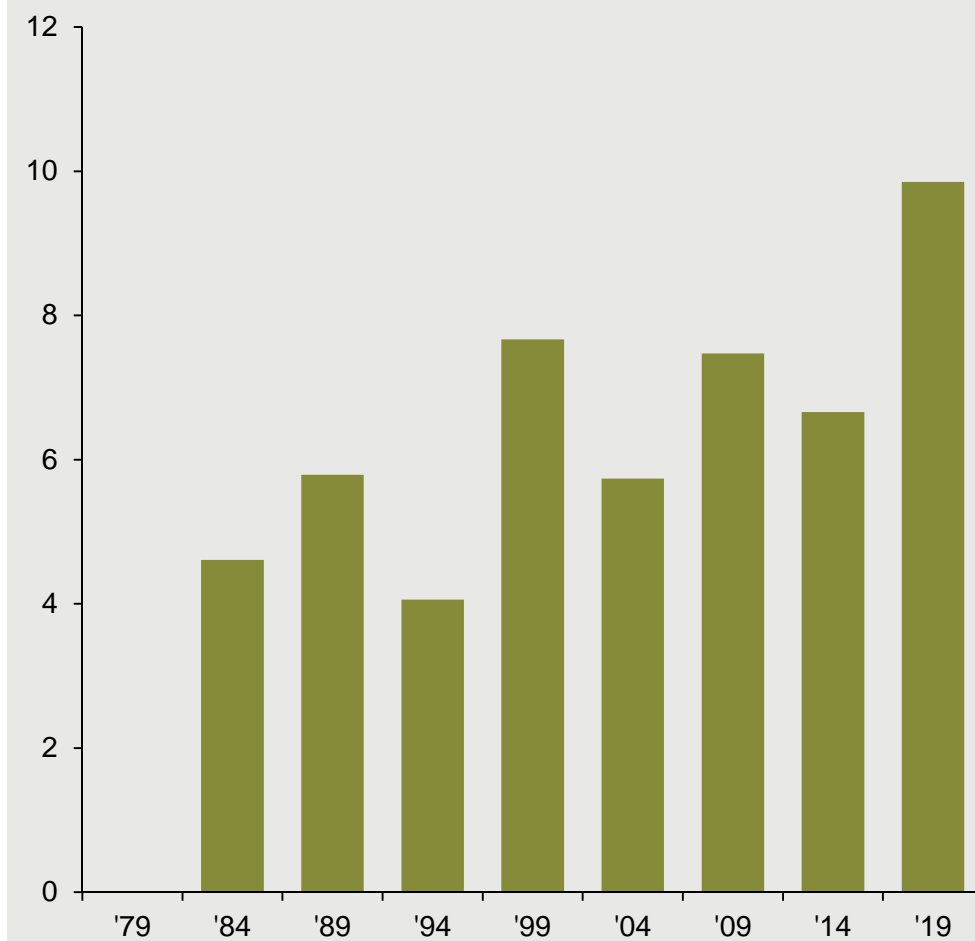
Willingness to pay more for environmentally friendly products

% of survey respondents



Seats held by green parties in EU Parliament

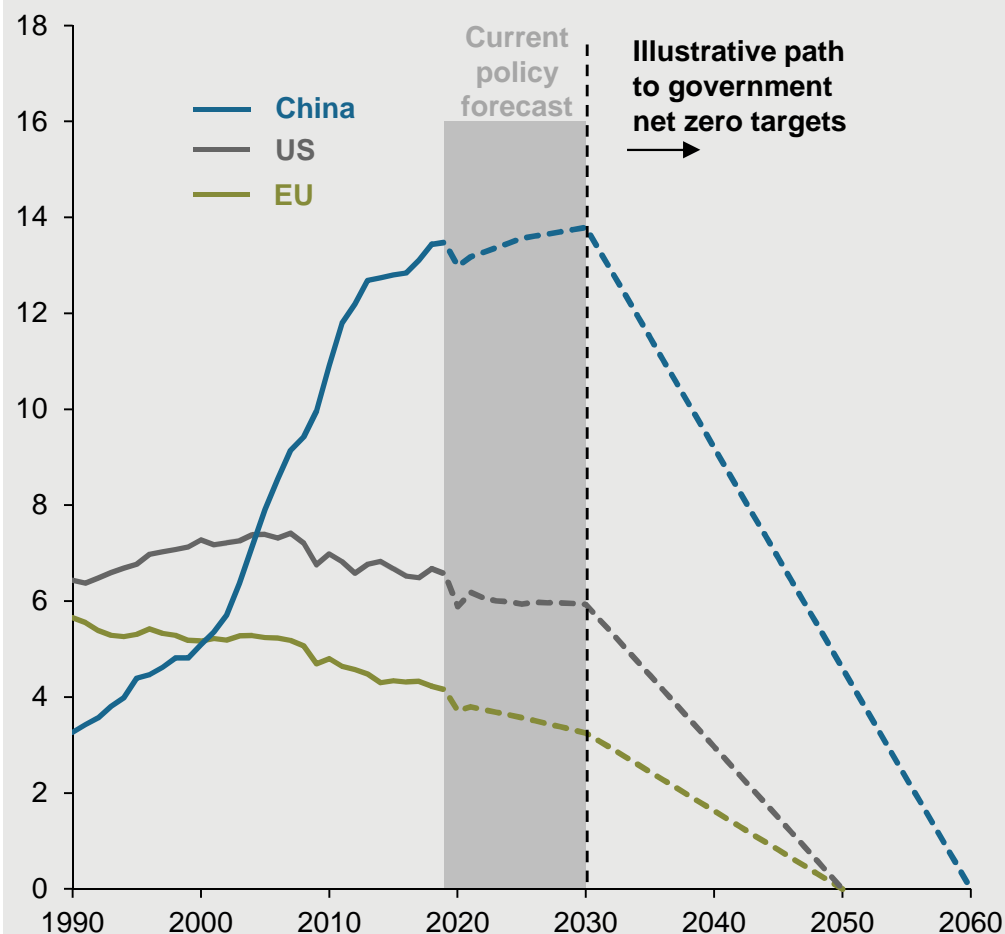
% of total EU Parliament seats



Source: (Left) YouGov, J.P. Morgan Asset Management. Respondents identified as being mainly or partly responsible for grocery shopping for their household, and were responding to the statement "I don't mind paying more for products that are good for the environment." Survey conducted in April 2021. (Right) European Parliament, J.P. Morgan Asset Management. *Guide to the Markets - UK*. Data as of 30 June 2021.

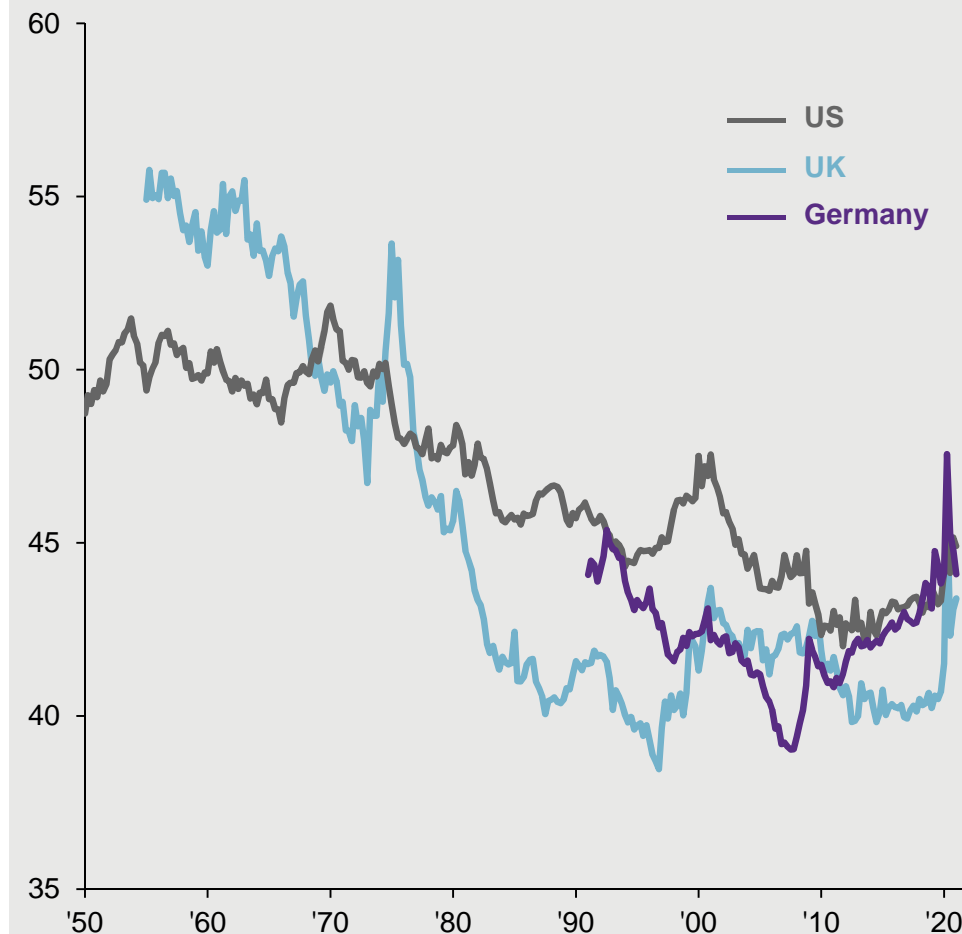
Greenhouse gas emission targets

Billion tonnes/year, CO₂ equivalent



Labour share of income

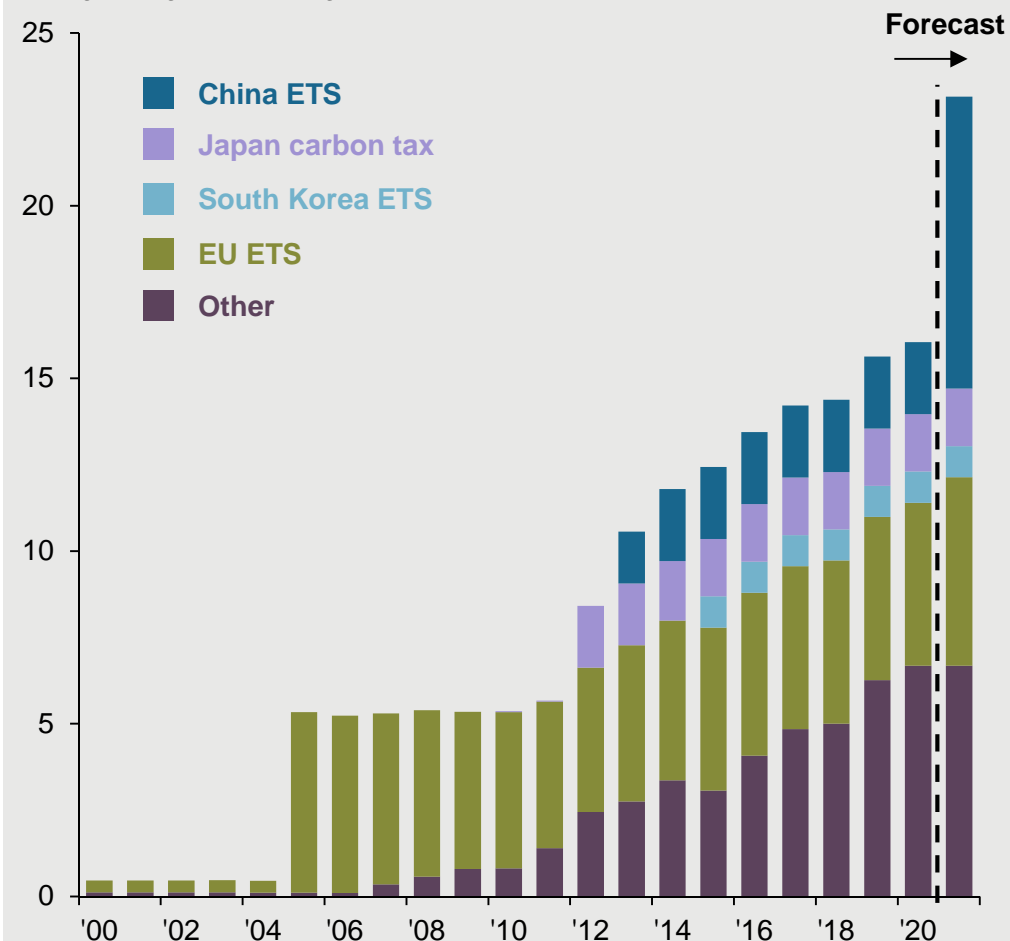
% of nominal GDP



Source: (Left) Climate Action Tracker, J.P. Morgan Asset Management. Current policy forecast is the post-Covid-19 forecast provided by Climate Action Tracker. 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. (Right) BEA, Deutsche Bundesbank, German Federal Statistics Office, ONS, Refinitiv Datastream, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2021.

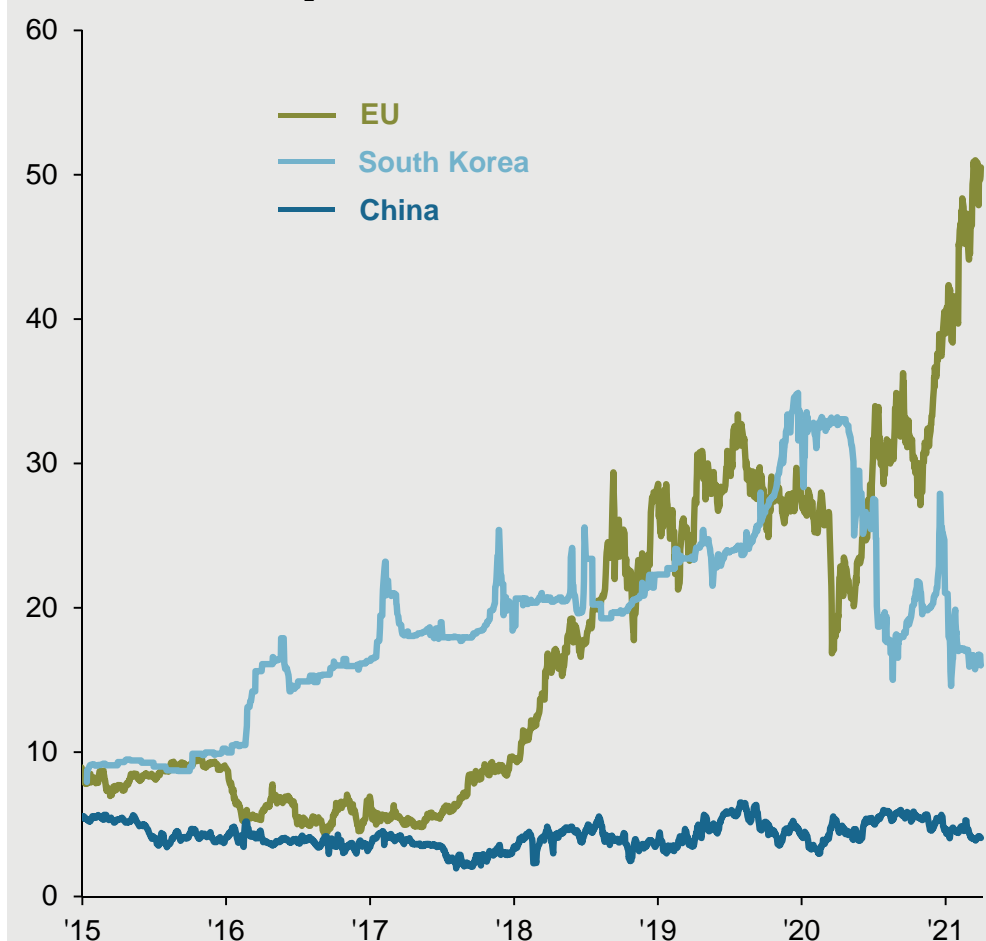
Global emissions covered by carbon pricing initiatives

% of global greenhouse gas emissions



Emissions trading system prices

USD per tonnes of CO₂ equivalent



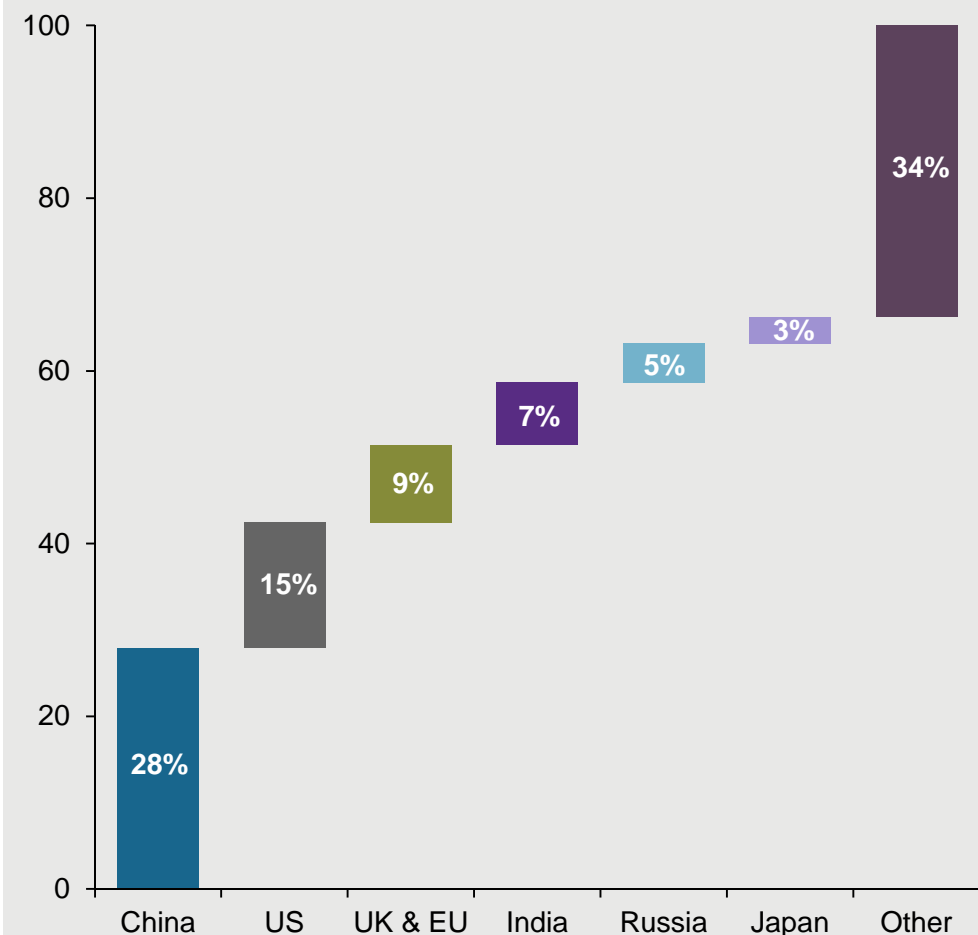
Source: (Left) World Bank, J.P. Morgan Asset Management. ETS is emissions trading system. (Right) International Carbon Action Partnership, J.P. Morgan Asset Management. China ETS price is based on the average of Beijing, Chongqing, Guangdong, Hubei, Shanghai, Shenzhen and Tianjin ETS prices. CO₂ equivalent 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. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2021.

2. Policymakers are setting environmental and social goals

GTM - UK | 82

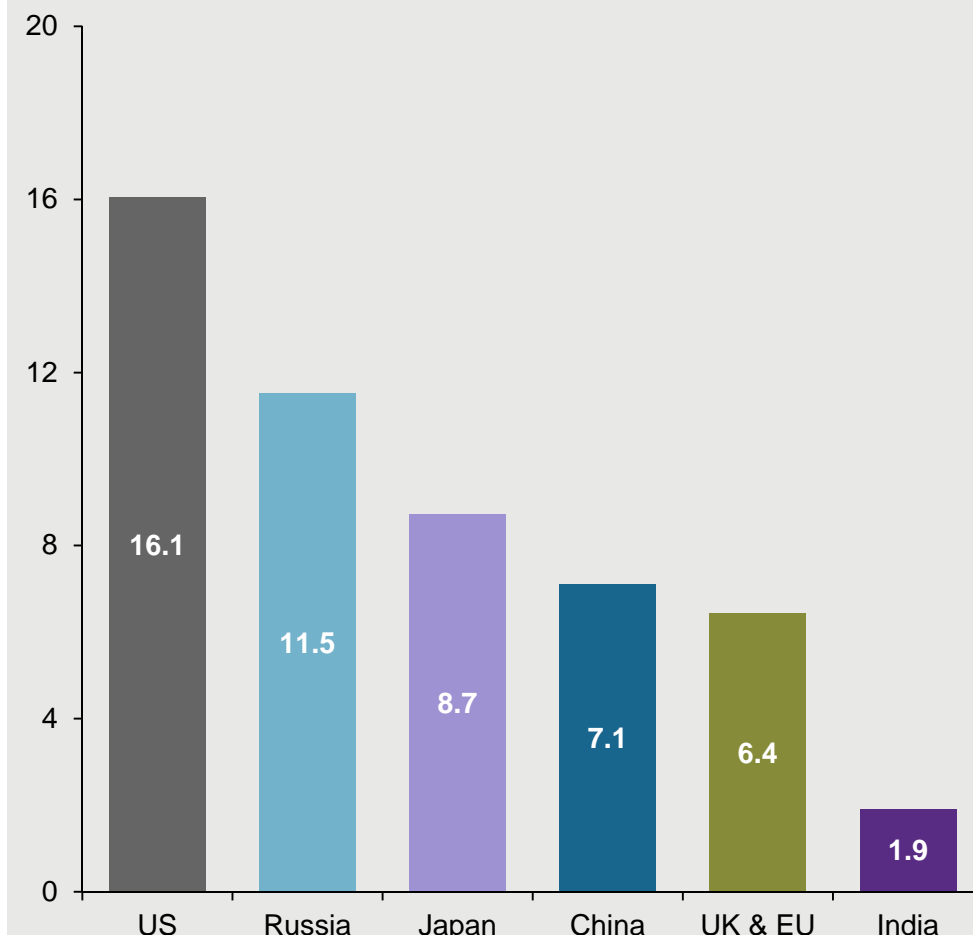
Share of global CO₂ emissions by country

%, 2019



Global CO₂ emissions per capita

Tonnes, 2019

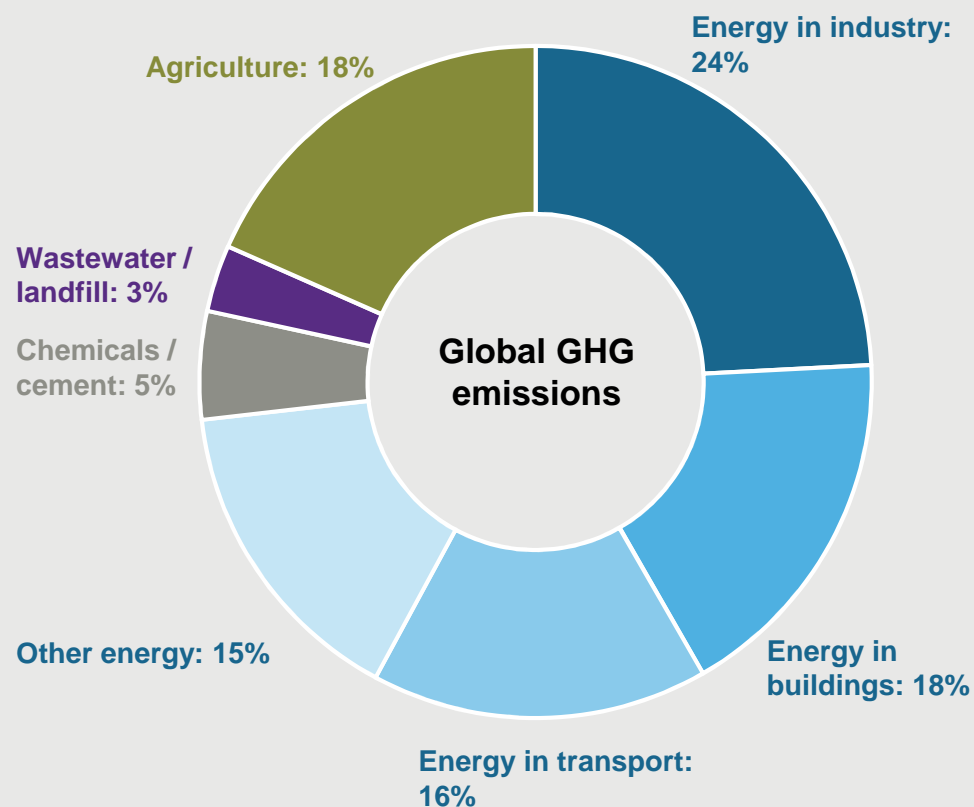


Source: (All charts) Gapminder, Global Carbon Project, Our World in Data, United Nations, J.P. Morgan Asset Management. CO₂ emissions are from the burning of fossil fuels for energy and cement production. Emission impact from land use change (such as deforestation) is not included. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2021.

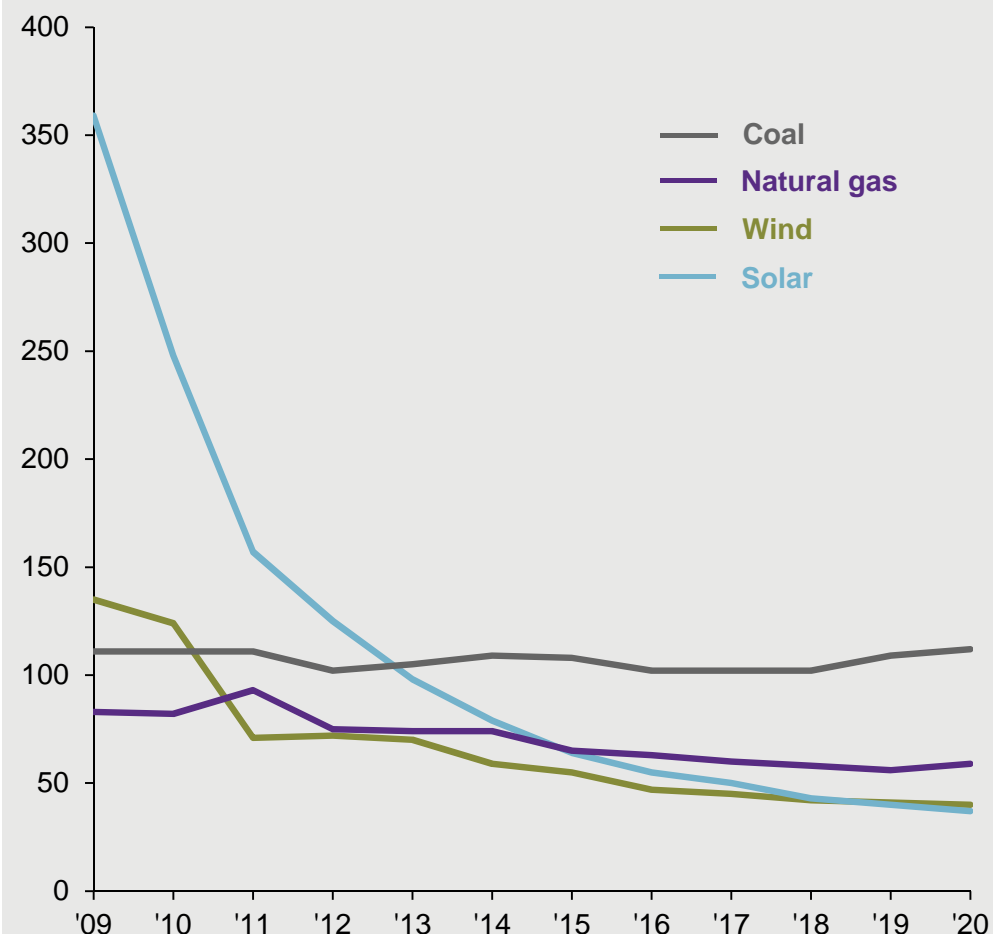
3. For some, the shift to sustainability may be a headwind

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



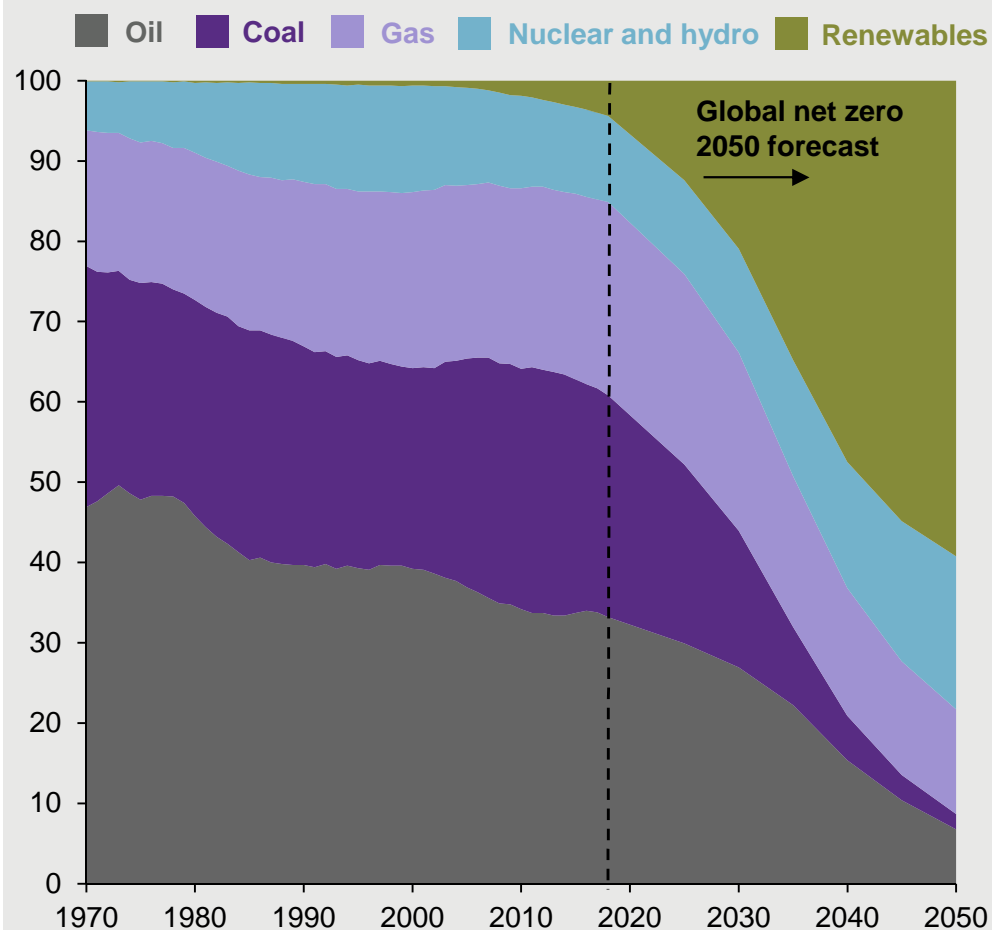
Energy costs from different sources
Mean LCOE*, 2020, US dollars per megawatt hour



Source: (Left) 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. (Right) Lazard, J.P. Morgan Asset Management. *LCOE is levelised cost of energy, the net present value of the unit-cost of electricity over the lifetime of a generating asset. It is often taken as a proxy for the average price that the generating asset must receive in a market to break even over its lifetime. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2021.

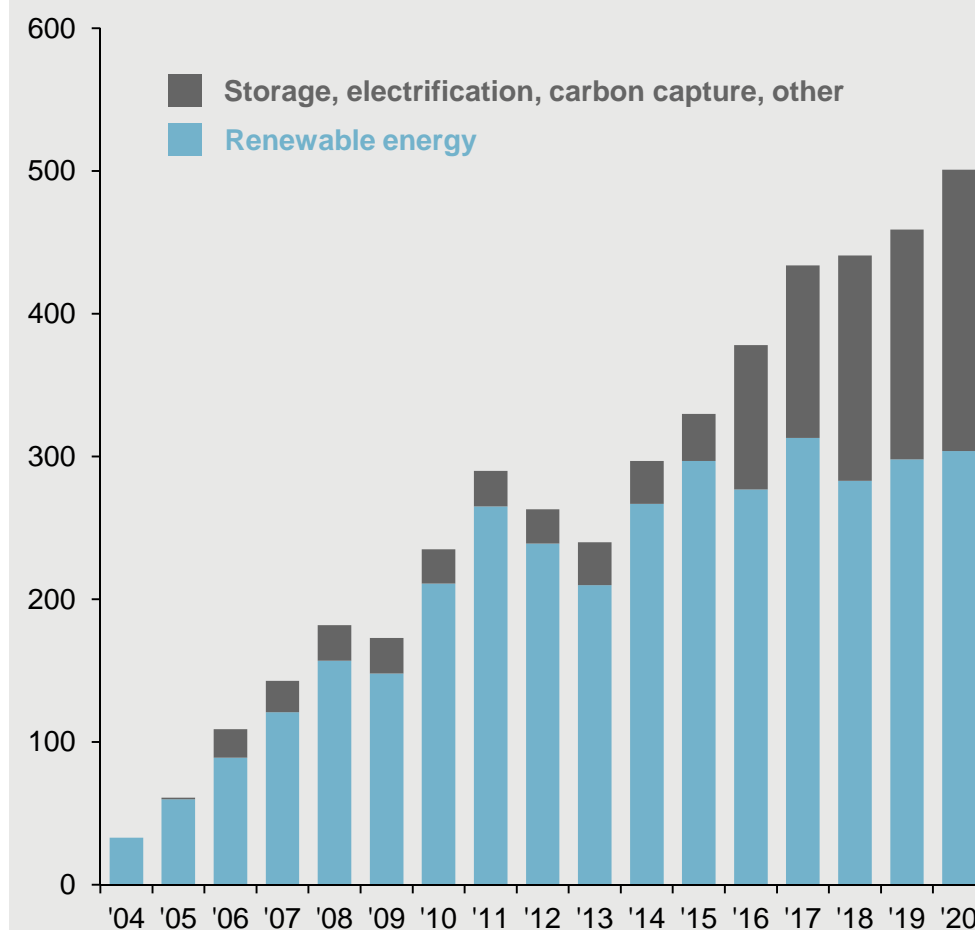
Global energy mix

% primary energy consumption



Global investment in energy transition

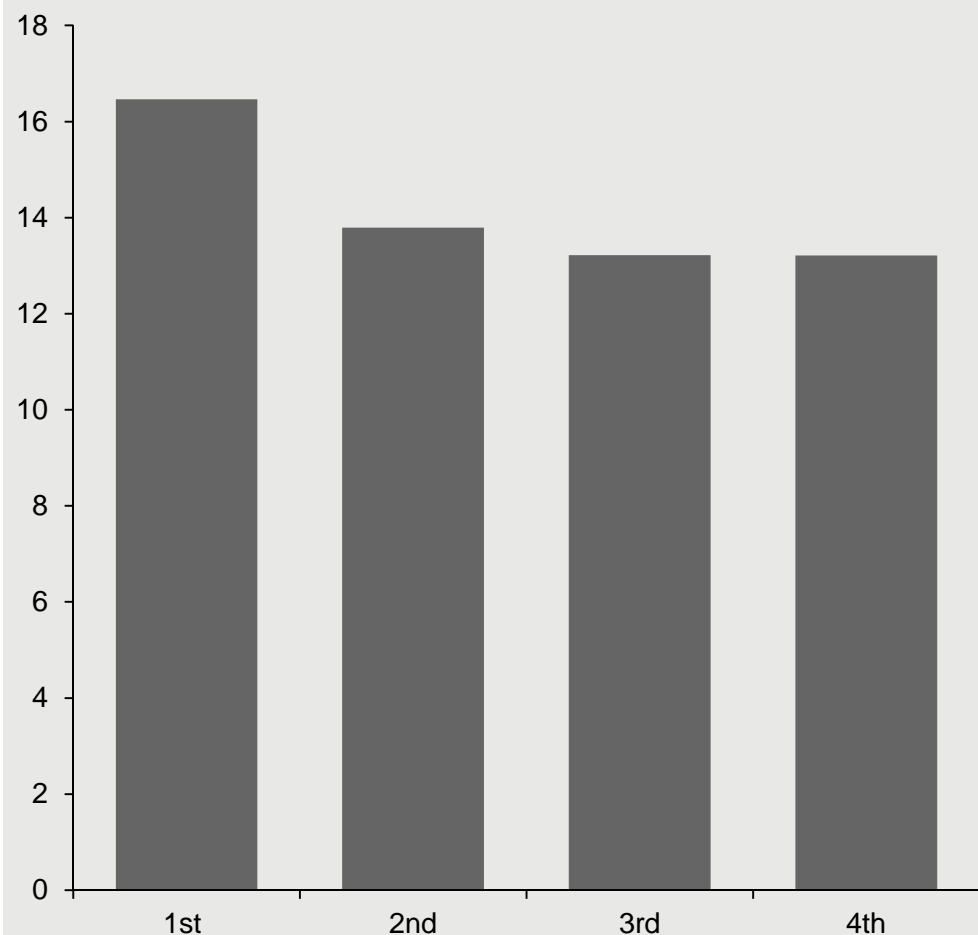
USD billions, nominal



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) Bloomberg New Energy Finance, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2021.

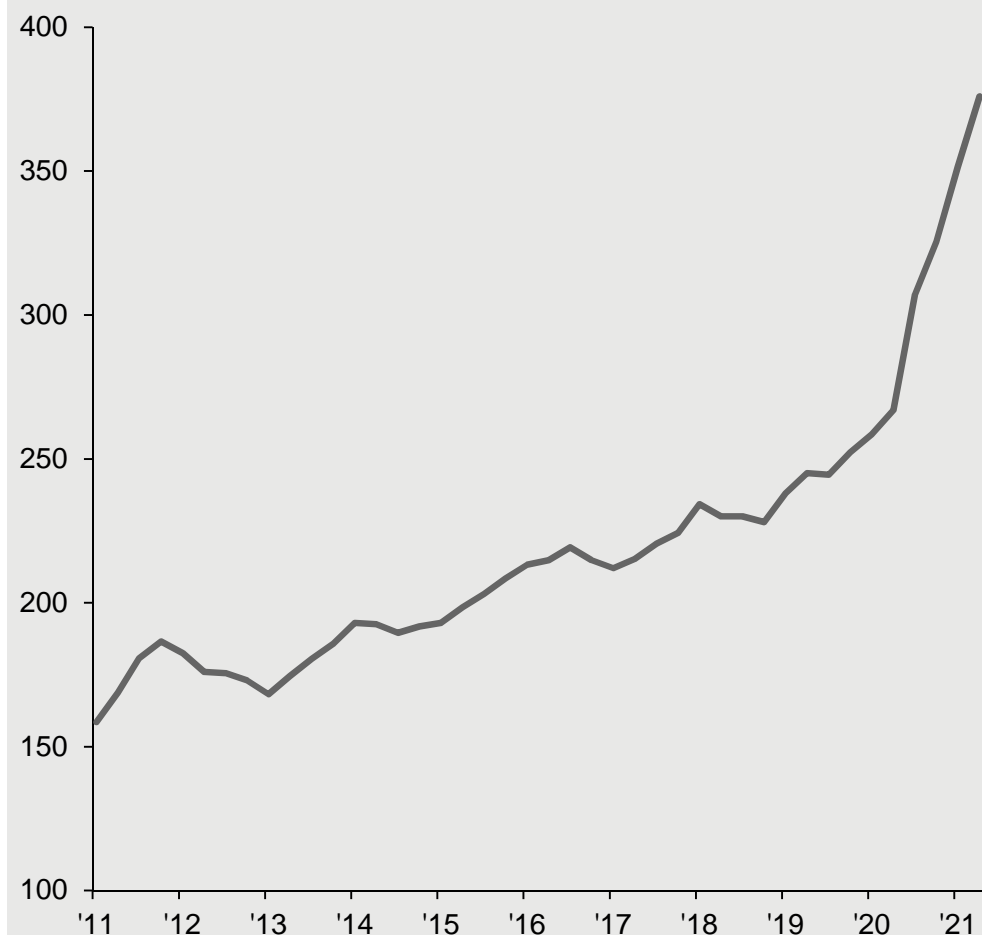
Average ROE of global stocks by governance score

%, return on equity (ROE)



Corporate mentions of “diversity”/“inclusion” in earnings calls

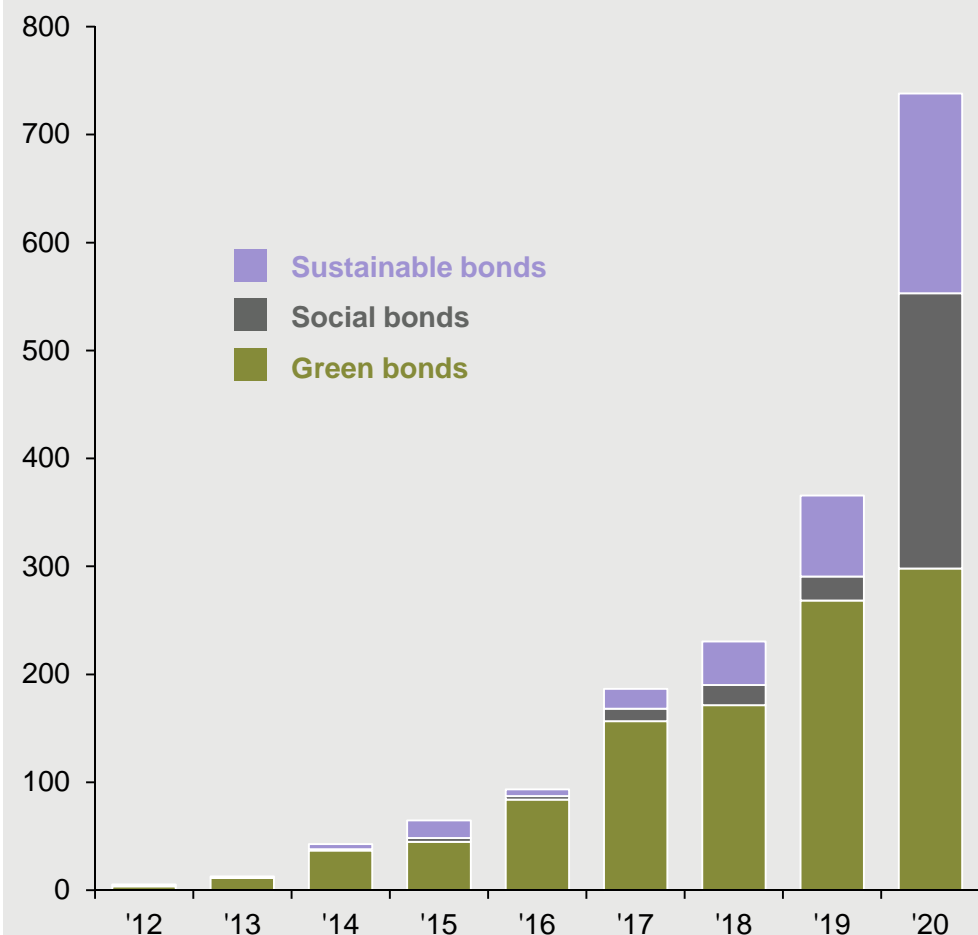
Number of mentions for MSCI ACWI companies, four-quarter moving average



Source: (Left) Bloomberg, MSCI, J.P. Morgan Asset Management. Global stocks are represented by MSCI All-Country World Index constituents based on data availability. We group constituents into quartiles based on proprietary analysis of governance arrangements by J.P. Morgan Asset Management, and then calculate an equally-weighted average return on equity for each group. (Right) MSCI, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2021.

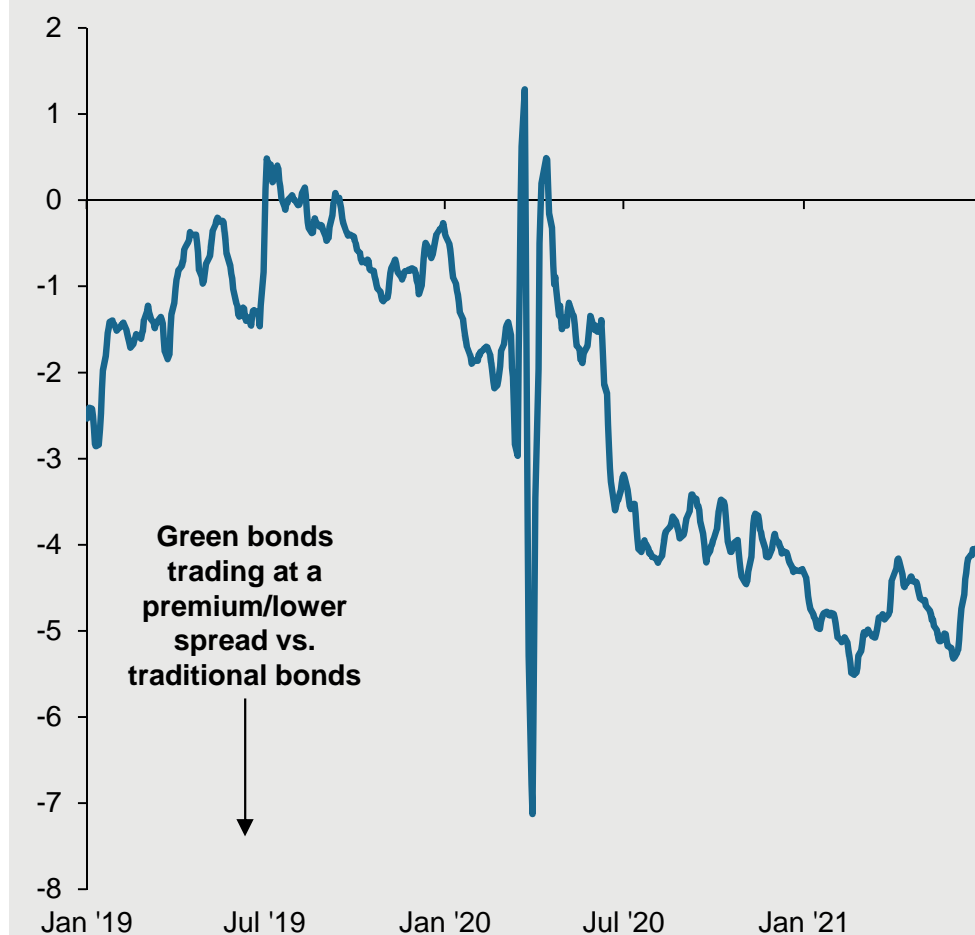
Global sustainable, social and green bond issuance

USD billions



Spread between green and traditional corporate bonds

Basis points, spread difference between green and traditional bonds



Source: (Left) Climate Bonds Initiative, J.P. Morgan Asset Management. Green bonds are those where 100% of the net bond proceeds are allocated to green projects. Social bonds are those where the bond proceeds have a focus on delivering positive social outcomes. Sustainable bonds are those where the bond proceeds are directed to a mix of both green and social projects or if the bond coupon/characteristics can vary based on achieving predefined sustainability targets. (Right) Barclays Research, J.P. Morgan Asset Management. Data shown is for a Barclays Research custom universe of green and non-green investment-grade credits, matched by issuer, currency, seniority and maturity. The universe consists of 105 pairs, 73 euro-denominated and 32 dollar-denominated, and 59 financials and 46 non-financials. Spread difference is measured using the option-adjusted spread. Past performance is not a reliable indicator of current and future results.

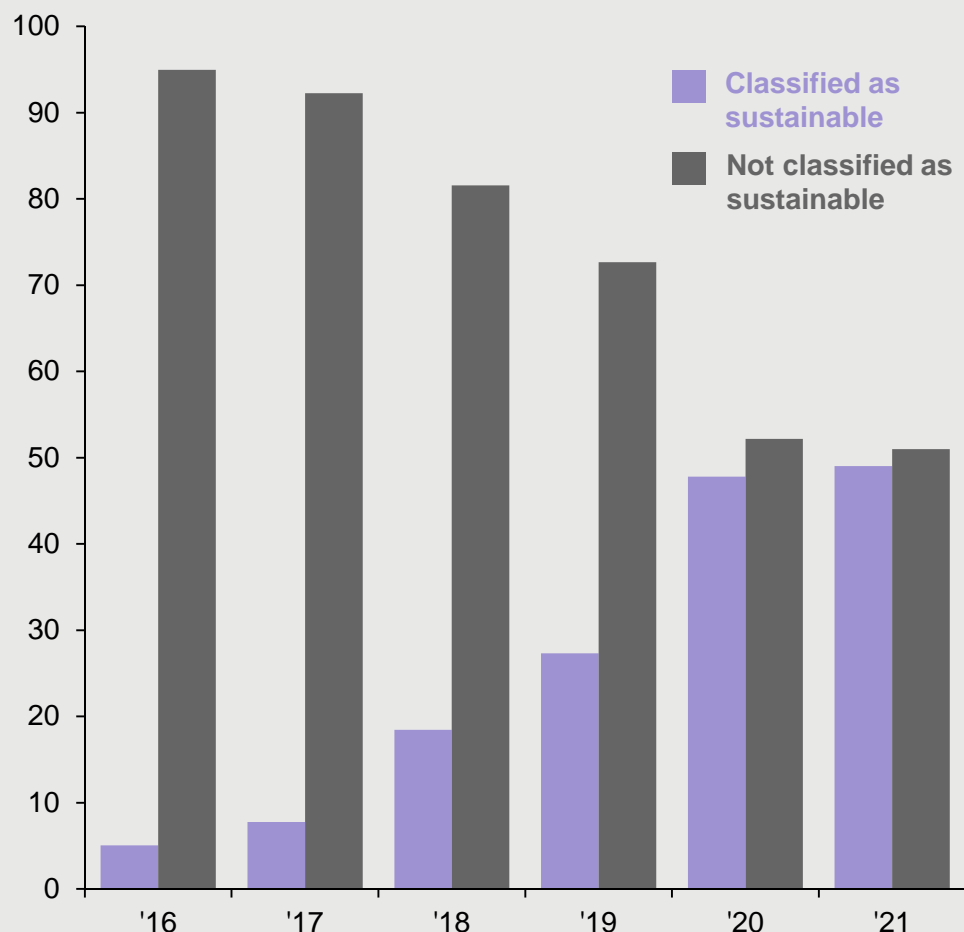
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7. ESG is changing the nature of investment flows

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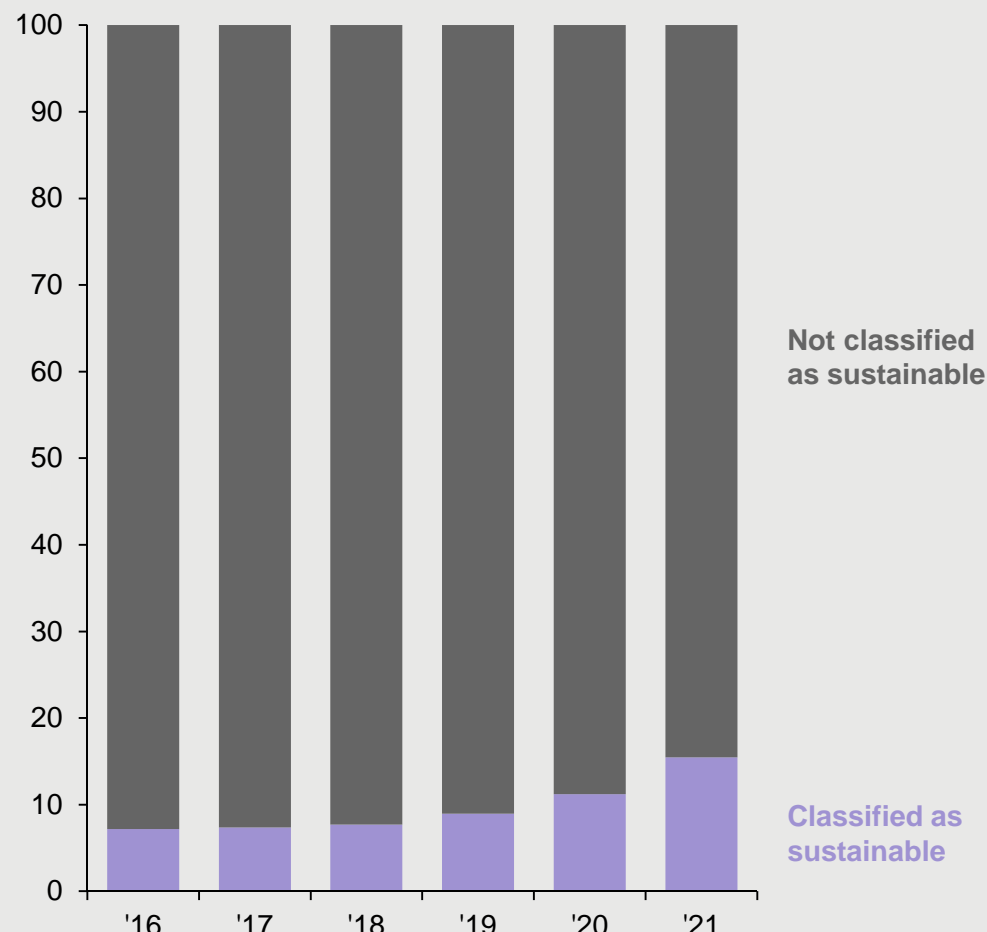
Net industry flows into mutual funds and ETFs

%, proportion of annual net flows for European-domiciled funds



Industry mutual fund and ETF assets under management

%, proportion of mutual fund and ETF AUM for European-domiciled funds



Source: (All charts) Morningstar, J.P. Morgan Asset Management. "Classified as sustainable" refers to funds that have the "Sustainable Investment – Overall" tag in the Morningstar database. Morningstar classifies "sustainable investment" as a fund that explicitly indicates any kind of sustainability, impact or ESG strategy in their prospectus or offering documents. Universe for flows and assets under management (AUM) covers all European-domiciled mutual funds and ETFs in the Morningstar database excluding money market funds and fund of funds. "ETF" refers to exchange-traded fund. 2021 is year to date. Past performance is not a reliable indicator of current and future results. *Guide to the Markets - UK*. Data as of 30 June 2021.

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Unless otherwise stated, all data as of 30 June 2021 or most recently available.

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