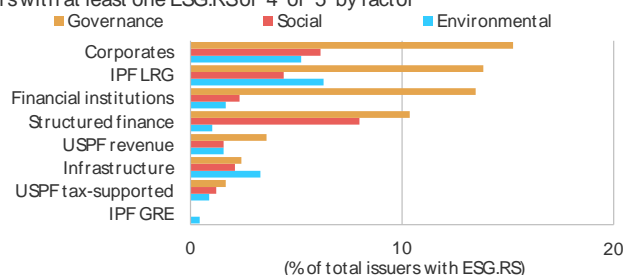


ESG Credit Trends 2021

ESG Influence Over Company Strategy, Financing, and Operating Environment Will Increase

Governance Is Most Influential ESG Factor

Issuers with at least one ESG.RS of '4' or '5' by factor



Source: Fitch Ratings

This report highlights Fitch Ratings' ESG-related research from over 1,400 credit analysts in more than 30 countries, and identifies broad ESG trends affecting credit ratings across analytical groups in 2021, with the help of Fitch's ESG Relevance Scores (ESG.RS).

Data Deluge to Increase ESG Scrutiny

We believe the ongoing increase in ESG reporting requirements and steps taken towards harmonisation of reporting standards will improve the quality and quantity of ESG data over time. This will spur financial institutions to enhance ESG due diligence and exclusionary policies to cover a broader set of ESG issues and entities, further affecting financing conditions for issuers.

Innovation Will Broaden ESG Reach in Credit

We expect the sustainable market to evolve to incorporate labels beyond "green" (such as "social" and "transition"). Innovations such as sustainability-linked bonds (SLBs) will widen access to a broader range of sectors and asset classes.

While there is yet to be clear evidence that ESG instruments provide a meaningful difference in financing costs at scale for issuers compared to conventional bonds, greater policy incentives may change this as regulations formalise the market.

Path to Net-Zero Brings Economic Shifts

There was a wave of net-zero emissions pledges from companies and governments in 2020, but the policy paths that will be taken to achieve these pledges are unclear. We expect more details on these policy paths to be revealed in 2021.

The policy paths will provide some insight into potential long-term economic effects. Other important variables that will shape economic impacts, such as the pace of technological progress and the degree of global policy coordination, are harder to predict.

Social Risks Will Emerge From "New Normal"

The coronavirus pandemic's heavy economic burden on societies is likely to leave persistent social scars, such as greater inequality and poverty, as well as challenges around affordability and access to basic needs. We expect that the societal tensions that stem from these scars, and the policies designed to alleviate them, will lead to new social risks for issuers, as well as exacerbating existing risks.

Sustainable Governance to Steer Strategy

The growing interest in sustainability is sparking debate on how corporate governance frameworks should be reformed to foster long-term responsible corporate behaviour, such as clarification of directors' duties.

Combined with more active ownership from investors and the formalising of sustainability targets into remuneration and sustainability-linked instruments, we expect ESG issues to increasingly influence strategic and management decisions.

Related Research

- [ESG Credit Quarterly: 3Q20 \(November 2020\)](#)
- [Utilities - Long-Term ESG Vulnerability Scores \(October 2020\)](#)
- [ESG Credit Trends 2020 \(December 2019\)](#)
- For a full list of related research, please see the Appendix

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Data Deluge to Increase ESG Scrutiny

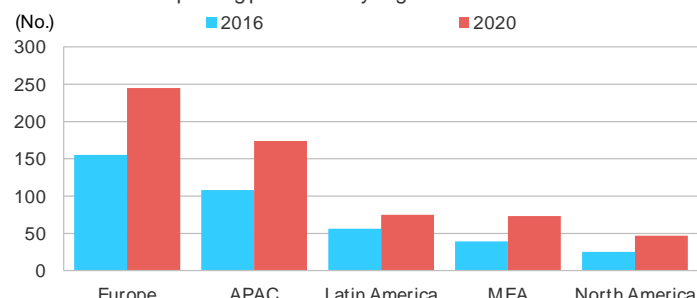
The inadequacy of ESG data is an often-heard complaint from those attempting to assess ESG risks, or attempting to implement ESG-related policies. Stakeholders across the world have taken steps to tackle the ESG data issue – including public bodies, industry groups and voluntary standards setters. Their collective efforts are visible from the huge rise in ESG reporting provisions.

The Carrots and Sticks project, a collaboration between the Global Reporting Initiative, the University of Stellenbosch and the UN Environmental Programme, tracked 614 reporting provisions globally in 2020, up from 383 in 2016. The definition of reporting provisions is broad, and includes elements such as disclosure requirements through regulations, corporate governance codes, and reporting standards. Provisions can cover ESG broadly, or tackle specific sectors or topics (such as procurement of conflict minerals).

Reporting provisions have increased, mainly through actions by government agencies and financial market supervisors. Stock exchanges have also been active through listing rules as well as guidelines and codes. While the number of reporting provisions is highest in Europe, it is growing fastest in APAC and increasing in other regions as well. We expect the stream of ESG reporting requirements will create a deluge of ESG data in the coming years as they become effective for a broader range of issuers as well as for specific ESG topics.

Rising ESG Reporting Provisions Drive Data Deluge

Number of ESG reporting provisions by region



Source: Fitch Ratings, Carrots and Sticks 2020

According to KPMG’s Survey of Sustainability Reporting, more than 90% of the largest 250 global companies by revenue reported on sustainability in 2011, and reporting has remained about this level since. The share for mid- and large-cap companies (represented by the 100 largest companies by revenue in 52 surveyed countries) has started to catch up, increasing from 64% to 80% over the same period. We expect the rate of ESG reporting will grow for even smaller companies, under pressure from banks and investors that need to meet their own reporting requirements on their lending and investment activities.

While sustainability reporting is increasingly widespread, the level of detail can vary substantially, particularly on specific ESG issues. For example, biodiversity is receiving a surge in interest from investors and stakeholders, although it is currently relatively under-reported. KPMG’s survey found that only 23% of companies that report on sustainability and operate in sectors considered at high or medium risk from biodiversity loss (such as utilities and mining) report on the risk.

Fitch ESG Relevance Scores

Fitch launched ESG Relevance Scores (ESG.RS) for 1,534 corporate issuers in January 2019, and has since released more than 150,000 ESG.RS for over 11,000 issuers, transactions and programs across Corporates, Financial Institutions, Sovereigns, Public Finances, Infrastructure, Structured Finance and Covered Bonds. The scores, which are produced by Fitch’s analytical teams, transparently and consistently display both the relevance and materiality of individually identified ESG risk elements to the rating decision, and whether any impact is positive or negative.

ESG Relevance Score Definitions

Score	Credit relevance	Description
1	No impact	Irrelevant to the entity, transaction or program rating and irrelevant to the sector
2	No impact	Irrelevant to the entity, transaction or program rating but relevant to the sector
3	Low impact	Minimally relevant to rating; either very low impact or actively managed resulting in no entity, transaction or program rating impact
4	Medium impact	Relevant to the entity, transaction or program rating but not a key driver – has a rating impact in combination with other factors
5	High impact	Highly relevant, a key rating driver that has a significant impact on the entity, transaction or program rating on an individual basis

Source: Fitch Ratings

Sustainability Reporting Spreads

Share of companies producing sustainability reports



Source: Fitch Ratings, KPMG Survey of Sustainability Reporting 2020

There are already select examples where regulation related to biodiversity is influencing credit risk. Tereos SCA (BB-/Negative), a French commodity producer and trader, has an ESG.RS of ‘4’ for “Exposure to Environmental Impact” as sugar production in 2020 has been affected by regulation restraining the use of nicotinoid-based insecticides in beetroot farming. The regulation was in part introduced due to the damage that these insecticides had on honeybee populations.

We expect the formal launch of the Taskforce on Nature-related Financial Disclosure to be planned for early 2021. The UN Biodiversity Conference (CBD COP 15), to be held in May, will

precede a wave of initiatives exploring the topic. The Ministry of Ecology and Environment in China, where CBD COP 15 is being held, in December 2020 published an opinion emphasising the need to develop a comprehensive legal and regulatory framework to monitor and evaluate ecological environment risks. This will likely feed into China's broader plans to reform its environmental information disclosure system.

Some Steps Taken Towards Harmonisation; Many to Go

The quality of ESG data can be just as important as the availability of such data. The sheer number of reporting requirements and standards have confounded companies, particularly where they do not align. This has left companies struggling with what and how to report, and ESG data that lacks comparability and consistency. Stakeholders have called for greater harmonisation of ESG reporting standards and requirements, evident from the comments submitted during the EU's consultations in relation to changes to its Non-Financial Reporting Directive (NFRD).

One challenge facing harmonisation is the variety of users of ESG data, each with different perspectives – such as views on materiality. These differences have led to the development of a variety of voluntary standard-setting bodies, such as the Global Reporting Initiative, which caters to a broad set of stakeholders by focusing on the impact of companies on the environment and society, and the Sustainability Accounting Standards Board (SASB), which caters to investors by focusing on how ESG issues affect companies.

Some focus on the development of principle-based frameworks, such as the International Integrated Reporting Council (IIRC), which aspires to integrate sustainability reporting and thinking with mainstream business practices – it is targeted at investors and other providers of capital. Others, such as CDP (formerly the Carbon Disclosure Project) and the Climate Disclosure Standards Board (CDSB), focus on specific areas.

The five standard-setters above are working together to build a comprehensive global corporate reporting system, and SASB and the IIRC intend to merge into the Value Reporting Foundation (whom the CDSB has announced the intention to integrate with). Financial accounting bodies have also stepped in to support standard-setting, with the IFRS Foundation's September 2020 consultation paper assessing the scope of the role the organisation should play in the development of global sustainability standards.

Harmonisation efforts may get a further push in 2021. The EU's review of NFRD, due to be published in March, will set the direction of a subsequent revision. The European Commission (EC) aims to enhance the quality of ESG data. One option for achieving this is to mandate the use of a common set of non-financial reporting standards. The EC's June 2019 guidelines on reporting climate-related information already contain a number of recommended disclosures on how climate change will affect business models, policies and due diligence processes and guides on many key performance indicators (KPIs) that companies could disclose.

We expect collective efforts and coordination of policymakers, standard-setters and other bodies to improve the quality of ESG data and better position standards to meet the rapidly evolving demands from investors and other stakeholders. However, the magnitude of changes, from legislation to ESG-related financial

products to the emergence of new ESG risks, will make harmonisation a slow process.

Better Data Will Lead to More Targeted ESG Policies

Improved ESG data will make decision-making and analysis, and associated policies and actions, better informed. Application of ESG due diligence and exclusionary policies by financial institutions has started to affect financing for companies. There are already select examples where ESG issues have affected lending decisions and affected credit.

Our [2021 Outlook for APAC Transportation Infrastructure](#) points to scores of '4' and '5' on "Management Strategy" for Australian coal export terminals to reflect bullet-amortisation debt structures that compound the risk of limited refinancing options, given lenders' increasing scrutiny of coal assets. This has particularly affected North Queensland Export Terminal Pty Ltd (senior secured rating: BB+/Stable), which has relied on shareholder support to refinance debt maturities in 2020.

Exclusion policies have generally been limited to specific business activities deemed to have a negative environmental or social impact, such as coal in the example above, or tobacco and gaming. Exclusions are also often applied to companies where there is evidence of illegal practices, or those that are subject to other major controversies.

Better data should allow financial institutions to target ESG practices for specific issues, such as modern slavery and deforestation. Many banks have policies in place designed to tackle these issues, but a lack of visibility, particularly in supply chain practices, constrains them from acting beyond direct infringements. Legislation and investor demand are increasing disclosure on these issues. For example, 248 companies submitted inaugural statements under Australia's Modern Slavery Law in 2020.

Lending activity could also be affected by large banks' increasing public commitments to reduce their 'financed emissions'. These are the greenhouse gas and toxic emissions footprint generated by businesses financed either through direct lending or investments in financial instruments, including underwriting commitments.

Financial Supervisors Start to Act on Climate Risks

Financial institution regulators have not issued rules governing financed emissions, although disclosure requirements throughout the value chain are increasing. For example, the ECB's November 2020 guide on climate-related and environmental risks says banks are expected to disclose their 'Scope 3' greenhouse gas emissions, and we assume that capital charges relating to environmental risks – potentially extending throughout the whole 'value chain' – will eventually be introduced. This can potentially affect the price and availability of funding for more exposed issuers.

The ECB is already advising the 'significant institutions' it supervises that by early 2021 they should be able to incorporate material financial and non-financial impacts arising from climate-change and environmental risks into their internal capital adequacy assessments, suggesting to us that Pillar 2 capital charges may well follow. Value chain capital charges will probably be introduced first in countries where governments are calling on financial institutions to help achieve government sustainability goals, including countries with targeted low-carbon policies.

The Basel Committee on Banking Supervision has not yet decided how supervisors might best introduce prudential measures to mitigate against climate-related financial risks, although momentum on introducing measures seems to be increasing. The committee's findings on climate change transmission channels for banks, and which methodologies are used to measure and assess environmental risks, should be published in mid-2021.

The Financial Stability Board (FSB) has, for some time, voiced its concerns about the risks to financial stability posed by climate change. Its November 2020 report says that three-quarters of the financial authorities it coordinates with are considering **climate stress tests** in their financial stability monitoring, which highlights the growing trend towards regulatory adoption of scenario analysis.

Results of the Banque de France's climate stress test is set to be published in April 2021, and the Bank of England's is planned to be launched in 2H21 (we expect results in 2022). Other central banks across the world have stated their intention to incorporate climate-related risks into their stress-testing exercises, such as the Central Bank of Brazil and the Monetary Authority of Singapore. Australia's bank prudential regulators have asked banks to assess how physical and transition climate change-related risks affect their balance sheets. The ECB says the next supervisory stress test in 2022 will focus on climate-related risks.

The tests are still at the stage of regulatory learning exercises to stimulate discussion and identify gaps in data and risk-management framework. The quality and availability of data are key factors in the effectiveness of these tests, and may determine the pace with which climate risks are reflected in lending portfolios. For example, data and disclosure are key for assessing the relative credit performance of green mortgages, particularly a standardised definition of environmentally sustainable buildings.

Innovation Will Broaden ESG Reach in Credit

Markets for ESG instruments have grown rapidly, with cumulative green bond issuance exceeding USD1 trillion since 2007, according to the Climate Bonds Initiative. These markets have largely been developed off the back of voluntary or industry-led principles such as those from the International Capital Market Association (ICMA), which can be open to interpretation. Regulators globally are increasing formalising standards and definitions in the market.

The EU plans to deliver the legislative proposal on Green Bond Standards (GBS) in 2Q21, following a targeted consultation that ended in October 2020. The GBS aims to reduce uncertainty about green labelling by linking it to the EU Taxonomy as well as standardising verification and reporting processes, and establishing an official standard to which policy incentives can be linked. China released a draft catalogue of endorsed projects for green bonds in 2020, part of a broader set of policies looking to expand green finance to support China's transition to lower carbon emissions.

While the establishment of more formal regulatory standards will bring consistency and clarity to the market, it will also narrow what can be defined as green assets as more issuers are trying to access ESG-related financing. We expect more labels and structures to develop to support the "mainstreaming" of sustainable finance, including for financial products. The EU's proposed Ecolabel is scheduled to be introduced for retail financial products in 2021.

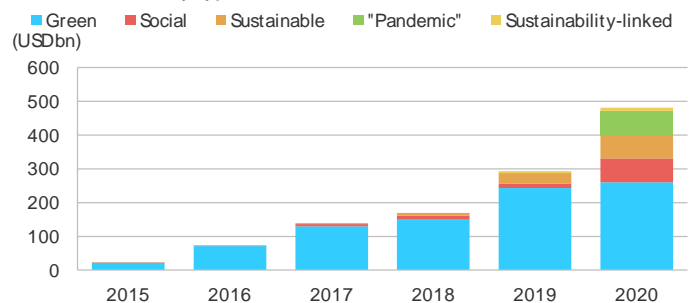
Asset-Light Companies Struggle to Access Green Financing

Not all sectors have had equal access to the green bond market, as limited projects are eligible for the use of proceeds. The majority of funds raised from green bonds are directed towards energy, buildings and transport, with some variation across regions. Banks have also issued green bonds – mainly to finance green loans – but the sector distribution is similar. This means corporate issuance of green bonds has been concentrated in sectors such as energy, utilities and real estate, which already have better access to eligible projects. Use of proceeds for IT projects, such as energy-efficient data centres, have been increasing, but are limited in scale.

The range of labels used for ESG bonds has been expanding to accommodate the use of proceeds beyond green projects. Issuance of social bonds, including 'pandemic' bonds targeted at pandemic-related relief measures, exceeded USD140 billion in 2020, 10 times the amount in 2019 (based on Bloomberg data). Issuance of sustainability bonds also more than doubled from the previous year. Social and sustainability bonds have been issued by a wider variety of sectors than green bonds.

ESG Bond Markets Expand Beyond "Green"

ESG bonds issued by type



Source: Fitch Ratings, Bloomberg

We expect the use of the transition label to increase in 2021, following the publication of ICMA's Climate Transition Finance Handbook in December 2020. The development of guidance is partly borne out of investors' concerns over green bonds issued by transition issuers, where green use of proceeds may not align with the company's less-green broader strategy and business model. The recommendations call for transparency of climate transition strategy for issuers, and use of science-based targets and pathways. Transition labels remain contentious amongst investors, but may lead to the development of a subset of the green and sustainable bond market.

Use of SLBs Is Increasing Across Sectors and Regions

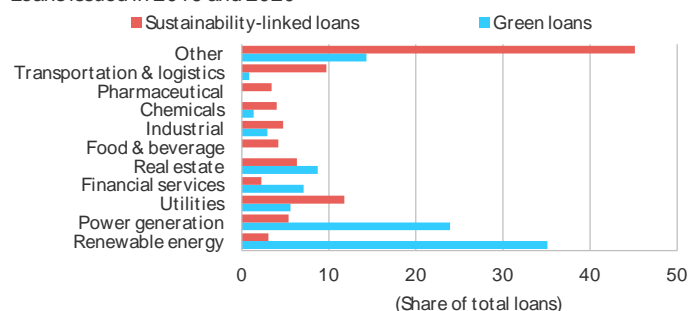
There was a sharp increase in the issuance of **SLBs**, instruments where financial or structural conditions are tied to KPIs against sustainability performance targets, in 2020. This could be a discount or a premium to the established bond coupon, or penalties such as the purchase of carbon offsets. Enel S.p.A. (A-/Stable), an Italian utilities company, was the first company to issue a SLB ever, and the only issuer in 2019. By the end of 2020, 14 other issuers across the world had also issued SLBs. All but two were issued in 4Q20 (this figure excludes German sustainability-linked "Schuldschein", which have also risen in popularity). The market has been supported by the launch of ICMA's SLB principles in June

2020, as well the ECB's decision to accept the bonds for its asset purchases and collateral programmes.

The market remains small (USD15.5 billion at end-2020), but the variety of issuance has been remarkable, in terms of both geography and sector. This is already evident in the more established sustainability-linked loan market. The proportion of sustainability-linked loans issued by companies in sectors such as food and beverages, pharmaceuticals, chemicals, and transportation and logistics are significantly higher than in green loan markets.

ESG Loan Sector Distribution

Loans issued in 2019 and 2020



Source: Fitch Ratings, Bloomberg

We expect SLBs will broaden the range of issuers that make use of ESG-related financing. An advantage of SLBs over proceeds-based ESG bonds is that they do not require a defined use of proceeds, which may be challenge for smaller and asset-light entities. This may make SLBs a more flexible option for some leveraged loans and high-yield companies that are underserved by proceed instruments.

That said, the market is still new and investors appear to have mixed views on the instruments. Some find SLBs too complex and the variability of targets and structures difficult to compare. Others have questioned being rewarded for poor ESG performance where an increase to coupon payments is triggered if KPIs are not met. However, some new instruments have used penalty mechanisms not tied to investors' return prospects, such as commitments to purchase carbon offsets when KPIs are missed.

We expect other ESG labels and structures to emerge to better meet the needs of specific asset classes such as securitisations, municipal bonds and real assets. The use of the proceeds model, and existing market principles, do not necessarily fit where instruments are more complex or where there are unique investor bases with specific needs, such as collateralised loan obligations.

Central Banks Look to Support Sustainable Finance

The issuance of ESG instruments does not by itself influence credit profiles, and there is yet to be clear evidence that they provide a meaningful difference in financing costs at scale for issuers compared to conventional bonds in the current market. However, this may change as performance-related data is collected, regulations standardise and policymakers are more comfortable with larger incentives to support the sustainable finance system. Examples of this are already appearing.

The European Central Bank is reviewing [Green Quantitative Easing](#), a policy that tilts the central bank's balance sheet toward green bonds, and published a working paper on the subject in

December 2020. The ECB's Pandemic Emergency Purchasing Programme is schedule to end in June 2021 and new plans for green quantitative easing are expected to be announced by then. Sweden's Sveriges Riksbank set a precedent on including sustainability considerations when it announced that it will only purchase corporate bonds issued by companies deemed to comply with international standards and norms for sustainability, effective from January 2021.

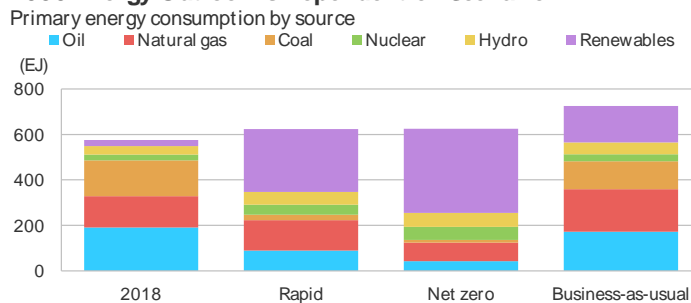
A cost advantage for issuers of ESG instruments over conventional bonds would also be more likely if managed assets dedicated to buying ESG instruments reach a critical mass. ESG instruments are mainly held as part of non-dedicated ESG portfolios, where they are viewed by managers as a non-essential extra, and are secondary in importance to financial returns. Fitch's [Global Green Bond Fund Dashboard](#) counted 63 green bond funds worldwide, accounting for EUR13.8 billion assets under management. While growth in 1H20 was strong at 30%, it still represents a small base compared to total green bonds outstanding. The nascent [social bond fund](#) sector is even smaller, and the limited number of issuers in the social bond market brings implementation challenges due to heightened single-name concentration risks.

Path to Net-Zero Brings Economic Shifts

Climate policy pledges grew in momentum in 2020 from across governments, corporates and financial institutions. This included commitments to net-zero emission targets by major economies such as China, Japan and South Korea. The list of nations, regions and cities that have committed to such pledges now account for more than two-thirds of global GDP. We expect more will do so in the run-up to the UN Climate Change Conference (COP 26) in November.

These pledges should lead to energy mixes profoundly shifting towards low-carbon sources and push fossil fuel prices lower. However, there are many possible paths to net-zero targets in terms of speed, energy mix, technological developments, and the use of mechanisms such as carbon offsets. We expect 2021 to bring more clarity on how net-zero targets will be reached, and the economic and credit consequences. The International Energy Agency announced they will launch a net-zero roadmap in May 2021 that will detail what is needed for the world to achieve net-zero emissions by 2050, at both country and sector levels.

2050 Energy Outlook Is Dependent on Scenario



Source: Fitch Ratings, BP

Net-zero pledges have been made by many economies, but these economies can differ substantially in terms of existing energy system structure, current policies and rates of investment. The

World Economic Forum's Energy Transition Index, a composite score of 40 indicators that benchmarks 115 countries on the current performance of their energy system and readiness for transition, shows a clear global divide. Net energy-importing countries tend to have made bigger investments in the low-carbon transition in recent years than exporters, highlighting the added incentive to decarbonise for those countries that can substitute imported carbon-heavy energy with domestic renewable sources.

Policy Efforts to Support Low-Carbon Transition Grow

Some governments are taking increasingly aggressive steps towards decarbonisation – even in more carbon-intensive regions such as APAC, which still relies heavily on coal and other fossil fuels. China's domestic emissions trading scheme (ETS) is expected to begin partial trading in 2021 and be fully operational by 2025. President Xi Jinping's commitment to carbon neutrality by 2060 has renewed interest in the ETS and has led to increased price expectations; the 2020 China Carbon Pricing Survey of industry participants points to an average estimate of CNY71/tonne by 2025 (USD 11) and CNY93/tonne by 2030 (USD 14). Some 69% of respondents believe the carbon price will influence investment decisions by 2025, either strongly or moderately.

Whilst initially limited to coal and gas power plants, the ETS is ultimately set to expand to seven other sectors, covering around 30% of China's emissions, including petrochemicals, chemicals, building materials, iron and steel, non-ferrous metals, paper and domestic aviation.

Decarbonisation efforts are also having an impact across borders. China, Japan and South Korea are major participants in the overseas financing of fossil fuel projects, particularly through state-sponsored development finance institutions. Japan and Korea have made public pledges to phase out the overseas financing of coal in the face of scrutiny from investors and other stakeholders. China's One Belt One Road Initiative (BRI) is a major source of overseas financing for coal (with China investing USD43 billion under the initiative to date) but the environment ministry has floated adding coal to an 'exclusion list' of overseas financing activities, and one major recipient of BRI funds (Pakistan) recently announced its intention to halt new investment in coal in favour of renewables.

The US is the largest economy remaining without a net-zero target, but this is likely to change following President-elect Joe Biden's victory in the 2020 elections. Whilst political impediments may prevent more sweeping changes to federal climate policy, the Biden administration is committed to re-joining the Paris Agreement from day one and enshrining a 2050 net zero target in domestic legislation. The most immediate executive actions will likely be to reinstate 'at least the regulatory baseline' of the Obama administration. For example, the Environmental Protection Agency rolled back Obama-era performance standards in August 2020 for methane emissions from oil and gas facilities.

As discussed in our [2021 Outlook for North America Utilities, Power and Gas](#), many states in the US are also forging their own paths to address climate issues in the absence of federal action, and are setting aggressive renewable and clean energy goals. The path to achieving these mandates and the ultimate impact on customer bills is unknown.

The impact of reaching net-zero targets will also depend on the pace of policy implementation, with most targets set for 2050 or beyond. A strategy that puts off more stringent and costly emissions reduction plans to a later date (described as 'backloading') will limit the economic, and the environmental, impacts. Some governments have set closer targets, such as the EU's revised target for a 55% cut in emissions by 2030. The EU also allows the purchase of international carbon credits from negative emissions projects (such as afforestation) within national contributions to the target. The use of offset mechanisms, as discussed in Fitch's research on [global carbon markets](#), allows for decarbonisation efforts to be directed where costs are lowest, but can result in lower overall emissions reduction to meet any given target, depending on how mechanisms are designed.

Backloading and the use of offsets have faced criticism from some civil society groups and are a point of political debate. This may pressure revisions of, and clarifications to, existing net-zero targets.

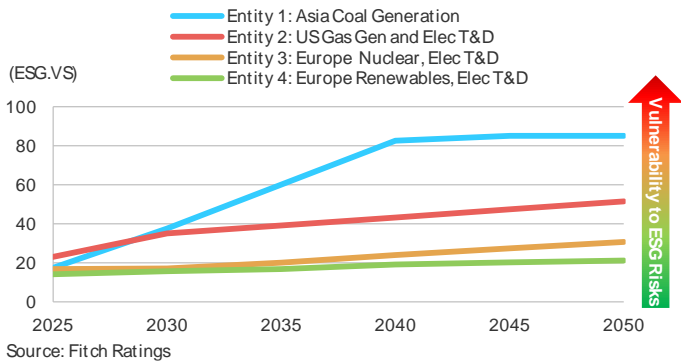
Impact from Climate Policy More Significant After 2025

The long road to net-zero is part of the reason why the impact on individual credit profiles have been limited so far. As described in the [2021 Outlook for Global Oil & Gas](#), we do not expect a drastic impact on energy prices from climate pledges within the normal three- to five-year forecast horizon for Corporates as a base case. However, an acceleration of the energy transition could be negative for oil prices and could put some ratings in the sector under pressure, particularly in jurisdictions such as the EU, where policy is more ambitious.

Similarly, in our [2021 Outlook for Global Mining](#), we expect near-term effects on the thermal coal sector to be muted. China's desire to reduce its reliance on overseas markets in the 14th Five-Year Plan period (2021–2025) suggests sufficient coal supply will be an important national security consideration as China is short of most other types of primary energy. Japan has also yet to provide a clear roadmap amid challenges to restart nuclear reactors. However, new coal projects may struggle to access external financing.

A survey of Fitch's corporates analysts, as part of Fitch's [Next Phase](#) report, indicates that they expect the impact of low-carbon transition to be more significant from 2025, particularly for more carbon-intensive sectors such as utilities, oil and gas, and airlines. To better understand the credit impact beyond 2025, Fitch launched the ESG Vulnerability Scores (ESG.VS) in October 2020 to assess the relative vulnerability of sectors and entities to long-term ESG-related changes under a scenario that incorporates a global transition pathway up to 2050 in a world that is 2°C warmer by 2100. The [first report](#) on ESG.VS covers Utilities sectors, and the [second report](#) covers the Oil & Gas and Chemicals sectors.

ESG.VS Entity Score Examples



The impact of climate pledges on investment in renewables is likely to materialise quicker than the phasing out of fossil fuels. We expect the share of major oil companies' capex designated for low-carbon projects will substantially increase. Similar investment increases are expected in the utilities sector globally. Fitch's **2021 Outlook for APAC Power and Renewables Projects** forecasts APAC remaining the largest contributor to the global renewables sector, driven by the installation of solar and wind farms in China and India.

Economic Viability of Renewables Continue to Improve

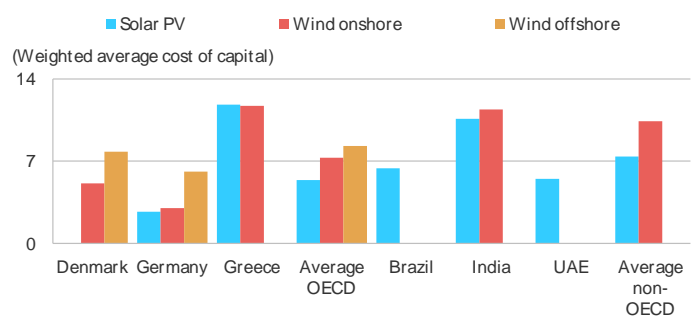
We expect the economic viability of renewable energy to further improve in 2021 through strong policy support, low cost of capital, economies of scale and an increase in competitive auctions. These trends are making solar and onshore wind projects increasingly viable without government support. As described in our **2021 Outlook for EMEA Renewables**, we expect developments of subsidy-free renewables in countries with stable regulatory frameworks and established power markets, over time. Many European countries have adopted regulatory frameworks to support their renewable energy targets and we expect continued support of these frameworks.

Many of the top European utilities have made their own pledges about reaching net-zero, and renewables market leaders such as Enel and Iberdrola, S.A. have the technical and financial ability to install more than 5GW each annually, with a global reach. However, on a global basis the renewables sector remains very fragmented, with sufficient space for new participants, such as major oil and gas companies, to successfully compete.

How energy economics evolves through to 2050 will shape the route to net-zero. There are large regional differences in the cost of capital for new solar and wind projects, particularly if accounting for batteries and other storage options for renewables to act as a reliable source of baseload power. Investment in natural gas and nuclear energy are more likely to be part of decarbonisation paths where renewable energy is insufficient to meet energy needs – either because of the speed of growth in energy demand overall (such as China) or where the ability to deploy large-scale renewable projects is constrained (such as Japan).

However, some investors and stakeholders view natural gas and nuclear as myopic solutions and advocate for renewable energy-dominant transition strategies. The scenario used for the ESG.VS considers both gas and nuclear as important tools to manage the energy transition, although their vulnerability will increase across all the regions, especially during 2040–2050.

Large Regional Differences in Cost of Capital for Renewables



Further expansion of renewables in grids is likely to lead to increased price volatility, a decrease in wholesale electricity prices, and rising costs for transmission and grid balancing. For nuclear capacity in particular this poses challenges in competitive energy markets, and many governments are increasingly providing revenue support or other guarantees to generators in order to secure a reliable source of baseload low-carbon power. Governments may look for alternative baseload options should the cost of revenue support continue to rise, such as natural gas, or if technological progress allows, battery storage solutions.

Technological Progress Is A Key Variable for Policy Paths

Technological developments, which can be hard to predict over the long term, have the potential to substantially shift energy economics and net-zero trajectories. One area receiving attention is green hydrogen, which is produced using electricity from renewable sources. The hydrogen effectively acts a storage mechanism that allows for more flexible usage of electricity generated from renewable energy.

Green hydrogen projects were a major area of focus for policy announcements as part of recovery packages. Some 60 gigawatts of new green hydrogen projects were announced in 2020, with Australia leading in the deployment of large projects followed by initiatives in Europe, China, Chile, South Korea, Japan and Saudi Arabia. Europe targets 40GW of electrolyser capacity by 2030 and an ambitious 20% share of hydrogen (not only green) on energy consumption in 2050.

Fitch's **2021 Outlook for Latin American Utilities** describe three pilot hydrogen projects aimed at cargo transport at the mining sites of BHP Group Plc, Anglo American plc and CAP S.A., whereby trucks are reconditioned to operate on dual fuel (hydrogen–diesel), battery fuel modules and fuel cells.

There are a number of hurdles for green hydrogen to overcome before it can be viable. Aside from costs, there are storage and transport challenges, as well as the need for projects to be in the proximity of reliable, plentiful renewable resources. The first sector of utilisation for hydrogen should be mobility (trains and long-haul trucks), while it is estimated that 50GW of installed capacity worldwide could represent the tipping point to make hydrogen economic for several industrial applications as well, such as steel and chemicals.

Demand for green hydrogen will also depend on the evolution of battery technology as a storage mechanism. Both technologies are

currently used in the fast-growing electric vehicles market. The Chinese government is aiming to build 1 million hydrogen fuel cell vehicles by 2030.

Social Risks Will Emerge From “New Normal”

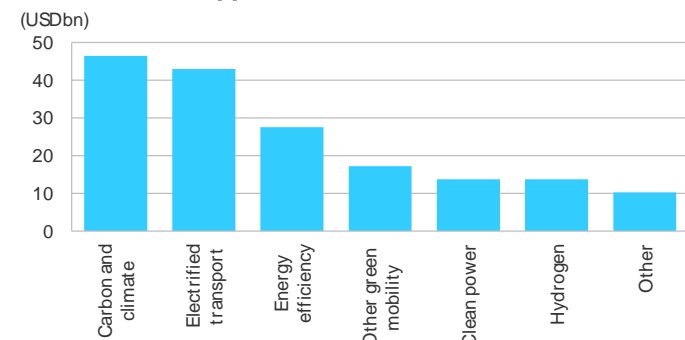
As described in Fitch’s [December 2020 Global Economic Outlook](#), the latest wave of the virus prompted renewed national lockdowns in Europe and tighter restrictions in the US. These will compress economic activity in the immediate months ahead, but a vaccine rollout is underway and raises the prospect of a significant easing in the global health crisis by the middle of 2021, and a more sure-footed economic recovery thereafter. However, we expect there will be long-term economic and societal consequences that will remain even as economies settle into a new normal. We expect new ESG risks will emerge and existing risks will be exacerbated.

The pandemic led to a wave of negative rating actions, yet Fitch’s ESG.RS rarely changed in unison. This indicates that the rating actions were not due to changes in Fitch’s assessment of ESG factors. The pandemic has undoubtedly had an impact on ESG factors such as labour management and short-term carbon emissions, but rating actions were mainly driven by liquidity and debt-servicing considerations.

Governments have widely responded to the challenges posed by the pandemic through stimulus measures, and some have chosen to tackle environment objectives as part of recovery plans. However, contributions are modest compared to the overall fiscal response. Analysis by Bloomberg New Energy Finance of approved national and subnational [green stimulus](#) measures points to USD172 billion equivalent of funds allocated to green initiatives, out of a total direct fiscal stimulus of USD5 trillion amongst major economies. The EU is directing 37% of its EUR750 billion “Next Generation EU” recovery package to green projects. There are sizeable green components in Canada, Korea, and India’s stimulus measures, although these also include significant support for fossil-fuels.

Other governments have prioritised near-term economic recovery over managing environmental impacts. The pandemic has accelerated the pace of low-carbon transition in some economies and slowed it in others, but it has not derailed the broad global momentum towards tighter climate regulation.

Green Stimulus Approved to Date



Societal Tensions and Inequality Drive Policy Responses

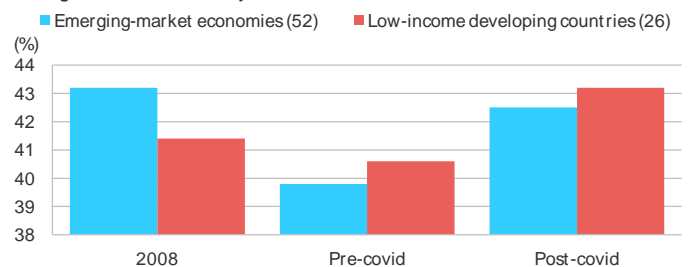
A more enduring impact of the pandemic may be on societal perceptions of economic fairness. Poorer segments of society are

less able to work remotely and respond to the hurdles posed by lockdown. The IMF estimates, based on economic growth projections and different remote working capabilities amongst income quintiles, that the average Gini coefficient (a measure of income dispersion within an economy) for emerging market and developing economies will increase from 40.1 to 42.7 as a result of the pandemic, indicating a bigger gap between income groups. Inequality will also have widened in many advanced economies, but typically from a smaller base.

Less-developed economies will face an additional challenge of starkly higher poverty rates, with the World Bank estimating that the pandemic has pushed an additional 80 million–115 million people into extreme poverty (as defined by living on less than USD1.90 a day) in 2020. While the impact on inequality and poverty may ease over time as economies recover, societal concerns over perceived fairness could linger.

Pandemic Is Driving an Increase in Inequality

Average Gini coefficient by IMF estimate



Source: Fitch Ratings, IMF World Economic Outlook (October 2020)

Societal perceptions of economic fairness can shape government policy agendas, a trend we highlighted in 2020. If left unabated these can breed social unrest. Our [2021 Outlook for Latin American Sovereigns](#) showed how the increase in unemployment rates and the deterioration in social indicators could provide a fertile ground for further political polarisation and social tensions. This could complicate governability and undermine the quality of post-pandemic policy adjustments. Prior to the pandemic, certain countries, such as Chile, had already had intense social protests. Recent political turmoil in Peru also highlights governability challenges.

Government responses to ease social tension can have broader impacts on issuers in the region. Our [2021 Outlook for Latin American Infrastructure](#) noted that the increased focus on the role that better infrastructure provision plays in improving income distribution is viewed as positive for the sector. However, the possible increase in political and social tensions may lead to politically motivated government actions to appease end-users, potentially at the expense of investors and financiers.

The pandemic has placed extra political and societal attention on the affordability of basic needs, such as healthcare, education and shelter, but the credit implications can vary depending on the nature of the policy response. Social pressure to constrain healthcare costs was flagged as an issue negatively affecting credit profiles for more than 75% of US and European issuers in the pharmaceutical sector, with over half of issuers with an ESG Relevance Score of ‘4’ for “Exposure to Social Impact”. Fitch expects the debate around access and affordability to drugs to intensify, and

the pandemic response as a whole will highlight a focus on social topics in the sector. Novartis AG's sustainability-linked bond has interest payments linked to targets around increasing access to specific drugs for developing countries.

Constraints on pricing power has also been evident in the US Higher Education sector. The [2021 Outlook for U.S. Public Finance Colleges and Universities](#) discusses the compression in net tuition and student fee revenue as a result of pressures on affordability – this may be further exacerbated by the pandemic. Weakened employment prospects since the start of the pandemic have also led to widespread forbearance and other relief measures for student loans. The challenges faced by student loan borrowers may add societal pressure for student loan forgiveness or broader reforms of higher education finance, particularly with the incoming Biden administration's policy priorities. However, the political feasibility of more aggressive measures remains unclear, and it is uncertain whether measures are applied to just federal student loans or also to private equivalents.

Policy responses arising from affordability issues also have a positive influence on credit, for example when government support boosts demand. The [2021 Outlook for US Homebuilders](#) points to President-Elect Biden's proposed plan to invest USD 640bn over 10 years to improve the affordability and quality of housing. The plan would include up to a USD15,000 tax credit that would be permanent and advanceable, allowing homebuyers to receive the credit when they make a purchase, rather than waiting to until they file taxes the following year. While the likelihood of this legislation passing is uncertain, if passed it would help potential homeowners assemble funds for a deposit, one of the biggest impediments to homeownership.

Our [2021 Global Banks Regulatory Outlook](#) also outlines our expectations that the release of US government-sponsored enterprises (GSEs) from conservatorship will effectively be halted, and the focus on the enterprises will be on affordable housing goals. US Credit Risk Transfer transactions that are GSE programmes addressing access and affordability have ESG.RS of '4+' on "Human Rights, Community Relations, Access & Affordability" and "Customer Welfare – Fair Messaging, Privacy & Data Security" (SCW) due to strong exhibited performance having a positive impact on the credit profile. RMBS transactions in the Netherlands – where securitised assets have the benefit of a national mortgage guarantee as part of a social programme to support homeownership for vulnerable groups – also have ESG.RS of '4+' for SCW due to a proven record of low delinquency in these portfolios.

Social Divides Expose Companies to Reputational Risks

The pandemic has also highlighted other social divides, such as the disproportionate job losses faced by women or differences in access to healthcare across various social groups. We expect the actions companies take in the face of these divides will be under greater societal scrutiny. There have been a range of government initiatives globally to tackle gender equality before the pandemic, such as the UK's requirements on gender pay gap reporting. The draft of Japan's corporate governance code revisions, due to be released in 2021, encourages companies to set voluntary targets for female and foreign managers, and provide updates on progress. Gender-related disclosures from companies are also increasing.

US institutions have been the most vocal on race-related issues, although there are examples of such discussions globally. The Black Lives Matter movement resurfaced strongly in 2020, particularly in the US. ESG and sustainability reports filed by leading US banks, such as JPMorgan Chase & Co., focus prominently on financial inclusion programmes to build wealth and to boost lending access to racial minority groups and projects, and to provide support for community businesses and individuals.

Fitch's Next Phase report for financial institutions warns of the negative rating impact for banks and finance companies due to increased reputation risk from an increasingly prominent social justice agenda, as well as potential policy responses such as the development and more active enforcement of consumer protection legislation.

We believe that the recovery of [Covid-19 loans](#) extended by banks to SMEs under government-guaranteed loans is an area where negative reputational risks could materialise if banks are seen as heavy-handed. It is becoming increasingly clear that recovery of the loans may be difficult, given high reported levels of alleged fraudulent applications, loans made to unviable companies, and the harsh economic impact on businesses arising from pandemic-related loss of sales, enforced business closures and changes in consumer behaviour.

Sustainable Governance to Steer Strategy

Fitch's ESG Relevance Scores show that governance factors continue to be the most relevant and material ESG factors to credit ratings across almost all rating groups. Governance factors have also been the most dynamic in 2020, similar to our finding in 2019. Score increases were most common for corporates, with 65 ESG.RS increases to '4' or '5' (from '3' or lower) in the governance category over 2020, for 1230 issuers with ESG.RS at the start of the year that are still scored. This compares to 14 increases in the environmental category, and three in the social category. The increases were spread across general governance issues, and were most common in the utilities and natural resources sectors.

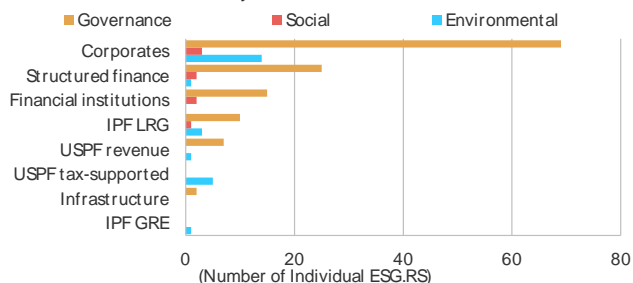
There were 25 ESG.RS increases in the governance category for Structured Finance and Covered Bonds, of which 15 are linked to Spanish RMBS transactions, related to either excessive counterparty risk, payment interruption risk or weak underwriting and servicing standards. We expect governance to continue being prominent factor for Structured Finance and Covered Bond credit ratings given the importance of asset isolation and payment continuity.

The 15 ESG.RS increases in the governance category for financial institutions were mainly for banks, predominantly for "Management Strategy" and "Governance Structure".

In International Public Finances, governance ESG.RS increases were most common for local and regional governments, many of which related to rule of law and creditor rights issues facing Argentinian provinces. ESG.RS increases were more common for revenue-supported entities in US Public Finance, where there were seven increases in the governance category. Governance already influences ratings for all Sovereigns – and for Supranational issuers, for which we released ESG.RS in December 2020.

Governance Still Most Changeable ESG Factor

Increases in ESG.RS to '4' or '5' by factor in 2020



Source: Fitch Ratings

Fitch found in studies of corporate governance in [EMEA](#) and [APAC](#) that governance weakness correlates with corporate ratings in both these regions. The most common risks in both regions were concentrated or private ownership, and decision-making that is reliant on a single individual. However, risks linked to group features, such as significant related-party transactions, were most common in emerging markets.

For banks, Fitch conducted an analysis of three recent [high-profile case studies](#) of developed-market banks involving financial crime, a risk covered by governance categories in the ESG.RS framework. The analysis found that, while most of the time governance is a low-risk, low-influence rating factor for banks in developed markets, it can sometimes be critical. Increasing intolerance of misdemeanours means its importance is likely to increase. The timing and magnitude of a potential governance-related rating actions depend on Fitch's view of trends leading up to an event and an entity's capacity to remediate. Early warning signals will not necessarily result in rating actions, but a pattern (or aggregation) of relevant news flow and data makes a potential rating action more likely.

Role of Corporate Governance on Sustainability to Grow

Growing interest in sustainability issues is driving debate on how such issues should fit into governance frameworks, including the responsibilities of companies to stakeholders other than shareholders, and how short-term financial objectives can be balanced with medium- and long-term goals. The topic will likely grow in prominence as the EC presents its upcoming Renewed Sustainable Finance Strategy, due early in 2021. One of the core priorities of the strategy is how the EU can help further embed sustainability into corporate governance frameworks.

The EC consultation on sustainable governance in October 2020 pointed to the likely areas of intervention. Questions in the consultation are linked to two studies conduct by the EC, one on due diligence requirements on company supply chains, and the other on directors' duties to broader stakeholders. The consultation also asks questions around the incorporation of sustainability into remuneration of directors.

Governance of climate risk has already been an area of focus, as one of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) along with strategy, risk management, and metrics and targets. This includes the processes and frequency by which the board are informed about climate risks, and how boards consider climate risks when making management and strategic decisions. The UK, New Zealand and Hong Kong have all

set out plans to introduce mandatory TCFD disclosures, and we expect more to follow suit.

Governance of Online Content Under Increasing Attention

A sector-specific issue under increasing attention is the governance of online content. The negative social impacts of harmful content and the outsized influence some media platforms have to influence societal behaviour have been highlighted by the role of disinformation in recent elections and health policy efforts during the pandemic. At the same time, media platforms' decisions to restrict or remove content run into questions around freedom of expression. The delicate balancing act in juggling these potentially conflicting issues is sparking debate on the appropriate level of responsibilities media companies should have, and the governance processes needed to do so.

Investors are taking a closer look at this risk, given the potential for regulation to step in to disrupt and constrain existing media business models. SASB, the standard-setter aimed at investors, are evaluating content governance in the Internet, Media & Services sector, exploring challenges around harmful content and user freedom of expression, as well as related privacy and worker safety issues. The organisation expects to consult with subject matter experts in early 2021 to support the development of an exposure draft standard.

The gaming sector serves as an example where regulators have responded due to perceived negative social impact. One fifth of the global gaming sector scored '4' on "Customer Welfare - Fair Messaging, Privacy & Data Security" due to increasing regulatory burden. Our 2021 Outlook for [Global Gaming](#) notes the core factors to affect regulations in the next three to five years are alignment of retail and online and betting and gaming regulations, as well as continuous focus on responsible gaming or betting.

Investors Look to Influence Companies' ESG Strategies

Institutional investors are spending increasing effort on investment stewardship, which involves engagement with companies and use of proxy voting to drive long-term value creation for their investments. This is spurred by their commitments, such as being signatories to stewardship codes and organisations such as the UN Principles of Responsible Investments.

The recent revision to the UK stewardship code, which took effect in January 2020, set out specific ESG reporting expectations. These included additional requirements on processes used to integrate stewardship in investments and how this differs by product and geographies. Similar changes were made to Japan's stewardship code in 2020, which explicitly instructs institutional investors to consider incorporating sustainability into their engagement with companies.

As part of the EU Sustainable Finance Disclosure Regulation (SFDR) for investment funds that becomes effective in March 2021, asset managers will also be required to disclose any engagement policies as part of their consideration of the negative impact or footprint of their investments.

Russell Investment's 2020 Annual ESG Manager Survey found that almost all firms with assets under management greater than USD100 billion included ESG discussion in meetings with senior management. This compared to 74% of firms with assets under

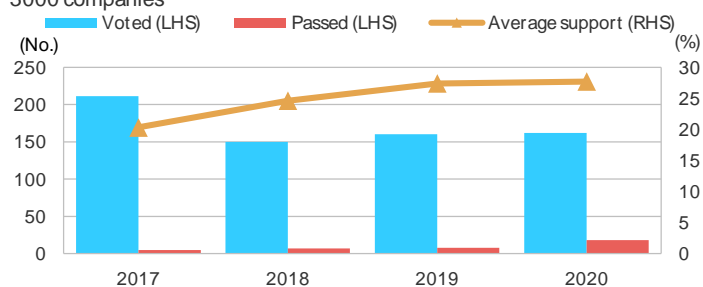
management less than USD10 billion. Engagement by fixed-income managers is becoming increasingly widespread, with 92% indicating they regularly engaged with companies on ESG issues.

The survey also shows that equity managers are increasingly using proxy voting to exercise active ownership – 57% of equity managers said they had voted against management proposals in 2020, up 10% from 2019. The share was particularly high in Europe and Japan. Investors are also increasingly voting on sustainability issues. The Georgeson 2020 annual corporate governance review for Russell 3000 companies shows a gradual increase in average support for environmental and social shareholder proposals from 2017 to 2020. 18 of these proposals passed in 2020, up from eight in 2019.

Environmental proposals typically revolve around the reporting of climate risks or setting of emission targets, while social proposals have revolved around reporting of companies’ efforts in addressing diversity issues. Proposals on reporting of lobbying and political contributions are also common.

More Support for E&S Shareholder Proposals

Number of environmental and social shareholder proposals for Russell 3000 companies



Source: Fitch Ratings, Georgeson

We believe changing expectations of the responsibilities of the board and management on governance of sustainability issues, combined with increasing pressure from institutional investors, will increase the influence of ESG factors on company strategy and management decisions. This influence could further be compounded as companies formalise sustainability targets into board and management incentives, as well as financing through sustainability-linked bonds and loans.

Sustainability is already part of strategic considerations for many companies where a financial impact is already evident or expected. For example, our [2021 Outlook for EMEA Diversified Industrials and Capital Goods](#) points to how issuers have prioritised investment in sustainable production and products in the past couple of years due to changing demand, public policies (such as emission standards for cars and trucks), and investor interest. The sustainability trend represents a material opportunity for the sector and we expect growth in a wide variety of markets, including wind turbines, emissions equipment, and digital technology used to improve energy efficiency.

Appendix: Referenced Reports

2021 Outlooks

Fitch Ratings 2021 Outlook: Asia-Pacific Power and Renewables Projects (November 2020)

Fitch Ratings 2021 Outlook: Asia-Pacific Transportation Infrastructure (November 2020)

Fitch Ratings 2021 Outlook: EMEA Diversified Industrials & Capital Goods (December 2020)

Fitch Ratings 2021 Outlook: EMEA Renewable Energy (December 2020)

Fitch Ratings 2021 Outlook: Global Banking Regulation (December 2020)

Fitch Ratings 2021 Outlook: Global Oil and Gas (December 2020)

Fitch Ratings 2021 Outlook: Global Gaming (November 2020)

Fitch Ratings 2021 Outlook: Global Mining (November 2020)

Fitch Ratings 2021 Outlook: Latin American Protein (November 2020)

Fitch Ratings 2021 Outlook: Latin American Utilities (November 2020)

Fitch Ratings 2021 Outlook: Latin American Infrastructure (December 2020)

Fitch Ratings 2021 Outlook: Latin American Sovereigns (December 2020)

Fitch Ratings 2021 Outlook: North American Utilities, Power & Gas (December 2020)

Fitch Ratings 2021 Outlook: North American Energy Infrastructure (December 2020)

Fitch Ratings 2021 Outlook: U.S. Public Finance Colleges and Universities (December 2020)

Fitch Ratings 2021 Outlook: U.S. Homebuilders (December 2020)

Special Reports

Oil & Gas and Chemicals—Long-Term ESG Vulnerability Scores (January 2021)

Global Economic Outlook (December 2020)

Nascent Social Bond Fund Sector Faces Implementation Challenges (December 2020)

What Investors Want to Know: Supranational ESG Relevance Scores (December 2020)

U.S. 2020 Election and Climate Policy (November 2020)

The Next Phase: Megatrends and Financial Institutions Ratings (November 2020)

Green Finance Expands to Support China's Transition to Low Carbon Emissions (November 2020)

Sustainability-Linked Debt Ties Borrowers to ESG Goals (November 2020)

The Next Phase: Corporate Credit Risks Shift as Pandemic Amplifies Secular Trends (November 2020)

Banks Need ESG Standardisation (November 2020)

Data and Disclosure are Key for Green Mortgage Analysis (November 2020)

Concentrated Ownership, Decision-Making Are Common Governance Risks for EMEA Corporates (October 2020)

Utilities - Long-Term ESG Vulnerability Scores (October 2020)

Governance Risk for Banks - Drawing on Experience and External Expertise to Assess Financial Crime Risk (October 2020)

Financial Sector Confronts Deforestation as a Key ESG Risk (September 2020)

Tightening Climate Policy to Drive Carbon Offsetting and Emissions Trading (September 2020)

Novartis Bond Highlights 'Social' as Key to Pharmaceuticals' ESG (September 2020)

Bank Climate-Change Stress Tests (September 2020)

Global Green Bond Fund Dashboard: 1H20 (September 2020)

Sustainability of Coronavirus Rescue Financing (August 2020)

ECB's Green Bonds Buying to Boost Eligible Issuers' Liquidity (July 2020)

Where ESG Matters for Global SF and CVB Ratings – A Case Study (February 2020)

ESG Has Growing Influence on Bank Lending to Corporates (January 2020)

ESG Credit Trends 2020 (December 2019)

Concentrated Ownership and Related-Party Dealings Are Common Indicators of Governance Risks in APAC (December 2019)

Tools and Webinars

ESG Outlook Conference (December 2020; Available On-Demand)

Supranational Interactive ESG Dashboard (December 2020)

Sovereigns ESG Relevance Dashboard - 3Q20 (November 2020)

Public Finance Interactive ESG Dashboard 3Q20 (October 2020)

Corporates ESG Relevance Dashboard - 3Q20 (October 2020)

Corporates ESG Relevance Heatmap - 3Q20 (October 2020)

Financial Institutions ESG Relevance Dashboard - 3Q20 (October 2020)

Financial Institutions ESG Relevance Heatmap - 3Q20 (October 2020)

Structured Finance and Covered Bonds ESG Relevance Heatmap - 3Q20 (October 2020)

Structured Finance Interactive ESG Dashboard 3Q20 (October 2020)

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