



360°

A changing climate
in fixed income

Sustainability
SPECIAL EDITION

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Q1 2021

**Federated
Hermes**
International



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Commentary

Last year, the devastating and unrelenting coronavirus crisis turned the spotlight on sustainability. During that time, sustainable finance shifted from a niche corner of the market to a position of prominence – and permanence because we believe there is no going back.

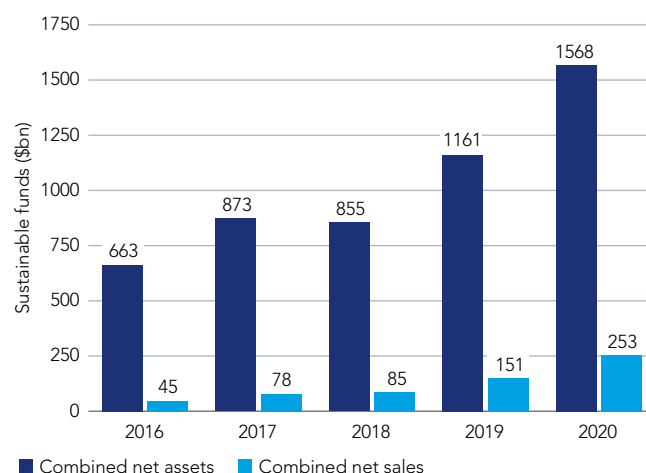
A global, public health crisis; social inequality and unrest; record economic retraction and violent swings in financial markets. To say that 2020 was a very challenging year might be the mother of all understatements. The primary driver for the turbulence in fixed-income markets was, to state the obvious, the Covid-19 pandemic and its associated effects on society and the economy. As credit investors, typically we would have some miserable, lugubrious take on such market events. Although there certainly will be a reversion to that base-case disposition sometime in the future, we actually see a silver lining in all of this.

If nothing else, the Covid-19 pandemic exposed the importance of addressing environmental and social challenges. Within investments, “sustainability” came under the spotlight, drawing attention from all corners of the capital markets. Indeed, 2020 was a record fundraising year for sustainable investment funds, with global net assets reaching close to \$1.6tn (see figure 1). It was also a record year for green and sustainability-themed bonds and loans with issuance of \$700bn for an 80% jump year on year, with substantial growth coming out of the US. For these reasons, we decided to take a thematic approach to this edition of 360°, viewing each section through the lens of sustainable investing.

In 2020, with secular winds behind it, sustainable finance shifted from a niche corner of the market to a position of prominence and permanence. As we have discussed in previous editions of 360° and other research papers,

sustainable finance has gained momentum, scale and, for various reasons, there is no turning back. While the forces behind the growth of sustainable finance have been strengthening for years, the effects of Covid-19 on the market, governments, regulators, investors and companies have all proved to be the catalyst for its indelibility. In addition, we argue that in some ways, 2020 was a dress rehearsal for what the effects of climate change could wreak on society, the economy and financial markets.

Figure 1. The rise of sustainable investing (\$bn)



Source: Broadridge GMI, as at November 2020, includes equity, bond, mixed assets and money market funds globally.

**The value of investments and income from them may go down as well as up,
and you may not get back the original amount invested.**



Defining Sustainable Investing

When we think of sustainable investing, we consider the ways in which companies – and countries – think about the future. Our guiding definition of sustainable investing is:

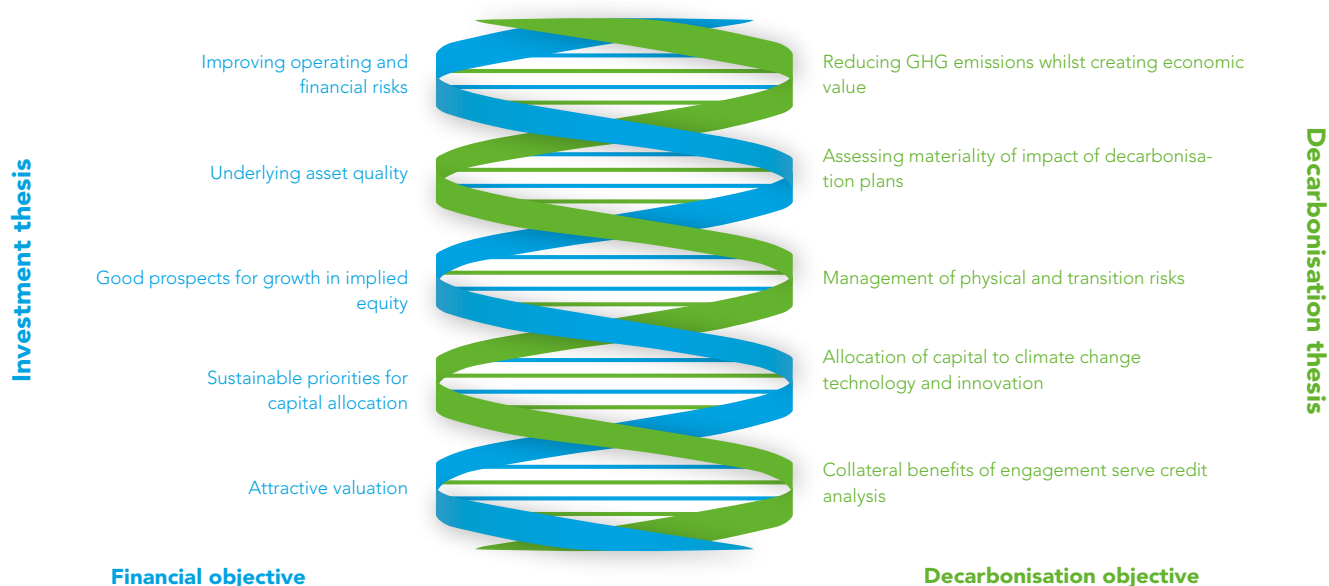
“Predicated on the principle of preserving the right of future generations to enjoy the economic, social and environmental benefits of today, sustainable investing is becoming a financial stakeholder in companies or assets that seek to substantially mitigate or reverse stress on society and the environment whilst also creating economic value and financial performance.”

Embedded in this definition is the notion of two simultaneous activities: delivering value and mitigating harm. As such, sustainable-themed investment strategies must be governed by both a financial objective and a sustainable objective. And, for those sustainable or impact investment offerings (for

example, our SDG Engagement High Yield Credit Fund), that sustainable investment objective must have a path to influence investment decisions through screening (both in and out), security selection and position size. To that end, we have created a suite of scores to assess a company’s willingness and ability to effect positive change on society and the environment while also creating value. As discussed later in this report (see page 6), these are our Climate Change Impact, Sustainable Development Goal (SDG) and Sustainable Leaders scores.

Importantly, we do not see these two investment drivers – financial and sustainable – as mutually exclusive; this is no zero-sum game. We believe that these two, co-linear forces are self-reinforcing: sustainable companies or assets strengthen financial and operating profiles, which in turn support investment performance. Take, for example, figure 2 that speaks to the interdependence of decarbonisation and investment theses for a given investment.

Figure 2. Interwoven and self-reinforcing decarbonisation and investment theses for our climate-focused solutions



Source: Federated Hermes, as at January 2021.

Finally, we also believe that there are financial performance opportunities to be harvested by investing in the future sustainability leaders. Given the secular trends noted already, there is elevated demand for climate-change leaders, such as companies like Ørsted, Enel and Cisco. It is not just sustainable-themed portfolio managers that are buying the leaders, money managers of “mainstream” funds are on the hunt for leaders to reinforce the sustainability credentials of their portfolios in response to their clients who now seek to better understand how “green” their investments really are. In other words, the investment community is pining for leaders. Not unlike investing in “cheap” securities, investing in credible transition stories makes financial sense as they become the “screened-in” leaders of the future.

As documented throughout this report, in fixed income, these principles of sustainable investing are universal and can be applied broadly across the asset class. And while there will be common activities across fixed income, such as engagement, because various idiosyncrasies characterise each sub-asset class, the way these principles manifest themselves in investment strategies and processes can differ by sub-asset class. In other words, we must respect the uniqueness of each sub-asset class when integrating sustainability.

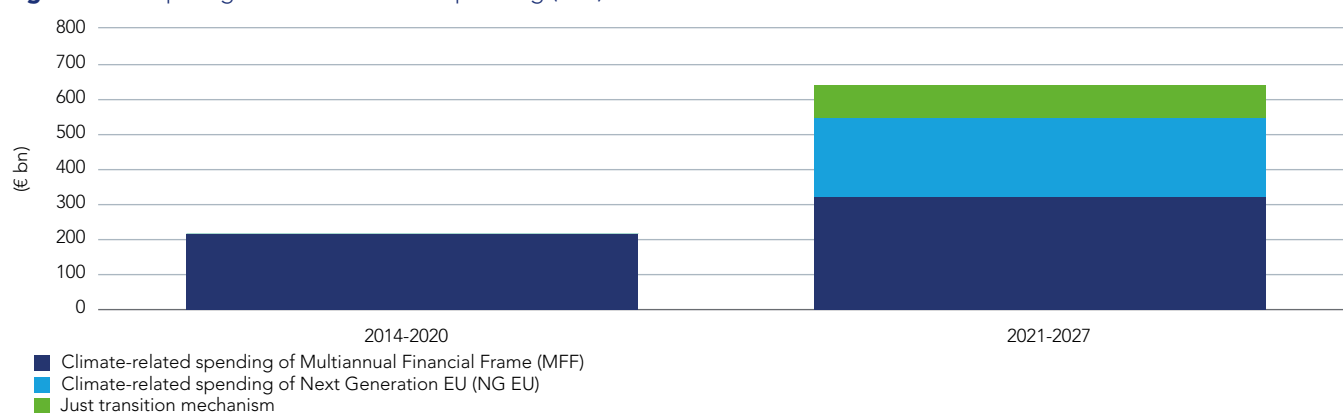


The future is bright (green)

As we happily turn our backs on 2020 and look ahead to 2021, we see only rapid growth and wider development in the trajectory of sustainable fixed income. As much as 30% of the new seven-year €1.1tn European Union (EU) budget and €750bn recovery plan will be spent on fighting climate change. That is by far the highest share of dedicated spending for “green” purposes an EU budget has ever made. Financing that with some €225bn of green bonds will have a profound effect on the €650bn green-bond market and green-debt finance in general. And that’s before we examine the so-called “blue” wave in the United States, where Democrats now have a slim majority government. Indeed, President Biden – who moved to reinstate the US to the Paris climate agreement just hours after

being sworn in as president – has made financing a green recovery from the pandemic a central plank in his platform. He plans for nearly \$7tn in his climate and environmental justice proposal.¹ Then there is China, the world’s largest emitter of greenhouse gases at over 10 gigatonnes (GT) of CO₂ (compared to the US, which holds the number two spot at 5.4GT).² China now promises to hit peak emissions in 2030 and reach net zero by 2060. That is a pretty big “paper promise”, which will need some concrete progress before its credulity can be assured; the same can be said for Biden in the US, we would add. And, of course, there is COP26, the UN Climate Change Conference, set to take place in the UK in November. There can be absolutely no doubt that all of these initiatives together will have a major impact on every aspect of fixed-income markets.

Figure 3. Comparing EU climate-related spending (€bn)



Source: European Union, as at December 2020.

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¹ See <https://joebiden.com/climate-plan/> for more information.

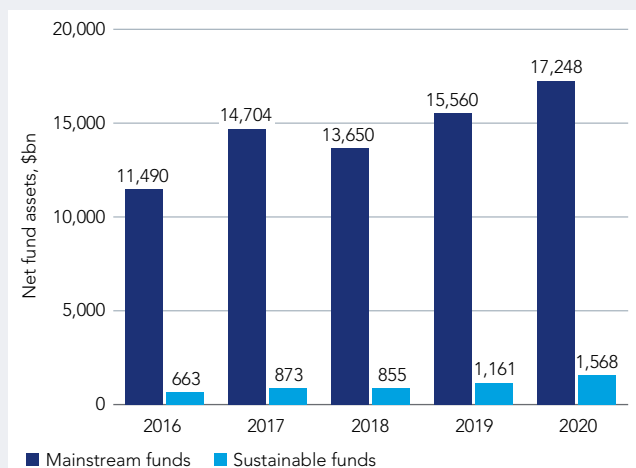
² Source: <https://www.ucsusa.org/resources/each-countrys-share-co2-emissions>.



Spotlight on sustainability trends

As we discussed in our opening commentary, against the backdrop of the coronavirus pandemic, 2020 was a record fundraising year for sustainable investment funds, with global net assets reaching close to \$1.6tn. Of course, sustainable investment funds were already experiencing significant growth before the onset of the pandemic: between 2016 and 2019, sustainable assets almost doubled. This growth was driven by allocations from European asset owners, as a wave of regulation that comes into force this year created a catalyst for institutional investors to invest sustainably. Meanwhile, in the wholesale market, private banks and wealth managers have also started to create sustainable investment propositions. Nevertheless, sustainable fund assets are still largely underrepresented in clients' portfolios as demonstrated in figure 4.

Figure 4. Sustainable assets are still underrepresented in portfolios

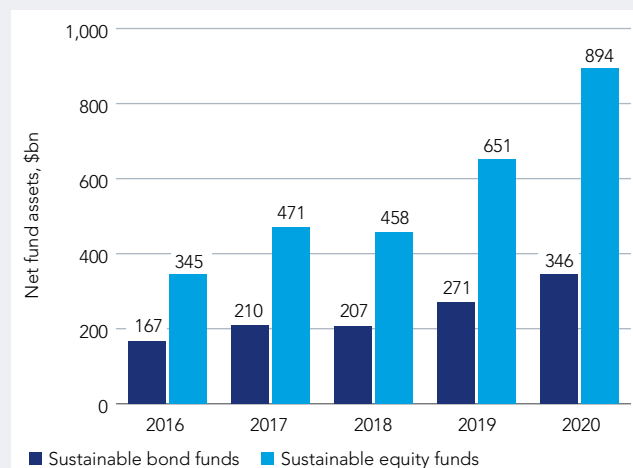


Source: Broadridge GMI, as at November 2020, includes equity, bond, mixed assets and money market funds globally.

Mind the gap

At present, equities represent the largest portion of sustainable fund assets, by a significant margin (see figure 5). This likely reflects the focus of environmental, social and governance (ESG) data providers and screening services on the coverage of equity stocks historically. Meanwhile, for bond markets, there is an absence of ESG ratings related to sovereign debt securities as well as ongoing issues with the ESG assessment of derivatives in fixed-income portfolios. Herein lies challenges and opportunities for asset managers to develop internal frameworks to tackle these issues. At the international business of Federated Hermes, as part of our fixed-income approach, we integrate ESG through proprietary analytical tools and engage with issuers on sustainability and strategic concerns.

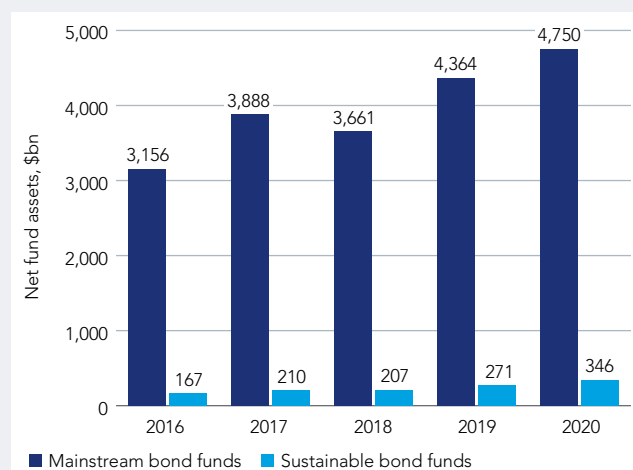
Figure 5. Sustainable investing: equities v fixed income



Source: Broadridge GMI, as at November 2020, includes equity and bond funds globally.

Within fixed income, we believe investment solutions need to be further developed so as to align with clients' sustainable investment objectives and targets. Historically, much emphasis has been placed on "leaders" or "best-in-class" approaches as well as "negative screening" or "exclusion-based" approaches – and we expect this trend to continue as these approaches are an efficient way of making progress towards sustainable investment targets. We also expect to see an increased focus on the development of engagement-led, thematic strategies, which generate non-financial outcomes over the long term (for example, strategies that contribute to decarbonisation and the low-carbon transition).

Figure 6. Fixed-income sustainable investing is starting to catch up



Source: Broadridge GMI, as at November 2020, includes bond funds globally.



A changing climate: a fixed-income perspective

The asset management industry is waking up to the urgent need for a coordinated effort to fight the climate crisis. We firmly believe that it is possible to invest and create value while also working to prevent the unfolding crisis.

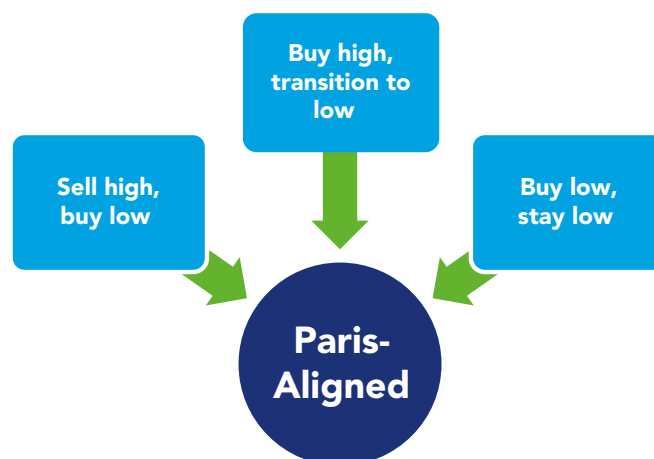
The industrialisation of the global economy over the last 200 years has pumped seemingly endless amounts of greenhouse gases into the atmosphere. Because these gases do not break down quickly or easily, they simply accumulate in the atmosphere decade after decade. This has been the principal driver of a steady rise in the earth's temperature.

Unbridled, this rise in temperatures will have disastrous effects on the global economy, and in turn, society. However, solving the climate crisis requires collective action. Unless we all — individuals, governments and enterprise — take a step to the centre, we could very well fail. Current warming projections suggest society is missing the mark and solving the crisis urgently requires a public-private partnership.

This year, COP26 will take place in Glasgow. Since the Paris Agreement at COP21, many countries now have legally binding carbon targets. 2020 marked strong progress with the world's two largest emitters: China, ranked first, has now committed to be carbon neutral by 2060, while Biden returned the US to Paris climate accord hours after becoming president, having promised to put the country on a track to net-zero emissions by 2050. Assuming this happens, according to Climate Action Tracker, 63% of global emissions will be covered by these targets, making the goals of the Paris Agreement seem more achievable with global warming of 2°C now likely by the end of the century compared to the 3.5°C temperature pathway predicted in 2009. Whether as a reaction to expected policy change, or because of mounting pressure from the public or financial stakeholders, many companies are also following suit by setting their own science-based targets (SBTs) to reduce carbon emissions.

The asset management industry is now waking up to the need for a coordinated effort to fight the climate crisis. It is possible to invest and create value while also working to prevent the unfolding emergency. However, as we have discussed with our clients and prospects, we know and respect that there are a number of different approaches to do this from a credit-investing perspective, such as: investing in innovation; backing the leaders; engaging for transition; buying sustainability-themed securities; and a combination of all of these.

Figure 7. Three roads to Paris: different investment approaches to lower the carbon footprint of portfolio companies to achieve Paris Alignment



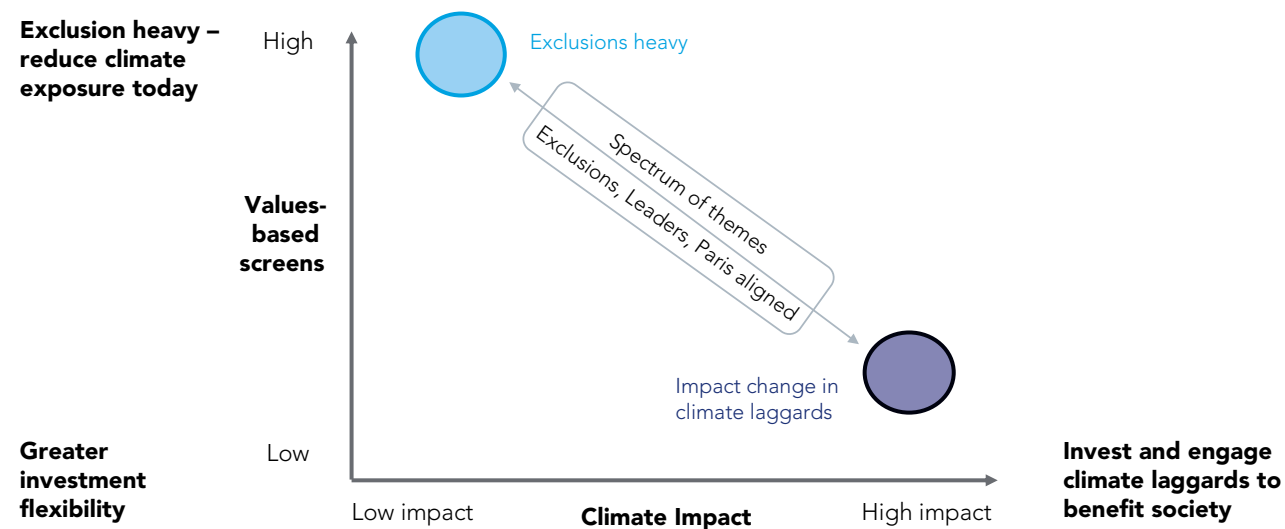
Source: Federated Hermes, as at December 2020.

Defining your climate change goals

Whatever the climate-change investment objective is, it must also be tied to a financial objective. Together, these two co-linear and self-reinforcing investment objectives can be met through creative, solutions-based innovation. As such, most will define both their climate goals and financial objective – and we seek to build solutions that deliver for both objectives.

Credit solutions can be built around a spectrum of decarbonisation objectives: minimising emissions today; supporting climate leaders or innovators; influencing the energy transition; meeting Paris-aligned or net-zero targets, and so on. However, not all of these decarbonisation objectives can be delivered in parallel. There is a trade-off between reducing the level of greenhouse gas emissions in the portfolio today (for example, a leaders-only approach) and being able to directly influence portfolio companies to take climate change action (for example, engaging for transition approach) (see figure 8). The former typically relies on excluding the worst offenders in order to contribute to reducing portfolio emissions and to take a step closer to any temperature or emissions targets set in the short to medium term. While the latter relies on using your rights as a financial stakeholder to engage with those companies to change. This would result in higher emissions in the short term but potentially have a greater climate change impact in the longer term should the companies successfully transition. This 'invest and influence' approach may make a bigger contribution to achieving the Paris goals in the longer term but in the short term, it may result in less attractive temperature alignment paths than approaches focused on excluding 'brown' companies in favour of climate change leaders.

Figure 8. Trade-off between avoiding and influencing



Source: Federated Hermes, as at December 2020.

Tackling climate goals within credit portfolios

Once the decarbonisation objectives are set, there are a number of different investment approaches to consider when implementing these themes. In figure 9, we summarise the different strategy tools that we can apply to deliver a range of climate-change goals within our credit portfolios.

Figure 9. Helping to deliver climate-change goals through our strategy tools

Decarbonisation objectives	Reduce carbon footprint / stop funding "brown" companies	Impact the transition to a low carbon economy	Support climate change leaders or innovation	Contribute to Paris-aligned or net zero targets
Strategy tools				
Fossil fuels sector exclusions	✓	✗	✗	✓
Exclude material emitters – data based materiality thresholds	✓	✗	✗	✓
Positively screen for Climate Change leaders that provide climate change innovation	✓	✓	✓	✓
Screen for companies that are transition leaders – companies already aligned or have set science based targets for Paris alignment	✗	✓	✓	✓
Invest in climate-focused projects through green / transition / sustainable bonds etc	✓	✓	✓	✓
Impact investing to engage with companies to set Paris-aligned targets and implement the transition	✗	✓	✗	✓

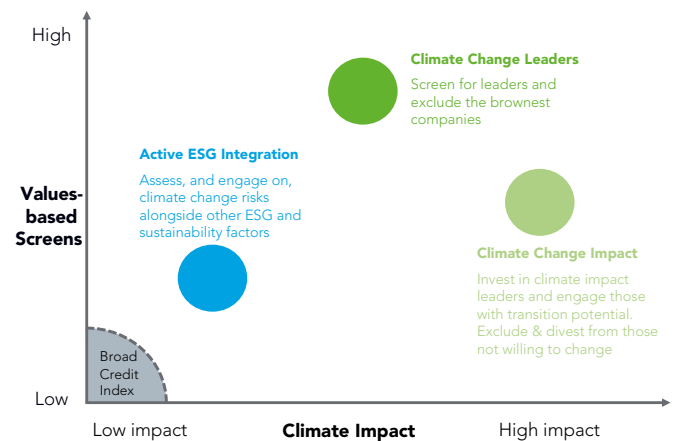
■ Direct and strong alignment
 ■ Benefits objective
 ■ Small positive influence
 ■ No link to objective

Source: Federated Hermes, as at December 2020.



A range of solutions can be designed that offer the potential to deliver on multiple objectives by combining these strategy tools. As aforementioned, the one exception is that it is not possible to both exclude material emitters and engage with them to transition. That's because it is very difficult to have any influence without a financial stakeholding – and so, this is the one area where you may need to compromise depending on your goals. There is a vast spectrum of solutions that can be created that sit on the values-impact axes introduced earlier. To illustrate the relative trade-offs associated with choosing different approaches, we present examples of three different, hypothetical solution profiles each of which we have scored based on its carbon exposure, climate impact and financial risk in figures 10 and 11.

Figure 10. Trade-off: value v impact



Source: Federated Hermes, as at December 2020.

Figure 11. Examples of bespoke climate-focused solutions

	Active ESG Integration		Climate Change Leaders		Climate Change Impact	
Description	Assess climate change risks within ESG integration including engaging companies to improve against climate change metrics		Fund climate change leaders and innovators, exclude brownest companies and engage companies to be Paris aligned		Impact positive climate change and support low carbon transition by investing and engaging with companies in transition	
Strategy features	<ul style="list-style-type: none"> Managed to a financial objective incorporating ESG integration Climate change assessed alongside broader ESG and sustainable factors – all assessed and scored in credit selection No specific climate change screens or direct influence on sizing Invest in green/transition/sustainable securities used to fund climate change initiatives Engage portfolio companies to disclose emissions data and set targets to be Paris-aligned 		<ul style="list-style-type: none"> Both financial and sustainable objectives linked to climate change Exclude fossil fuels and most carbon intensive companies Positive screen for sustainability and climate change leaders and innovators. Leaders scores impact sizing and divestment Invest in green/transition/sustainable securities used to fund climate change initiatives Engage portfolio companies to disclose emissions and set Paris-aligned targets 		<ul style="list-style-type: none"> Financial and sustainable objective linked to climate change impact Invest in climate change leaders and climate change innovation Invest and engage climate change laggards who show a willingness to transition Climate Change Impact (CCI) scores impact sizing and divestment Encourage companies to set Paris-aligned science-based targets and monitor progress Invest in Green/transition/sustainable securities used to fund climate change initiatives 	
Carbon exposure	✓	Includes “brown” sectors with the exception of the most controversial companies	✓✓✓	Exclude worst carbon offenders while also seeking companies with net zero or better emissions	✓	Invest in material emitters who aim to transition and reduce their carbon footprint over time
Climate impact	✓✓	Ability to engage with the most material emitters to improve carbon footprint and aim for Paris alignment	✓	Supports climate change innovation but unable to impact change in most material emitters because excluded	✓✓✓	Will invest and engage the largest emitters to set and deliver on Paris aligned emissions targets
Financial risk	✓✓✓	Broad representation across all sectors	✓	Tracking error and lower diversification by excluding significant part of credit universe	✓✓	More diversified but heavily sensitive to performance of green/transitioning companies

Incorporating climate change into the investment process

At the international business of Federated Hermes, we apply best-in-class ESG integration across all of our strategies. As such, climate change forms a core part of the investment process. Climate change goals represent a significant portion of the engagement agenda managed by either our global stewardship business, EOS at Federated Hermes, or our dedicated Fixed Income engagement team. It has always

been part of our bottom-up analysis alongside credit fundamentals and other broader ESG risks. For all strategies, during bottom-up credit selection, we evaluate the metrics outlined in figure 12 at our credit committee to determine an overall score, which helps us meet our goal of delivering sustainable wealth creation.



Figure 12. ESG integrated credit selection



Source: Federated Hermes, as at December 2020. Note: the QESG Score is a quantitative assessment of a company's ESG metrics compared to its peers and how its ESG profile is changing.

The processes and tools that we have established within the Fixed Income team have set a solid foundation for developing specific climate change-themed solutions tailored to the needs of our clients.

For climate change solutions, the key elements in our investment process include: access to company climate change data; stewardship expertise to engage companies; processes to assess and screen companies on climate change criteria and build portfolios; and portfolio-level climate change analytics and reporting tools. As climate data disclosure and availability have both improved within credit, we have evolved our investment process to specifically assess and better incorporate the impacts of climate change, which has created a platform for delivery of climate change-themed solutions.

We have a **climate change database** that aggregates external climate change data metrics from several external providers for all issuers in our core investable universe. This allows us to better assess the climate-change risk and progress each company is making against Paris-aligned temperature pathways. This provides a current assessment of the company's carbon footprint and climate contribution. The data is used by the research analysts to assess climate-

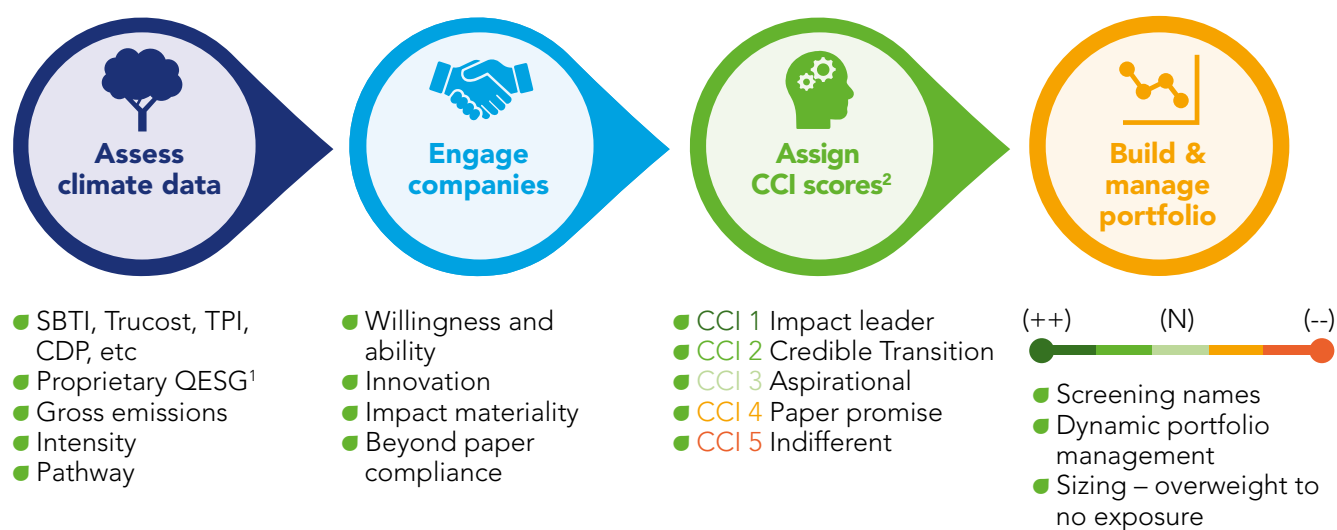
change risks in credit selection for all strategies and provides data points for screening and scoring of issuers for climate-themed strategies that have specific decarbonisation objectives.

In addition to the historical data provided from the climate change database, we have also developed proprietary **Climate Change Impact (CCI) scores**, which provide a forward-looking assessment of a company's climate change impact. They assess its willingness to decarbonise and set targets, log progress made against those targets and rate the company's potential to contribute to the reduction in global emissions from its current footprint. These scores are managed by the dedicated Fixed Income engagement team, which evaluates metrics from the climate change database, insights and progress on climate change from our engagement relationships, as well as supplementary company information from the research analysts.

For climate-themed solutions, these scores can provide a framework for screening and sizing positions to ensure the strategies deliver on both their financial and climate change-related sustainable objectives. In figure 13, we illustrate this process for a climate change impact strategy.



Figure 13. The pathway to decarbonisation: our proprietary Climate Change Impact score



Source: Federated Hermes, as at December 2020.

In addition, we have a **proprietary carbon tool** that enables us to monitor and measure the carbon footprint, both by absolute emissions and carbon intensity, as well as climate-related engagement statistics at the overall portfolio level. This aggregated view is a simple way to monitor and report on the climate change metrics of the portfolio. Another useful lens to assess climate change is through risk systems, where it is possible to evaluate both climate-related shocks and scenario analysis. Such tools provide an important feedback loop for credit selection and portfolio construction.

Measuring progress

The final important element is **monitoring and reporting progress** against the climate-change goals or any specific decarbonisation objectives that have been set. The industry has reached a stage where the data providers have reasonable coverage of scope 1 and 2 emissions⁵ and carbon intensity, but scope 3 disclosures can be less reliable. For credit portfolios, there are some additional challenges. Firstly, data coverage can be lower than for equities especially with non-publicly listed high-yield issuers where emissions data disclosures can be limited. Also, in many cases where disclosures do exist, it is necessary to go through a complex exercise to map data from the credit-issuing entity to the relevant equity entity to source the data. This is one reason why we find real-time insights from both our engagers and credit analysts so valuable in complementing the climate data when evaluating the CCI scores.

³The QESG Score is a quantitative assessment of a company's ESG metrics compared to its peers and how its ESG profile is changing.

⁴CCI denotes our proprietary Climate Change Impact Score.

⁵Greenhouse gas emissions are categorised into three groups by the Greenhouse Gas Protocol, a widely used international accounting tool. Scope 1 emissions: all direct GHG emissions by a company. It includes fuel combustion, company vehicles and fugitive emissions. Scope 2 emissions: indirect emissions from the generation of purchased electricity, heat and steam. Scope 3 emissions: all other indirect emissions that occur in a company's value chain (for example, purchased goods and services, business travel, employee commuting, waste disposal etc).



Figure 14 outlines a myriad of metrics that can be used to monitor the progress of climate change portfolios. We have mapped these to the relevant decarbonisation objectives.

Figure 14. Monitoring the progress of climate-focused portfolios

Decarbonisation objectives	Reduce carbon footprint / stop funding "brown" companies	Impact the transition to a low-carbon economy	Support climate change leaders or innovation	Contribute to Paris-aligned or net zero targets
Reporting metrics				
Reductions in carbon emissions or intensity relative to the market	✓			✓
Reductions in absolute emissions or carbon intensity over time relative to defined temperature pathways	✓	✓		✓
Report exposure to brownest companies or sectors	✓			✓
Increasing % of portfolio invested in leaders or climate change innovators over time	✓	✓	✓	✓
Demonstrate companies making climate change impact by a shift from lower to higher CCI scores over time	✓	✓	✓	✓
Improving % of companies that have 1) set science-based targets (SBTs) for emissions reductions and 2) target increasing % of the portfolio over time that have set targets consistent with 2°C and below temperature pathways	✓	✓	✓	✓
Target increasing % of portfolio that has either set Paris-aligned SBTs or are being actively engaged to do so		✓	✓	✓
Target increasing % of the portfolio that are being engaged on climate change issues		✓		✓

Source: Federated Hermes, as at December 2020.

These are just some of the considerations that you need to take into account when either allocating to or building climate change portfolios. If you would like to discuss our tailored climate-focused solutions, please do not hesitate to contact us.



Relative value between asset classes

As liquid credit markets return to more normalised levels, we see a return of the illiquidity premium.

After reaching close to the wides in the depth of the crisis at the end of March, spreads on credit-default swap (CDS) indices normalised by year end, well below their five-year average levels, although still wider than the historic lows at the start of the year (see figures 15 and 16). The key drivers behind the recovery were central-bank support, the search for yield (in a world where negative yielding assets now exceed

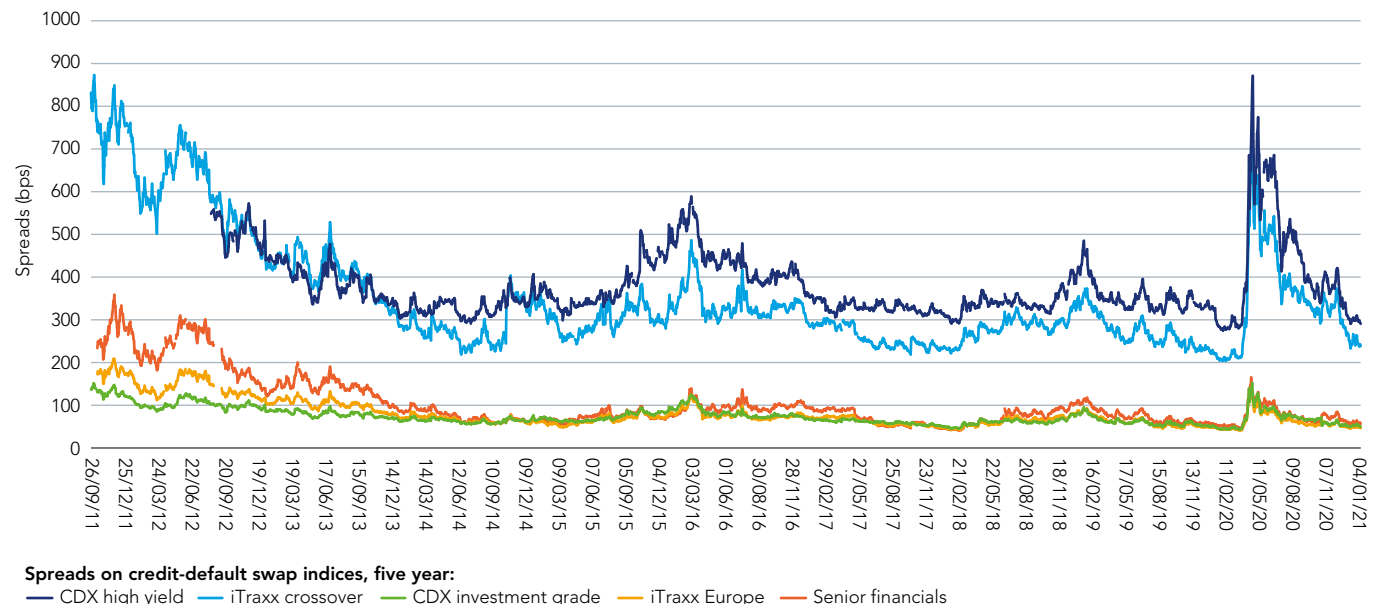
\$18tn) and the hope that vaccines will bring an end to economic restrictions. By the end of Q4, however, fundamentals were in a much worse position than at the start of the year: valuations looked stretched and the potential size of any correction looked larger than the upside potential from here.

Figure 15: 2020 spread moves in CDS indices, five-year

	CDX high yield	iTraxx Crossover	CDX investment grade	iTraxx Europe	iTraxx senior financials
Year-end 2019 spread	295	220	47	45	54
Covid-wide spread (3rd April)	774	638	128	114	131
Year-end 2020 spread	293	242	50	48	59
2020 spread move, %	-1%	10%	6%	7%	10%
Year-end 2020 spread v Covid-wide, %	-62%	-62%	-61%	-58%	-55%
Five-year average spread	378	300	66	65	77
Year-end 2020 spread v five-year average, %	-22%	-19%	-25%	-26%	-23%

Source: Federated Hermes, Bloomberg, as of 31 December 2020.

Figure 16: Historic spread move in CDS indices



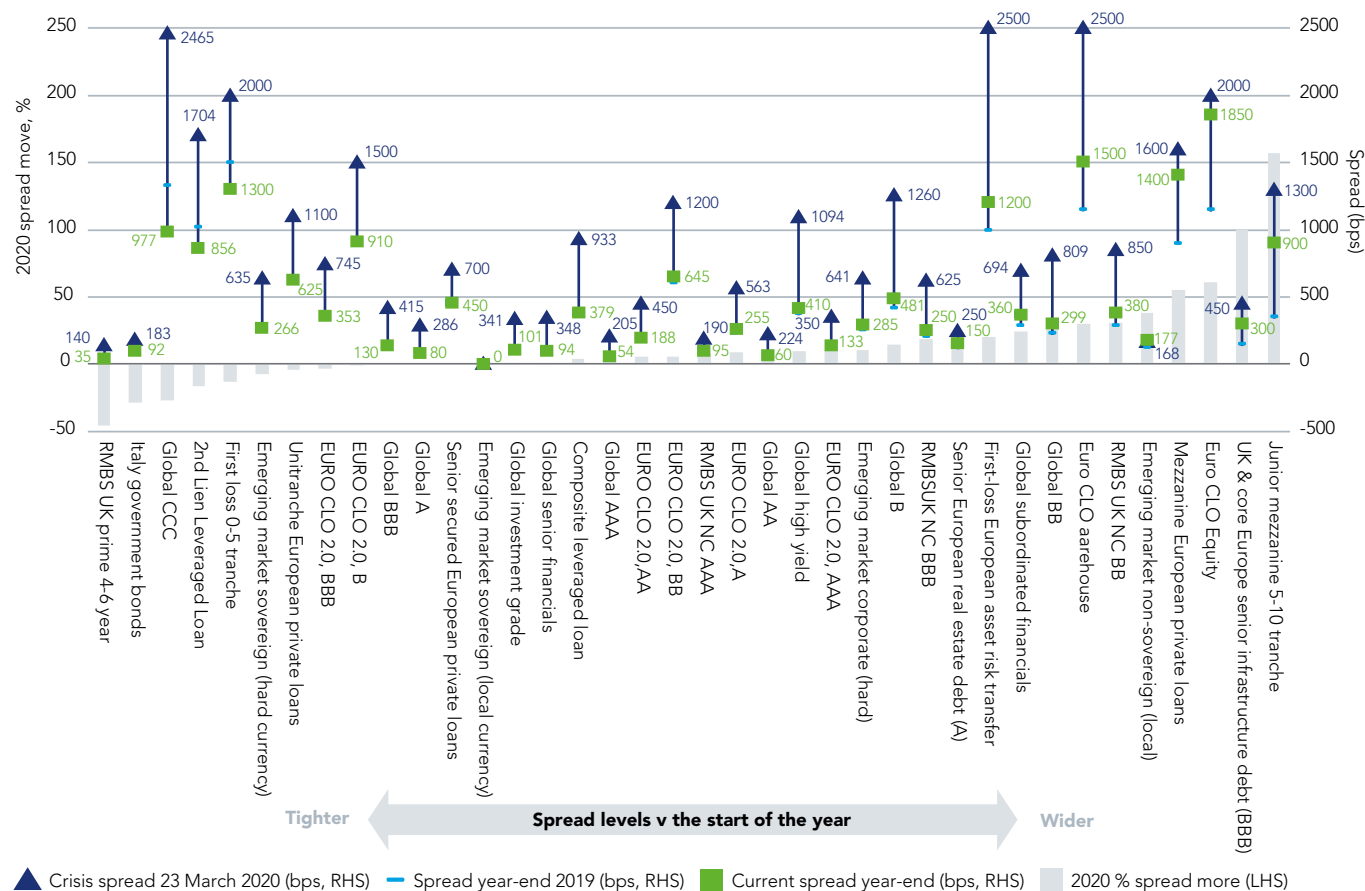
Source: Federated Hermes and Bloomberg, as of 31 December 2020.

Expanding exposures to incorporate broader public and private markets, we observe that the majority of indices are now wider than at the beginning of the year. Figure 17 shows the current spread levels for a range of asset classes, relative to the starting year levels and crisis wides in March, which are

all ranked by their 2020 percentage spread move. This demonstrates a wide dispersion in spread moves over the year with some exposures over 100% wider on the right-hand side, while others on the left-hand side are at tighter levels.



Figure 17: Change in credit spreads



Source: Federated Hermes, Bloomberg and Citi, as of 31 December 2020.

Looking at those that ended the year narrower, the UK prime residential-mortgage-back securities (RMBS) and Italian government bonds have benefitted from technical support, with central-bank purchases and the search for yield. While CCC-rated corporates and first loss tranches may appear lower, the current spread levels reflect pricing revisions, which no longer capture the previously stressed or defaulted names that have dropped out and resulted in losses.

Exposures that remain at the wider levels are those less liquid, lower in the capital structure and more sensitive to the economy, where the pricing reflects both an illiquidity premium and compensates for potential defaults and losses such as mezzanine exposures, regulatory capital-first loss exposures, collateralised-loan obligations (CLOs) equity and warehouses. This contrasts with senior illiquid exposures which are back to start-of-year levels as illustrated by senior and unitranche direct lending. The exception is senior real estate debt which is wider over the year with pricing reflecting the uncertainty caused by the pandemic on rental income and future commercial property demand.

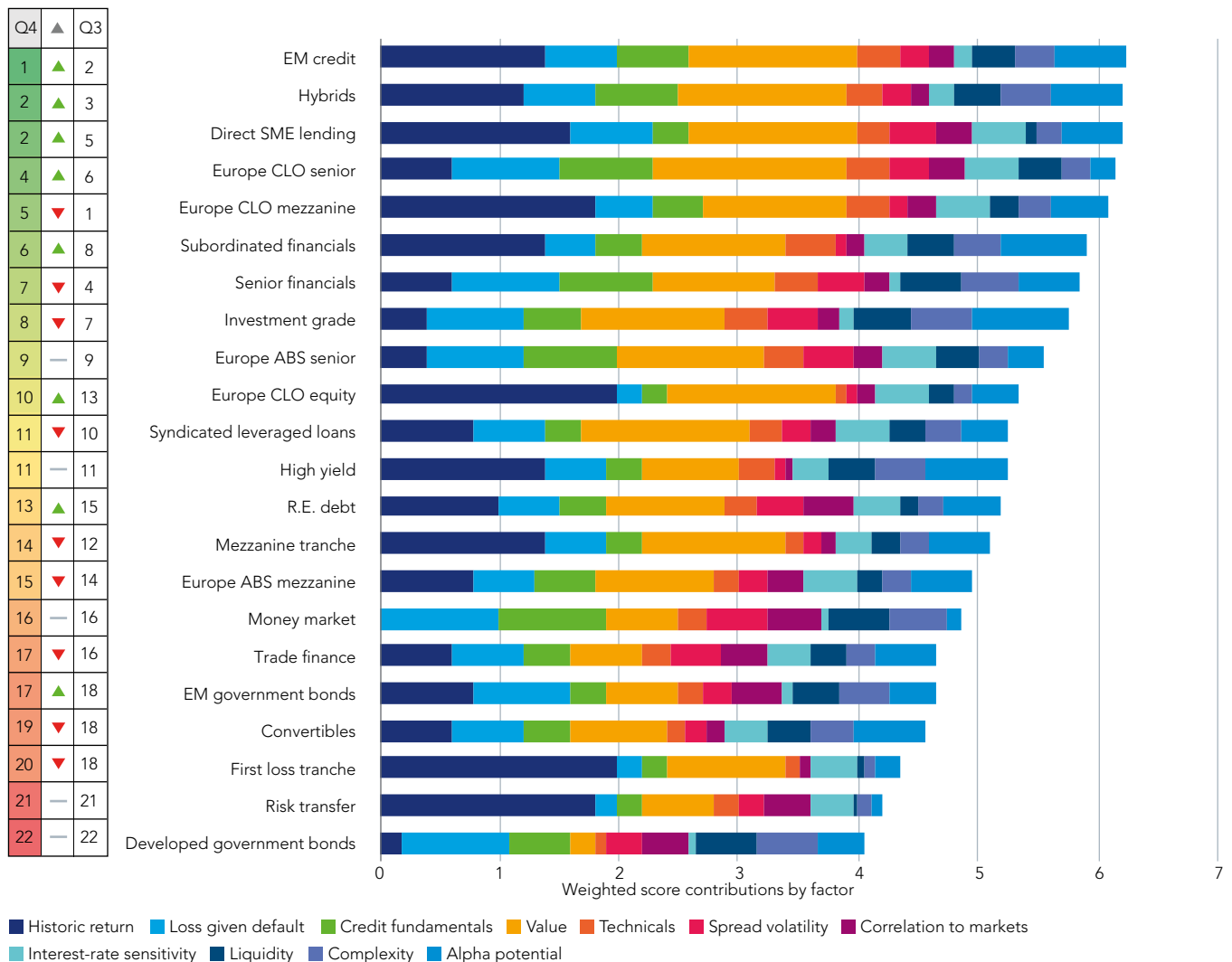
On the more liquid side, central-bank support and improved sentiment over the year helped spreads snap back from their wides with investment grade close to the levels we saw at the start of the year while global high yield, especially BB- and B-rated bonds, were wider. Emerging-market credit, which tends to be more economically sensitive remains wider, with local currency wider than hard currency at 38% and 10%, respectively.

Despite concerns for dislocation potential within the CLO market at the height of the crisis, improved sentiment, coupled with the structural benefit of zero LIBOR floors, has brought Euro CLOs close to the levels we saw at the start of the year. The BBB and BB tranches are in fact narrower, while it is the senior, AAA tranche that is lagging other parts of the capital stack, sitting 10% wider than the start of 2020.



Figure 18 shows the latest rankings from our Multi Asset Credit relative value framework.

Figure 18. Multi Asset Credit relative value framework



Source Federated Hermes, as at 31 December 2020.

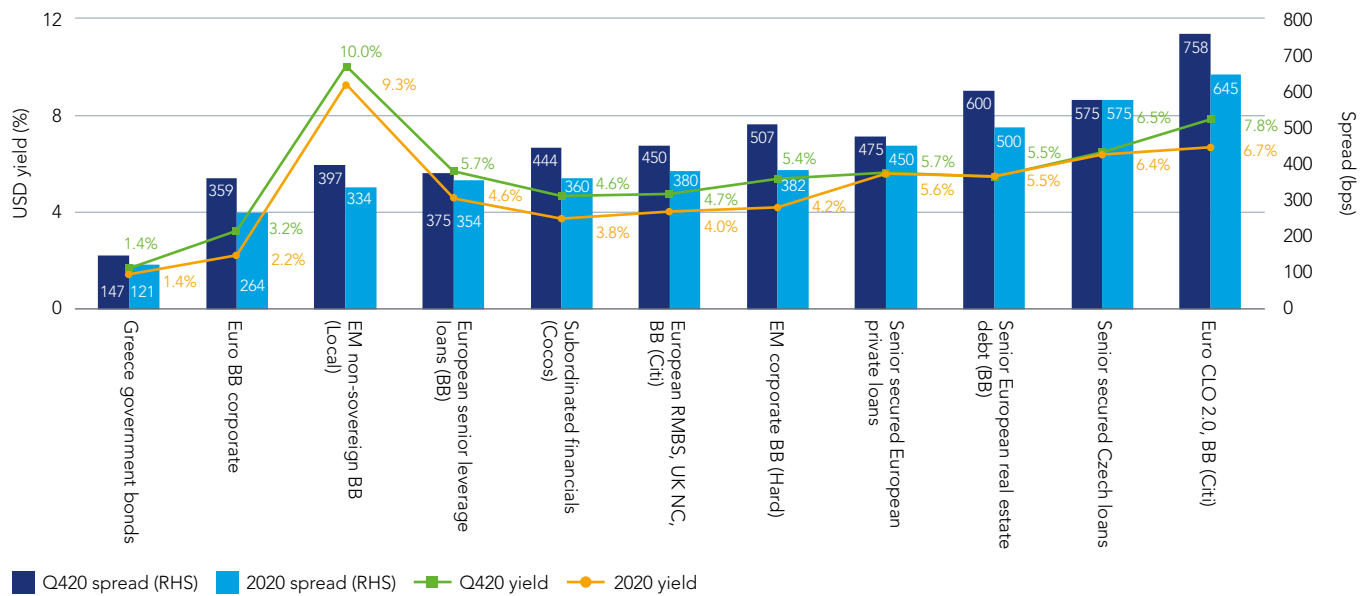
For the first time since Q1 2019, Euro CLO mezzanine exposures dropped out of the top three rankings leaving EM credit in the top spot, with hybrids and direct SME lending joint second.

Direct lending moved back into the top three for the first time since Q2 2019, owing to an increase in the value score and the return of an illiquidity premium as pricing remained resilient over the quarter while liquid credit exposures rallied. Similarly,

real estate debt also moved up the rankings from 15 to 13 for valuation reasons but it continues to score lower than direct lending due to weaker fundamentals. Figure 19 demonstrates this illiquidity premium, by comparing spreads and US dollar yields for a range of BB-equivalent rated exposures where it shows higher spreads for senior secured and senior real estate debt private exposures with more liquid exposures. This contributed to increases in their value score in Q4 2020.



Figure 19. Relative value within selected BB-rated exposures



Source: Federated Hermes, Bloomberg and Citi as at 31 December 2020.

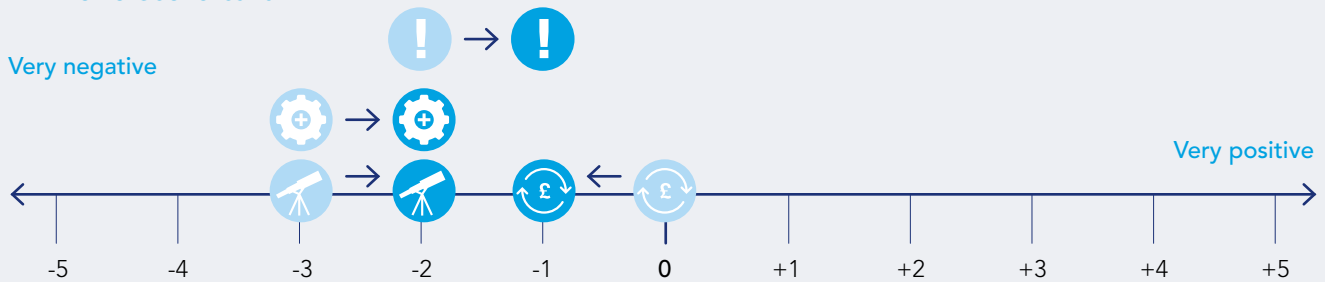
The biggest move in Q4 was CLO mezzanine, falling from the top spot to fifth, following a reduction in the value scores after rallying over the quarter. Euro CLO senior spread moves have lagged the lower parts of the CLO stack, making it very attractive on a risk-adjusted basis. This increase in the value score ranks senior above mezzanine and puts them both into the top five rankings – a first since our framework's inception. CLO equity edged higher from 13 to 10 as valuations compensated better for the associated risk.

On the other side, developed government bonds, first loss bespoke tranches and regulatory capital exposures claimed the bottom three positions in our framework. Low fundamental scores, where we continue to believe valuations do not fully compensate for potential losses, explain the rankings of first loss bespoke tranches and regulatory capital exposures, while developed government bonds have very unattractive valuations and no expected upside going forward, owing to low, and in many cases negative, rates.



Q4 2020 score card

Very negative



Economic outlook

● Moved from -2 to -3

Despite an approved vaccine, Covid-19 cases remain high, which is resulting in new, stricter lockdowns.



Credit fundamentals

● Moved from -2 to -3

Leverage remains high and earnings will be impacted by the latest lockdown restrictions, but the vaccine rollout should mean earnings will recover later in the year.



Valuations and technicals

● Moved to -1 from 0

A rally in Q4 leaves valuations looking stretched despite continued supportive technicals from central-bank support. But the relative value of credit remains attractive with a large stock of negative-yielding assets.



Tail risks

Moved to -1 from -2

Uncertainty from the US election and Brexit have now passed, and vaccine rollouts should signal an end to severe lockdown restrictions moving forward. But with rich valuations, some tail risks remain:

- New strains of the virus with higher infection rates make the lifting of lockdowns and other economic restrictions dependant on the successful roll out of vaccines.
- Virus mutations may require further vaccine development, which would prolong economic restrictions.
- Uncertainty in the US around the Democrats abilities to implement their policies.
- Rising inflation could force central banks to reverse policy support prematurely resulting in a re-pricing of assets.
- The difference in valuations and underlying fundamentals increases the probability of a correction.



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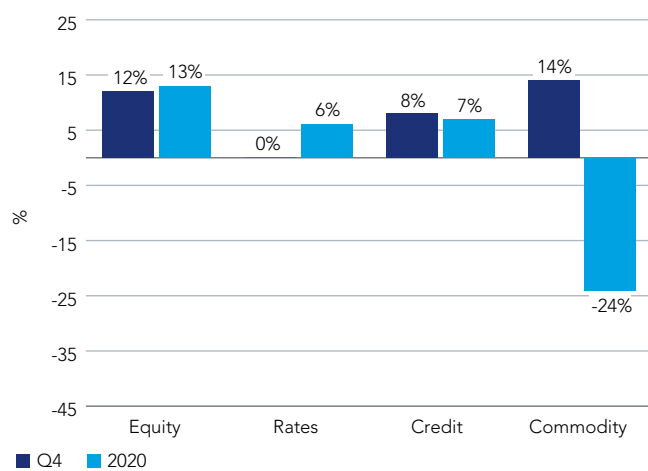


Multi asset

Following a reorientation towards sustainability in the multi-asset space in 2020, we will focus our research effects on this theme in the months ahead.

In 2020, equities, rates⁶ and credit posted positive returns. Despite enjoying the strongest performance in Q4, commodities closed the year in double-digit negatives (see figure 20). Rates were flat in the three months to December-end, while equities and credit entered noteworthy positive territory.

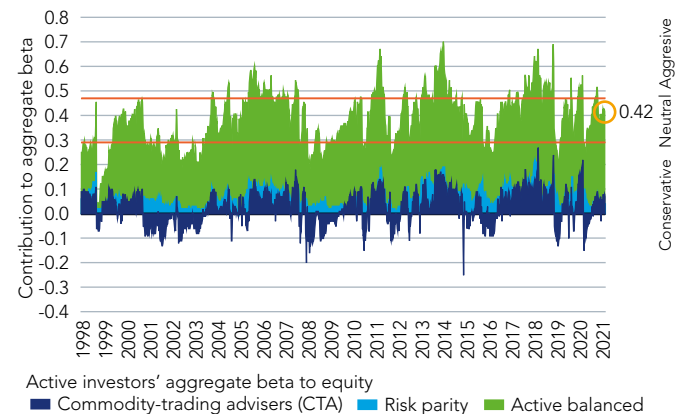
Figure 20. Asset class performance



Source: Bloomberg and Federated Hermes, as at December 2020.

Looking at the positioning of active funds, the aggregate beta to the MSCI world (measured across active investors like commodity-trading advisers, risk parity and mutual funds) is currently at 0.42, which indicates a neutral positioning. The aggregate beta moved into aggressive positioning in August but soon returned to neutral positioning when the market had a minor correction in mid-September (see figure 21).

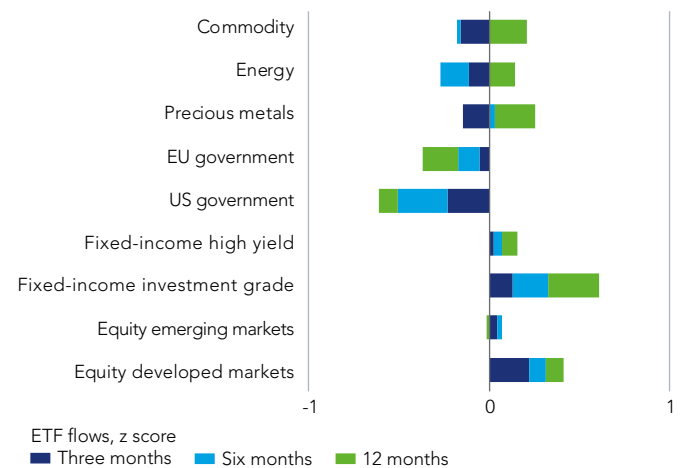
Figure 21. Active investors' aggregate beta to equity



Source: Bloomberg, Federated Hermes, as at December 2020.

In Q4 and H2 2020, we observed more assets experience outflows than inflows into exchange-traded funds (ETFs). Both US and EU government bonds experienced sustained outflows, while fixed income, in the investment-grade and high-yield space, and developed-market equities consistently showed inflows over three months, six months and 12 months (see figure 22).

Figure 22. ETF flows



Source: Bloomberg, Federated Hermes, as at December 2020.

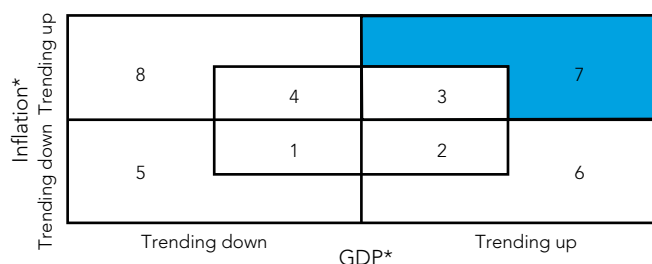
Over the medium-term, we use economic-scenario analysis to determine the direction in which the global economy is expected to head, before identifying the best investments

⁶ Predominantly developed-market government bonds.



for that scenario. Since the end of October, given the broad economic stimulus, the global economy has moved to quadrant seven, wherein both expected GDP and inflation are trending up moderately. The best assets to allocate to in this scenario are government bonds and commodities (see figure 23). On average, we remain in Q7 for three months and then pivot to Q4 where we see positive inflation but diminishing economic growth.

Figure 23. Economic scenario quadrant

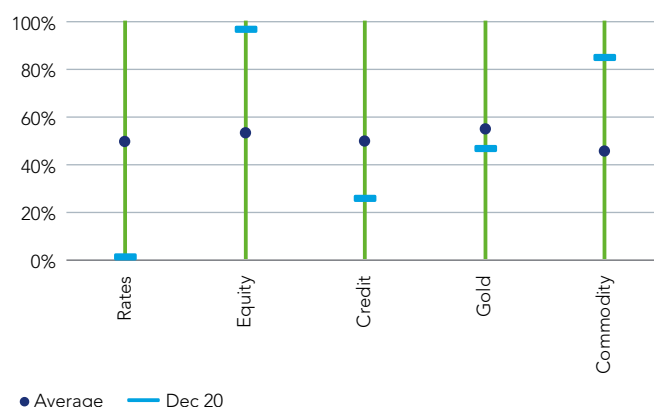


	Q7 Top 10	Q7 bottom 10
1	EM sovereign debt	EU credit quality
2	Copper	MSCI DM – MSCI EM
3	Netherlands government bond, 7-10 year	Long USD, short AUD carry index
4	Belgium government bond, 7-10 year	S&P utilities spd
5	Industrial metals	S&P consumer stables spd
6	Italy government bond, 7-10 year	Long USD, short NOK carry index
7	US steepener	S&P energy spd
8	Commodity carry	US credit quality
9	France government bond, 7-10 year	S&P healthcare spd
10	US government bond, 2-year	Natural gas

Source: Bloomberg, Federated Hermes, as at December 2020. Based on Bloomberg pooled economists' one-year forward forecasts for both GDP growth and inflation. These forecasts are then compared to their respective six-, nine- and 12-month averages to determine the current trend. These trends are then bucketed into eight quadrants: for example, GDP trend is the current GDP minus the average. The split between the inner and outer quadrants is determined by the mid-point between the average and the maximum/minimum on each axis. The data period starts from 1956 while the expected asset returns are annualised and are estimated based on a conditional two-factor regression analysis.

We also use our own multi-asset positioning tool to identify the best investment opportunities. This incorporates three sub-models: momentum (short-term price trends), excess money growth (excess liquidity) and value (forward-looking valuations). The model suggests that we should take a significant overweight in equities and commodities and a large underweight in government bonds (see figure 24). Credit continues to be expensive vis-à-vis equities, resulting in our value model contributing to an overall slight underweight in the asset.

Figure 24. Multi-asset model positioning



Source: Federated Hermes, as at December 2020.

A reorientation towards sustainability

The international business of Federated Hermes has been at the forefront of investment and sustainability since 1983. Indeed, last year, our heritage proved its worth as we moved to adapt to the EU Taxonomy: rather than reinvent the wheel, we only needed to tighten the gauge to achieve sustainable labelling.

A reorientation of investment in 2020 into the sustainability theme resulted from the marriage of more socially conscious investors joining the market as well as a wider issuance of sustainable products, not just limited to equities and corporate green bonds, but extending beyond, to more countries committing to government-backed green bonds.

Against this fertile backdrop, we feel the conditions are right to focus our research on sustainability in the multi-asset space. In the months ahead, we will contribute to a holistic framework outlining acceptable requirements across the different asset classes with respect to sustainable leaders, as well as exclusions. In addition to considering financial objectives, much time will be dedicated to non-financial objectives and the articulation and quantification of such to hold future multi-asset funds and portfolio managers truly accountable to sustainability.



Figure 25. Sustainability in the multi-asset space



Source: Federated Hermes, as at December 2020.



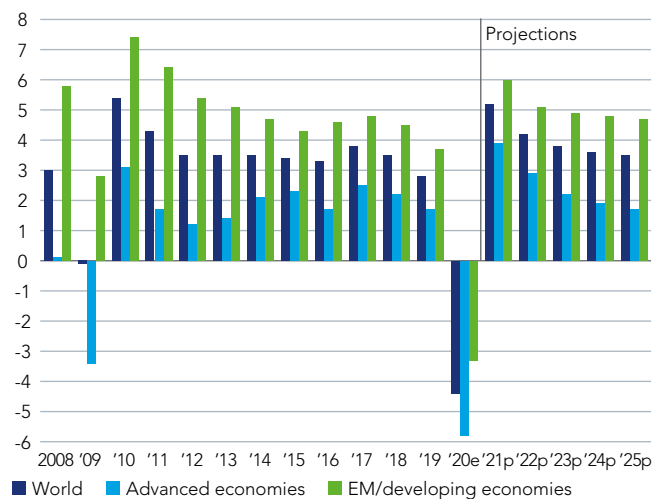
Economic outlook

The momentum and breadth of the recovery from the coronavirus pandemic will be determined by the policy mix authorities deploy, but the aftermath of the crisis may offer an opportunity to build back better.

Major economies are recouping their GDP and are generally expected to bounce back in 2021 (see figure 26). However, the big question concerns the shape of the recovery and whether it will be vigorous (W-shaped, given multiple Covid-19 waves), paltry (L-shaped) or uneven (K-shaped).

Figure 26. Major economies are expected to bounce back...

The IMF's real GDP-growth projections: world, advanced and EM\developing economies (% , year-on-year)



Source: IMF, as at October 2020.

While a successful vaccine rollout is a pre-condition for a sustainable recovery, the momentum and breadth of it will eventually come down to the policy mix authorities deploy. In particular, the focus will be on fiscal stimulus, and whether fiscal spending includes high-multiplier and structural measures. Meanwhile, monetary policy will remain extremely loose and increasingly coordinated with fiscal policy.

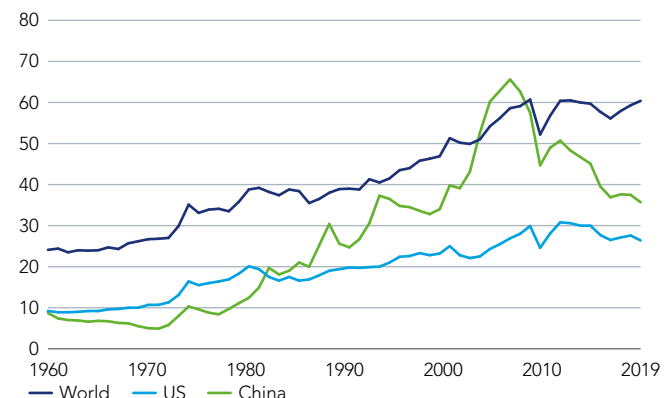
Our macro outlook for 2021 is based on five core beliefs:

- 1 Vaccines will not, unfortunately, guarantee straight-line macro recoveries. Confidence may lift, but distributional and other challenges suggest 'normality' is unlikely before September. Labour scarring will also test how painlessly GDP levels can return to their pre-Covid-19 trends.
- 2 Policy will stay abnormally loose. While central banks exhibit paradigm shifts, it is difficult to see how fiscal stimuli can be reversed without unintended consequences.
- 3 The legacy will be a relaxed approach to debt build-up, akin to the UK's post-war experience. G7 default risk is next to zero, but vulnerabilities lie with those emerging markets with high external debt.

- 4 With inflation craved by central banks and governments, quantitative easing (QE) will be harder to kick – reinforcing the dependence QE-governments have on their central banks. So, a challenge will be avoiding the impression (as in Japan) that central banks are effectively becoming the 'monetary departments' of government.
- 5 Political distrust, beggar-thy-neighbour policies and de-globalisation (figure 27) continue to build, despite a more collaborative US President. Enjoying an extremely narrow majority in the Senate, Biden looks unlikely to unilaterally pull back restrictions on China until 2022. For markets, this may be more a 'crack-in-the-ice', than a 'cliff-edge', event. And, in Europe, investors need to see the German Chancellor Angela Merkel's successor keep the glue around the euro, and dissuade electorates watching the UK as it opens the EU trapdoor.

Figure 27.on the assumption that world trade growth is largely unabated

World, US, & China's trade (exports plus imports)* as a share of their respective GDP (%)



Source: World Bank data (*goods & services), as at December 2020.

Within this challenging context, the aftermath of the Covid-19 crisis may offer an opportunity to "build back better" by tackling existential crises such as the climate emergency. So far, fiscal stimulus has mainly focused on supporting employment and spending in the short term. Yet, green investment – yielding on longer-term horizons – has also gained relevance. In the recently approved EU budget (€1.8tn over seven years), 30% of funds were devoted to fighting climate change, the highest share ever (see Sustainable finance section for more information on the EU budget). Meanwhile, in the US, the Democratic control of the Senate – albeit slim – means that Biden (who as previously mentioned quickly moved to restate the US to the Paris accord after being sworn in as President) has a decent chance of implementing the green agenda, that is, net zero emissions by 2050 and a dedicated \$2tn budget over 10 years.



Fundamentals

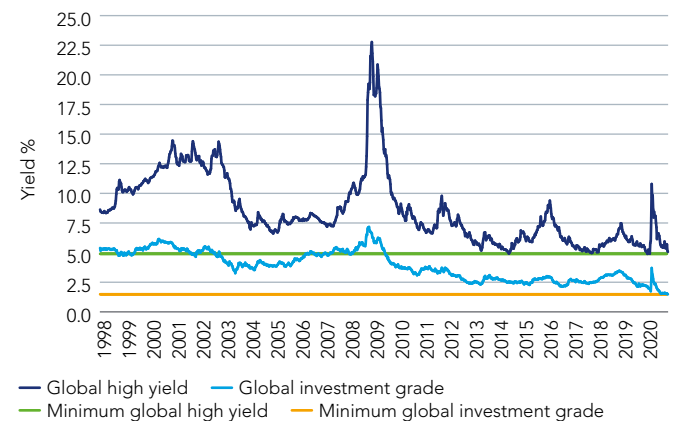
Global yields for investment-grade and high-yield credit are at historic lows. Profits fell in Q4, while leverage and default rates remain elevated.

December marked another month of strong returns for credit, despite an increase in government lockdowns owing to the continued spike in coronavirus cases. During that period, the global high-yield market rallied by 1.9% (and by 6.3% year-to-date), while the investment-grade market rose by 0.5% (and 7.7% year-to-date). Meanwhile, the iTraxx Crossover index ended the month at 242, having started the month trading at 251.

With all eyes now firmly on 2021, consensus forecasts suggest that the average rate of global growth will be 5.2%⁷. China is expected to enjoy the highest rate of growth, at 8%, with all major economies forecast to grow their GDP meaningfully. Elsewhere, the flash Purchasing Managers' Indices (PMIs) surprised on the upside in December, painting a stronger picture of economic performance in Europe than had been anticipated. The eurozone composite PMI came in at 49.8 (ahead of an expected reading of 45.7), with both Germany and France recording better-than-expected readings of 52.5 and 49.6, respectively.

However, we must be mindful to place this positive outlook for growth alongside the value that can be found in credit today. As demonstrated in figure 28, global yields for both investment-grade and high-yield credit are at historic lows. It is a challenging time for global investment-grade fixed-income investors because there is now a record \$18tn of negative-yielding debt (as mentioned earlier in this report). The US investment-grade corporate bond market accounts for 13% of the \$63.4tn global investment-grade assets but pays 41% of all yield⁸.

Figure 28. Global yields for high-yield and investment-grade credit are at historic lows



Source: ICE Bond Indices, as at December 2020.

Much of this decrease in yields has been driven by the rally we have seen in government bonds since the aggressive central-bank purchase programmes launched in April last year. This means that there is still some value left in global credit spreads.

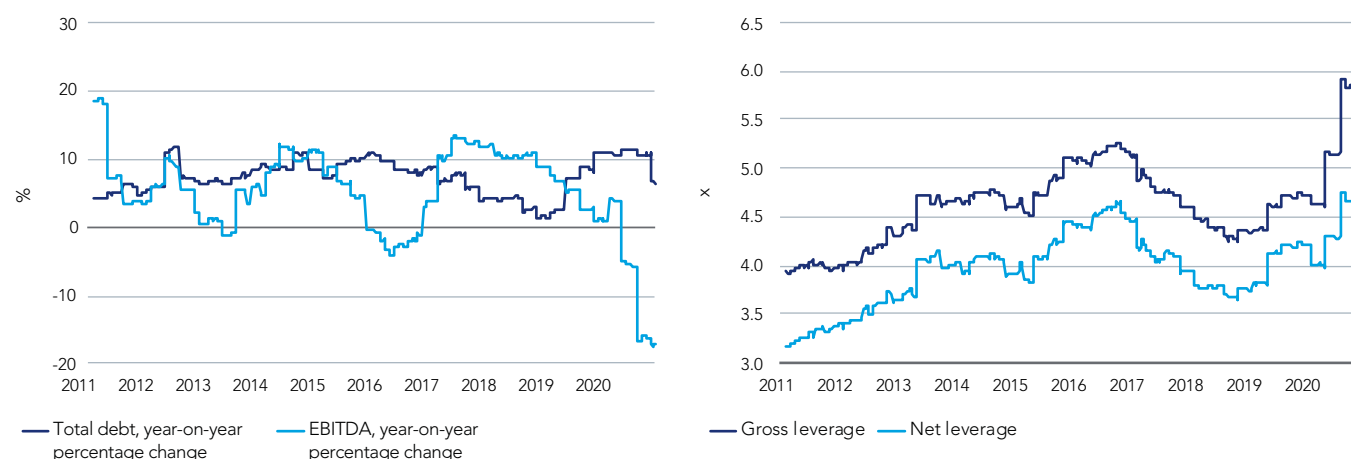
There was a modest deleveraging of corporate balance sheets following the coronavirus-induced leverage spike in April. US high-yield leverage stood at 5.8x at the end of the fourth quarter – in the 80th percentile of its historical range. Meanwhile, US high-yield companies borrowed an equivalent of 0.7x leverage to increase their cash balances. Some sectors are seeing a meaningful pickup in share buybacks, dividends, and M&A although this is not the norm across the market at present. Net leverage stands at 4.7x, having deteriorated by 0.8x from pre-coronavirus levels.

⁷ Source: Bloomberg, as at December 2020.

⁸ "Global Credit Strategy Year Ahead How low can you go?," published by Bank of America in November 2020.



Figure 29. US high-yield market fundamentals



Source: Federated Hermes, Bank of America Merrill Lynch, as at 31 December 2020.

Similar trends were observed for US investment-grade companies: a recovery in earnings buoyed their balance sheets. Gross leverage for US investment-grade companies fell from an all-time peak of 2.90x in Q2 to 2.80x in Q3 (-0.10x), while remaining up 0.40x year-on-year. The drop in leverage was relatively widespread, with 57% of investment-grade companies enjoying an improvement in gross leverage quarter-on-quarter. However, on a year-on-year basis, 67% of investment-grade companies still have higher leverage.

Turning to balance sheets, aggregated EBITDA for Q3 was down by just 4.7% compared to the previous year (the year-on-year fall in Q2 was 12.5%). However, there is a bright spot: investment-grade companies continue to generate free cash flow, even through the crisis. Free cash flow dropped modestly in Q1 (down 1.9% year-on-year) but it has since bounced back to +10.6% year-on-year, thanks to an upside surprise in earnings and capital expenditure spend, which remains below 2019 levels.

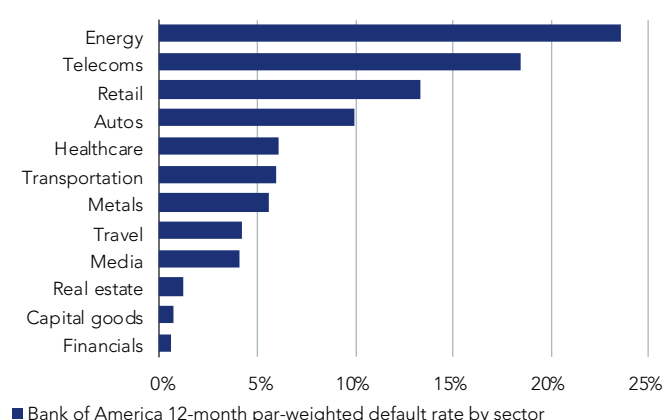
It is clear that credit markets have become riskier this year as corporate leverage surged. However, there is now a record €1.1tn of negative-yielding assets in the European investment-grade market (that's 42% of the entire investment-grade market). What's more, spreads-per-turn of leverage for the European investment-grade market are now at a nadir of just 29bps. 21% of European investment-grade firms are now classified as highly levered (with net debt/EBITDA in excess of 4x) – that's up from 11% at the end of 2019 and has continued to rise in Q3.

The share of 'zombie' companies – that is, those unable, in the long-term, to cover their debt-servicing costs from profits – rose meaningfully in Europe in the third quarter. At present, almost 16% of Stoxx 600 non-financial companies are 'zombies'. European corporates, however, have been able to manage their cash balances by reducing their capital expenditure aggressively and issuing record levels of debt. Meanwhile, the capital expenditure of European investment

grade firms has fallen by 17% year-on-year – far greater than the drop recorded in the aftermath of the global financial crisis.

Undoubtedly, we have witnessed a disjointed default cycle across the globe in 2020. High levels of credit stress in the US leveraged finance market led to a double-digit default rate. At the same time, European high-yield bond defaults barely rose this year, while US high-yield default rates reached an annualised rate of 12.5% in the last six months. As outlined in figure 30, the sectors impacted the most by defaults were energy, telecoms and retail. There has also been record low recovery rates of about 27% on the senior unsecured level earlier this year, whereas historically they stand at approximately 40%. In the three months to December-end, we have seen approximately \$260bn in net downgrades within the US high-yield space and about \$170bn in fallen angels – issuers downgraded from investment-grade status.

Figure 30. Default rates by sector



Source: Federated Hermes, Bank of America Merrill Lynch, as at 31 December 2020.



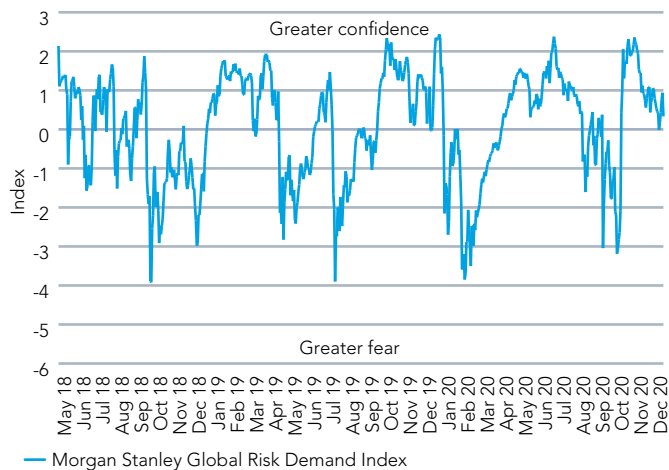
Valuations and technicals

Sentiment normalised towards year-end. Meanwhile, as the Covid-19 crisis escalated, the market for sustainability-related debt instruments experienced exponential growth.

Sentiment

Sentiment improved materially after the US presidential election, as investors looked towards continued market normalisation in 2021 having cleared a significant hurdle in their path. However, sentiment soon normalised, moving towards its average as we approached year-end owing to the worsening coronavirus crisis across the world. Notwithstanding the reduction in sentiment, demand remained strong for spread products as the stock of negative-yielding assets reached an all-time high.

Figure 31. Sentiment normalised towards year-end

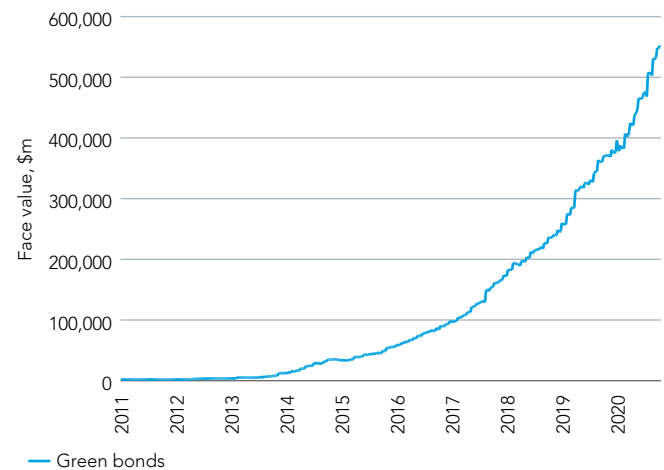


Federated Hermes, Morgan Stanley, as at December 2020.

Asset flows

During the pandemic, the market for sustainability-related debt instruments has experienced exponential growth as investors increasingly take a more holistic approach to capital allocation. More recently, this can be observed through the increased issuance of sustainability-linked and SDG-linked bonds. We believe this trend will likely accelerate in 2021.

Figure 32. The rise of green bonds

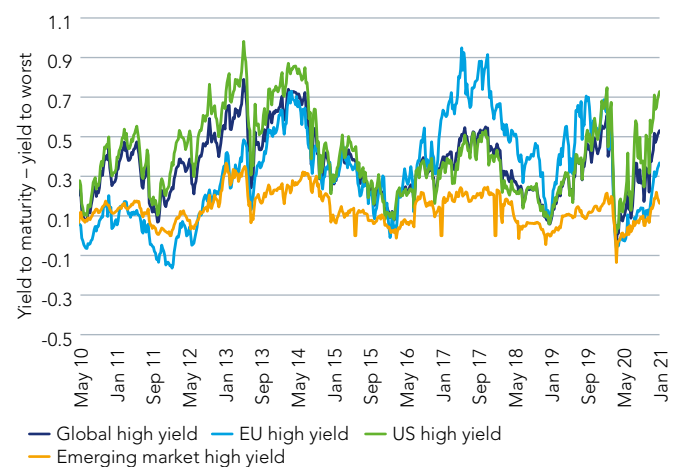


Source: ICE Bond Indices, as at December 2020.

Valuation

The strong recovery in low quality (CCC-rated) credits in the US following the favourable presidential election outcome has contributed to the material worsening of convexity in the US high-yield market in Q4. What's more, the reach for spread has extended into emerging markets, where convexity also worsened in the final three months of the year. The European market, however, continues to offer the most convexity.

Figure 33. Spread differentials across the high-yield universe



Source: ICE Bond Indices, as at June 2020.

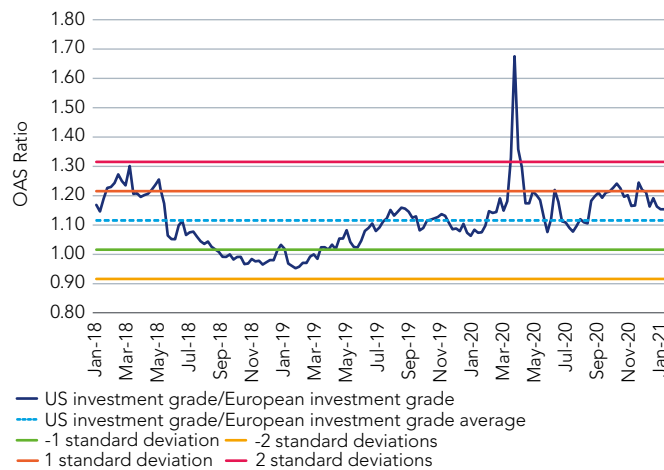


Public credit

The green bond index is now trading at pre-coronavirus levels, reflecting strong demand from investors.

The US investment-grade market outperformed European investment-grade credit in the final three months of the year. That's because the removal of election risk encouraged renewed demand for US investment-grade credit from foreign investors. However, in 2020, the US investment-grade market underperformed, reflecting its higher exposure to cyclical sectors and energy, which was hurt by the oil-price collapse earlier this year.

Figure 34. US v European investment-grade credit



Source: ICE Bond Indices, as at December 2020.

While green-bond issuance enjoyed a material uptick in 2020, the market has also bounced back well from the weakness it experienced during the height of the Covid-19 crisis earlier in the year. The green bond index is now trading through its pre-Covid-19 sell-off lows, demonstrating strong demand for this segment of the market.

Figure 35. The green bond index is now trading at pre-coronavirus levels



Source: ICE Bond Indices, as at December 2020.

As we've already mentioned, negative-yielding assets breached an all-time high of \$18tn recently. The continued absence of positive returns in the safest parts of the market improves the relative value available within spread products, such as credit, and encourages more investors to examine flexible strategies which are able to deliver positive returns in periods of uncertainty.

Figure 36. Negative-yielding assets hit a new record high



Source: Bloomberg, as at December 2020.

Leveraged loans

Although the transition is slow, the sustainability revolution in leveraged loans has now begun in earnest.

A succession of positive news on Covid-19 vaccines favoured a market rally in the fourth quarter. As a result, the S&P European Leveraged Loan Index (ELLI) ended the year at 97.5 – its highest level since February. This was mainly driven by secondary transactions as primary issuance is low. Margins on leveraged finance primary remain higher than a year ago, while the new-issue spread of B-rated loans was 404bps (for a total yield of 4.44%) in December compared to 372bps (for a total yield of 3.90%) in January 2020.

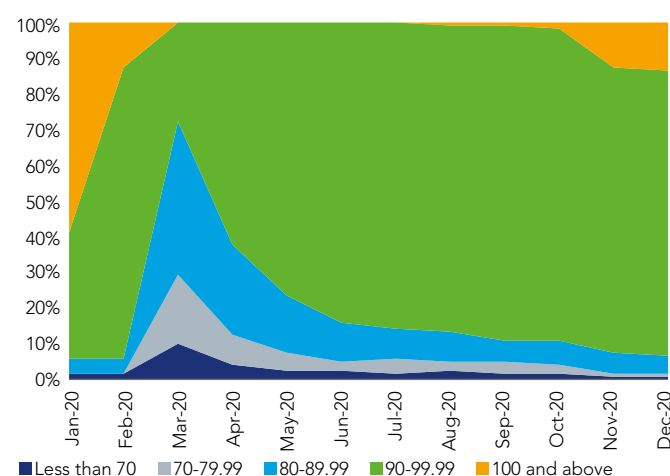
In addition, the ELLI distress ratio – the percentage of performing loans in the Index priced below 80 by par amount – continued to decline. It was 1.30% at December-end, in line with its February level of 1.33%. Investors will start 2021 with potential convexity as the share of names bid between 90 and 99.99 is 80.05% compared to 35.55% in January 2020.

In Q4, the European leveraged-loan market continued to underperform the high-yield market, returning 2.84% compared to 5.17% for junk bonds. Overall, in 2020, leverage loans fell by -0.75%, while the high-yield market returned 2.63% in the same period. Among the leveraged-loan sub-groups, B-rated assets returned +2.91% in Q4, outperforming BB-rated loans (which gained 1.27%). Similarly, in 2020 B-rated assets outperformed BB-loans, falling by 0.18% and 0.55%, respectively.

Looking at ESG in the leveraged-loan market, it is clear that one of the biggest issues is that the credits are privately held. However, there is an increased demand for ESG disclosure driven by the rise of sustainability and funds dedicated to ESG; investors who need to evidence ESG analysis in their investment process; and increasing regulatory requirements.

Consequently, there has been a significant increase in green and sustainability-linked loans. These loans aim to facilitate and support environmentally and socially sustainable economic activity and growth, which extends to the improvement of buildings' energy-efficiency ratings, reductions in greenhouse gas emissions, increases in renewable energy, and water savings. In addition, they are beneficial to borrowers by providing the ability to link the interest rate to pre-agreed sustainability performance targets; assessing borrowers' sustainability performance against key ESG measures; and giving a visible indicator of the borrower's commitment to ESG. Since 2018, \$540.1bn of green and sustainability-linked loans have been issued globally.

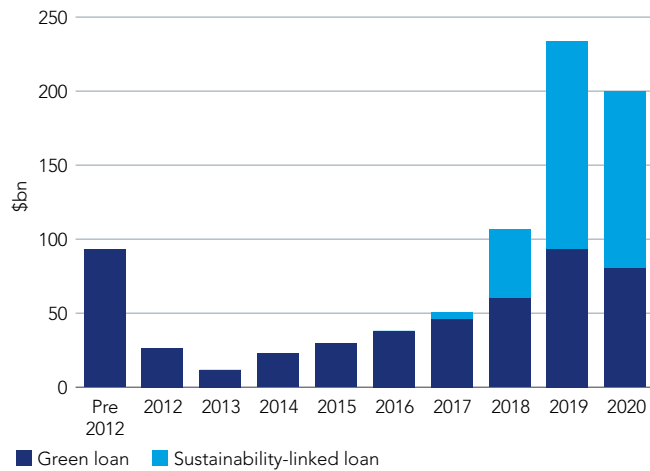
Figure 37. S&P ELLI, breakdown by bid price



Source: S&P, as at December 2020.



Figure 38. The issuance of sustainability-linked loans has risen in recent years



Source: Bloomberg, as at December 2020.

Furthermore, borrowers need to fulfil a significant number of bespoke questionnaires, which sometimes face the challenge of public/private information. To overcome this, the loan association has started to think of a way to standardise ESG diligence. In the US, the Loan Syndication and Trading Association (LSTA) launched the ESG Diligence Questionnaire, which is designed to be completed by the borrower during the due diligence phase of the loan origination process. The questionnaire is applicable to borrowers in any industry and publicly available.

Elsewhere, the European Leverage Finance Association (ELFA) has also now published a European-equivalent questionnaire. Indeed, in recent years, we have observed a change in mentality and an increased incorporation of ESG in documentation:

- In May 2019, Spanish telecommunications operator Masmovil issued the first leveraged loan incorporating ESG. Both the revolving credit facility (RCF) and capital expenditure included a ratchet on the loan's interest that either steps up if the ESG rating (given by a third-party provider) deteriorates or steps down if the rating improves.
- In June 2020, Logoscape, a Portuguese company that produces rigid plastic containers, amended its documentation. The Carlyle-backed firm integrated margin ratchets according to the amount of CO₂ the firm can save.

Even though the transition is slow, ESG integration and the sustainability revolution in leveraged loans has started. To us, the future of sustainable lending should comprise an ESG pricing ratchet as well as ESG questionnaires that are included in information memorandum and fully integrated in the credit analysis.



Structured credit

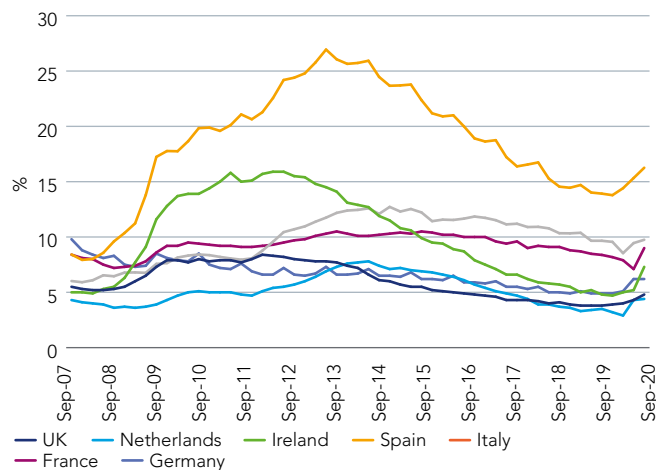
2021 has the potential to bring investors many positives, not least the economic recovery set to follow the economic repression of the Covid-19 pandemic. We hope this year will be the turning point when securitisation offers more for investors, like us, who focus on responsible investing and sustainability.

Along with most risk assets, structured credit posted a strong finish to the year once the US presidential election result became clearer and news of the Covid-19 vaccines started to support more positive sentiment. The final rally of the year left spreads almost in line with the start of 2020, which is a remarkable turnaround from the lows experienced in March and April.

Markets have been keen to look ahead to the post-Covid-19 recovery, and in structured credit, low supply expectations coupled with this more positive sentiment across markets continue to drive the rally. For the time being, any signs of increasing credit weakness are receiving less attention as we remain well within expectations, and structures have enough buffers to withstand even further deterioration from here.

Across the key European jurisdictions that are active in the securitisation market, unemployment rates have started to increase, although we remain a long way off the peaks seen following the global financial crisis.

Figure 39. Unemployment rates have started to increase



Source: US Department of Labor, UK Office for National Statistics, and Eurostat, as at September 2020.

Unemployment is a key driver of the fundamental credit performance of the asset-backed securities (ABS) market, which is predominantly backed by consumer assets – mortgages and loans. A borrower's ability to pay their mortgage, credit cards, car loans and the like is supported by the regular income stream derived from employment. However, unemployment numbers may not fully reflect the true picture yet due to the existence of furlough and Kurzarbeit schemes. Also, the correlation between unemployment and delinquencies/ defaults may be lower this time due to the prevalence of forbearance measures, although weighing up the financial motives against the social imperatives is becoming ever more intricate for lenders. 2021 will be a year of consumers coming under increasing pressure to remain current on their credit borrowings while lenders will remain under pressure from governments and central banks to provide all support possible to borrowers under the various guises of forbearance.

The year ahead has the potential to provide investors with many positives, not least the economic recovery set to follow the collapse in activity during the Covid-19 pandemic. However, as investors focused on responsible investing and considering ESG factors in all our investments, we believe the ABS market has much progress to make.

Building on the theme of sustainability, we can take residential mortgages as an example. Globally, residential properties are responsible for nearly 11% of all greenhouse gas emissions.⁹ The financing that goes towards buying and renting those properties could have a significant, beneficial impact on the carbon footprint of the property stock and in reducing global greenhouse gas emissions overall.

Some mortgage lenders are already taking the energy-efficiency ratings of properties into account in their origination and underwriting; however, this remains a niche type of lending, far from the mainstream market. What is required is a change in lending practices overall.

⁹ Climate Watch, the World Resources Institute. See: <https://ourworldindata.org/ghg-emissions-by-sector>.



A clear argument can be made that those borrowers with more energy-efficient properties are more able to afford the same mortgage loan because the energy costs on their property are lower than for a less energy-efficient property. Looking ahead as regulation changes are made, energy-efficient properties will require less capital expenditure than those homes requiring more extensive upgrades. Therefore, the valuation of energy-efficient properties should be supported by this secular shift (notwithstanding all the other variables that can affect house prices).

In countries such as the UK where the housing stock is, on average, older than other developed western economies, much can be done. Incentives for borrowers to make energy-efficiency improvements to their property can be made through the rates at which mortgages are underwritten – in other words, make the necessary improvements to your property and your rate will reduce.

As an investor in the market, we buy pools of mortgages that have been securitised into residential mortgage-backed securities (RMBS). We can push lenders to think more about their lending in the overall scheme of sustainable financing to

bring about change, but we also need more data disclosure. Currently, very little information is available to RMBS investors on the energy-efficiency ratings of the properties within the securitised pools. Whether the originators already have this data is not always a given, but we would be keen to see this as standard amongst mortgage lenders. Also, as the market for “green” mortgages remains so small, there is very little data on the performance of those mortgages compared to standard mortgages. Do these mortgages perform better with lower delinquencies and defaults over time? If this point could be definitively answered, lower rates from mortgage lenders would be a natural development and any “green” premium for the RMBS transactions could be justified too.

We would like to see this year as the turning point in securitisation offering more for investors, like us, who focus on responsible investing and sustainability. While these themes are prevalent elsewhere in equities and credit, we at the international business of Federated Hermes believe they are just as pertinent to structured credit. Our active engagement with originators is an important part in ensuring we end up with suitable, investible products.



Private credit

Pressure on companies, due to the coronavirus and the withdrawal of government support, will most likely result in a rise in defaults in 2021. But lenders will remain supportive of non-cyclical businesses. Going forward, it is clear that impact lending will become an important strategy within the private-debt landscape.

With continued lockdowns across Europe, deal flow will remain patchy with only non-cyclical business able to access loan funding at competitive rates. The focus for all lenders will remain on senior tranches, with very little transaction flow in the more junior tranches, as lenders remain very focused on credit quality and senior loans currently offer the best risk-reward parameters. In the short term, pricing could go up as defaults rise during the early part of the year. A rise in defaults, which is expected in the first quarter of 2021, will reflect continued pressure for many companies as a result of the coronavirus and reduced government support for businesses, coupled with tightening covenant structures, especially for loans undertaken in 2018 and onwards. Defaults will, however, remain focused on consumer-spending businesses, as lenders will remain supportive of non-cyclical businesses. At the international business of Federated Hermes, it is our current view that Germany remains the most attractive market, due to the increasingly favourable legal environment coupled with the resilience of the economy; however, there could be increased competition to lend to the best companies over the short term. Scandinavia will remain an attractive alternative.

With many direct lenders emphasising the ESG credentials of their funds, it will become increasingly important in 2021 for investors to determine those that have cynically embraced ESG for marketing purposes from those who truly believe that understanding and managing ESG issues will lead to better returns for their investors, as well as better outcomes for all other stakeholders. It will continue to be key that investors understand a manager's ESG philosophy and how ESG issues are managed. Our Private Debt team views ESG issues as a set of risks that need to be managed for the benefit of its investors and society as a whole. This management of ESG

issues is achieved through a combination of exclusions and engagement. The international business of Federated Hermes regularly makes it a requirement of a loan that certain negative ESG issues are rectified by borrowers, in order to protect its investors from these risks. Furthermore, by reducing the ESG risks associated with a borrower, the value of the borrower rises, which in turn benefits our investors who are secured lenders to the borrower.

Going forward, it is clear that impact lending will become an important strategy within the private-debt landscape, as lenders continue their path towards a model of sustainable finance. This will be about targeting loans made to borrowers in order to achieve certain sustainable goals, rather than just lending to sustainable companies. Pricing is expected to be the main force for change – thus rewarding borrowers for reaching certain sustainability targets by giving them reductions in interest margins. This approach can be viewed as a win-win, as the environmental, governance or social risks are mitigated; this benefits lenders, as they face reduced ESG risks, and it benefits borrowers with reduced interest costs. The key challenge will continue to be measuring the impact a loan has in helping a borrower achieve greater sustainability – critical in ascertaining whether the borrower would have achieved this goal with or without the particular loan. At the international business of Federated Hermes, we track all of our borrowers and the impact of their loans towards the Sustainable Development Goals (SDGs) and will continue to contribute towards moving private debt into a truly sustainable lending model. There are very few true SME Impact Direct Lending funds in the market currently, even if a few banks have now slowly started to establish sustainable corporate lending platforms, the coming year will see some leading private debt funds entering this important market.



Asset-based lending

Climate change has become a key issue for the real-estate market. Now that evidence is emerging that greener buildings achieve keener valuation yields and higher rents, the sector has a unique opportunity to assist the carbon transition of the wider economy.

With the persistence of the pandemic, and with the extension of restrictions and special measures (including the eviction moratorium in the UK), the market has split into one section for which financing is relatively easy to find, and another section that may be almost entirely unfinanceable on normal economic terms. Certain core offices, logistics and purpose-built residential assets fall into the former category. Shopping centres and hospitality assets fall into the latter. Financing terms for prime assets in core markets are back at pre-Covid-19 levels, whereas for other sub-sectors, margins may have moved anywhere between 150bps and 500bps on senior loans.

Climate change is a key issue for the real estate market. The sector has a unique opportunity to assist the carbon transition of the wider economy now that evidence is emerging that greener buildings achieve keener valuation yields and higher rents.

This allows lenders like the international business of Federated Hermes to shift the emphasis of our environmental due diligence from previously analysing only the risks of the environment on our assets (flood risk etc.) to now include analysis of the risk of our asset to the environment (carbon emissions). This is a pivotal moment in our industry, and it will allow institutional investors to participate in the carbon transition of the real-estate market, while keeping a strong focus on risk-adjusted returns.

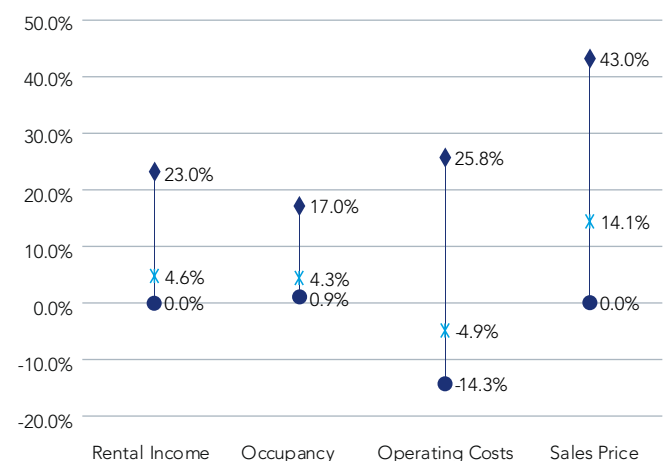
ESG analysis is no longer just a defensive due diligence exercise. Instead, it has matured to be a pro-active pillar of our loan underwriting and investment philosophy. What were once thought of as side-effects are now brought to the centre of the underwriting process.

Lenders must be mindful not just of the changes in tenant demand, but also of their wider contribution to the built environment (both social and environmental). Choosing to invest in commercial real-estate loans brings with it a shared responsibility for the final product. Whether as a debt or equity investor, sustainable investment in real-estate assets requires not just that the assets meet market requirements

today and likely tomorrow; it also requires that it does so without compromising the ability of future generations to make their own determinations on how to live their lives. This means that intergenerational issues such as climate change cannot be ignored by investors today.

It is therefore encouraging that the need for a strong moral compass is perhaps lessened by the evidence that a green premium exists, at least for core institutional quality assets. Analysis of academic studies suggests that enhanced sustainability credentials can increase the income and value of investment properties (see figure 40)¹⁰:

Figure 40. The impact of green certification and ESG enhancement



Source: "A Review of the Impact of Green Building Certification on the Cash Flows and Values of Commercial Properties," by Niina Leskinen, Jussi Vimpari and Seppo Junnila, as at February 2020.

There is no doubt that reducing our carbon footprint is an ethical imperative, but even for those still unconvinced by the ethical argument, it is fast becoming clear that the potential economic damage of climate change now far outweighs the cost of fighting it, and that the "cost of fighting it" may actually be an opportunity for higher relative returns.

¹⁰ Despite the favourable conclusion regarding the impact, the reviewed research's key limitation is the inherent selection bias; certified properties seem to be larger, taller (indicating a central location), constructed later, and of better quality than non-certified properties.



Sustainable finance

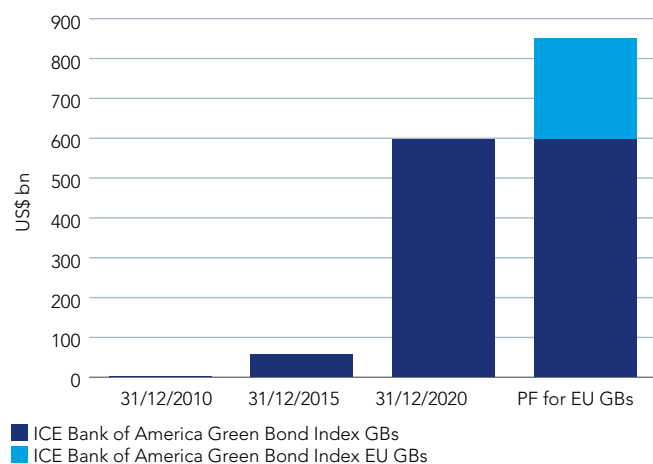
The EU's budget (and planned €225bn issuance of green bonds), the principles of the Green Plan and the regulatory proposals of the EU Taxonomy show that there is no going back on the green transition.

The green bond market is still at a nascent stage, but it has grown rapidly. At over \$600bn market capitalisation, the green bond market is now larger than the European high-yield market by a wide margin; as large as the Sterling Bond Index; and just under the size of the High Yield Emerging Markets Corporate Plus Index.

In December, the EU demonstrated its confidence in the stability and liquidity of the green bond market by announcing that it will issue €225bn-worth of green bonds as part of its Multiannual Financial Framework (its long-term budget). In moving to fulfil the obligations of the ambitious Green Deal and as signatories of the Paris Agreement, the EU said that "30% of the EU budget, under both Multiannual Financial Framework and Next Generation EU, will be spent to fight climate change, the highest share ever of the largest European budget ever."¹¹

In addition, the €225bn issuance assures the permanence of the green bond market and sustainability-themed finance in general. We can see the *pro forma* effect of the EU's green bond program on today's green bond market in figure 41. The current market capitalisation of the ICE BofA Green Bond Index is just over €500bn (\$615bn) – and with its planned €225bn (\$273bn) issuance, the EU will become the world's largest green bond issuer by a wide margin. The European Investment Bank currently holds the top spot with nearly €45bn in outstanding green bonds.

Figure 41. Green bond growth

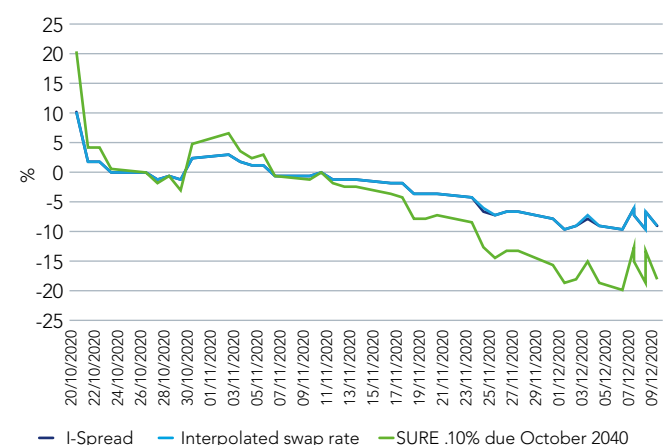


Source: Bloomberg, ICE BofA Indices, as at December 2020.

We are, however, unlikely to see any green bond issuance by the EU until, perhaps, as late as the second half of 2021. That's because, as part of a suite of EU regulation around sustainable finance, the Technical Expert Group has not yet codified a set of Green Bond Standards. But when they are issued, will there be good demand for such size in issuance at yields well below 50bps, if they are positive yielding at all?

To tackle that question let's look at the EU's recent €17bn, dual-tranche social bond issuance under the "Support to mitigate Unemployment Risk in an Emergency" (SURE) framework. The deal, priced in October, was for an orderbook of €223bn, or 13.7x. According to Nomura, one of the bookrunners, the transaction "marked a record both for the €223bn combined orderbook, the largest ever collected in the history of Sovereign, Supranational and Agencies debt capital markets, and the size of €17bn, the highest issued amount in euro from a Supranational institution ever."¹² The 2040 tranche of that deal was issued at a yield of 10bps, or at a premium to the EU curve of about that same 10bps. Since its issuance, SURE has performed very well, and now trades about 10bps inside of the same curve. Suffice to say, if the EU's treasury department is looking at the demand of the SURE issuance as an indication of future demand, they should feel pretty confident about its ability to issue €225bn over a four-year period (see figure 42).

Figure 42. SURE has performed well since its issuance



Source: Bloomberg, as at December 2020.

¹¹ See https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_2088 for more information.

¹² FN: European Union – Dual Tranche Case Study (Nomura).



The EU's substantial budget to finance the green recovery, together with the principles of the Green Plan and the regulatory proposals of the EU Taxonomy, shows that there is no going back on the green transition. The prospects of investing in a secular trend that is underwritten — at least in part — by government provides confidence that the trend will continue along its path, likely at an accelerated rate. Overtime, we expect the EU budget will likely trigger more supply of sustainability-themed debt issuance. In turn, this will create a deeper, more developed and more liquid sustainability-themed debt market and provide great opportunities to finance positive change. Green is not the new black; it is here to stay.



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Federated Hermes

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Guided by our conviction that responsible investing is the best way to create long-term wealth, we provide specialised capabilities across equity, fixed income and private markets, multi-asset and liquidity management strategies, and world-leading stewardship.

Our goals are to help people invest and retire better, to help clients achieve better risk-adjusted returns, and to contribute to positive outcomes that benefit the wider world.

All activities previously carried out by Hermes now form the international business of Federated Hermes. Our brand has evolved, but we still offer the same distinct investment propositions and pioneering responsible investment and stewardship services for which we are renowned – in addition to important new strategies from the entire group.

Our investment and stewardship capabilities:

- **Active equities:** global and regional
- **Fixed income:** across regions, sectors and the yield curve
- **Liquidity:** solutions driven by four decades of experience
- **Private markets:** real estate, infrastructure, private equity and debt
- **Stewardship:** corporate engagement, proxy voting, policy advocacy

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