ESG Materiality Newsletter

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Federated Hermes Limited

www.hermes-investment.com
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Introduction

Welcome to our Global Emerging Markets' ESG Materiality commentary – a quarterly publication that demonstrates our engagement activity with portfolio companies and showcases holdings helping to create positive impacts in line with the UN's Sustainable Development Goals (SDGs).

In this issue, we reflect on the invasion of Ukraine and how this will spur the decarbonisation drive, pushing up demand for 'green' metals and components required to facilitate electrification. We showcase the contribution of some key names to the carbon transition through their products and services, while flagging that this cannot be at the expense of robust ESG management and wider SDGs.

As we have done the past decade, we remain committed to acting as responsible investors by focusing on companies best placed to tackle sustainability challenges as they arise. We recognise that emerging markets have further to go in some areas, but as responsible investors, we can contribute to their evolution over time.

Our vision for responsible long-term investing in emerging market equities

At a glance

- We aim to select companies with attractive business models and, if we identify material Environmental, Social or Governance (ESG) issues, we seek to improve them through engagement.
- In the case of companies with material ESG issues, management teams must be willing to confront sustainability challenges and enter the transformative process of engagement.
- We maintain a low carbon footprint and prioritise engagements with any holdings in the extractive industries or those with higher levels of emissions.
- We engage on strategic and/or ESG matters, including issues which are relevant to achieving the UN's Sustainable Development Goals, and our engagements seek positive impact across companies' value chains.

Portfolio snapshot, Q1 2022

As of end of March 2022, we engaged with companies representing 78% of our AUM making progress in 43% of these engagements.

Percentage of AUM engaged by theme

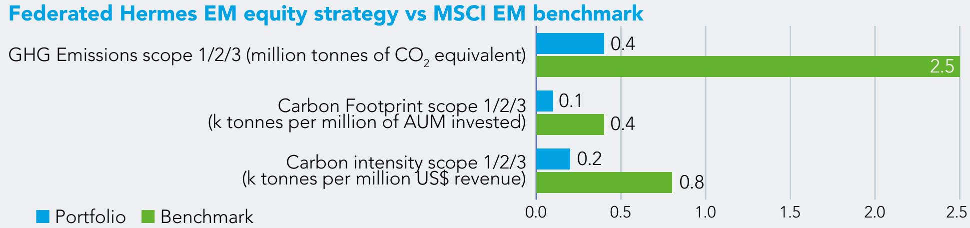
61%	59%	75%	50%
Environmental	Social and ethical	Governance	Strategy and communication

Source: Federated Hermes as at 31 March 2022.

Our portfolio's carbon footprint, Q1 2022

Our portfolio is considerably greener than the MSCI emerging market benchmark in terms of Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) emissions.[1]

Federated Hermes EM equity strategy vs MSCI EM benchmark



Source: Federated Hermes as at 31 March 2022. The benchmark is the MSCI Emerging Markets Index.

[1] We adopt the methodology set by the Task Force on Climate-related Financial Disclosures (TCFD) to measure our portfolio's emissions, carbon footprint and emission intensity. See Implementing the recommendations of the Task Force on Climate-related Financial Disclosures for further information.

IN FOCUS:

Ukraine crisis will spur decarbonisation drive

Invasion has accelerated sustainable energy transition and will push up demand for 'green' metals and components required to facilitate electrification.

- Backlash against Russian oil and gas has prompted governments to commit to improving energy security through decarbonising power generation
- Market size of industrial metals associated with low-carbon energy generation and upgrading of electricity networks forecast to expand almost seven-fold by 2030
- GEMs strategy is well positioned to benefit from these favourable tailwinds in the years to come

Russia's invasion of Ukraine has led to an unprecedented alignment between Western security priorities and global decarbonisation targets. One consequence of the conflict is that the sustainable energy transition – which had an expected timeline measured in terms of decades – is now looked at with greater urgency and is set to accelerate further.

Global efforts to achieve net-zero carbon emissions by 2050 were already driving year-on-year growth in renewables (and related sectors) prior to the rumble of Russian tanks across the Ukrainian border on 24 February. About 290GW of new renewable energy generation capacity, mostly in the form of wind turbines and solar panels, was installed around the world in 2021[1], a rise of 12% on the previous year[2].

The backlash against Russian oil and gas has prompted governments around the world to commit to improving energy security through decarbonising power generation. In the short term, demand for coal may rise as countries scramble to offset energy supply risks, but this is countered by ambitious long-term commitments. Germany, for example, has brought forward its previous target of deriving 100% of its energy from renewables by 2050 by some 15 years to 2035[3], and has earmarked $220bn to fund the necessary industrial transformation by 2026[4]. The US state of California, meanwhile, has increased its renewables target to 73% by 2032[5].

As such efforts gather pace, the International Energy Agency predicts that wind and solar could account for 70% of power generation by 2050, up from 9% in 2020.[6] Such an overhaul in global energy generation will also lead to huge demand for the industrial metals used in green technologies as well as components required to facilitate electrification.

The GEMs strategy – which defines climate-related opportunities as any holding that supports the carbon transition directly, via renewable power generation, as well as indirectly through enablers of decarbonisation such as electrification, light weighting and green metals – is well positioned to benefit from these significant and favourable tailwinds in the years to come.

The International Energy Agency predicts that wind and solar could account for

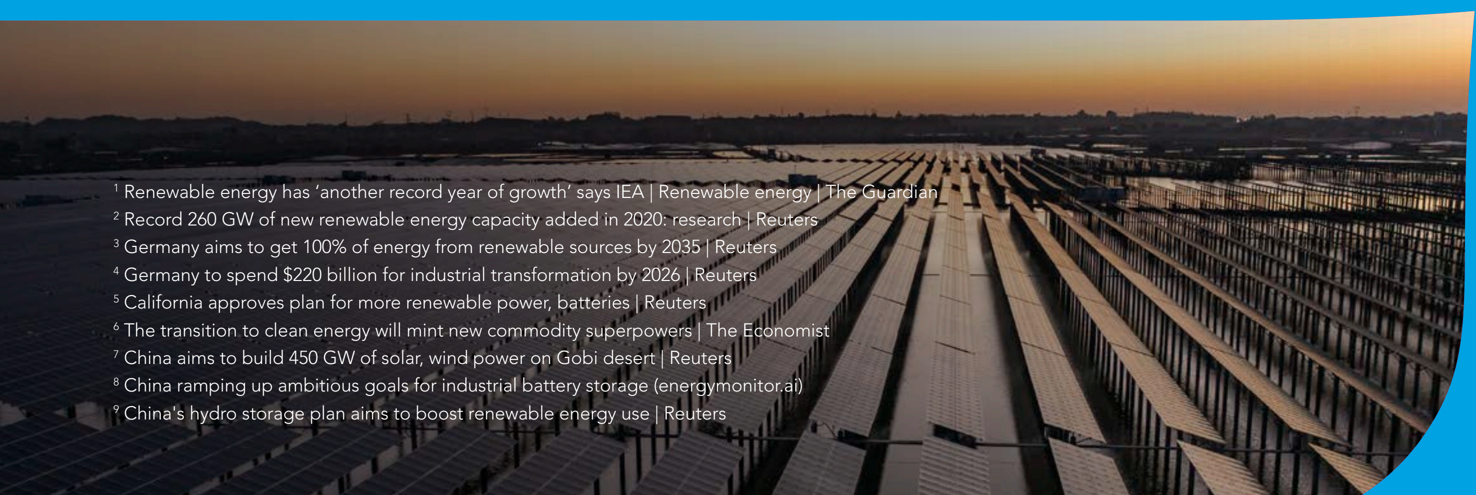
70% of power generation by 2050

Upgrading the grid

China has committed to becoming carbon neutral by 2060, an ambition which requires a total overhaul of its energy infrastructure; including the integration of renewables, the digitalisation of power substations and upgrading its national grid.

The country plans to build 450GW of solar, wind and hydro in its desert regions[7]. It is also targeting 30GW of battery storage by 2025 and 100GW by 2030[8], alongside 120GW of pumped hydro energy by the end of this decade[9].

China's state-owned electric utility operates about 80% of the nation's electricity grids spanning 26 provinces. The utility's four principal subsidiaries include a Chinese provider of solutions for power and automation technologies, which, as of 28 March 2022, made up 2.44% of the GEMs portfolio.



[1] Renewable energy has 'another record year of growth' says IEA | Renewable energy | The Guardian
[2] Record 260 GW of new renewable energy capacity added in 2020: research | Reuters
[3] Germany aims to get 100% of energy from renewable sources by 2035 | Reuters
[4] Germany to spend $220 billion for industrial transformation by 2026 | Reuters
[5] California approves plan for more renewable power, batteries | Reuters
[6] The transition to clean energy will mint new commodity superpowers | The Economist
[7] China aims to build 450 GW of solar, wind power on Gobi desert | Reuters
[8] China ramping up ambitious goals for industrial battery storage (energymonitor.ai)
[9] China's hydro storage plan aims to boost renewable energy use | Reuters

As the company's core business focuses on software and hardware for substation automation, it is uniquely positioned to benefit from the grid overhaul. The Chinese power and automation holding, which is developing products in High Voltage DC power, also stands to benefit from wider electrification trends.

Electric vehicles (EV) look poised to achieve price parity with internal combustion vehicles in the next few years as production costs decline and regulatory pressures force car manufacturers to reduce emissions. EVs and other zero-emission vehicles are forecast to make up 70% of new vehicle sales by 2040, according to a report by BloombergNEF[10].

The Chinese power and automation company's EV charging business, which it launched in 2009, also stands to benefit from the forecast rapid growth of this sector.

The booming EV market provides a further positive feedback loop for the renewables industry. The growth of EVs will lead to the demand for more power, which in turn will require more grid upgrades, more green tech and greater energy storage.

Another holding in the GEMs portfolio is a Brazilian group (see case study on page 6), which manufactures electrical equipment and components, is at the centre of these changes. Its business includes solar generation and wind turbine technologies, transformers for renewables and energy storage systems.

Electrification drive

Electrification refers to the process of replacing technologies that use fossil fuels with those using electricity as their energy source.

Electrification of end uses allows for a higher potential reduction in greenhouse gas (GHG) emissions as a result of both energy savings – due to the higher efficiency of electricity-based technologies – and the potential for an increasing share of renewables in power generation.

> **Electric vehicles (EV) look poised to achieve price parity with internal combustion vehicles in the next few years as production costs decline and regulatory pressures force car manufacturers to reduce emissions.**

This means electrification can provide over 90% of the energy-related CO2 emissions reductions necessary to meet the targets of the 2015 Paris Agreement, according to the International Renewable Energy Agency[11].

Economy-wide electrification – in sectors such as transportation, construction and industry – is critical to achieve wider decarbonisation goals. As electricity makes up less than 20% of total final energy consumption[12], it has the potential for significant future growth.

The GEMs strategy has a number of holdings that stand to benefit from this trend such as a Taiwanese electronics manufacturing company, which produces 'green' applications to help reduce energy consumption.

Another portfolio holding, a large South Korean chemical company,has used the cash flows from its Petrochemicals operation in the last decade to build a leading Energy Solution business. The group's fast-growing battery division should also benefit from the rapid uptake of EVs. The number of battery makers that supply the EV market are likely to remain limited because of stringent requirements for performance, technology, safety and reliability. The South Korean chemical company has a number of long-standing partnerships with original equipment manufacturers (OEMs).

Other holdings, including a US-Hong Kong group (2.69% of the portfolio at 28 March 2022), which specialises in cordless power tools powered by rechargeable batteries, and a Swedish group, which manufactures electric-powered mining equipment, also play into wider global electrification efforts.

Copper and aluminium

As energy transitions gather pace, the market size of industrial metals associated with low-carbon energy generation and the upgrading of electricity networks is forecast to expand almost seven-fold by 2030[13]. The price of so-called 'green' metals has risen 64% over the past year[14]. High concentrations of these metals in Russia could increase the risk of shortages as sanctions bite, pushing up prices further.

Copper has the greatest thermal and electrical conductivity of any non-precious metal and more than 65% of the world's copper is used in applications that deliver electricity[15].

However, remaining global copper reserves are typically deep underground in remote locations. Mining involves the blasting and drilling of millions of tonnes of rock a year, while processing is extremely water- and energy-intensive.

Yet, as a critical component in solar and wind power, as well as electrified transportation, heating and industrial systems, copper is crucial for decarbonising the economy. EVs, for example, use up to four times more copper than internal combustion engines[16].

As the world steps up renewable energy production, along with related investments in energy efficiency and electrification, we believe demand for copper will accelerate further.

[10] EVO Report 2021 | BloombergNEF | Bloomberg Finance LP (bnef.com)
[11] IRENA
[12] How electrification can supercharge the energy transition | World Economic Forum (weforum.org)
[13] The transition to clean energy will mint new commodity superpowers | The Economist
[14] Why energy insecurity is here to stay | The Economist
[15] Recycling copper considerations, can more be done in the… | BASEC
[16] Copper's Role in Growing Electric Vehicle Production | Paid for and posted by CME Group (reuters.com)

Figure 1: Intensity of copper use is increasing with decarbonisation

More than 65% of the world's copper is used in applications that deliver electricity.

Electric vehicles use up to four times more copper than internal combustion engines.

Renewable energy technologies use four to five times more copper than fossil fuel power generation.

Copper consumption associated with electric vehicles and renewable energy technologies to grow rapidly.

Source: US copper mining company

Our research suggests global copper supplies could face deficits after 2024 due to limited new projects in the pipeline today and increasing demand for the metal. As a result, we expect a prolonged period of elevated copper prices after 2024, reaching comfortably above $10,000 a tonne after this point.

Our holding in a US copper mining company – which has mines in Peru, Chile, the US and Indonesia – is well positioned to benefit from this trend.

Another metal vital to electrification and decarbonisation is aluminium. Rigid and strong, lightweight and malleable, as well as infinitely recyclable, aluminium is widely used in packaging, transport and construction. But its fastest growing market is the auto industry, where the use of lighter metals and materials instead of steel reduces the vehicle's overall carbon footprint.

'Green' infrastructure will also be a key driver for aluminium demand. Net new power generation capacity additions in the next three decades to 2050 will be four times as much as was installed in the last 30 years, according to BloombergNEF[17].

To connect this new generation capacity, a further 48 million power lines need to be built by 2050, requiring a 41% increase in aluminium. We expect the price of aluminium to increase significantly over the next three-and-a-half years as decarbonisation-driven demand and supply constraints lead to tighter markets.

These factors play into the hands of another holding: a Malaysian group, which is one of the largest aluminium smelters in Southeast Asia as well one of the industry's lowest carbon emitters as it relies on hydropower to drive its three smelters in Sarawak.

Enabling decarbonisation without sacrificing ESG performance

While recognising the vital contribution of 'green' metals and other net zero 'enablers' through their products and services, this cannot be at the expense of strong ESG management at an operational level or wider UN Sustainable Development Goals (SDGs). This is particularly important for the metal holdings, given the energy intensive nature of mining and the associated human rights risks. Not only is copper processing extremely water- and energy-intensive, mining regions are often home to indigenous populations and ensuring strong community relations and 'social license to operate' is key.

Alongside EOS, Federated Hermes' engagement and stewardship service, we are engaging with Freeport McMoRan on its environmental and human rights due diligence to ensure the company adopts best practice approaches across its mining portfolio as well as continuing our engagement on climate change (see box below). The company has now committed to undertaking a human rights impact assessment at its Grasberg mine in Indonesia which we welcome. We are also engaging with the Malaysian aluminium company on embedding a health and safety culture, responsible sourcing and a climate change strategy.

A US copper mining company – Climate change engagement

In 2018, we encouraged a US copper mining holding to report in line with the Task Force on Climate Related Financial Disclosures (TCFD). We raised the request in a call with the sustainability team and reiterated our position in subsequent meetings. In 2019, the company began mapping its sustainability report to relevant TCFD indicators. In 2020, the company published its first climate change report which established Scope 1 and 2 emissions intensity-reduction targets for the Americas and in which it committed to aligning future climate-related financial disclosures with the TCFD.

Acknowledging the progress, we encouraged the company to seek external verification that its targets are sufficiently ambitious, referencing its public assessment by the Transition Pathways Initiative. In 2021, the company's updated TCFD report established 2030 Scope 1 and 2 targets for Indonesia, announced 2050 net zero aspirations, completed its first global scenario analysis and enhanced Scope 3 estimates. We were pleased that the company committed to submitting its 2030 Scope 1 and 2 emissions[18] intensity reduction targets to the Science Based Targets Initiative (SBTI) for external verification. We continue to engage with the company on climate change.

[17] New Energy Outlook 2021 | BloombergNEF | Bloomberg Finance LP (bnef.com)

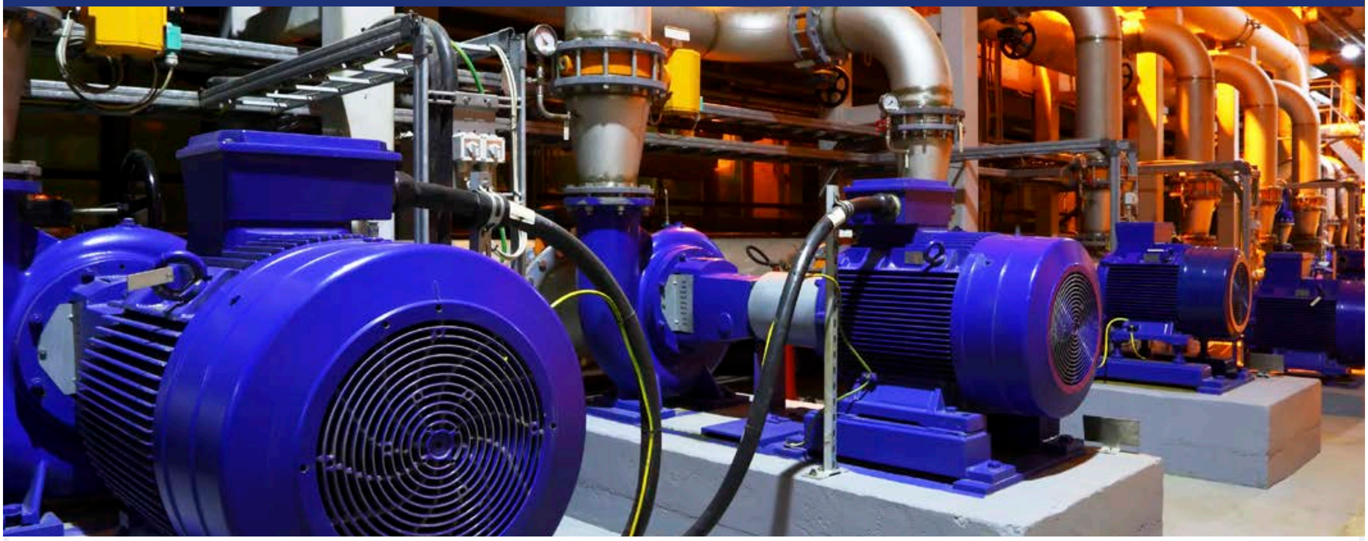
[18] Companies' greenhouse gas emissions are categorised into three groups or 'Scopes' by the most widely-used international accounting tool, the Greenhouse Gas (GHG) Protocol. Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain.

POSITIVE IMPACT CASE STUDY

Brazilian manufacturer of electrical equipment and components

As a leading manufacturer of industrial electric motors and generation, transmission and distribution equipment, the holding is a Brazilian manufacturing success story with circa 60% of sales generated globally.

Sustainable development goals:



Theory of change

The company's history of providing critical components for renewable energy, battery storage and EVs, as well as its experience as a long-term supplier of equipment, transformers and substations to the Brazilian grid, gives it considerable scale and know-how to support the clean energy transition.

Figure 2: Brazilian manufacturer of electrical equipment, share price (BRL)

Source: Bloomberg as at 31 March 2022.
Past performance is not a reliable indicator of future results.

As a diversified electrical machinery business, focusing on energy-efficient motors and components for renewables, the big picture is a positive one for the holding, with strong tailwinds for the net-zero transition regionally and globally.

Electric motors consume about half of the world's electricity, and so energy-efficient motor manufacturers are key contributors to the carbon transition while benefitting from ever-increasing efficiency standards and regulations. The Brazilian group's electric motor business is set to grow over the long term because of (a) higher efficiency standards driving market growth and consolidation (b) the holding's efforts to diversify its sales from electric motors to drives, automation equipment and software, helped by its expansion of its manufacturing base outside Brazil and finally (c) its expansion into new areas (such as EV motors).

Electric motors consume about half of the world's electricity, and so energy-efficient motor manufacturers are key contributors to the carbon transition while benefitting from ever-increasing efficiency standards and regulations.

Against a backdrop of a world needing to increase renewables capacity, the group sells wind turbines, hydro turbines, solar kits and biomass generators. It also has a specialist business in transformers for renewables applications (a necessity for connecting renewables projects to the grid). Renewables growth in turn drives demand for grid upgrades and the group's transformer products.

Against a backdrop of a world needing to increase renewables capacity, the Brazilian holding sells wind turbines, hydro turbines, solar kits and biomass generators.

The Brazilian group already dominates the renewables market in one of the cleanest electricity markets in the world. Brazil is a positive outlier in renewable energy generation, with almost 80% of its national grid supplied with renewable power.[19] For decades, the holding has essentially been a monopoly supplier of generation equipment, transformers and substations to the Brazilian grid, giving the company considerable scale and know-how when it comes to renewable energy equipment. Now the rest of the world wants to go the way of Brazil.

Brazil is a positive outlier in renewable energy generation, with almost **80%** of its national grid supplied with renewable power.

The holding's significant contribution to the SDGs and enabling carbon transition goes hand in hand with an excellent track record of growing sales, profits and cashflow.

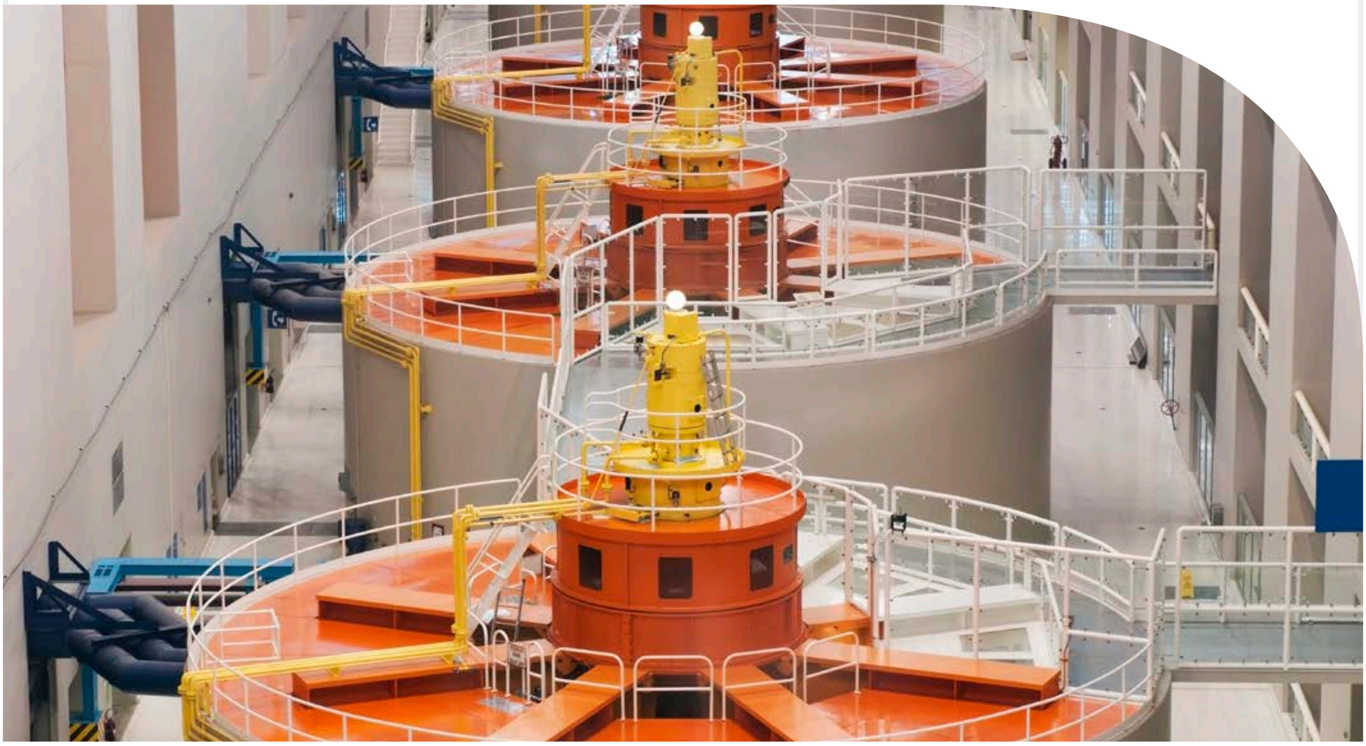
The company has also recently entered the energy storage business. More renewable energy in the grid means more intermittency, and more of a gap between peak supply and peak demand, hence a compelling need for more energy storage.

The Brazilian group's significant contribution to the SDGs and enabling carbon transition goes hand in hand with an excellent track record of growing sales, profits and cashflow. This is achieved while investing in new geographies, new products and M&A, without diluting returns, and while paying dividends.

Engaging on ESG operations

Regarding its own operations, the company pays attention to its environmental impacts and has a lower carbon intensity versus the industry. However, as with all companies, the company has opportunities to enhance its performance, recognising that ESG is an on-going journey. We are engaging with the company on the disclosure of its Scope 3 emissions, which are likely to be the most material ones, but also on its supply chain due diligence and on increasing board gender diversity. The group has begun the search for a female board member and is working with external consultants on measuring Scope 3 emissions, and we look forward to seeing the results.

This information does not constitute a solicitation or offer to any person to buy or sell any related securities or financial instruments.



[19] www.climatescorecard.org

POSITIVE IMPACT CASE STUDY

Leading Peruvian bank

The holding is Peru's biggest bank and the owner of a subsidiary which is the largest microfinance business in Latin America.

Sustainable Development Goals:

Create a more sustainable and inclusive economy:

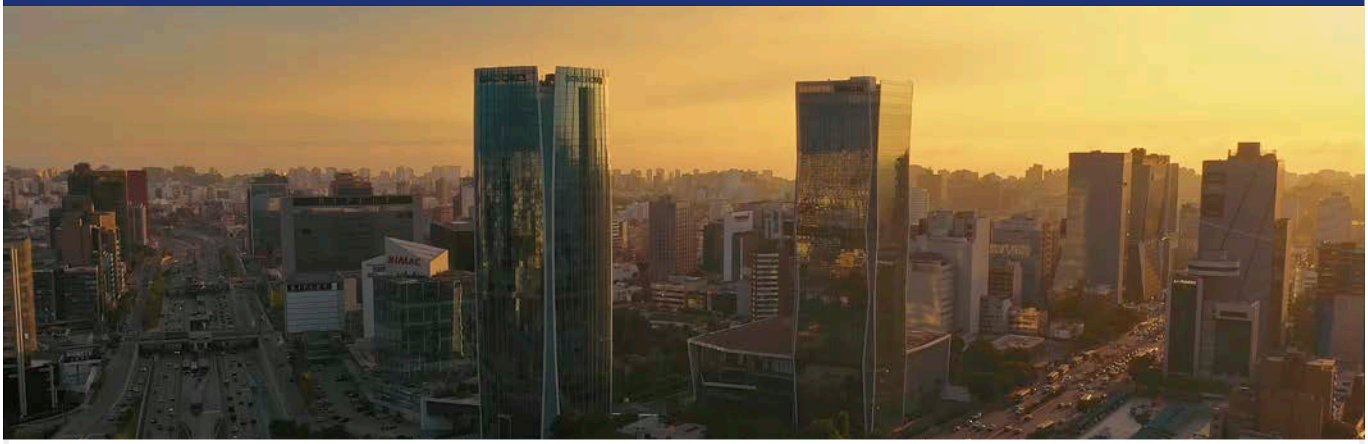
8 DECENT WORK AND ECONOMIC GROWTH | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 13 CLIMATE ACTION

Improve the financial health of citizens:

8 DECENT WORK AND ECONOMIC GROWTH | 10 REDUCED INEQUALITIES | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Empower people to thrive:

5 GENDER EQUALITY | 10 REDUCED INEQUALITIES | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS | 17 PARTNERSHIPS FOR THE GOALS



Theory of change

Financial inclusion lies at the heart of the company. The bank's Sustainability Strategy (2020-25) prioritises three key objectives and 11 SDGs that align most closely with its business.

According to World Bank data, as of 2018, only 43% of adults in Peru have a bank account. While that is up from 29% in 2014, it is still below the region as a whole and there is a 17% gender gap. The Financial Inclusion Index 2021 shows that Peru is below average on key financial inclusion criteria for the Lat Am region including access, use and perceived quality.

Over the last **10** years, a subsidiary has set up bank accounts for more than one million Peruvians

Its subsidiary has a broad portfolio of products aimed at entrepreneurs of micro, small and medium-sized enterprises (MSMEs) as well as individuals. Its focus is on providing the population with access to financial services, not just credit but also savings and investments.

Over the last 10 years, a subsidiary has set up bank accounts for more than one million Peruvians. From 2019-2020, the subsidiary set up accounts for 150,000 people, many of whom were accessing the financial system for the first time. In 2021, this extended to 77,500 new clients.

The bank's app enables people to send money to another mobile phone number free of charge, securely and instantly. All that's needed to open an account is an official ID. As a result of the app, one million new users were included in the financial system in 2021. The app is now adding 400,000 'affiliate' customers per month, 90,000 of whom are new clients and have received a debit or prepaid card from the bank for the first time. Regional expansion into Bolivia through another app financially included a further 200,000 people in 2021[20].

Financial education and inclusion, including with a gender-specific lens, are key pillars of the bank's sustainability strategy. The bank's financial education programmes reached more than 5.2 million people and SMEs in 2021. Half of the subsidiary's clients are women and the bank has designed a specific product to cater to their financing needs. Women over the age of 23, whether they are head of the household or a second earner, are eligible for financing for working capital, fixed assets, housing or personal consumption. The minimum loan is 300 soles ($81) and the maximum is 3,500 soles.

[20] The bank's annual and sustainability report 2021

In Peru – as in many countries around the world – gender inequality is structural. The majority of accounts are in men's names. Therefore, targeted financing such as this should help bolster female financial independence and fuel economic growth. Importantly, the loans do not need a spousal signature.

50% of the subsidiary's clients are women and the bank has designed a specific product to cater for their financing needs

In 2020, 19,386 female-targeted loans were provided. To strengthen this area even further, we are engaging with the company about setting future targets for female financial inclusion and a strategy for retaining female clients and/or transitioning them to mainstream banking at the group's commercial subsidiary.

A subsidiary has recently entered Colombia, where, despite having a population 1.5x the size of Peru's, the total microlending market is smaller than the subsidiary's total loan disbursements in Peru. The company shared that they expect to grow at over 30% a year in Colombia going forwards, taking share from informal money lenders and providing much cheaper credit than SMEs have traditionally had access to.

The company's strong performance on financial inclusion goes hand in hand with good progress on overall sustainability governance.

Through the bank's insurance arm, 1.5 million Peruvians accessed inclusive insurance products in 2021; a further 600,000 were reached through a subsidiary's inclusive insurance offering.

Sustainability governance on the right track

The company's strong performance on financial inclusion goes hand in hand with good progress on overall sustainability governance. We have been encouraged by the progress in developing a group-wide sustainability strategy and the publication of a first sustainability report, articulating the role played by each of the company's subsidiaries (one of the inputs we provided to the bank in 2020).

In a recent meeting with the company (Q4 2021), we pressed for the assessment and disclosure of Scope 3 carbon emissions and progress on developing an overall net carbon strategy through membership of the Net Zero Banking Alliance, noting that some of the bank's peers in the region are more advanced on this. We will continue to engage and monitor progress.

This information does not constitute a solicitation or offer to any person to buy or sell any related securities or financial instruments.

These companies are currently held within our portfolios.

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The above does not represent all of the securities held in the portfolio and it should not be assumed that the above securities were or will be profitable.

Federated Hermes

Limited

Federated Hermes

Federated Hermes is a global leader in active, responsible investing.

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 Investment Management are now undertaken by Federated Hermes Limited (or one of its subsidiaries). We still offer the same distinct investment propositions and pioneering responsible investment and stewardship services for which we are renowned – in addition to important 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

For more information, visit **www.hermes-investment.com** or connect with us on social media:

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