

Handelsbanken's climate
change progress report

2023



Handelsbanken

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About this report

The purpose of this report is to inform stakeholders about our progress related to climate change. The scope of the report is the lending operations of the Handelsbanken Group. For more information about our work with climate change mitigation in our role as Asset manager and Asset owner, please see the separate, publicly available reports at handelsbanken.com.

This report has been prepared in accordance with the Task Force on Climate-related Financial Disclosures' recommendations.

About TCFD

The international Task Force on Climate-related Financial Disclosures (TCFD) was formed in 2015 and tasked with correcting the scarcity of information regarding companies' work on, and management of, issues related to climate change. The TCFD has developed a reporting framework focused on providing useful information to lenders, insurers, and investors.

The widespread adoption of the TCFD framework would allow for climate change to be factored into financial decision making, allowing a more efficient allocation of capital, and help smooth the transition to a low-carbon economy.

The TCFD published its implementation guidance in June 2017, followed by an update in 2021, structuring its recommendations into four areas: Governance, Strategy, Risk Management, and Metrics and Targets. Together with underlying disclosures within each area, the framework provides a standardised and relevant way of helping investors and others understand how the reporting organisation assesses and manages climate-related risks and opportunities.



Foreword from our Chief Sustainability and Climate Officer

As we issue this year's climate change progress report covering the Bank's lending portfolio, we do so with mixed emotions. On the one hand, eager to share our insights and proud to contribute them, and on the other hand we remain concerned about the state of the issue that compels our organisation to gather these insights in the first place: climate change.

Climate change is possibly the biggest challenge of our time, and its consequences are increasingly severe and are felt worldwide as heatwaves, droughts, wildfires and floods are becoming more common and widespread. All bodies of society, both public and private, need to do more and accelerate the pace. At Handelsbanken, we are determined to do our part and support our customers through the climate transition by continuously developing our offering and advisory services as well as aligning our business decisions with the 1.5°C limit and becoming a net-zero company by 2040.

As we look back on 2023, the conclusion is unfortunately that in terms of global greenhouse gas the world did not see the reductions needed. Instead, it appears as if 2023 will be a record year in terms of fossil fuel emissions. Consequently, the global average temperature continues to rise and 2023 was the warmest year on record and indeed the first year on record where global average temperatures were more than 1.5°C above pre-industrial levels. This does not mean that the 1.5°C limit has been missed, as this would require these type of temperatures for several years, however the window to stay below the 1.5°C limit by 2100 is closing fast. This means that the world is edging increasingly closer to two costly outcomes: a delayed and thus disorderly transition with high costs because of stranded assets, or a transition which is too slow with high costs due to the need for adaptation to a warmer and a more unstable world.

In December 2023, COP28 was held in the United Arab Emirates, which included the first global stock take since the Paris agreement. After intense negotiations world leaders agreed, among other things, to triple renewable energy capacity and double the rate of energy efficiency improvement by 2030 and to "transition away from fossil fuels". Although the burning of fossil fuels is responsible for 75 per cent of all emissions of greenhouse gases, this was the first time fossil fuels were mentioned in an agreement in 28 years of climate negotiations.

During 2023, Handelsbanken took several important steps towards aligning our operations with the science and towards achieving our goal to be a net-zero company by 2040. We updated our transition plan including a new and improved governance structure based on our decentralised model. Each home market developed their first net zero road maps detailing concrete actions to be taken in the coming years to transition business operations in line with group targets. The Bank also submitted science-based targets for validation to the Science Based Targets initiative that we expect to be validated in 2024.

In 2024, our work with climate change will continue to be an area of strategic focus for the Bank, and we will continue to develop products and services to support our customers on our joint journey towards net-zero emissions.



Catharina Belfrage Sahlstrand
Chief Sustainability and Climate Officer, Handelsbanken

Governance

Board of Directors and executive management

The Board has adopted an overarching Policy for sustainability, which sets out the direction of the Group's sustainability work. Management of risks and opportunities related to climate change is an integral part of the Group's sustainability work. The overarching direction of the sustainability work is that Handelsbanken aims to integrate financial, social and environmental sustainability into all the Bank's operations, which means that the Bank is to run financially sound, sustainable operations and encourage and contribute to sustainable development. This way, risks and costs can be reduced, while new business opportunities can be identified, employees stay motivated, and confidence in Handelsbanken maintained.

Group-wide decisions concerning climate strategy, and targets linked to this area, are approved by the Bank's Chief Executive Officer (CEO). The CEO also establishes guidelines describing how various risks related to climate change should be managed and reported, including for example the guidelines on the Environment and Climate change.

The Chief Sustainability and Climate Officer reports to the CEO and the Board on the Bank's overall sustainability activities, including climate change, every quarter. This includes matters of relevance to the organisation and performance in relation to the sustainability and climate targets adopted by the Bank. This reporting shall also include any significant deviations and, where necessary, actions taken as regards Handelsbanken's sustainability work.

No significant deviations were reported to the Board during 2023, but examples of matters that the Board was informed of or were discussed include sustainable financing according to financing terms and market conditions and regulations such as current and future reporting principles relating to CSRD. The Board has also been kept up to date on the forthcoming sustainability regulations to be introduced as part of the EU's European Green Deal and the Fit for 55 package.

Group coordination

Handelsbanken's sustainability work is coordinated by a Group-wide specialist function headed by Handelsbanken's Chief Sustainability and Climate Officer. The Chief Sustainability and Climate Officer is part of the executive management team and reports directly to the CEO, which means that sustainability-related matters are factored into the ongoing executive work and strategic decision making.

The Chief Sustainability and Climate Officer is also the Chair of Handelsbanken's Sustainability Committee. The Sustainability Committee analyses the sustainability work undertaken by the Group and, where necessary, takes on a coordinating role. Potential problems and business opportunities are highlighted, and pre-emptive plans of action are established. Decision-makers from both the business operations and central departments make up the Sustainability Committee. Several of the members are also part of the Bank's executive management. The Sustainability Committee convenes at least three times per year, or more often if necessary.

To ensure that the Bank makes the best use of its capacity for innovation, and that units across all parts of the Bank work together, there are additional working groups with a remit relating to sustainability. One example is the Green Finance Committee (GFC), which is responsible for determining technical criteria for green loans, and for approving assets for inclusion in Handelsbanken's portfolio of green assets. In its assessment, the Committee considers areas such as life-cycle analysis, positive effects on the climate, resilience, and scientific targets.

In 2023, Handelsbanken published its updated transition plan, outlining the overarching strategy of how we will work to achieve our climate targets. The Transition Plan has been integrated into all home markets and affected business areas' annual business plans and normal operations. Each home market coordinates work with implementing the Transition Plan through national Net Zero Steering Committees and develops and decides on national road maps containing the activities for the upcoming years. Work with identifying and prioritising activities takes an impact approach, meaning that priority shall be given to maximise positive impact in the real economy such as greenhouse gas emission reductions. The work with implementing the national road maps is coordinated by Group Sustainability through the Group-wide Task force on Net Zero 2040, which gathers representatives from each home market. The Task force is chaired by Handelsbanken's Chief Sustainability and Climate Officer, who is part of the Bank's executive management and reports on progress regularly to Handelsbanken's Board, CEO and executive management.

Board

CEO and executive management

Task force on Net Zero 2040

Net Zero Steering
Committee Sweden

Net Zero Steering
Committee Norway

Net Zero Steering
Committee UK

Net Zero Steering
Committee the Netherlands

Strategy

During 2023, Handelsbanken published *Handelsbanken's Transition Plan – Towards net zero 2040* which is based on the Bank's unique corporate culture and the goal of becoming a net-zero company by 2040. The Transition Plan sets out the Bank's overall strategy for working towards these goals.

Handelsbanken's Transition Plan

Handelsbanken's Transition Plan can be divided into four areas:

- 1) Business development
- 2) Engagement strategy
- 3) Metrics and targets
- 4) Governance

Business development

Handelsbanken aims to work alongside its customers and investee companies on their journey towards net zero emissions of greenhouse gases. Products and services that help and support them in their transition are key if Handelsbanken is to achieve its targets. Central to this is the alignment of new and existing products and services with a 1.5°C net zero pathway.

The Bank has already come a long way and many products and services are aligned with the Bank's ambitions and targets. Specific sustainability products such as green and sustainability linked loans are important parts of the Bank's current operations. Remaining products and services in scope shall be reviewed in the coming years and updated so to align with, and support, Handelsbanken's objectives and targets within sustainability and climate change mitigation. Where significant gaps are identified, products and services shall be developed to enhance our offering and support. This includes, but is not limited to, tools and services to help our real-estate customers improve energy efficiency and reduce emissions.

To continuously and effectively transition the Bank to net zero, relevant objectives and targets will be embedded in core evaluation and decision-making tools and processes. This includes, but is not limited to, the assessment and granting of credit, customer on-boarding and engagement and approval of new products and services.

An important step in the coming years will be to deliver products and services that support the transition of the Bank's real estate customers on a broad front. One example of this is Energikollen, the digital service that Handelsbanken in Sweden launched in 2023, that guides and helps mortgage customers find the right type of energy efficiency measures adapted to their housing circumstances. The tool estimates the energy label the residential property may receive after implementing a number of measures to improve energy efficiency. At the same time, a number of more favourable terms were launched for products related to solar panels, geothermal heating solutions and air source heat pumps as well as energy performance certificates.

Engagement strategy

As a financial institution we can influence our customers business decisions, including how they approach the transition to net zero. We are determined to use that influence for positive change and support the transition towards net zero. We have several tools at our disposal to support or influence clients ranging from technical advice, support services and incentives in lending terms and practices.

Handelsbanken uses these tools for positive change today and will continue to do so in the future with the aim of increasing their effectiveness.

Our key approach to achieve our targets is to help and support our customers on their transition journey. We are convinced that a majority of our customer will be able to transition their business operations in line with the 1.5°C limit given the right support and conditions.

Handelsbanken will continuously review its customer and portfolio company engagement strategies and if necessary, update them to align with Handelsbanken's objective and targets within climate change mitigation and identify business opportunities in the transition. This includes proactively and constructively providing feedback and support to customers and portfolio companies to encourage net zero aligned transition strategies and plans. In the coming year, one focus area for the Bank will be on developing client support strategies towards real estate clients.



Metrics and targets

Ambitious targets are key to build momentum, steer workstreams and communicate organisational ambition. In 2021, Handelsbanken published Group-wide sustainability targets, addressing not only the Bank's long-term climate ambition, but also our determination to further and fully integrate sustainability into our core business. This included an overarching climate target to achieve net zero emissions of greenhouse gases as soon as possible, and by 2040 at the latest.

If the world is to have a realistic chance of achieving the 1.5°C limit, net zero is not enough. Emissions need to reduce significantly up until 2030 and interim targets are therefore key to set the necessary pace and build momentum. Handelsbanken's work towards net zero 2040 will not be linear and interim targets, such as sector specific 2030 targets, will be set in line with the 1.5°C limit with the ambition to get relevant climate targets validated by the Science Based Targets initiative. Until 2030, the Bank will make the necessary changes and developments to allow it in the next decade to increase the pace of emission reductions and achieve net zero by 2040.

For Handelsbanken's lending portfolio, targets have been developed depending on the available target setting methods from the SBTi and on the Bank's exposure to different sectors. As a bank with a significant exposure towards real estate, representing more than 80 per cent of the Bank's total lending, real estate is a sector where Handelsbanken can have a significant impact. The Bank has therefore set both sector intensity targets for real estate as well as targets covering real estate companies' wider operations, aiming to encourage real estate companies to set ambitious climate targets aligned with 1.5°C themselves. In addition to targets for the real estate sector, the Bank has developed targets based on where it can have the greatest impact, with a focus on high-emitting sectors and large corporates.

For more information about Handelsbanken's climate related metrics and targets and progress with reducing financed emissions, please see chapter *Metrics and targets*.

Governance

We will achieve our targets the Handelsbanken way - through trust in the individual, a strong local commitment, and a decentralised way of working. Handelsbanken's sustainability work is decentralised and carried out wherever the Bank's business and operational decisions are made. Handelsbanken's overall strategy regarding sustainability is integration into normal operations. Building on the Bank's decentralised way of working, all home markets and affected business areas shall integrate Group targets into their business plans. The work to achieve our sustainability targets and the prioritising of activities applies an impact approach, meaning that priority shall be given to activities that maximise positive impact in the real economy such as greenhouse gas emission reductions. The implementation of the Transition Plan is coordinated by Group Sustainability through the Group-wide Handelsbanken Task force on Net Zero 2040, which gathers representatives from each home market.

Sustainability training is mandatory for all employees in Handelsbanken. The training course *Sustainability in the financial industry* works as an introduction for professionals in the banking, financial and insurance industries to sustainability. The overall goal is to build knowledge and awareness of the activities required to achieve a transition to a sustainable future. Handelsbanken will continue to build upon our strong corporate culture and develop and provide the necessary training and support to the teams and individuals involved in the achievement of the Group's sustainability and climate targets. During 2024, the Bank aims to launch improved training around sustainability in general and a real estate and emissions reductions specifically.



Climate-related risks and opportunities

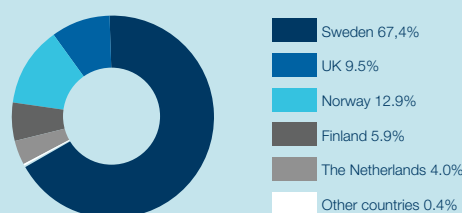
The exact consequences of climate change (physical risks) and the global response (transition risk) to prevent continued global warming, are difficult to predict. These two risks are interconnected and at the economy-wide level - a higher transition risk means a reduced physical risk, and vice versa. Handelsbanken is convinced that a rapid and orderly transition aimed at limiting global warming to as close to 1.5°C as possible would be best for the communities we operate in, for our customers and thus also for Handelsbanken.

A bank's exposure to risks and opportunities relating to climate change is materially affected by the geographical and sectorial composition of its credit portfolio. Our analysis of climate-related risks and opportunities uses this understanding as a starting point. Handelsbanken's loans to the public amounted to approximately SEK 2,434 billion at the end of 2023, and these loans were almost exclusively granted in the Bank's four home markets.

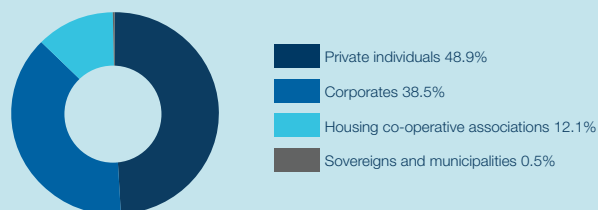
Loans to the Public 31 December 2023

By sector	SEK bn	Proportion of total lending %
Private individuals	1,190	48.9
<i>of which mortgage loans</i>	<i>1,014</i>	<i>41.7</i>
<i>of which other loans with property mortgages</i>	<i>146</i>	<i>6.0</i>
Housing co-operative associations	294	12.1
Property management	732	30.1
Manufacturing	23	1.0
Retail	31	1.3
Hotel and restaurant	6	0.3
Passenger and goods transport by sea	1	0.1
Other transport and communication	12	0.5
Construction	19	0.8
Electricity, gas and water	16	0.7
Agriculture, hunting and forestry	22	0.9
Other services	22	0.9
Holding, investment, insurance companies	24	1.0
Sovereigns and municipalities	12	0.5
Other corporate lending	29	1.2
Total	2,434	100%

By country



By client type



The table on the right shows the volume of the Bank's loans to the public to carbon-intensive sectors. Groups and sectors are defined in accordance with the recommendations of the TCFD. The Bank's lending to high emitting sectors is dominated by real estate lending at almost 94 per cent and lending to other high emitting sectors is small.

Lending to TCFD-sectors 31 December 2023

SEK m

Energy	8,516
Oil and Gas	387
Coal	0
Electric Utilities	8,130
Transportation	5,687
Air Freight	23
Passenger Air Transportation	0
Maritime Transportation	1,330
Rail Transportation	1,250
Trucking Services	2,690
Automobiles and Components	364
Materials and Buildings	753,524
Metals and Mining	2,048
Chemicals	2,021
Construction Materials	567
Capital Goods	79
Real Estate Management and Development	748,809
Agriculture, Food, and Forest Products	29,389
Beverages	636
Agriculture	12,904
Packaged Foods and Meats	3,307
Paper and Forest Products	12,542
Total	797,116

Real estate – risk and opportunities

Buildings account for approximately 40 per cent of the EU’s energy consumption and 36 per cent of its carbon dioxide emissions and the EU sees energy efficiency in buildings as critical part of achieving net-zero greenhouse gas emissions by 2050. Given the Bank’s large exposure to real estate, our lending to this sector constitutes a potential transition risk, but also a business opportunity given the significant investment required to transition buildings to zero emissions. Buildings can also be exposed to physical climate risks, most notably related to flooding, depending on risk exposure and the vulnerability towards such risks.

Transition risks

In late 2023, The European Union revised the Energy Performance of Buildings Directive. Among other things, the revised legislation introduces Minimum Energy Performance Standard (MEPS) for existing non-residential buildings. This will require the 16 per cent worst performing buildings in terms of energy efficiency in each country to be renovated by 2030 and the worst 26 per cent by 2034.

The previously proposed MEPS for residential buildings did not become part of the legislation. Instead requirements for the average energy performance of the national residential building stock were introduced. Member states can decide which buildings to target and how, but at least 55 per cent of the energy reduction will have to be achieved through renovation of the worst performing buildings. Exact impacts on the residential building stock on a national level is unclear until countries formulate and present plans for implementing the directive.

Handelsbanken uses energy performance certificates (EPC) with Energy label to assess the energy efficiency of the Bank’s collateral in properties. The Bank has analysed all its property related lending in Sweden, Norway, United Kingdom, and the Netherlands and identified collaterals with a valid EPC.

The table below shows the share of Handelsbanken’s lending per energy label across the four markets. The proportion of properties with an energy label was the highest within Commercial Real Estate, with approximately 72 per cent of total lending within this category having an energy label.

Distribution energy labels				
Energy label	Mortgages		Commercial Real Estate	
	SEK m	%	SEK m	%
A	10,378	1%	20,102	2%
B	49,117	4%	56,663	6%
C	103,559	9%	139,246	15%
D	141,225	12%	166,263	18%
E	167,024	15%	177,399	19%
F	89,986	8%	81,703	9%
G	44,798	4%	28,632	3%
Missing	524,031	46%	261,978	28%

However, there are significant differences between countries regarding the coverage of energy label, where the Bank’s UK portfolio has the highest coverage at approximately 75 per cent of lending value and our Dutch portfolio had the lowest coverage at approximately 42 per cent.

Transition Risks

Transition risks arising from regulatory requirements, such as a reduction in energy consumption or emissions of greenhouse gases, may be significant depending on the customer’s capacity to bear the necessary investment costs.



Assets



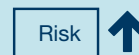
Energy/
emissions



Reduction
requirements



Costs



Risk

Physical climate risks

Physical climate risks are risks resulting from climatic change and are either acute or chronic. Acute risks include droughts, extreme precipitation, wildfires and floods. Chronic risks include rising temperatures, changed precipitation patterns and sea level rise.

The Bank has intensified its efforts in assessing and understanding potential future physical climate risks within its lending portfolio. The primary focus of these efforts has been on evaluating risks associated with mean sea level rises and flooding from major rivers and streams in Sweden. The Bank is assessing third party data providers to be able to better assess the effects of additional physical risk factors and additional geographical areas.

To better understand potential risks associated with mean sea level rise, an extensive analysis was conducted in 2022, covering two separate aspects: property-specific risk from mean sea level rise on a coastal nationwide level in Sweden, and a property-specific analysis of flooding risk in Stockholm, Sweden in a more severe scenario which combined both mean sea level rise and extreme weather. This analysis was based on externally calculated climate scenarios provided by the Swedish meteorological and hydrological institute (SMHI).

The coastal nationwide analysis evaluated the effects of chronic flooding due to a mean sea level rise of one meter, aligning with current estimations until the year 2100 in the future climate scenario RCP 8.5. The findings from the analysis indicated that 0.3 percent of the Bank's exposure to Swedish property collateral would be chronically flooded. This demonstrates that a sea level rise of one meter would have a limited effect on the Bank.

For the Stockholm area, an analysis of extreme sea level rise was conducted which combined mean sea level rise and extreme weather, based on an RCP 8.5 scenario until the year 2100. This analysis of flooding risk showed that 1.5 per cent of the exposure value in the Stockholm area would be flooded in the evaluated scenario.

Continuing in 2023, the Bank further deepened its understanding of flooding risks by conducting a comprehensive analysis specifically targeting properties in Sweden situated near major rivers and streams. Geographical data for these properties were sourced from Valueguard's housing register, and the risk of flooding for these positions was based on The Swedish Civil Contingencies Agency's (MSB) flooding portal.

The risk analysis encompassed 78 rivers and streams and evaluated the severity and likelihood of flooding. The intensity of the floods was assessed based on the most severe flood statistically expected, in

The analysis indicated that less than 0.2 percent of the total exposure value was susceptible to flooding in the 100-year flow scenario. This percentage remained roughly the same in the 200-year flow scenario and experienced only a marginal increase in absolute terms to 0.8 percent in the 10,000-year flow scenario. It is noteworthy that these scenarios represent a probability density, suggesting that while the floods are statistically anticipated once within the specified timeframes, they can potentially occur more frequently but with lower probabilities.

It is also important to note that the definition of flooding in both the mean sea level rises and the flooding from rivers and streams scenarios has a binary classification, considering only whether it occurs or not. No consideration is given to the gravity of the damage of the collateral or any potential preventive measures. Therefore, these numbers can be viewed as worst-case scenarios, and the Bank's exposure to flooding-related climate risk is assessed to be both small and manageable.

For its UK operations the Bank has sourced flood risk data at postcode level from external data provider JBA. JBA's flood risk assessment incorporates four flood risk types: river, coastal, surface water and groundwater chalk. The flood risk rating spans five bands, ranging from low to very high flood risk. As of 31 December 2023, 11 per cent of the collateral is in areas that have high or very high flood risk (2022: 11 per cent). Flood risk insurance is a condition of any lending and we do verify, and for larger exposures seek evidence, that flood risk insurance remains in place. However, it is important to note that insurance will only lower risk of financial impact in the short term and continued integration of physical climate risk into credit assessment is therefore of high importance.

Opportunities

Among Handelsbanken's main climate-related opportunities are increased investments in energy efficiency in properties. To meet the EU's target of reducing emissions with at least 55 per cent by 2030, buildings will have to become more energy efficient. As part of the post-Covid-19 recovery package, the EU has presented "A renovation wave for Europe" – a strategy aimed at improving buildings' energy performance via renovation. The renovation rate for buildings in the EU today is low – only 1 per cent of renovations improve buildings' energy performance. The aim is to at least double this annual rate with the renovation wave, so that 35 million buildings in the EU are renovated to be more energy efficient by 2030. According to the European Commission, annual investments of around EUR 325 billion will be needed to reach the set energy and environmental targets for 2030.

Physical Climate Risks

Physical climate risks are risks resulting from climatic events and are either acute or chronic. Acute risks include droughts, floods, extreme precipitation and wildfires. Chronic risks include rising temperatures, sea level rise and an accelerating loss of biodiversity.



Physical Risks



Assets



Locations



Costs



Risk



At COP28 the governments of all Handelsbanken's home markets signed the Global Renewable and Energy Efficiency Pledge. By doing so, they commit to work together to triple renewable energy capacity, double the rate of energy efficiency improvements by 2030 as well as putting the principle of energy efficiency as the "first fuel" at the core of policymaking, planning, and major investment decisions.

Increased investments in energy efficiency in properties may result in increased business volumes for the Bank due to our good market position, in terms of a large proportion of lending to the sector, coupled with good, long-term customer relationships. If undertaken to the requisite standard, renovations can lead to reduced energy costs, a stronger cash flow, and a higher property value.

Fossil fuels

According to the UN, the burning of fossil fuels in the form of coal, oil and gas is the main cause of climate change, accounting for about 75 per cent of all global emissions of greenhouse gases. Reducing emissions from fossil fuels is therefore crucial to avert the worst effects of climate change.¹

According to the International Energy Agency (IEA), fossil fuels accounted for about 80 per cent of global energy consumption in 2021. All signs point to fossil fuels continuing to play an important role in the global energy supply for a long time to come, and ongoing investments in the maintenance of existing infrastructure will be required to secure the continued availability of energy before alternatives are sufficiently expanded. However, to limit global warming to 1.5°C, the use of fossil fuels must be reduced over time. In concrete terms, this means that no new oil or gas fields neither needs to nor should be opened, and that no new coal mines are opened, or existing ones expanded. Between 2020 and 2030, the use of coal, oil and gas needs to be reduced by about 50 per cent, 20 per cent and 5 per cent respectively and by 2050, the reductions need to be about 90 per cent, 75 per cent and 55 per cent for coal, oil, and gas respectively.²



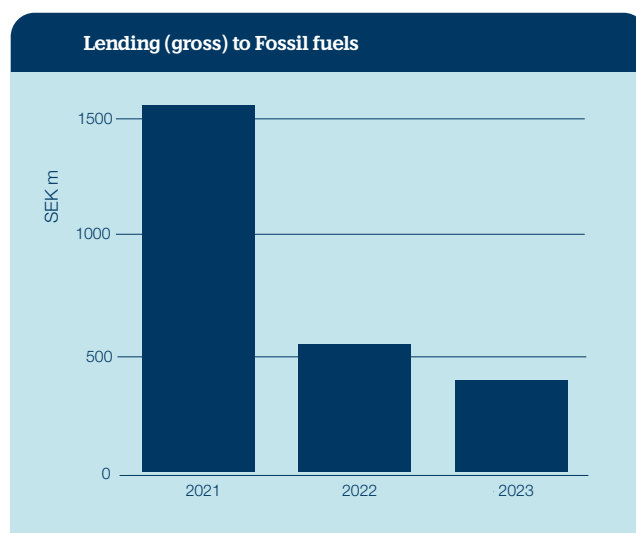
Lending to fossil fuels

In December 2015, the world took an important step towards stabilising the global climate through the adoption of the Paris Agreement, an agreement that has since then been ratified by all major economies and emitters of greenhouse gases.

In 2016, Handelsbanken updated its guidelines on the Environment and Climate change and took a more restrictive stance towards the fossil fuel sector. The Bank decided that extra caution must be exercised in business relationships with companies operating in the fossil fuel sector.

During 2022 the Bank's guidelines for the Environment and Climate change was revised to better align the Bank's lending towards fossil energy with the 1.5°C limit. The guidelines were complemented with further guidance in the form of a sector framework, detailing the specific criteria under which Handelsbanken considers a fossil energy company to be aligned with the 1.5°C limit and thereby potentially eligible for lending. For more information about the specific criteria see [Sector framework – Fossil energy](#).

The Bank has no lending to the coal sector and our lending to the oil and gas sector is small and has been decreasing for many years. Since 2021, lending to the sector has decreased by 75 per cent, from just over SEK 1.5 billion to SEK 387 million, which represents less than 0.02 per cent of the Bank's total lending to the public. In 2023 the Bank provided no new lending to companies within coal mining or companies within oil and gas extraction or refining.



The scope reported in the chart above has been extended compared to previously reported data. Lending to oil and gas now includes companies in sectors not previously covered such as wholesale and services in line with Pillar 3 reporting requirements.

¹ [Causes and Effects of Climate Change United Nations](#)

² [Net Zero by 2050 – A Roadmap for the Global Energy Sector, IEA](#)

Risk Management

Identifying and assessing climate risks is an integral part of the Bank's credit process. At Handelsbanken, the credit process is based on a conviction that a decentralised organisation with local presence ensures high quality in credit decisions.

Handelsbanken's view is that responsible actions are essential to long-term value creation. Climate-related risks may be associated with credit losses and capital costs due to a deterioration of customers' financial position. They may also be linked to inadequate compliance, which could eventually lead to legal consequences in the form of fines or other sanctions, risk of impaired reputation and decreased customer satisfaction. The management of climate risks is thus a critical part of the Bank's general risk management.

In accordance with the Bank's Policy for Sustainability, environmental risks, including climate risks, must be identified and be an integral part of risk assessment in the Bank's general risk areas, such as credit risk. Climate risks must be managed in line with Handelsbanken's generally low risk tolerance. The Bank seeks customers with high creditworthiness and the quality requirement may never be neglected in favor of higher credit volumes or to achieve higher returns. We must assess and evaluate each customer based on established internal policies and guidelines related to lending as well as sustainability and climate.

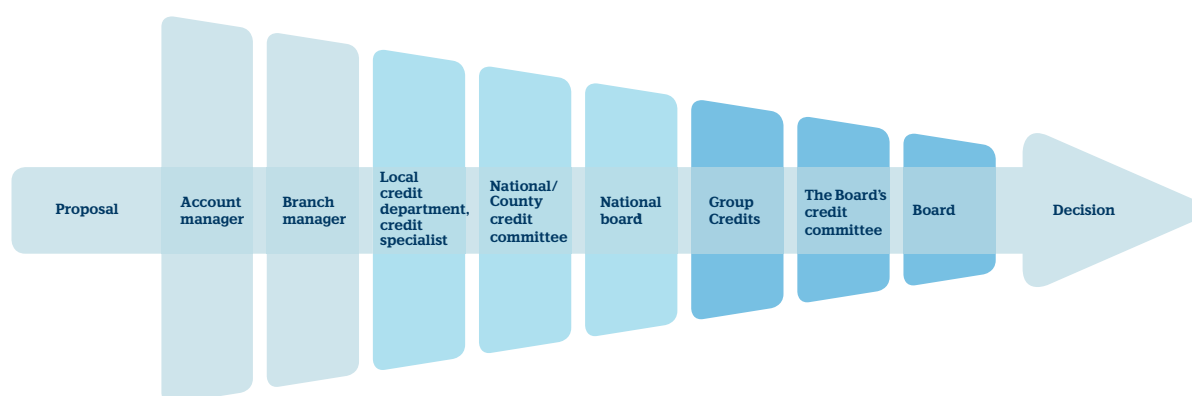
The Bank can abstain from granting a credit if the climate risks are considered too high. The Bank avoids participating in financing of companies within sectors where high ESG risks are prominent. The Bank's guidelines on Environment and Climate change state for example, that the Bank will not enter into new business relations with, or finance, companies that operate within coal mining. Handelsbanken also excludes financing for new oil or gas extraction, or the expansion of existing oil or gas extraction, or any infrastructure directly linked thereto.

At Handelsbanken, the credit process is based on a conviction that a decentralised organisation with local presence ensures high quality in credit decisions. In Handelsbanken's decentralised organisation, each branch responsible for customers has full credit responsibility.

When assessing corporate customers and identifying potential risks, the credit-granting process must consider environmental, social and governance (ESG) factors and the associated risks – particularly environmental factors and the impact of climate change. This means assessing whether, and if so to what extent, climate change affects the risk of financial strain and the credit risk that could arise accordingly. Since the assessment is integrated into the Bank's standard credit process, the regular monitoring of the impact of ESG risks on credit risk is also carried out in this process. The Bank's assessment creates an understanding of the customer's need for transition, and how Handelsbanken can support their work to reduce the risks in their business.

Handelsbanken continuously develop and improve its capacity to identify, measure, manage and report risks associated with both physical climate-related risks and transition risks in the credit process. This involves developing existing procedures and processes in relevant areas, with the aim of being able to more effectively identify, value and also stress test assets exposed to climate-related risks. A current example is the extended guidance for assessing transition risks and physical risks for credits to property companies that is planned to be launched during 2024. This guidance has the dual purpose of giving both better support for assessing the climate-related risks that may occur for the Bank, as well as give fit-for-purpose questions to discuss with the customers in order to help them with their climate adaptation and risk mitigation process.

Credit process at Handelsbanken



Metrics and targets

Ambitious targets are key to build momentum, steer workstreams and communicate organisational ambition. To track progress regarding our work with issues related to climate change and to support our long-term net-zero ambition, the Bank has developed several metrics and targets.

Net zero by 2040

In 2021, Handelsbanken published Group-wide sustainability targets, addressing not only the Bank's long-term climate ambition, but also our determination to further and fully integrate sustainability into our core business – financing, asset management and advisory services. This included an overarching climate target to achieve net zero emissions of greenhouse gases as soon as possible, and by 2040 at the latest. Handelsbanken's work towards net zero 2040 will not be linear and interim targets will be set in line with the 1.5°C limit. Up until 2030, the Bank will make the necessary changes and developments to allow the Bank in the next decade to increase the pace of emission reductions and achieve net zero by 2040.

Interim targets

If the world is to have a realistic chance of keeping below the 1.5°C limit, net zero is not enough. Emissions need to reduce significantly up until 2030 and interim targets are therefore key to set the necessary pace and build momentum. Handelsbanken has developed interim targets using methodology from the Science Based Targets initiative (SBTi) for the Bank's own emissions in Scope 1 and 2 as well as our financed emissions, covering both investments and lending. The interim targets were submitted to the SBTi in 2023 and are pending approval. Targets are expected to be validated in 2024. We do not expect target levels to move significantly, but depending on feedback from the SBTi, the final targets may be adjusted somewhat from the levels presented in this report. In any case, any climate targets that Handelsbanken will develop will be set in line with a 1.5°C pathway. In this report, the targets set for the Bank's own emissions and the lending portfolio are presented.

The Bank's financed emissions

As a bank, the absolute majority of Handelsbanken's emissions are indirect emissions in our value chain, and mainly derive from our loan and investment portfolios, which are referred to as financed emissions.

For Handelsbanken's lending portfolio, interim targets have been developed for sectors based on where we can have the greatest impact and where the potential climate-related risks might be the greatest. As a bank with a significant exposure towards real estate, representing more than 80 per cent of the Bank's total lending, it is a sector where Handelsbanken can have a big impact. The Bank has therefore set both sector intensity targets for real estate as well as targets covering real estate companies' wider operations, aiming to encourage real estate companies to set ambitious climate targets aligned with 1.5°C themselves. In addition to targets for the real estate sector, the Bank has developed targets based on where it can have the greatest impact, with a focus on high-emitting sectors and large corporates. The table below provides an overview of the interim targets set for the Bank's lending portfolio. The base year for all targets is 2021.

The interim targets cover over 88 per cent of the Bank's total lending to the public (on balance sheet) as of 31 December, 2023. The remaining 11.5 per cent not covered by target setting is lending to sectors where we have limited exposures or the exposure is to the greatest extent to small and medium sized enterprises. Handelsbanken may develop additional targets for these exposures if needed to ensure good progress towards net zero and 1.5°C alignment.

Sector	% of lending to the public (on balance sheet)	Emissions scope	Metric	Target setting method	Scenario	Target year	Target
Mortgages	46%	1 and 2	kgCO ₂ e/m ²	SDA	CRREM	2030	-56%
Commercial Real Estate	38%	1 and 2	kgCO ₂ e/m ²	SDA	CRREM	2030	-53%
Power Generation	0.1%	1 and 2	tCO ₂ e/MWh	SDA	IEA	2030	-72%
Real Estate companies ³	0.4%	1 and 2	% of lending with SBTi	Portfolio Coverage	N/A	2028	50% coverage
Other large corporates ³	4%	Depending on SBTi methodology	% of lending with SBTi	Portfolio Coverage	N/A	2028	46% coverage
Exposures not yet included in target setting	11.5%						
Of which in high-emitting sectors	2.5%						

³ Please note that the percentage of lending to the public presented for Real Estate companies and Other large corporates in this table only covers the part of the lending that is not secured by real estate, i.e. the part of the exposures that is not covered by the Commercial Real Estate target in this table. This is as to avoid double counting of target coverage.

⁴ This percentage represents the part of the Bank's lending to the public that has not been included in target setting and is defined as being in a high-emitting sector. For total exposures to high-emitting sectors, please see the table Lending to TCFD-sectors on page 8.

Mortgages and Commercial Real Estate

For the Bank's Mortgage and Commercial Real Estate (CRE) portfolios, targets have been set to decrease the emissions per square metre by 2030 with 56 and 53 per cent, respectively. These are updated and more ambitious target than previous target of 36 per cent, reflecting the latest scientific data and having separate targets for Mortgages and Commercial Real Estate. Just as the previous target, the updated targets are in line with a 1.5°C pathway and based on data from the Carbon Risk Real Estate Monitor (CRREM). The baseline emissions and any following calculations have been performed by applying methodology from Partnership for Carbon Accounting Financials (PCAF), providing a standardised methodology and thus aiding transparency and comparability of disclosed financed emissions.

The Bank's financed emissions calculations for Mortgages and Commercial Real Estate are based on energy performance certificates (EPCs), when available. When an EPC is not available, PCAF estimates on country level and building type have been applied. The financed emissions calculations cover exposures secured by immovable property in Sweden, Norway, the United Kingdom and the Netherlands. For full calculation methodology and more detailed calculation results, please see *Appendix*.

Asset class	Exposure (SEK m)	Total financed emissions (tCO ₂ e)	Economic emission intensity (kgCO ₂ e/SEK m)	Physical emission intensity (kgCO ₂ e/m ²)	PCAF Data Quality Score ⁵	Change from base year (2021)
Mortgages	1,126,898	313,140	278	8.5	3.6	-11.6%
Commercial Real Estate	914,079	477,490	522	12.0	3.6	-15.3%

Since our baseline year of 2021, the financed emissions intensity per square metre from our real estate lending has reduced by 14.3 per cent across the entire real estate lending portfolio, with the commercial real estate portfolio reducing the most at 15.3 per cent. The majority of the portfolio reduction happened in 2022, with the reduction in 2023 representing 3.8 per cent. From our base year, the emission reduction is primarily driven by two factors – improvement in EPC coverage and improved energy efficiency in the portfolio. Compared to 2021, the share of collateral with an energy label has increased significantly and as reported emissions based on energy label data tend to be lower than estimates, this has had an impact on our financed emissions intensity. As the energy label coverage has particularly increased in Sweden, where the difference between reported and estimated data is bigger and the emission intensity is lower compared to, for example, the UK and the Netherlands, this has further enhanced the reduction in emissions intensity in the overall portfolio. Secondly, the distribution of properties with an energy label has improved, with a higher exposure towards more energy efficient properties. This is both due to an inflow of properties with a high energy efficiency and an improvement of the energy efficiency of buildings that were previously part of our lending portfolio, thus lowering the emission intensity of the portfolio.

In 2023, Handelsbanken has continued to focus its decarbonisation efforts related to real estate within two main tracks. Firstly, we actively work with our customers to support their decarbonisation efforts by offering products and services that contribute to this work.

The progress in this area can be seen both from our reduction in financed emissions intensity (kgCO₂e/m²) as well as an increase in total green lending in our lending portfolio. Secondly, focus has been placed on increasing data availability and data quality as good data is key to measure, and improve, real world progress. While data availability and data quality is continuously improving, there is still much more work to be done and we will continue to work to improve data quality and enhancing methodologies accordingly.

In the coming year, we will continue our work towards our target of reducing the financed emissions from our Mortgage and Commercial Real Estate portfolios by 56 per cent and 53 per cent, respectively, by 2030. We will achieve this with continued focus on supporting our customers in increasing energy efficiency and switching to low emissions energy sources. As part of the Bank's Transition Plan, each of our home markets have developed their own plans on how to do this on their respective markets. Work on developing our change and impact analysis was initiated in 2023 and will continue in the next year, in order to better establish to what extent different factors contribute to any changes of our emissions intensity and thus also where we should focus our continued efforts in order to create impact in the real economy. We expect that data availability and data quality improvements will also have effects on our reported emissions intensity going forward, but we are intent on being transparent about our progress towards our sector target.

⁵ 1 – 5, where 1 indicates the highest data quality score. For asset classes Tenant-Owner Associations and Tenant-Owned Apartments, Data Quality score as recommended by the Swedish Banker's Association is applied.

Power Generation

Global electricity demand is expected to grow at an accelerating rate in the next few years, as the clean energy transition gathers speed.⁶ At the same time, the emissions from the Power Generation sector need to decrease in order for the world to stay below the 1.5°C limit and to achieve net zero. It is therefore of the utmost importance that the Power Generation sector decarbonises its operations.

While Handelsbanken's exposure towards the Power Generation sector is relatively small at approximately 0.1 per cent of the Bank's lending to the public, we have set targets for this sector in line with requirements from the SBTi, as we are committed to supporting the decarbonisation of the sector and to reduce the emission intensity of the sector in our portfolio.

Handelsbanken's Power Generation sector target cover the Bank's exposures towards large corporates⁷ engaged in power and heat generation. Data on the generation-related emissions and activity output for large corporates in scope have been collected from public sources or directly from the companies, depending on available data. The data applied to the calculations is the latest available at the time of calculation, meaning that, in general, a one-year time lag on the data included in the calculations. If data is not available, we may use proxies in the calculations as needed.

The target has been calculated using the IEA's 1.5°C pathway NZE2050 for the power sector.

Sector	Exposure (SEK m)	Total financed emissions (tCO ₂ e)	Physical emission intensity (kgCO ₂ e/MWh)	PCAF Data Quality Score	Change from base year (2021)
Power Generation	3,388	33,398	30.59	1.8	27%

Since our baseline year of 2021, the emissions intensity in the portfolio has increased by 27 per cent. While an increase of portfolio emission intensity is not the direction we want to go, the increase is from very low levels and are still far below the IEA's NZE2050 scenario by 2030, at 156 kgCO₂e/MWh.⁸ Furthermore, the increase can, in its entirety, be explained by movements in the scope of the portfolio. As our Power Generation portfolio is small with a very limited number of companies, any changes with companies falling in or out of scope may have a significant impact on the overall portfolio emission intensity. In order to isolate what the changes in the portfolio scope has had on the overall emissions intensity, Handelsbanken has performed a two-step analysis. Firstly, we have analysed the average emissions intensity changes of those companies that were in scope both in 2021 and 2023. Looking at these companies in isolation, we can see a decrease in emissions intensity by 14 per cent. Secondly, we have analysed the companies that were included in the scope in 2023, but not in 2021. The average emission intensity of these companies were all lower than the portfolio emission intensity in 2021, meaning that these companies did not have a negative impact on the portfolio emission intensity, when looking at them in isolation. Our conclusion from this is that the increase in portfolio emissions intensity is due to previously included companies with a low emissions intensity now being out-of-scope with no on balance sheet exposure, thus shifting the emissions intensity of the portfolio. Going forward, we expect that we may continue to see changes in our portfolio emissions intensity that do not fully reflect the progress of our portfolio companies, but rather a result of changes in portfolio scope.

While our portfolio companies, on average, have decreased their emissions intensity since our baseline year, this is at a slightly lower level than our needed trajectory to achieve the Bank's 2030 target of achieving a decrease in emissions intensity of 72 per cent, compared to our baseline year of 2021. This is, however, not unexpected as we expect to see an increased pace in emissions reductions going forward following the tightening of the EU Emission Trading System (EU ETS)

with the recent phase 4 introduction, complementary regulation incentivising low carbon energy adoption – such as the EU's Green Deal – and macroeconomic factors such as solar and other renewable energy sources being significantly cheaper to install and operate than fossil-based counterparts, irrespective of sustainability considerations. With the recent tightening of the EU ETS, the emissions cap will decrease at a quicker pace than it has up until now, and from 2039 no more power generation emissions allowances will be permitted. For the European Power Generation sector, this means that fossil-based power will increasingly become more expensive due to the price per tonne of emissions, while clean power sources become comparably more attractive. This is also the case for Norway, which is part of the EU ETS. The UK has a similar ETS in place as the European Union, which is aligned with staying below a 1.5°C temperature increase versus pre-industrial levels, however the Bank recognises that both the UK and EU ETS are nuanced and idiosyncratic, with different carbon prices, free allowances, covered sectors, and proposed sectoral decarbonisation pathways.

From Handelsbanken's perspective, this means that much of the needed reduction of emissions intensity in our portfolio will come from our portfolio companies having to reduce their emissions following the EU ETS, or due to other policy factors such as EU Green Deal incentives, or market-based factors such as renewables being cheaper to install and operate than fossil-based alternatives, as mentioned prior. However, parallel to this, we also need to ensure that the companies that Handelsbanken finance within the Power Generation sector are companies that can reduce their emissions at the required pace, thus having an increased focus of financing power generation from renewable energy sources. This may result in the Bank having to increase its engagement of existing clients to ensure they are aligned with a science-based pathway, and ensuring that this is appropriately considered at the outset of any new prospective relationship.

⁶ [Clean sources of generation are set to cover all of the world's additional electricity demand over the next three years - News - IEA](#)

⁷ Large corporates have been defined at corporates with more than 10 m SEK on-balance exposure and fulfil at least one of the following criteria (1) annual turnover exceeding 500 m SEK, (2) total assets exceeding 1,000 m SEK or (3) total number of employees exceeding 500 people.

⁸ [Net Zero by 2050 - A Roadmap for the Global Energy Sector, IEA](#)

Real Estate companies and Other large corporates

For the remainder of the Bank's lending to large corporates, not covered by the sector targets described previously, SBTi's target setting method named Portfolio Coverage has been applied. This approach means that we will work to increase the proportion of large corporates that have committed to and set targets with the SBTi. By encouraging our clients to set ambitious climate targets, the clients will develop their own science-based plans on how to align their businesses with a 1.5°C pathway and achieve net-zero. This will help clients to manage their climate risks while also acting as one piece in the puzzle of Handelsbanken achieving its climate targets.

As a real estate focused bank with a significant lending to Real Estate companies, Handelsbanken has opted to set a separate target for Real Estate companies. Most of the total lending volume to Real Estate companies is already covered by the sector specific Commercial Real Estate target presented previously, where lending has been secured by immovable property. However, by also setting a separate Portfolio Coverage target for Real Estate companies, we intend to ensure that we cover the Real Estate companies' entire business and not only the specific buildings we have financed. By doing this, we will be able to better engage and support our clients to decarbonise their entire portfolio.

For full calculation methodology and target scope, please see *Appendix*.

Sector	Exposure (SEK m)	Baseline percentage of clients with SBTs (2021)	Target percentage of clients with SBTs (2028)	Current percentage of clients with SBTs (2023)
Real Estate companies	256,912	21%	50%	25%
Other large corporates	99,560	15%	46%	33%

Since our baseline year of 2021, the proportion of large corporates that has either committed to or already set targets with the SBTi has increased, based on exposures as at 31 December 2023. This is the case for both Real Estate companies as well as other large corporates in our portfolio. However, the increase was higher for non-real estate companies, where the coverage more than doubled in terms of exposure either having set targets or committed to the SBTi.

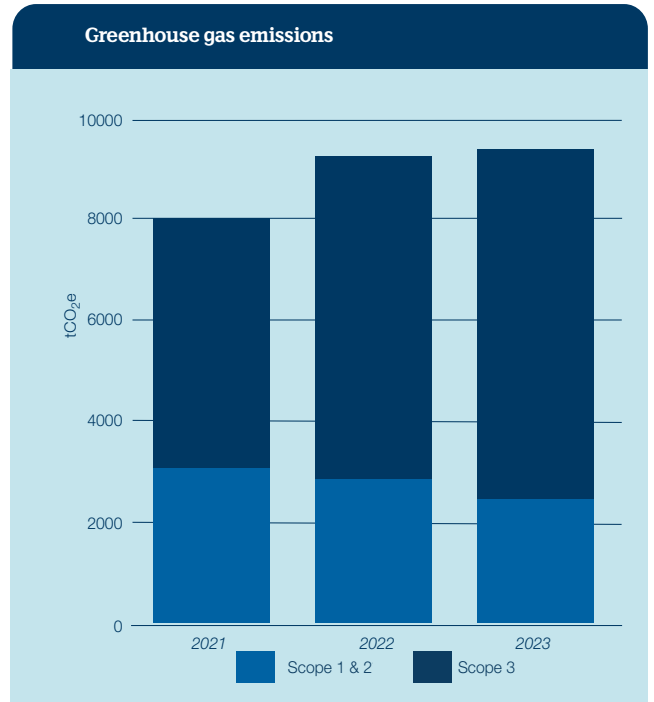
Within the next year, Handelsbanken will focus on developing an engagement strategy, which will support our aim of encouraging

more of our large corporate clients of setting their own science-based targets with the SBTi. The support needed in order to align businesses with a 1.5°C pathway and to achieve net-zero will look different for different companies, depending on which sector they operate in, the business model, their size and many other factors, but Handelsbanken believes that by setting targets aligned with climate science, the companies are in a much better position to transition their business as needed. Handelsbanken will therefore analyse what type of support will be needed for different types of companies in order to lower potential thresholds and for us to transition together with our clients.

The Bank's own emissions

Handelsbanken's target of achieving net-zero emissions of greenhouse gases as soon as possible, but no later than 2040, applies to the Group's lending, leasing and investments as well as Handelsbanken's own operations, such as the emissions from our energy consumption and business travel. The Bank's direct impact derives mainly from energy consumption, business travel and transport as well as use of resources such as paper. In 2023, emissions increased by 65 tonnes compared to 2022, an increase of 1.5 per cent. The largest increase comes from business travel which has continued to increase compared to 2021 when Covid-19 restrictions still were in place. The increased emissions from business travel are partly compensated by decreased emissions in Scope 1 and 2. Energy consumption has decreased by 6 per cent due to decreased use of office space and continuous energy efficiency improvements.

In 2023, Handelsbanken developed new targets for its own emissions in Scope 1 and 2, aligned with the target setting methodology from the SBTi. Firstly, we have set an absolute reduction target for the Bank's Scope 1 and 2 emissions, with a trajectory of achieving net zero emissions by 2040 at the latest. The interim targets is thus that Handelsbanken is to reduce its absolute Scope 1 and 2 emissions by 50 per cent by 2030. In addition to the absolute reduction target, Handelsbanken has also set a electricity procurement targets, stating that we shall continue to source 100 per cent renewable energy through 2030.



Other metrics and targets

Green lending

The Bank has set an ambitious goal for Responsible finance - by 2025, 20 per cent of the Bank's financing volume shall consist of green financing, social financing or financing that contributes to the borrower's measurable, sustainable transition. The Bank is aware that the goal is ambitious, but sees the value in having set a stretch goal that challenges and requires innovation as well as the integration of sustainability on a broad front. This goal requires additional focus on both products, services and distribution and thus aims to speed-up the Bank's business development within Responsible finance to position us for the years to come and ultimately better support our customers to reduce emissions.



The Bank's volume of green lending amounted to over SEK 87 billion at the end of 2023. This represents an increase of almost 37 per cent compared to the previous year. In addition to green lending, the Bank also has significant sustainability-linked lending, amounting to more than SEK 105 billion at the end of 2023.

With a higher proportion of green lending, we are contributing to aligning lending and environmental objectives as well as reducing the climate risks in our portfolio. Furthermore, this also reflects our efforts in supporting our customers in their transition to become more sustainable and thus supporting a decarbonisation of the economy. For example, by supporting our customers within the real estate sector to make their properties more energy efficient, the proportion of green assets on our balance sheet will increase as the emissions from the same properties will decrease.

Energy efficient buildings

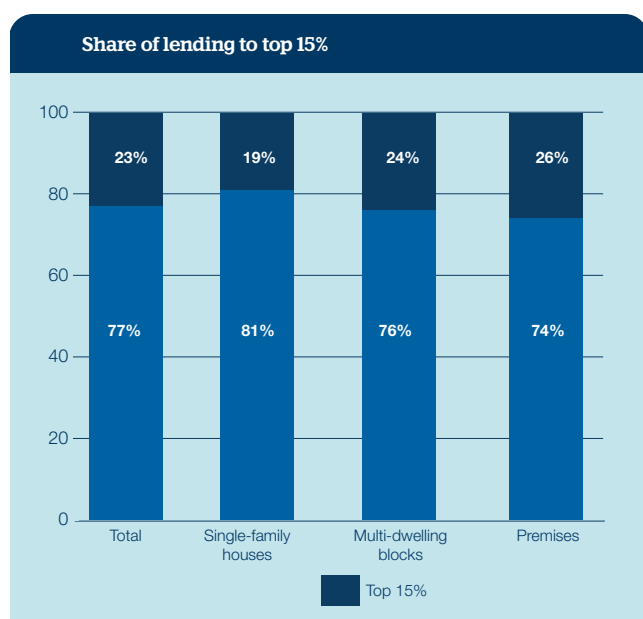
Major investments are required in buildings if they are to become zero emissions buildings in line with EU and UK ambitions.

As part of the analysis of energy performance certificates (EPC), Handelsbanken has analysed what share of the Bank's lending that goes to the top 15 per cent with the highest energy efficiency. This can be said to correspond to the EU taxonomy's requirements with regards to climate change mitigation within the category Acquisition and ownership of buildings. For an activity to be taxonomy-aligned, it also needs to comply with the Do No Significant Harm criteria, and Minimum Safeguards, neither of which are accounted for in this analysis.⁹

To establish what constitutes the top 15 per cent, data was sourced from *Boverket – the Swedish National Board of Housing, Building and Planning*. The national method for calculating buildings energy performance have been updated several times since the introduction of EPCs. Boverket does not make data publicly available so as to permit the accurate calculation of the exact cut off for the top 15 per cent. The energy performance figure presented in the table below should therefore not be used to determine if a specific building belongs to this category, however, on a portfolio level it can be said to be a reasonable proxy. The analysis was performed on the Bank's real estate lending in Sweden, by property type and based on loan data as at 31 December 2023.

Top 15 % per building type	
Building type	Energy performance (kWh/m ²)
Single-family houses	64
Multi-dwelling blocks	84
Premises	81

Of the total analysed lending volume with an EPC, 23 per cent was to buildings within the top 15 per cent most energy efficient for their respective building type.



⁹ For the Bank's reported figure regarding share of lending that is Taxonomy aligned, please see Handelsbanken Annual and Sustainability Report 2023.

The share of buildings within the top 15 per cent differs between the different building types. Most notable is premises, where 26 per cent the Bank's lending to this category is to buildings qualifying for the top 15 per cent most energy efficient buildings. Within all categories, more than 15 per cent of the analysed volume is towards the top 15 per cent most energy efficient buildings, meaning that the Bank's lending in terms of volume is positively skewed towards buildings with higher energy efficiency.

Due to lack of available market data on top 15 per cent within our home markets other than Sweden, these have not been included. Handelsbanken will continuously work to increase the scope of the analysis to include more of our home markets, as data availability allows.



Appendix:

Target setting methodology

Mortgages and Commercial Real Estate

The financed emissions calculations in this report are based on data as at 31 December 2023 and only includes on-balance-sheet exposures. For inclusion in the analysis, the base requirement is that the exposure is secured by immovable property. As eligible exposures are the only part of the exposure which has an attributed real estate collateral according to Handelsbanken's capital requirements allocation, it is possible that an agreement can have a larger exposure than included in the analysis.

The collateral allocation used in the analysis is the one used in Handelsbanken's capital requirements calculation. The property value applied to the calculations depends on if the exposure to the property existed in the previous calculation of our financed emissions or not. If the exposure did not exist in the previous calculation, the value of the latest approved valuation is used. If the exposure did exist and has not been refinanced (loan value has not increased), the property value used in the previous calculation is applied. If the exposure did exist and has been refinanced (loan value has increased), the property value is updated and the value of the latest approved valuation is applied. The fluctuation in property value due to exchange rate fluctuations over time is eliminated.

Property-specific energy data applied in the calculations are collected from national agencies or independent data sources for each country respectively. Where information on energy label for a property is split between several buildings on one property, we firstly calculate the emissions from each building before aggregating this to property level.

The granularity of the emission factors applied to the calculations will depend on whether the energy label for a building is available, and also how much of the underlying data to the energy label is available. This creates five different scenarios, which will determine calculation method, emission factor data applied and data quality score. For all scenarios, the attribution factor is calculated by dividing the loan value by the property value (LTV). The property emissions are multiplied by the attribution factor to get Handelsbanken's financed emissions per property.

Methodology for Tenant-Owner Associations and Tenant-Owned Apartments

For asset classes Tenant-Owner Associations and Tenant-Owned Apartments, PCAF does not currently provide a methodology. Handelsbanken has therefore applied the calculation methodology recommended by the Swedish Banker's Association, which has been developed in collaboration between banks and is based on the PCAF principles. This methodology is the same as what has previously been applied to the Bank's calculations for these asset classes. While the methodology is developed for Swedish Tenant-Owner Associations and Tenant-Owned Apartments, Handelsbanken has applied the same methodology for these asset classes in our Norwegian portfolio, in the absence of another methodology.

For the Tenant-Owner Association, the property emissions are calculated using the PCAF methodology for Commercial Real Estate. To avoid double counting, a distribution factor of 0.3/0.7 is applied, meaning that the property emissions are divided between the Tenant-Owner Association and the Tenant-Owned Apartments where 30 per cent of the property emissions are attributable to the Tenant-Owner Association and 70 per cent of the property emissions are attributable to the Tenant-Owned Apartments. The Bank's financed emissions are then calculated by multiplying the property emissions attributable to the Tenant-Owner Association by the association's attribution factor.

When calculating the emissions from individual Tenant-Owned Apartments, the emissions intensity per square metre of the building in which the apartment is located is applied. The emission intensity per square metre is multiplied by the floor area of the specific apartment, giving the emissions for that apartment. If no area for the specific apartment is available, an average apartment area for the specific country is applied. The emissions of the apartment are then multiplied by the distribution factor of 0.7 to get the emissions attributable to the specific apartment. The Bank's financed emissions are calculated by multiplying the emissions attributable to the apartment by the attribution factor of that apartment.

Emission factors, Sweden ¹⁰

Energy source	Emission factor (gCO _{2e} /kWh)
Biofuel	0.0
District heating	45.8
Electricity	Licensed data
Gas	203.8
Oil	267.3

Household and tenant activity consumption, Sweden ¹¹

Building type	(kWh/m ²)
Single-family houses	40
Multi-family houses	52
Premises	133
Tenant-Owner Associations	16
Tenant-Owned Apartments	36

Average building areas (m²) ¹²

	Sweden	Norway	UK	the Netherlands
Single-family houses	127	154	192	132
Multi-family houses	1,092	1,192	2,046	576
Premises	356	929	570	554
Apartments	67	91	61	80

¹⁰ IPCC, 2014; Sweden Energy, 2022; IEA, 2021; Swedish Environmental Protection Agency

¹¹ Swedish Energy Agency 2023; Swedish National Board of Housing Building and Planning

¹² PCAF European building emission factor database

Calculations broken down per country, asset class and energy label availability

Financed emissions from real estate lending - Sweden

Asset class	Exposure (SEK m)	Financed emissions (tCO ₂ e)	Financed emissions intensity (kgCO ₂ e/SEK m)	Physical emissions intensity (kgCO ₂ e/m ²)	PCAF Data Quality Score
Single-family houses	570,470	146,542	257	6.6	3.7
With energy label	187,041	25,102	134	3.2	3.0
Without energy label	383,429	121,440	317	8.5	4.0
Tenant-owned apartments	304,821	28,642	94	4.1	3.1
With energy label	277,407	24,635	89	3.9	3.0
Without energy label	27,413	4,007	146	5.8	4.0
Tenant-owner associations	212,427	21,408	101	1.8	3.1
With energy label	194,916	19,088	98	1.7	3.0
Without energy label	17,510	2,320	132	2.5	4.0
Multi-dwelling blocks	186,153	66,684	358	6.6	3.2
With energy label	154,749	50,503	326	6.2	3.0
Without energy label	31,404	16,181	515	8.3	4.0
Premises	179,759	156,835	872	16.3	3.5
With energy label	93,678	25,353	271	6.8	3.0
Without energy label	86,081	131,482	1,527	22.1	4.1
Total	1,453,629	420,111	289	6.9	3.4

Financed emissions from real estate lending - Norway

Asset class	Exposure (SEK m)	Financed emissions (tCO ₂ e)	Financed emissions intensity (kgCO ₂ e/SEK m)	Physical emissions intensity (kgCO ₂ e/m ²)	PCAF Data Quality Score
Single-family houses	86,179	10,952	127	5.0	4.0
With energy label	48,992	6,203	127	5.2	3.6
Without energy label	37,187	4,748	128	4.7	4.4
Apartments	27,300	2,072	76	4.7	3.9
With energy label	20,320	1,505	74	4.8	3.7
Without energy label	6,980	567	81	4.6	4.4
Tenant-owned apartments	11,287	776	69	3.7	3.9
With energy label	7,795	551	71	3.9	3.7
Without energy label	3,493	225	65	3.2	4.3
Tenant-owner associations	28,242	870	31	1.5	4.0
With energy label	7,196	239	33	1.7	3.5
Without energy label	21,046	631	30	1.4	4.2
Multi-dwelling blocks	12,452	1,635	131	5.0	4.1
With energy label	4,791	619	129	5.8	3.6
Without energy label	7,661	1,017	133	4.6	4.4
Premises	107,573	9,158	85	2.6	3.6
With energy label	71,548	5,356	75	2.6	3.3
Without energy label	36,025	3,802	106	2.7	4.3
Total	273,033	25,463	93	3.5	3.8

Financed emissions from real estate lending - UK

Asset class	Exposure (SEK m)	Financed emissions (tCO ₂ e)	Financed emissions intensity (kgCO ₂ e/SEK m)	Physical emissions intensity (kgCO ₂ e/m ²)	PCAF Data Quality Score
Single-family houses	78,385	56,332	719	35.5	3.5
With energy label	59,617	43,337	727	35.7	3.2
Without energy label	18,768	12,995	692	34.9	4.5
Apartments	14,244	5,803	407	27.5	3.5
With energy label	12,725	5,169	406	27.3	3.3
Without energy label	1,518	633	417	29.5	4.5
Multi-dwelling blocks	54,739	88,092	1,609	30.0	3.8
With energy label	45,422	71,317	1,570	30.1	3.6
Without energy label	9,317	16,775	1,800	29.5	4.6
Premises	73,944	110,981	1,501	57.6	4.8
With energy label	50,023	77,231	1,544	58.0	4.6
Without energy label	23,921	33,750	1,411	56.6	5.0
Total	221,312	261,207	1,180	39.2	4.0

Financed emissions from real estate lending - the Netherlands

Asset class	Exposure (SEK m)	Financed emissions (tCO ₂ e)	Financed emissions intensity (kgCO ₂ e/SEK m)	Physical emissions intensity (kgCO ₂ e/m ²)	PCAF Data Quality Score
Single-family houses	35,861	23,636	659	34.7	4.7
With energy label	20,198	14,372	712	35.4	4.5
Without energy label	15,663	9,264	591	33.8	5.0
Apartments	37,790	16,184	428	28.9	4.8
With energy label	14,126	9,018	638	28.2	4.5
Without energy label	23,664	7,166	303	29.9	5.0
Multi-dwelling blocks	861	1,167	1,355	23.9	4.9
With energy label	203	585	2,881	20.0	4.5
Without energy label	658	582	885	29.9	5.0
Premises	18,490	42,861	2,318	99.4	4.8
With energy label	4,306	11,688	2,714	83.5	4.3
Without energy label	14,183	31,173	2,198	107.0	5.0
Total	93,002	83,848	902	48.7	4.8

Data quality score

To transparently disclose the data quality in the analysis, the PCAF methodology provides a data quality matrix. With the exception of Tenant-Owner Associations and Tenant-Owned Apartments, all of the included exposures have been assigned a data quality score based on the data quality matrix from PCAF. Tenant-Owner Associations and Tenant-Owned Apartments have been assigned a data quality score based on the calculation method recommended by the Swedish Banker's Association for these asset classes. These data quality scores are built on the same principles as the data quality scores from PCAF. When data with different data quality scores have been used in the calculations, this is indicated by a weighted average data quality score, calculated according to the PCAF methodology.

Since our first calculations as of 2021, the data quality score of our real estate lending portfolio has improved slightly, due to better energy label coverage across all countries included in the calculations. We will continue to work to further better the data coverage and the data quality where possible.

Real Estate companies and Other large corporates

The companies in scope for the Portfolio Coverage target setting are all companies defined as large corporates and with a on-balance exposure exceeding 100 SEK m. As a real estate focused bank with a significant lending to Real Estate companies, Handelsbanken has opted to set a separate target for Real Estate companies. By setting a separate Portfolio Coverage target for Real Estate companies in addition to the emissions intensity target for Commercial Real Estate, we intend to ensure that we cover the Real Estate companies' entire business and not only the specific buildings we have financed. By doing this, we will be able to better engage and support our clients to decarbonise their entire portfolio, resulting in a bigger impact. When calculating the baseline of these targets, the companies in scope for target setting and the exposures as at 31 December 2021 were cross-referenced against data from the SBTi to control whether the companies were committed, or had already set targets, with the SBTi. The proportion of exposure

that were either committed or had already set targets with the SBTi forms Handelsbanken's baseline. From the baseline, our target is to increase the proportion of the portfolio committed and set targets with SBTi to achieve 100 per cent coverage by 2040. To make sure that we are on the right trajectory to achieve this in the short term, interim targets for 2028 have been developed for each category - Real Estate companies and Other large corporates.

For the annual follow-up on the targets, the same principle is applied as when calculating the baseline, where we analyse the proportion of exposures that have committed or set targets with the SBTi as of end of year 2023. A list of companies that have committed to or set targets with the SBTi is collected from the SBTi website and cross-referenced against Handelsbanken's holdings and exposures as at the reference date.



