Methodology financed emissions – lending

The financed emission calculation of the lending portfolio cover the Bank's real estate portfolio, specifically loans secured by immovable property. 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.

Mortgages and Commercial Real Estate

The financed emissions calculations are based on data as at end-of-year 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. 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 and other data applied to calculations

Emission factors, Sweden [1]

Energy source	Emission factor (gCO2e/kWh)
Biofuel	0.0
District heating	45.8
Electricity	Licensed data
Gas	203.8
Oil	267.3

Household and tenant activity consumption, Sweden [2]

Building type	(kWh/m^2)
Single-family houses	30
Multi-family houses	49
Premises	136
Tenant-Owner Associations	15
Tenant-Owned Apartments	34

Average building areas (m^2) [3]

	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

[1] IPCC, 2014; Sweden Energy, 2023; IEA, 2022; Swedish Environmental Protection Agency
[2] Swedish Energy Agency 2022; Swedish National Board of Housing Building and Planning
[3] PCAF European building emission factor database