

5.6 Preliminary estimates of financed emissions

Context of Paris alignment at NatWest Group

In February 2020, we set ourselves the challenge to at least halve the climate impact of our financing activity by 2030 and to do what is necessary to achieve alignment with the 2015 Paris Agreement. Financing activity refers to the loans and investments (debt securities and equity shares) on NatWest Group's balance sheet. We use financed emissions as a key metric to estimate the climate impact of our financing activity on the real economy. Financed emissions are absolute GHG emissions that NatWest Group finances through its lending and investment activity. These activities fall within Scope 3, category 15 of the GHG protocol.

During 2020, we worked on developing our capabilities to estimate our financed emissions to enable us to:

- (i) Identify, assess and manage climate-related risks and opportunities,
- (ii) understand the drivers of climate-related transition risks and opportunities in our business,
- (iii) set and navigate emissions reduction goals,
- (iv) act to reduce our climate impact.

Estimating financed emissions in absolute terms, measured as million tonnes of carbon dioxide equivalent per year (absolute emissions), provides us with the necessary baseline for climate action to align with the 2015 Paris Agreement. In addition to this, emissions intensities are also useful for banks and investors to manage climate transition risks, set targets or create new products and services to maximise climate opportunities, whilst supporting

customers to transition. Emissions intensities are absolute emissions per specific unit e.g. metre or kilometre. Different intensity metrics can be used for steering or aligning emissions reductions in certain asset classes of sectors of a portfolio.

During 2020, we focused on estimating financed emissions and emissions intensities for four sectors: residential mortgages, agriculture (primary farming), automotive manufacturers and oil and gas extractors. These four sectors were selected based on their proportion of the NatWest Group's total loans and investments as at 31 December 2019 in combination with climate impacts associated with the sector. Further considerations included whether appropriate methodologies for estimating emissions intensities were available.

In 2020, we focused on developing the preliminary emissions estimates for the four sectors. The different characteristics of these sectors enabled us to build a better understanding of opportunities and challenges, for aligning to the 2015 Paris Agreement, specific to these sectors. We focused on aligning our approach with existing and recognised methodologies, where possible.

A common theme across the selected sectors related to building climate data capability. Existing climate-related granular customer information isn't readily available in all cases. As a result, the preliminary estimates included in this section have required use of assumptions, extrapolations or aggregation at sub-sector levels, as noted in sections 5.6.1 to 5.6.4. We will engage with customers, stakeholders, and participate in wider initiatives, to help enhance the availability of

granular climate-related data for customers. Based on these limitations, we expect future estimates of these four sectors' emissions to change as we improve our data and develop our methodologies further.

During 2021 we intend to continue to broaden our analysis to other sectors. Our preliminary analysis reinforced the urgency and the scale of transition required to align our financing activities to the 2015 Paris Agreement. Addressing the climate crisis is not something NatWest Group or any individual organisation can do on its own. There is a dependency on the Government and clear, early regulatory policy, as well as on our customers and society to respond. At the same time, as a purpose-led organisation, we aim to engage and support our customers' transition to a low carbon economy.

In addition to 2019 baseline absolute emissions and emissions intensity estimates, we have also prepared initial estimates of emissions intensities required for alignment with the 2015 Paris Agreement in 2030 and 2050. The outputs of this early analysis suggests that significant emission reductions will be required and that meeting Paris alignment by 2030 will be challenging. These 2030 and 2050 emissions intensity estimates will also be affected by external factors including government and regulatory policy, voluntary codes of practice, customer appetite, market forces and developments in climate science and technology.

Using these initial outcomes, we worked with business leads for the sectors analysed to start setting out actions to support the transition to low carbon economy. We will continue to build these actions during 2021 as we learn more from further

analysis. Once defined, it is also our ambition to embed these actions into decision making across the organisation which requires the building of climate data capability, new tools which integrate with financial planning, and also education. Over time, we expect climate data granularity to improve as we move towards utilising direct customer climate data.

Methodologies, standards and standard setters

We acknowledged from the outset that the analysis of financed emissions would be challenging with new and evolving methodologies. We recognise that cooperation and collaboration are key to tackle the causes of climate change and transition to a low carbon economy. During 2020 we joined market leading collaborative groups with the aim of supporting the development of market standards. The table below summarises the various collaborations and guidance NatWest Group has used to develop methodologies for estimating financed emissions and preliminary estimates of emission intensities for 2030 and 2050:

Organisation	Description	Use of this work in NatWest Group methodology
Partnership for Carbon Accounting Financials (PCAF)	PCAF is a global partnership of financial institutions that work together to develop and implement a harmonized approach to assess and disclose the GHG emissions associated with their loans and investments.	Where available, NatWest Group uses methodologies in the PCAF standard to measure financed emissions. In addition, we have used PCAF data quality and disclosure principles to guide our work.
Science Based Targets initiative (SBTi)	SBTi drives ambitious climate action in the private sector by enabling companies to set science-based emissions reduction targets. In November 2020, SBTi published guidance for financial institutions to set science-based targets, to align their lending and investment activities with the 2015 Paris Agreement.	NatWest Group joined SBTi following the launch of Financial sector science-based targets guidance in 2020. While we haven't yet set targets, we have used SBTi's Sectoral Decarbonisation Approach (SDA), where available, to assess initial emissions intensity estimates for 2030 and 2050, for certain sectors. We have also followed SBTi and PCAF guidance where possible to assess the most appropriate emissions intensity metrics.
Katowice Banks in partnership with the 2 Degrees Investing Initiative (2DII)	Katowice Banks refers to the five international banks that pledged at the 2018 COP24 in Katowice to develop an open-source methodology to progressively steer (or 'align') their lending portfolios with the goals of the 2015 Paris Agreement. In September 2020, 2DII and the Katowice Banks launched their Credit Portfolio Alignment methodology for applying the 2015 Paris Agreement Capital Transition Assessment (PACTA) methodology to banks' credit lending portfolios.	Where SBTi guidance has not been developed in detail, NatWest Group has referred to Credit Portfolio Alignment: an application of the PACTA methodology by Katowice Banks (Katowice Banks guidance) in partnership with the 2 Degree Investing Initiative' (September 2020). This includes estimating tailpipe emissions intensity in the automotive manufacturing sector and focusing on extraction activities in the oil and gas sector.
Committee on Climate Change or (CCC)	The CCC is the UK's independent adviser on tackling climate change. CCC advises the UK and devolved governments on emissions targets and reports to Parliament on progress made in reducing GHG emissions and preparing for, and adapting to, the impacts of climate change.	The CCC published the 'Sixth Carbon Budget, the UK's path to net zero' in December 2020. As a largely UK-focused bank, we selected the CCC's 'Balanced net zero' pathway to estimate emissions intensities for 2030 and 2050. We have used this scenario for assessing indicative emissions estimates for agriculture and residential mortgages.
Network for Greening the Financial System (NGFS)	NGFS is a group of central banks and supervisors willing, on a voluntary basis, to share best practices and contribute to the development of the environment and climate risk management in the financial sector.	In June 2020, NGFS published climate scenarios to provide a common starting point for analysing climate risks to the economy and financial system. Scenarios used for estimating emissions intensities are broadly aligned with the NGFS's orderly scenario with early ambitious action to a net zero emissions economy. As noted in section 2.8, NatWest Group will also use NGFS scenarios for the CBES 2021 exercise.
The International Energy Agency (IEA)	The IEA provides data, analysis and policy recommendations on all matters relating to fuels and energy generation. This includes developing forecasts and scenarios for the energy industry that are consistent with various climate-based objectives.	We have used the IEA Beyond 2°C Scenario (B2DS) from the Energy Technology Perspectives (ETP) report for assessing indicative emissions estimates for automotive manufacturing.

The table below provides an overview of the standards, methodologies and scenarios used as inputs for assessing absolute emissions as well as estimated emission intensities. Also included is the metrics used for measuring emissions intensity estimates for each sector.

Sector	Financed Emissions standard	Scenario	Approach used to estimate Paris-aligned emissions intensities	Emission intensity metrics used ⁽³⁾
Residential mortgages	PCAF (November 2020)	CCC, sixth carbon budget (1.5 degrees, 50% probability)	SDA ⁽¹⁾	kgCO _{2e} /m ²⁽⁴⁾
Agriculture (primary farming)	PCAF (November 2020)	CCC, sixth carbon budget (1.5 degrees, 50% probability)	SDA ⁽²⁾	tCO _{2e} /£M revenues ⁽⁵⁾
Automotive manufacturing	PCAF (November 2020)	IEA ETP's B2DS scenario (1.75 degrees, 50% probability)	Katowice Banks pending finalised SBTi sector specific guidance	gCO ₂ /km ⁽⁶⁾
Oil and gas extraction	PCAF (November 2020)	N/A	Guidance under development	tCO _{2e} /TJ ⁽⁷⁾

(1) For estimating emissions intensities for 2030 and 2050 for residential mortgages, we have used UK specific data from the CCC sixth carbon budget. Our methodology is consistent with the principles set out in the SDA.

(2) The guidance for agriculture is developing; the SBTi guidance on agriculture, forestry and other land use (AFOLU) is expected to be released in Q2 2021. For work in 2020, we have used the general principles of the SDA approach, in conjunction with PCAF guidance, to estimate Paris-aligned emissions intensities for 2050.

(3) Emissions intensity refers to emissions relative to a specific business metric, such as production output or financial performance of a company (e.g. tonne CO_{2e} per tonne product produced or revenue).

(4) For residential mortgages, floorspace varies between properties and larger properties tend to produce a larger quantity of absolute emissions as a result, floorspace has been used as the metric for assessing physical emissions intensity. kgCO_{2e}/m² is kilograms carbon of carbon dioxide equivalent emitted per square metre.

(5) Where detailed information on physical activity is not available, PCAF permits use of revenue-based intensity. We have used revenue based intensity metric for the agriculture sector. Refer to sections 5.6.2 for more details. tCO_{2e}/£M revenues is tonnes of carbon dioxide equivalent emitted per million of revenue.

(6) For automotive manufacturing, emissions intensity is based on kilometres travelled as this reflects the emissions for distance travelled. We estimate tailpipe emissions intensity i.e. the emissions exclusively related to the burning of fuel in vehicles and do not take into account entire lifecycle emissions. gCO₂/km is the grams of carbon dioxide emitted per kilometre.

(7) For oil and gas extraction, quantity of energy produced by each fuel source has been used to assess emissions intensity. tCO_{2e}/TJ is tonnes of carbon dioxide equivalent emitted per terajoule.

In our work we use scenarios developed by different organisations: NGFS for scenario analysis and risk assessment; IEA and CCC for estimates of emissions intensities. Use of a particular scenario is primarily driven by the use-case and the level of detail required for the analysis. Our use of the NGFS scenarios is in line with the approach that the Bank of England is taking for its CBES stress test, which will leverage the NGFS reference scenarios. While we use different scenarios, we ensure that there is overall consistency between them.

Our overall aim is to align our operations with the 2015 Paris Agreement target of well below 2°C warming by the end of the century. The Orderly transition scenario from the NGFS (Immediate 2°C with carbon dioxide removal) satisfies this requirement – there is a 50% chance that the temperature will increase by less than 1.75°C by the end of the century. We complement it with the Balanced Net Zero Pathway from the sixth Carbon Budget from the CCC to assess emissions intensity estimates for residential mortgages and agriculture, and with the IEA Energy Technology Perspectives (ETP) B2DS scenario to assess emissions intensity estimates for automotive manufacturing. Both of these additional scenarios are at least as ambitious as the NGFS Orderly transition scenario.

Analysis performed during 2020 is based on NatWest Group loans and investments balances as at 31 December 2019.

The total loans and investments to the four sectors and balances analysed for absolute emission and emissions intensity estimates are noted in the table below:

Sectors	2020	2019			Reason for difference or exclusion:
	Total loans and investments (£bn)	Total loans and investments (£bn)	Loans and investments used to estimate financed emissions and emission intensity estimates		
			Balance (£bn)	% analysed	
Residential Mortgages	190.5	174	174	100	The entire residential mortgage portfolio has been included for calculation of financed emissions.
Agriculture	5.3	4.9	3.8	78	Customers engaged in primary farming activity have been included as they have relatively uniform emissions profiles that can be matched to external targets like the CCC. Balances excluded primarily relate to forestry and fishing, and other agriculture related ancillary, manufacturing and service activities.
Automotive	6.3	6.2	0.3	5	Aligned to the Katowice Banks guidance which recommends focusing on sectors that are both material contributors to emissions and have significant ability to drive mitigation, we have limited the scope of our analysis to automotive manufacturing activities. The manufacturers of cars are in a better position to change the emissions profile of vehicles than equipment manufacturers, or companies involved in car rentals or sales. See diagram on this page for sub-sectors of the oil and gas value chain we analysed and excluded for the purpose of this work. In addition, emissions and production data from major motor vehicle manufacturers was freely available in annual reports and sustainability disclosures.
Oil and gas	1.6	2.1	0.6	29	Aligned to the Katowice Banks guidance which recommends focusing on sectors that are both material contributors to emissions and have significant ability to drive mitigation, we have limited scope to oil and gas extraction activities. See diagram on this page for sub-sectors of the oil and gas value chain we analysed and excluded for the purpose of this work. In addition, emissions and production data for oil and gas extraction companies are widely available from customers' sustainability disclosures and annual reports.
Total	203.7	187.2	178.7	95.5	
Total NatWest Group⁽¹⁾	428.4	399		44.8	

(1) Comprises loans and advances to banks and customers, debt securities and equity shares at amortised cost and FVOCI, gross of ECL.



■ In scope for analysis ■ Exclusion

Calculation of Financed emissions

Financed emissions refer to the total GHG emissions of an asset class or sector that is attributable to NatWest Group. In line with PCAF standard, we have calculated absolute emissions based on Scope 1 and 2 emissions attributable to loans and investments for the sectors or sub-sectors analysed. In addition, for our oil and gas extraction and automotive manufacturing sectors, we have included Scope 3 emissions based on downstream use of products sold as they constitute a large proportion of the overall estimated emissions in these sectors. In general, as per the PCAF standard, financed emissions are estimated based on the following formula:

$$\text{Financed emissions} = \sum_i \text{Attribution factor}_i \times \text{Emissions}_{(with i = borrower or investee)}$$

$$\text{Attribution factor}_i = \frac{\text{Outstanding amount}_i}{\text{Total equity + debt}_i}$$

Attribution factor: As per the GHG Protocol, absolute GHG emissions from loans and investments are allocated to the reporting financial institutions based on the proportional share of loans and investments in the borrower or investee.

The attribution factor is calculated by determining the share of the outstanding amount of loans and investments of a financial institution over the total equity and debt of the borrower or investee company. We used total assets to calculate the attribution factor for automotive manufacturing and oil and gas, and original property valuation for residential mortgages.

As previously mentioned, there are current data limitations primarily related to lack of granular and sub-sector customer data availability. The PCAF standard provides guidance on data quality scoring methodology to help assess data quality challenges and recognise areas for improvement. PCAF's ratings generally assign directly collected customer emissions data a better score and estimated or extrapolated achieve lower scoring. In practice, data limitations mean that sectors are generally footprinted using a mixture of customer specific and estimated data at a sub sector level. PCAF therefore suggests assigning a 'weighted' score to reported sectors based on the relative exposure associated with different methodologies. For example, if 50% of a sector's exposure has directly collected data with a score of 2, and the remainder using estimated data that achieves a score of 4, it's weighted PCAF score would be $2 \times (50\%) + 4 \times (50\%) = 3$.

The table below shows our preliminary estimates based on our work to date and should be read in conjunction with Section 5.7 (Caution about climate metrics) and Risk factors included in the 2020 Annual Report and Accounts. The table below shows NatWest Group's (i) estimated financed emissions, (ii) physical and economic emissions intensities for the four sectors reviewed, (iii) preliminary physical emissions intensity estimates for year 2030 aligned to NatWest Group's climate ambition to reduce climate impact of financing activity by 50%, as well as for Paris alignment, (iv) Paris alignment physical emissions intensity in 2050. We will continue to work on this in 2021 and further refine our estimates as we enhance our understanding, calculation methodologies and data. We have used a combination of methodologies (some of which are still under development) to calculate these emissions. See section 5.6.1 to 5.6.4 for further details, by sector, on methodologies and approaches used, as well as data limitations.

Sector	Preliminary estimates of financed emissions and emission intensities 2019						Preliminary emission intensity estimates 2030 and 2050		
	Financed emissions (MtCO ₂ e/y) ⁽¹⁾		Physical emissions intensity ⁽²⁾	Economic emissions intensity (tCO ₂ e/£M invested) ⁽³⁾	PCAF Data quality score		Proposed 50% absolute emissions reduction intensity (2030)	Paris alignment emissions intensity (2030)	Paris alignment emissions intensity (2050)
	Scope 1 and 2	Scope 3			Scope 1 and 2	Scope 3			
Residential mortgages	2.2		39 kgCO ₂ e/m ²	12	4.1		19 kgCO ₂ e/m ²	20 kgCO ₂ e/m ²	0.1 kgCO ₂ e/m ²
Agriculture (primary farming)	3.6		2,205 tCO ₂ e/£m revenue	940	4.3		1,103 tCO ₂ e/£m revenue	1,449 tCO ₂ e/£m revenue	1,165 tCO ₂ e/£m revenue
Automotive manufacturing⁽⁴⁾	0.01	0.53	168 gCO ₂ /km	1,790	2.1	3.1	84 gCO ₂ /km	121 gCO ₂ /km	31 gCO ₂ /km
Oil and gas extraction	0.08	1.9	75 tCO ₂ e/TJ	3,054	2.4	2.6	38 tCO ₂ e/TJ	Guidance under development	Guidance under development

Notes:

(1) MtCO₂e/y is million tonnes of carbon dioxide equivalent emitted per year.

(2) Physical emissions intensity: Financed emissions divided by an output or activity value.

(3) Economic emissions intensity: Financed emissions divided by the loan and investment amount. This helps understand how the emissions intensity of different portfolios (or parts of portfolios) compare to each other per monetary unit.

(4) For automotive manufacturing, Scope 3 emissions and emissions intensity estimates only relate to tailpipe emissions.

5.6.1 Residential mortgages

Reducing emissions associated with our residential mortgage portfolio will be critical to meeting our climate ambitions.

In February 2020, NatWest Group committed to support our UK and RoI mortgage customers to become more energy efficient with an ambition that 50% of our mortgage book is at or above EPC C or equivalent rating by 2030. To estimate financed emissions, we used EPC data as an estimate of the underlying climate impact. As referred to in section 5.2.1, EPC data is sourced from publicly available customer information for England and Wales for the year of inspection by qualified EPC surveyor. As EPC ratings only need to be updated every 10 years or after significant retrofits, point of sale or lease, not all properties have current EPC ratings.

Financed emissions estimates: For the purpose of calculating financed emissions estimates, EPC data has not been adjusted for any assumed energy efficiency changes since the date of collection. For Scope 2 financed emissions estimates, EPC data collected prior to 2019 has been adjusted only for the decarbonisation of the UK grid between the year of inspection and 2019.

PCAF data quality score: Our residential mortgages estimate achieves a weighted PCAF data quality score of 4.1. The weighting is based on two scores:

- a. **Publicly available data:** As at December 2019, EPC data was available for just under half of the residential mortgage portfolio which achieved a PCAF data quality score of 3. Refer to section 5.2.1 for analysis of EPC data availability at December 2020.
- b. **Extrapolated data:** To estimate EPC ratings for properties which did not have publicly available EPC data, we used average emissions profile of properties for which EPC data was available.

This is based on the assumption that properties without EPC ratings have the same emissions intensity profile as those with available EPC ratings. This results in PCAF data quality score of 5.

Estimated 2030 and 2050 emissions intensity:

Our preliminary estimates for the Paris aligned emissions intensities for 2030 and 2050 are based on the CCC's sixth Carbon Budget, "Balanced Net Zero", emissions pathway and UK floorspace projections. We project floor space to 2050 using the CCC's estimates of "new homes" in the UK between 2019 and 2050, in conjunction with the UK's housing stock in 2019. These are then multiplied by the average floorspace in the UK (as derived from the National EPC data). The current Scope 2 estimate is based on CCC's estimated household electricity consumption and the overall emissions intensity of UK electricity. The intensity estimate was calculated using SBTi SDA. We estimate that by 2030, our average financed physical emissions intensity will need to fall significantly to be aligned with the 2015 Paris Agreement, from an estimated 39 kgCO_{2e}/m² in 2019 to 20 kgCO_{2e}/m² in 2030, and then further still to 0.1 kgCO_{2e}/m² in 2050.

How we will support customers to transition

Our ambition for Paris alignment for the residential mortgage portfolio is challenging. It reflects the fact that reducing the carbon emissions from residential property in the UK is a complex and challenging goal, which will require a systemic response from parties across the sector, including government, energy suppliers, housebuilders and lenders. We have a clear role to play within the ecosystem to engage and inform customers and provide product solutions to fund home improvements and continue to develop our plans.

We are clear that we can play an important role engaging with our mortgage customers to inform and increase awareness of the benefits and options available, helping them to improve home energy

efficiency through making home improvements. Building on the launch of our Green Mortgage product, refer section 2.2, we will continue to develop green financial products to reward and incentivise the purchase of the most energy efficient properties, measured by their EPC, but also to allow customers to fund home improvements

that increase the energy efficiency of existing properties. We will also take a proactive stance to sector engagement, working with government, as well as across the finance sector with NGOs (e.g. Green Finance Institute) to align to industry standards and create consistency for customers regarding Green Financing.



5.6.2 Agriculture

Customers engaged in primary farming activity with lending and investments of £3.8 billion were reviewed to estimate financed emissions.

Financed emissions estimate: As primary farming activities do not have a homogenous unit of output base (i.e. farmers sell different products), constructing an emissions intensity metric based on physical output is challenging. We have used UK-specific sector level revenue emissions intensity metrics from EXIOBASE 2011 and applied these to customer revenues to estimate absolute emissions. Availability of more detailed customer level data will allow us to use customer specific emissions factors.

EXIOBASE is a global, detailed multi-regional environmentally extended supply use table and input-output table. EXIOBASE was developed by harmonizing and detailing supply use tables for a large number of countries, estimating emissions, and resource extractions by industry.

We have included five GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs)) from EXIOBASE in our emissions estimates. In line with the CCC's sixth carbon budget, we use the 'high' global warming potential (GWP) values with carbon-cycle feedbacks for methane and nitrous oxide from the IPCC 5th Assessment Report. Carbon cycle feedback refers to how the collection of processes that sees carbon exchanged between the atmosphere, land, ocean and organisms could change as the Earth warms and atmospheric CO₂ concentrations rise.

PCAF data quality score:

- Publicly available data:** Emissions intensity for £2.5 billion of agriculture primary farming balances reviewed was estimated using sector level emissions factors from EXIOBASE, achieving data quality score of 4.
- Estimated data:** For the remaining £1.3 billion balance, we applied the emissions intensity profile available in a above, achieving a data quality score of 5.

This results in overall weighted data quality score of 4.3. To improve the quality of data inputs for the agriculture sector in future years, we plan to collect data on production and processes from agricultural customers to better measure their carbon footprint and track progress over time.

According to the CCC's sixth carbon budget, decreasing emissions in the agriculture sector will be driven by several decarbonisation strategies, such as improved soil management practices, improved livestock health and breeding, reductions in food waste and diet changes that will reduce the demand for and production of beef and thus, the associated emissions.

Emission intensity estimates for 2030 and 2050:

Currently, there is limited guidance on modelling Paris aligned emissions intensities for agriculture, with the SBTi guidance on agriculture, forestry and other land use (AFOLU) due to be released in Q2 2021. For the 2030 and 2050 preliminary emissions intensity estimates, we have used Scope 1 and 2 emissions pathways from the CCC sixth Carbon Budget. We constructed revenue projections for the agriculture sector in the UK to 2050 based on the assumption that food demand grows in line with the World Bank's population forecasts for the UK. Based on this approach, the emissions intensity of NatWest Group's agriculture portfolio would need to reduce from 2,205 tCO₂e/£m revenue to 2,449 tCO₂e/£m revenue in 2030 to be on track to meet the 2015 Paris Agreement goals.

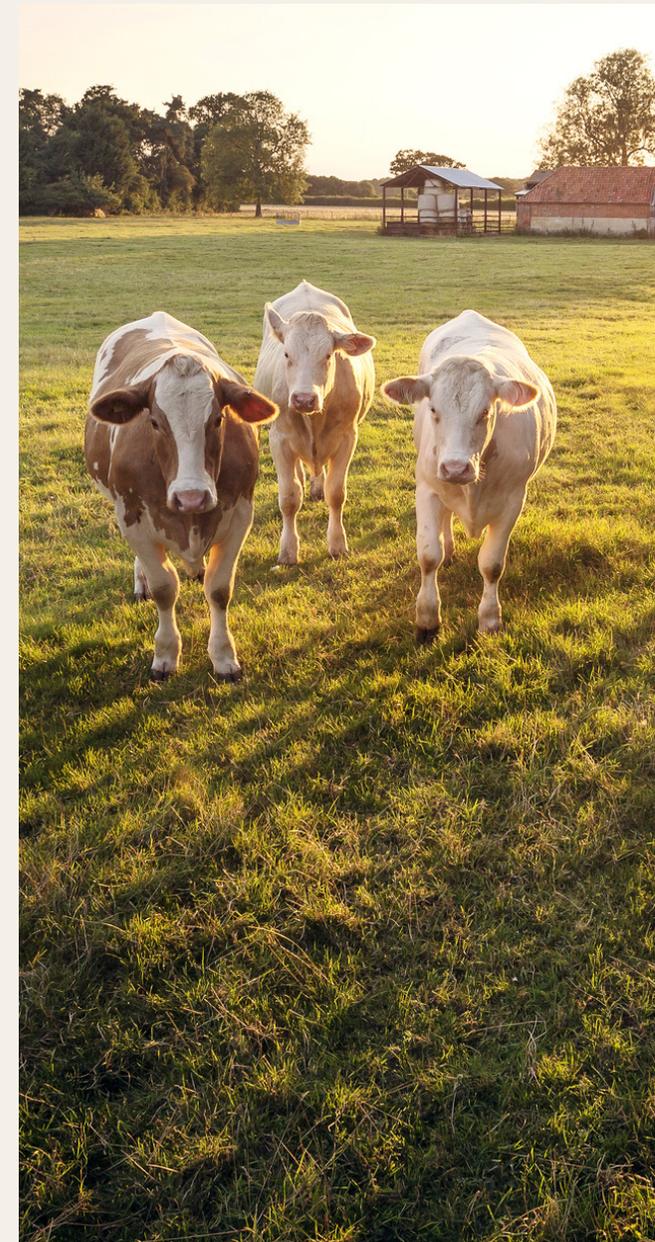
From a wider market perspective, the UK National Farmers Union has set the ambitious goal of reaching net zero GHG emissions across the whole of agriculture in England and Wales by 2040, and are aligning measures under three broad headings:

- Improving farming's productive efficiency;
- Improving land management and changing land use to capture more carbon;
- Boosting renewable energy and the wider bioeconomy.

The NFU have stated that in reducing agriculture's impact on climate, the UK must not achieve its climate change ambitions by exporting UK production, or our GHG emissions, to other countries. NatWest Group is actively exploring opportunities for GHG emissions reductions in agriculture aligned with the UK Agricultural Bill/ Act and the transition to the Environmental Land Management Schemes (ELMSs) in England and corresponding schemes in the devolved nations. Possible options include assisting farmers in changes of land use and increasing sequestration uptake by our customers.

NatWest Group is committed to supporting our specialist relationship managers with climate-related training, and climate-related questions are being added to our agriculture sector customer engagement. These measures will support the consistent coverage of climate issues in future collaborations with customers, with the aim to support and help them transition to a low carbon resilient economy.

We are currently working on a pilot with individual farming customers to develop a universal approach in understanding the sustainability and climate impact of their farms. If successful, further development will enable the bank to understand the impact of our agriculture portfolio whilst providing our farming customers with individual support on their climate journey.



5.6.3 Automotive manufacturing (cars and light commercial vehicles)

Financed emissions estimates: NatWest Group absolute financed emissions for automotive manufacturing includes Scope 1, Scope 2 and Scope 3 tailpipe emissions. Scope 1 and Scope 2 emissions were taken directly from customers' sustainability reports.

In addition, Scope 3 tailpipe emissions have been included, aligned with the Katowice Banks approach. Tailpipe emissions refer to emissions exclusively related to the burning of fuel in vehicles and do not take into account entire lifecycle emissions. As the reporting for Scope 3 tailpipe emissions is not uniform across all customers, we estimate it using average tailpipe emissions factors for car model and fuel combinations from the Worldwide Harmonised Light Vehicle Test Procedure (WLTP), a global harmonised standard of drive cycle test to determine the tailpipe emissions and fuel efficiency of passenger cars. These tailpipe emissions factors are applied to global sales data (by model type) taken from customers' annual reports to calculate Scope 3 tailpipe emissions.

In line with guidance from Katowice banks, we also estimate the Scope 3 tailpipe emissions intensity (in gCO₂/km) for our automotive manufacturing portfolio. This is calculated based on the estimated Scope 3 tailpipe emissions, data on customer financials and reported sales, and an assumption of average vehicle lifecycle of 150,000 kms based on the IEA Global EV Outlook report.

PCAF data quality score:

a. Scope 1 and Scope 2:

(i) **Publicly available data:** We were able to use data from customers' externally available disclosures for 97% customers. This achieved data quality score of 2.

(ii) **Extrapolated data:** For the remaining 3%, we estimated emissions data based on the emissions profile of the rest of the population, achieving data quality score of 5.

This results in overall data quality score of 2.1.

b. **Scope 3:** As above, for 97% of our Automotive manufacturing portfolio, we estimated the Scope 3 tailpipe financed emissions using emissions factors from WLTP and the reported global sales by customers. For the rest of the portfolio, we extrapolate Scope 3 tailpipe emissions based on the 97% population for which information is available. This achieved a data quality score of 3.1.

Estimated 2030 and 2050 emissions intensity:

The 2030 and 2050 preliminary intensity estimates are based on vehicle sales by fuel type using the global vehicle stock projections from the IEA ETP's B2DS. Key assumptions include those related to operational lifetime of vehicles and replacement rates by fuel type, based on the IEA Global EV Outlook. In addition, we have assumed a constant vehicle efficiency by fuel type i.e. that the grams of CO₂ per km emitted by cars of a fuel type remains constant until 2050, informed by the 2019 BEIS emissions factors for an average vehicle (split by fuel type). Vehicle emission factors by fuel type are applied to construct a weighted average emissions intensity for new vehicles sales to 2050. The preliminary emissions intensity estimates suggest that EV sales would need to be approximately 45% (as a top-end estimate) of total global sales by 2030, to achieve Paris alignment, based on the assumptions listed above.

A switch from internal combustion engine vehicles to EVs will play a key role in achieving Paris alignment in the automotive sector. In November 2020, the UK Government made a commitment to further support EV manufacturing as part of a £2.8 billion investment, which will greatly support the

sector transition. In addition, the UK Government announced that new cars and vans powered wholly by petrol and diesel will not be sold in the UK from 2030. NatWest Group's Future Mobility Group has launched various initiatives to support customers and colleagues, as discussed in section 2.2.



5.6.4 Oil and gas extraction

Financed emissions estimate: In the oil and gas sector, we calculated financed emissions for customers engaged in extraction activities. In addition, we have included Scope 3 emissions in our financed emissions estimates for the oil and gas extraction sub-sector as these have a high climate impact. This is in line with the Katowice Banks guidance.

We used reported emissions and production data from our customers' annual reports (where available) to construct emissions intensity estimates for 2019.

PCAF data quality score:

- a. **Publicly available data:** For 96% customers, we sourced Scope 1, Scope 2 and Scope 3 emissions data from their sustainability reports. Where any of this information was missing, we estimated the emissions using reported production and estimated emissions factors. For directly sourced emissions, we achieve a data quality score of 2 whereas for the portion of the portfolio that we estimate the emissions for, we achieve a data quality score of 3.
- b. **Extrapolated data:** For the rest of the portfolio (4%), we extrapolated the estimated financed emissions based on the population for which data is available. This achieved a data quality score of 5.

This achieved overall data quality score of 2.4 for Scope 1 and 2, and 2.6 for Scope 3.

We have not yet developed a Paris aligned emissions pathway to 2050, as SBTi guidance for the oil and gas sector is still under development. We continue to liaise with SBTi on this.

During 2020, we have continued to reduce our loan and investments in the oil and gas sector from £2.1 billion to £1.6 billion primarily due to tighter lending criteria. During 2021, we will work with major oil and gas customers as part of the credible transition plan work to assess future actions. We expect further reductions in 2021 and beyond based on tighter lending criteria for the sector and the on-going assessment of customers' transition plans. We continue to support our selected customers in the North Sea oil and gas sector as they focus on reducing emissions, transitioning to low carbon energy solutions and decommissioning.

