UK banks making progress on capturing climate-related financial risks

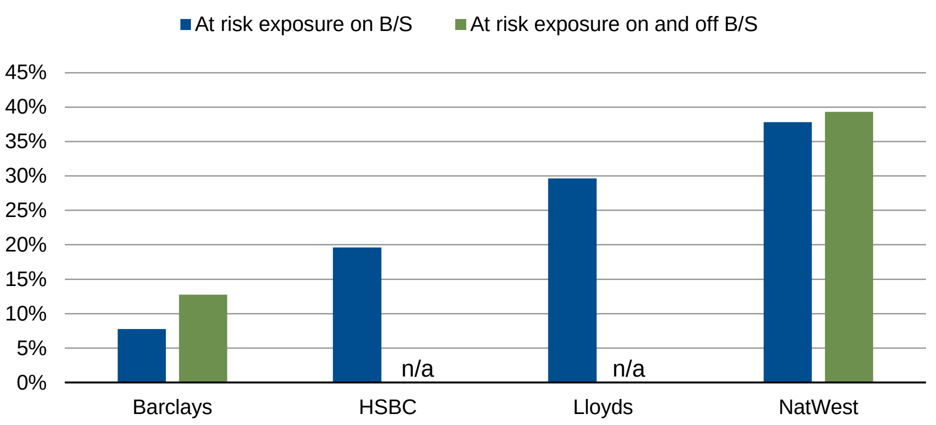
UK banks are preparing for the upcoming Bank of England climate stress test as well as the year-end deadline for meeting supervisory expectations on managing financial risks related to climate change. Based on a review of disclosures by four of the largest UK banks, we conclude that preparations are well advanced. There is evidence of best practice related to governance, risk management, scenario analysis and disclosure.

With the increasing focus on climate and ESG more broadly, it is not always evident what is material and relevant from a credit investor's perspective. In our opinion, a bank's ability to meet supervisory and regulatory expectations is one of the most important. Interestingly, the ECB recently revealed that only about 10% of EU banks in their own assessment deem themselves to be compliant with supervisory expectations relating to the risk management and disclosure of climate-related and environmental risks.

Ideally, we would be able to assess the nature and magnitude of the climate-related risks a bank is exposed to. However, disclosures are still evolving, and making direct comparisons between banks remains challenging. In the meantime, we focus on how developed and sophisticated a bank's approach is on this subject.

The data presented in Figure 1 carries multiple caveats. First, the reported information is based on industry sectors, and not all customers within a sector will be subject to transition risks. Second, not all exposures may be included. For example, Lloyds does not include exposures from its insurance business and Barclays only details exposures with an elevated risk to climate change; not those with moderate risk.

Figure 1: Reported corporate exposures at risk to climate change (% of corporate exposures)



Note: Further details included in Appendix.
Source: Banks, Scope Ratings.

Upcoming climate stress test

Every other year, the Bank of England (BoE) conducts a stress test designed to explore risks facing banks not covered by its annual solvency focused stress tests. To be launched in June 2021, this year's exercise will look at risks related to climate change. The stated objective is to test the resilience of the current business models of the largest banks and insurers, and the financial system to the physical and transition risks associated with different climate pathways.

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The BoE will provide three scenarios based on early policy action, late policy action and no additional policy action. First, banks will need to quantify the risks based on their year-end 2020 balance sheets. Second, they must identify management actions they would take in response to the risks in each scenario. Initial submissions are due mid-October 2021. At the end of January 2022, the BoE will announce whether a second exercise will be conducted. Results will be published in the first quarter of 2022 or in May 2022 if there is a second round.

Emphasis on qualitative responses

One of the desired outcomes of the exercise is to size the financial exposures of participants. The emphasis, however, will be on the qualitative questionnaire and an assessment of business-model changes. For banks, there will also be a set of qualitative questions only regarding litigation risk, considered to be the third major category of climate risk (along with transition and physical risks). The BoE has explicitly stated that the exercise will not be used to set capital requirements. Depending on the materiality of the risks, however, we believe this is likely to impact capital requirements in the future.

Supervisory expectations for managing climate-related financial risks

In April 2019, the UK's Prudential Regulatory Authority (PRA) issued a supervisory statement applicable to UK insurance companies, banks and building societies concerning the management of climate-related financial risks (SS3/19). The statement details expectations for a strategic approach to these risks. Specifically, firms should:

a) embed the consideration of financial risks from climate change in their governance arrangements;

b) incorporate the financial risks from climate change into existing financial risk management practices;

c) use (long term) scenario analysis to inform strategy setting and risk assessment and identification; and

d) develop an approach for disclosing financial risks from climate change.

Year-end deadline to have risk management approach in place

Initially, firms were asked to have an implementation plan in place by October 2019, with no set date for full implementation. In July 2020, the PRA sent a letter to CEOs clarifying its expectations. Firms now need to fully embed their approaches to managing climate-related financial risks by end-2021. At the same time, the PRA is incorporating the measurement and monitoring of these expectations into its supervisory framework.

In the letter, the PRA noted that it had reviewed many implementation plans and found that most firms were making good progress in developing their approaches. The PRA also highlighted key gaps between firms' intentions and their expectations as well as good practices.

How do banks stand against supervisory expectations?

Over the last few months, there has been a noticeable increase in the amount of ESG reporting. Large UK banks have made disclosures in line with the Taskforce on Climate-related Financial Disclosures (TCFD) framework, and many have been doing so for several years – as standalone reports or as part of broader ESG reports.

Despite the growing use of TCFD reporting, we find it challenging to make direct comparisons between banks. We do, however, find that the issue of climate risk is being taken seriously, not only from a risk management perspective but also as an aspect of corporate social responsibility.

Well advanced in meeting best practices

The PRA expects banks' responses to managing climate-related financial risks to be proportionate to the nature, scale, and complexity of their business. Consequently, we believe that it is appropriate to assess the largest UK banks against the best practices identified by the PRA. We acknowledge that these were identified nearly a year ago and that best practice continues to evolve. The following observations are based on public disclosures from Barclays, HSBC, Lloyds, and NatWest.

Governance

The PRA expects a bank's board to understand and assess the financial risks from climate change, and to address and oversee these risks within the firm's overall business strategy and risk appetite. As well, responsibility for identifying and managing these risks should be allocated to relevant senior management functions.

Observations related to best practice on governance are detailed below:

Best practice	Observations
Clear allocation of responsibility below the senior management level and clear roles and responsibilities across all three lines of defence.	Good detail on who is responsible at board and senior management level. Much less clarity across the three lines of defence**.**
Clear distinction between elements of climate risk as a financial risk, a reputational risk, and a corporate social responsibility issue.	Climate risk is often identified as a separate risk and the interaction with other risks is explained. Information provided is often mixed with what is relevant from a corporate social responsibility perspective.
Ensure board has training to enable it to oversee this risk appropriately. Identify skills needed throughout the organisation and address gaps.	For most, education and training appear to be a focus throughout the organisation. Specific programmes have been developed with external partners such as the Cambridge Institute for Sustainability Leadership (Lloyds) and the University of Edinburgh's Centre for Business, Climate Change and Sustainability (NatWest).
Climate risk is a factor in remuneration and incentive structures.	A factor related to climate and/or sustainability is seen in all banks. The weight given to this factor varies, from 7.5% at Lloyds to 25% at HSBC.
As part of strategy, define a role in supporting clients' and counterparties' transition to meet emissions targets.	Yes, across the board.

Source: PRA, Scope Ratings.

Risk management

The PRA's expectations cover the various aspects of risk management: identification and measurement, monitoring, management and mitigation, and reporting. A strategic approach is expected given the nature of the risks.

As well, firms are expected to use scenario analysis and stress testing, going beyond using only historical data. This work can then be used to develop an understanding of climate risk as well as inform the business, internal model risk calibrations, and the integration of climate risk into risk management frameworks.

Of note, as part of the Internal Capital Adequacy Assessment Process (ICAAP), banks should include at a minimum all material exposures relating to financial risks from climate change and an assessment of how this has been determined. ICAAPs are generally not made public but this information would be highly relevant for investors.

Observations related to risk management best practice are detailed below:

Best practice	Observations
Against a well-defined risk appetite, climate risk management is embedded in frameworks to identify, measure, monitor, manage and report on exposures.	Appears to be work in progress, with plans for further refinement. Some have already incorporated climate risk in enterprise risk management frameworks (Lloyds, NatWest) while others are in the process of doing so (Barclays, HSBC). Same when it comes to defining a risk appetite.
Model the potential impact on capital and associated sensitivities. Examples include a climate value-at-risk, warming potentials (e.g. Paris Agreement alignment), and climate-adjusted probability of default and/or loss given default.	Broad use of stress testing and scenario analysis on specific sector exposures, with plans to eventually assess all exposures. However, the potential impact on capital is not disclosed.
Collect relevant data during client on-boarding and at annual reviews. Provide training to relevant staff to enable this.	Some use questionnaires to understand, assess and monitor transition risk, particularly with corporate customers. Appears to be supported by staff training.

Source: PRA, Scope Ratings.

A closer look at climate-related risk exposures

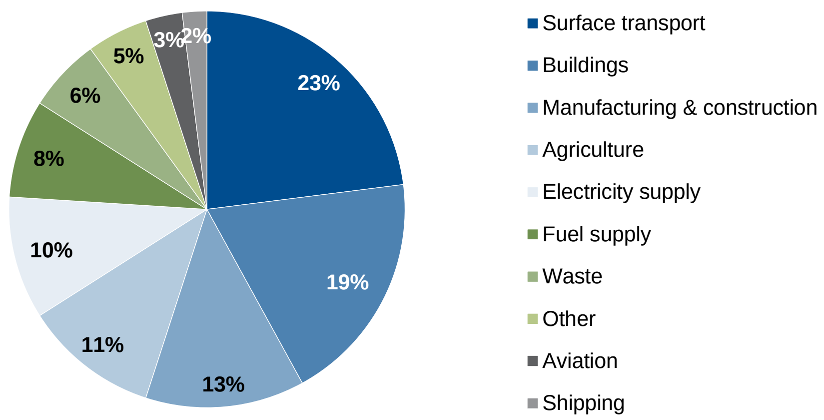
Included in the Appendix are details on sectors identified by the banks as being subject to climate risk. These include commercial and household exposures.

Mortgage portfolios may be a limited source of climate risk

Residential mortgages account for the single largest sector concentration and have been subject to various assessments by the banks. For example, NatWest has assessed its mortgage portfolio for flood and energy efficiency risks. Barclays has considered customer affordability and how this may be impacted by tighter energy efficiency regulation and the cost of upgrading properties to minimum standards. Based on initial findings, HSBC has concluded that at an aggregate level, the overall impact from climate risk across its Hong Kong and UK residential real estate portfolios is expected to be limited under three future scenarios – orderly, disorderly, and hot house.

Currently, three quarters of UK emissions come from surface transport, heating buildings, manufacturing goods, agriculture, and producing electricity (Figure 2). Not surprisingly, there is some overlap but not full correlation between these, and the sectors identified by the banks.

Figure 2: Sources of UK emissions



Source: Bank of England, Scope Ratings.

I. Appendix: Exposures at risk to climate change

Barclays

Barclays divides wholesale sectors susceptible to climate change risk broadly into three categories: elevated, moderate, and low risk. The table below details those which have been identified as elevated. Barclays notes that within each sector there exists a range of vulnerabilities and therefore the figures do not represent elevated carbon emission exposures. The group has also performed climate risk analysis on its household exposures (UK mortgages).

Elevated risk exposures (GBP m)	2020
Airlines	1,339
Airports	661
Automobile manufacturers	3,649
Building materials	1,194
Coal mining and supporting infrastructure	28
Commodity chemicals	2,005
Mining and metals, excluding coal	2,065
Oil and gas - Extraction	7,414
Oil and gas - Midstream energy	3,223
Oil and gas - Oilfield services	2,100
Oil and gas - Refining and marketing	2,821
Power utilities	9,911
Protein and agriculture	5,453
Shipping	683
Steel	502
Surface transportation and logistics	689
	43,737
Of which, on balance sheet	11,001
Of which, off-balance sheet	32,735
On balance sheet exposures % Group wholesale loans	**8%**
On and off-balance sheet exposures % Group wholesale loans and commitments	**13%**
Group wholesale loans (bn)	142
Total group loans (bn)	343
Group wholesale loans and loan commitments (bn)	343
Total group loans and loan commitments (bn)	676

Source: Bank, Scope Ratings.

HSBC

To better understand the group's exposure to transition risk, six high transition risk sectors within the global corporate lending portfolio were identified. Green financing for large companies in high transition sectors is included in the figures below. In the retail business, the group has focused on transition risk exposure in the UK and Hong Kong residential mortgage portfolios, which comprise approximately 65% of the group's total mortgage exposure.

Wholesale loan exposure % Total wholesale loans and advances to customers and banks	2020
Automotive	≤ 3.1%
Building and construction	≤ 4.0%
Chemicals	≤ 3.4%
Metals and mining	≤ 2.5%
Oil and gas	≤ 3.4%
Power and utilities	≤ 3.2%
Total	**≤ 19.6%**
Total (USD bn)	**132**
Total wholesale loans and advances to customers and banks (USD bn)	673
Total loans and advances to customers and banks (USD bn)	1,134

Source: Bank, Scope Ratings.

Lloyds

In addition to sectors within in its commercial banking business, Lloyds has identified exposures in its retail business – mortgages (GBP 295bn) and motor finance (GBP 15bn) which are subject to increased climate risk. The exposures below do not include the Wealth and Insurance division. Lending in the wealth business, however, is limited – GBP 900m at year-end 2020.

Lending to customers in sectors at increased risk from the impacts of climate change (GBP m)	2020
Real estate (incl. housing associations)	25,426
Agriculture, forestry, fishing	7,464
Passenger transport	1,135
Industrial transport	1,374
Automotives	1,485
Housebuilders	870
Construction	1,210
Cement, construction materials, chemicals and steel manufacture	317
General manufacturing	1,301
Food manufacturing and wholesalers	1,312
Oil and gas	1,099
Utilities	1,638
Coal mining	8
Total within commercial banking business	**44,639**
At increased risk commercial banking exposures % Group commercial banking loans	**30%**
Group commercial banking loans	150,584
Group loans and advances to customers, statutory basis	504,603

Source: Bank, Scope Ratings.

NatWest

In addition to wholesale exposures, NatWest has identified UK residential mortgages as being subject to heightend climate change risk – GBP 191bn of loans and GBP 15bn off-balance sheet exposures as of year-end 2020. Figures include all lending to customers, including sustainable lending and to environmentally responsible customers.

Heightened climate-related risk sectors (GBP m) - 2020	Loans	Off-Balance sheet	Total sector exposure
Commercial real estate	23,414	7,831	31,245
Housing associations	7,927	5,749	13,676
Automotive	6,303	4,307	10,610
Power utilities	3,469	6,355	9,824
Land transport and logistics	4,802	3,979	8,781
Agriculture	5,337	1,252	6,589
Construction	5,024	2,089	7,113
Oil and gas	1,561	2,571	4,132
Airlines and aerospace	2,007	2,103	4,110
Building materials	1,710	1,728	3,438
Shipping	1,042	211	1,253
Chemicals	539	825	1,364
Mining and metals	450	755	1,205
	63,585	**39,755**	**103,340**
At risk Wholesale loans % Wholesale loans and advances	**38%**		
At risk Wholesale loans and off B/S % Wholesale loans and off B/S exposures	**39%**		
Wholesale loans and off B/S	168,211	94,630	262,841
Group loans to customers and banks and related off B/S exposures	372,399	133,635	506,034

Source: Bank, Scope Ratings.

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