

INVESTOR REPORT | September 2018

Getting to Green

Showcasing Leading Approaches to Climate Change
within the European Banking Sector

ShareAction»

Author

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Acknowledgements

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About ShareAction

ShareAction is a UK registered charity working globally to lay the tracks for responsible investment across the investment system. Its vision is a world where ordinary savers and institutional investors work together to ensure our communities and environment are safe and sustainable for all.

In particular, ShareAction encourages institutional investors to be active owners and responsible providers of financial capital to investee companies, while engaging meaningfully with the individual savers whose money they manage. Since 2005, ShareAction has ranked the largest UK asset owners and asset managers on their responsible investment performance. In 2017, they expanded to ranking European banks on their management of climate risk. In 2018, they will also rank global insurers and pension funds.

ShareAction works with players across the investment chain to create a movement for responsible investment. This movement includes savers who all too often feel excluded from the investment system, to the institutional investors that operate within it and the policy-makers that regulate it.

About this report

This report showcases leading approaches to climate change within the European banking sector. It provides recommendations on how banks can align their business models with the goals of the Paris Agreement.

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Banks are exposed to climate-related risks and opportunities due to the wide range of industry sectors they finance and support. Investors are therefore becoming increasingly concerned about the quality of climate-related disclosures by banks. In September 2017, over 100 institutional investors with nearly US\$2 trillion in assets under management, coordinated by ShareAction and Boston Common Asset Management, wrote to the 62 largest global banks calling for a strengthening of climate-related disclosures.¹

Yet in the year since the Task Force on Climate-related Financial Disclosures (TCFD) released its recommendations encouraging climate disclosures in mainstream financial filings, progress in implementing the guidelines has been mixed. Research by the Carbon Disclosure Standards Board, evaluating 1,681 companies across 14 countries and 11 sectors, revealed that whilst the majority of organisations acknowledge the business risks posed by climate change, this is failing to translate into meaningful strategic action in many sectors and countries.²

This finding has been mirrored in ShareAction's own analysis into the climate-related risks and opportunities facing the banking sector. In December 2017, we released a report ranking the 15 largest European banks' approaches to climate change.³ A key finding was that whilst all of the surveyed banks have considered climate-related risks and opportunities, the strategies, policies and processes implemented as a result were not necessarily aligned with the goals of the Paris Agreement, nor with the Paris objective of "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development".⁴ There was also marked variation in the scale and ambition of the responding banks' approaches to climate change.

In the eight months since the survey was published, several of the banks assessed have implemented some of the report's recommendations to strengthen their approaches to managing climate risks and opportunities. Our follow-up engagements with both banks and investors have concurrently revealed an interest in learning more detail about how to achieve leading practice in various areas.

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In response to this, we have released this follow-up report to showcase examples of current leading progress shown by selected European banks within the following themes:

- Climate-related disclosures and targets
- Scenario analysis
- Coal, oil, and gas sector policies
- Climate-related client engagement
- Low-carbon product development
- Climate strategy, governance and education

As with the previous survey, this report broadly follows the TCFD recommendations, which include specific guidelines for the banking sector, but it also aims to go beyond this by demonstrating examples of institutions who have used the insights of climate disclosures to drive strategic decision-making.

Building on the insights of the previous European ranking, this report intends to support:

- Investors in their engagements with banks, by providing concrete examples to underpin recommendations for improvements;
- Banks, as they continue to strengthen their approaches to climate change, by demonstrating the precedent for ambitious climate disclosure and action;
- Policymakers, regulators and wider civil society, by advancing the dialogue on the crucial role played by the banking sector in the global response to climate change.

METHODOLOGY

This report predominantly uses information gathered from the survey responses of the ranking of European banks, released in December 2017.⁵ This survey, the first of its kind, assessed the 15 largest European banks (by total assets, identified by S&P Global Market Intelligence) according to four key themes, which incorporated many of the TCFD recommendations: (1) climate-related risk assessment and management; (2) low-carbon products and services; (3) public policy engagement and collaboration with other actors on climate change; and (4) governance structures and climate strategy. Banks responded via an online questionnaire consisting of 40 questions, with a maximum of 162 points available in total. The responses were gathered in the period from August to November 2017. The response rate was 100%.

Where banks were particularly advanced compared to peers, or where developments in 2018 indicated further progress had been made, ShareAction invited selected banks to participate in follow-up interviews. The aim of these interviews was to gain a more detailed understanding of the work going on within those banks in particular areas. These interviews followed a semi-structured format and took place between March and May 2018. We also included a new bank not featured in our previous survey, ABN AMRO, based on their leading progress relative to peers within the theme of climate-related client engagement.

A consensus has yet to be established on both the best methods of implementing the TCFD recommendations for banks, and also how to transition banking business models to align with the objectives of the Paris Agreement. The case studies in this report, therefore, should not be viewed prescriptively; but as examples of organisations showing leadership in the journey towards understanding and managing the physical and transitional impacts of climate change. We have included recommendations for banks at the end of each section.

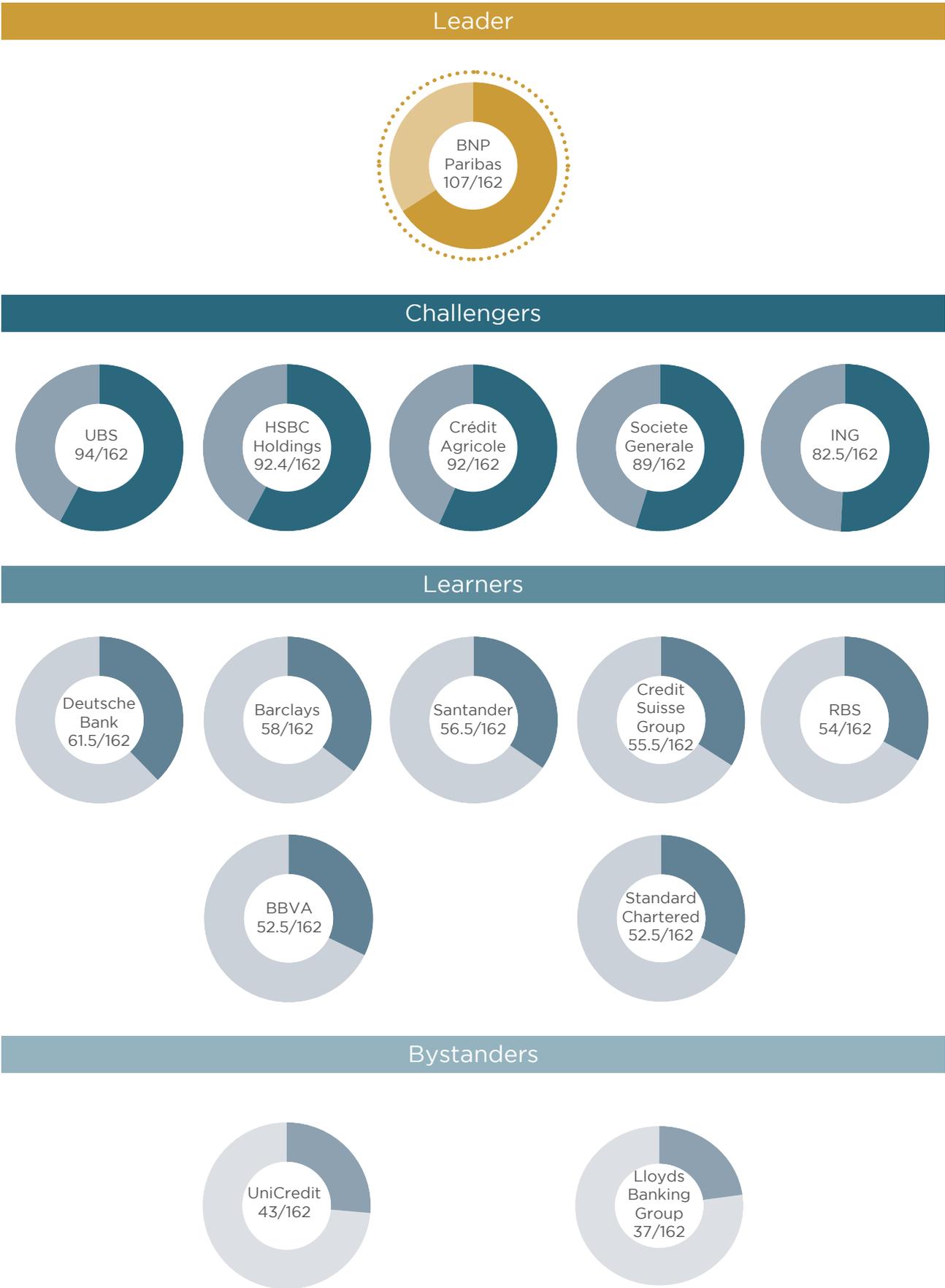


Figure 1: ShareAction's ranking of the 15 largest European banks' approaches to climate change
 Source: ShareAction (2017). *Banking on a Low-Carbon Future: A Ranking of the 15 Largest European Banks' Responses to Climate Change*, ShareAction. Available online at: <https://bit.ly/2kqWmTF> [accessed 18 Sep 2018].



Theme 1

Climate-related disclosures and targets

SUMMARY

This section focuses on progress being made in the implementation of climate-related disclosures and targets, identified by the TCFD as essential to promote market transparency and efficient capital allocation decisions.⁶

BACKGROUND

In its supplementary guidance for banks, the TCFD recommends that banks disclose the amount of lending and other financing connected to both carbon-related assets and climate-related opportunities, reported as absolute amounts and as a percentage of total assets.⁷ These key metrics should be used by banks to assess its exposure to climate-related risks and opportunities according to its strategy and risk management procedures.

The TCFD also recommends that all organisations implement targets to manage climate-related risks and opportunities, and to describe progress against these goals.⁸ Given that the carbon footprint of a bank's financing activities (financed emissions) by far dwarves its operational emissions, it has been recommended that banks should focus their climate targets on:

1. The reduction of carbon-related asset exposure;
2. The mobilisation of capital into low-carbon sectors, particularly the sectors recommended by the TCFD.⁹

Over the past year, European banks have begun to implement these TCFD recommendations. This case study focuses on the leading progress made by BBVA in working towards TCFD-aligned disclosures. Other banks to disclose some of the recommended TCFD climate-related metrics in 2017 annual reporting include RBS and UBS.^{10 11}

CASE STUDY: Banco Bilbao Vizcaya Argentaria (BBVA)

BBVA disclosed its climate-related metrics and targets in its Pledge 2025 – the bank's climate change and sustainable development strategy announced in February 2018.

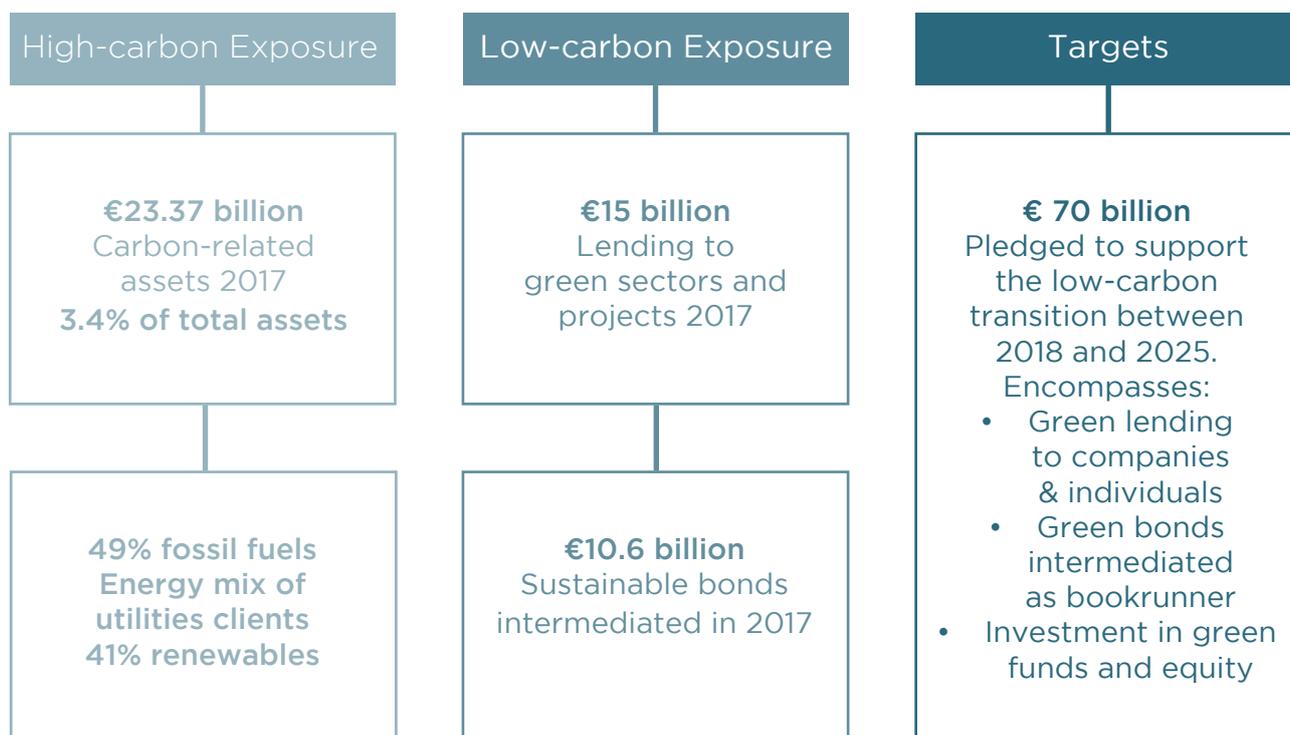


Figure 2: BBVA's climate-related disclosures and targets.
Source: BBVA (2018)¹²

BBVA's climate change and sustainable development strategy, Pledge 2025, is the result of collaboration between the bank's sustainability team, corporate and investment banking and risk management. Investors have increasingly been asking BBVA for climate-related information in recent years; and this formed part of the impetus for designing the strategy, which directly incorporates common climate-related requests from investors.

The Energy Mix of BBVA's Utilities Clients

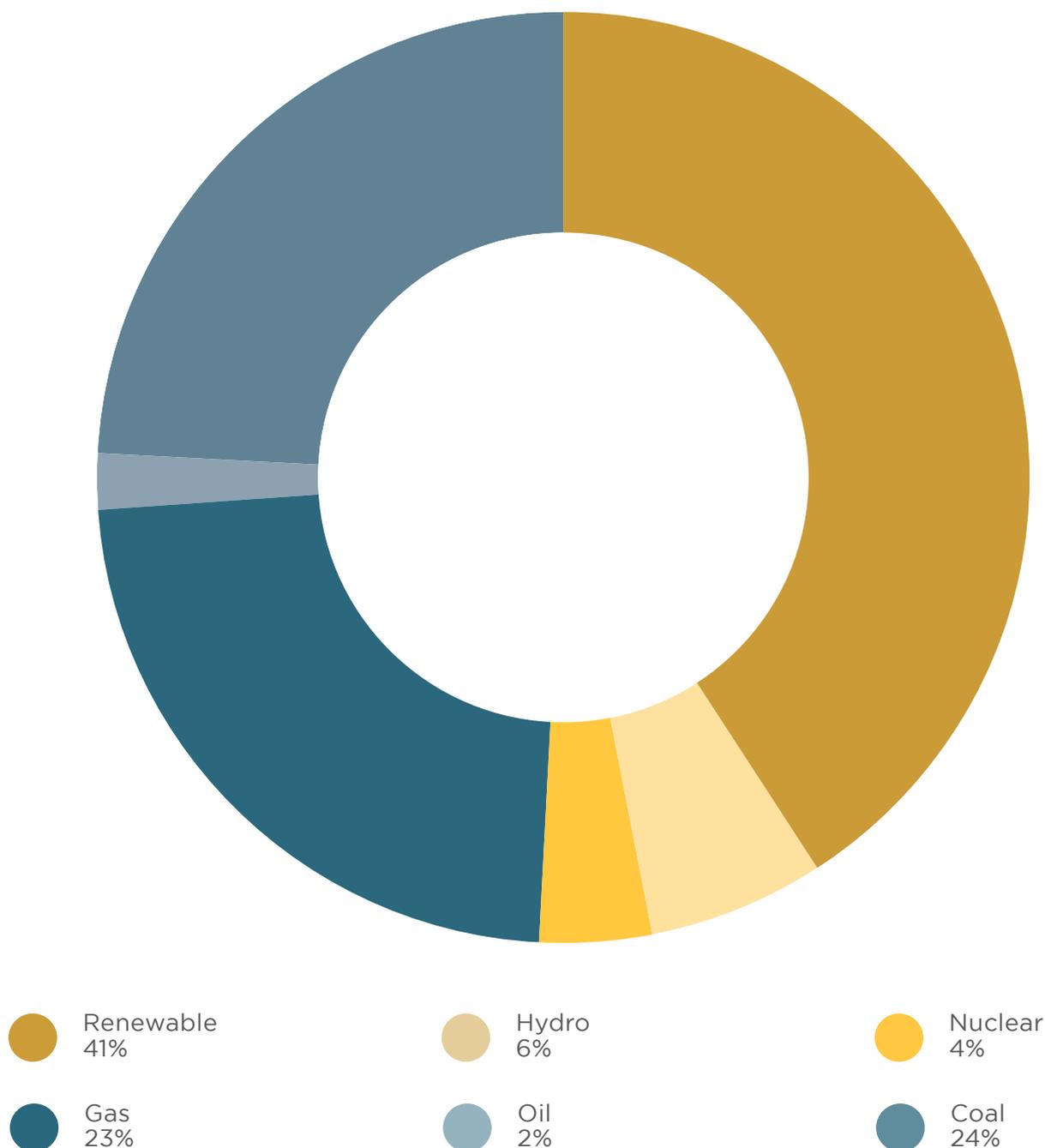


Figure 3: The energy mix of BBVA's utilities clients
Source: BBVA (2018)¹³

In its disclosure methodology, BBVA used the TCFD-recommended definition for carbon-related assets – those tied to energy and utilities sectors, excluding water utilities, nuclear and renewable power. The bank assumed coal, oil and gas assets to be 100% carbon-related; whilst for utilities, they counted the percentage of fossil-fuel based electricity generation (see Figure 3). BBVA also disclosed its absolute exposure as a percentage of total balance sheet assets, as suggested by the TCFD in its supplementary guidance for banks.

When stating the case internally for voluntarily disclosing its carbon-related exposure, the sustainability team emphasised the importance of the exercise for internal learning as well as climate transparency. Understanding the bank's exposure to climate-exposed assets versus new low-carbon sectors is essential in order to assess if the bank is progressing towards the most appropriate energy mix in its customer base as the low-carbon transition progresses. Highlighting these internal benefits helped to secure the understanding and support of senior decision-makers for the exercise.

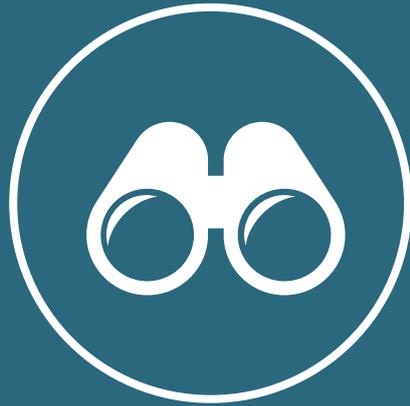
The next stage for BBVA is including carbon-related underwriting activities in its disclosures, which it hopes to do next year. The team would also like to disclose low-carbon assets as a percentage of total; and is looking at the possibility of publishing an approximate figure to give a sense of BBVA's ambition in this area, whilst awaiting to see what progress is made with green taxonomies by the EU Commission.

RECOMMENDATIONS FOR BANKS

The climate-related metrics and targets disclosed in the year since the final TCFD recommendations were published represent an encouraging first step towards climate transparency. Yet the variation in reporting practices, in terms of both methodology and placement, reveal that consensus still needs to be established to enable comparison and benchmarking. Banks should work towards achieving the following standards of climate-related metrics and targets:

- Disclosure of high-carbon assets as a percentage of total, and timebound targets for decreasing this
- Disclosure of low-carbon assets as a percentage total, and timebound targets for increasing this





Theme 2

Scenario analysis

SUMMARY

This section focuses on progress towards implementing scenario analysis – a tool recommended by the TCFD for all organisations to assess the resilience of business strategies to a range of favourable and unfavourable climate scenarios.

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The challenge of scenario analysis development for the banking sector is no justification for slow progress, it is a reason to prioritise implementation.

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BACKGROUND

Integral to the Strategy section of the TCFD recommendations, scenario analysis is envisaged as a forward-looking tool that tests the current and potential impacts of various feasible future states (scenarios) extending decades into the future, in order to inform strategic planning and portfolio composition.

Whilst the TCFD advises banks to employ scenario analysis to assess climate impacts on corporate lending portfolios, its high-level guidance leaves it to the industry to develop methodologies for implementation. Such flexibility is important, given the complexity of the banking sector’s exposures. Specific challenges facing banks in the implementation of scenario analysis include: the breadth of sectors and regions to assess; the limited availability of data on climate impacts for certain borrowers or sectors; assessing impacts beyond the traditional short-term horizon of lending portfolios; and developing organisational understanding of physical and transitional climate risks.

However, the challenge of scenario analysis development for the banking sector is no justification for slow progress, it is a reason to prioritise implementation – and indeed a number of banks have done so. This section focuses on one example of leading progress. Crédit Agricole began working on scenario two years before the TCFD recommendations were published, and has implemented a dynamic portfolio carbon-footprinting technique – the results of which have already benefited organisational understanding of climate risks. In Box A, we also summarise the scenario analysis methodologies developed by the UN Environment Programme Finance Initiative (UNEP FI) working group on TCFD implementation - a collaboration between 16 banks, UNEP FI and the consultancy Oliver Wyman.

Given the early stage of methodology development, a consensus has yet to be established across the sector on what exactly constitutes ‘best practice’ in banking scenario analysis. The examples showcased in this section, therefore, should not be viewed as prescriptive recommendations; but as examples of organisations showing leadership in the journey towards understanding and managing the physical and transitional impacts of climate change.

CASE STUDY: Crédit Agricole

Calculating the static carbon footprint of financing and investment portfolios

Crédit Agricole began to measure the static footprint of its GHG emissions financed in 2011 by implementing the P9XCA methodology, developed in collaboration with Paris Dauphine and the Polytechnical School of France.¹⁴ This top-down approach allocates GHG emissions to sources of finance (defined as loans, bonds and equity) based on their market share by economic sector and region. Importantly, instead of measuring emissions by the more common Scope 1, 2 or 3 approach, Crédit Agricole uses an 'issue'-based carbon accounting method which ensures no double counting of emissions.¹

The P9XCA approach delivers an estimation of the emissions financed by the banks, measured in tonnes of CO₂ - equivalent. At its most recent calculation, the static carbon footprint for Crédit Agricole's financing and investment portfolio was 160 million tonnes of CO₂ - of which 100 million tonnes are from major infrastructure projects in France and worldwide. Within this calculation, Crédit Agricole is also able to see a breakdown of the carbon intensity of its financing and investments by sector and region, an effective proxy for understanding how climate-exposed these sectors and regions are to transition risks.



Emissions factors for each sector or region are calculated from public information. These are then multiplied by the outstanding amount of finance or investment provided by the bank to the same sector or region.

Figure 4: Calculating financed emissions using the P9XCA methodology

¹ Issue-based carbon accounting allocates emissions to sectors according to their capacity to reduce them, with the 'issue' of an economic agent being the amount of emissions they are liable to reduce in an economy where carbon prices place heavy restrictions on emitting, thereby stimulating innovation in processes. Scope-based accounting approaches, by contrast, reflect the ownership of sources of emissions or the carbon content of purchases or sales.

MOVING TO A DYNAMIC SCENARIO BASED ANALYSIS METHOD

As P9XCA gives only an emissions snapshot of a specific moment in time, Crédit Agricole expanded its analysis in 2015 in order to assess the materiality of climate risks over dynamic time horizons. The internal sustainability team developed four climate scenarios under which to test the potential impacts on its corporate customers by sector and region.

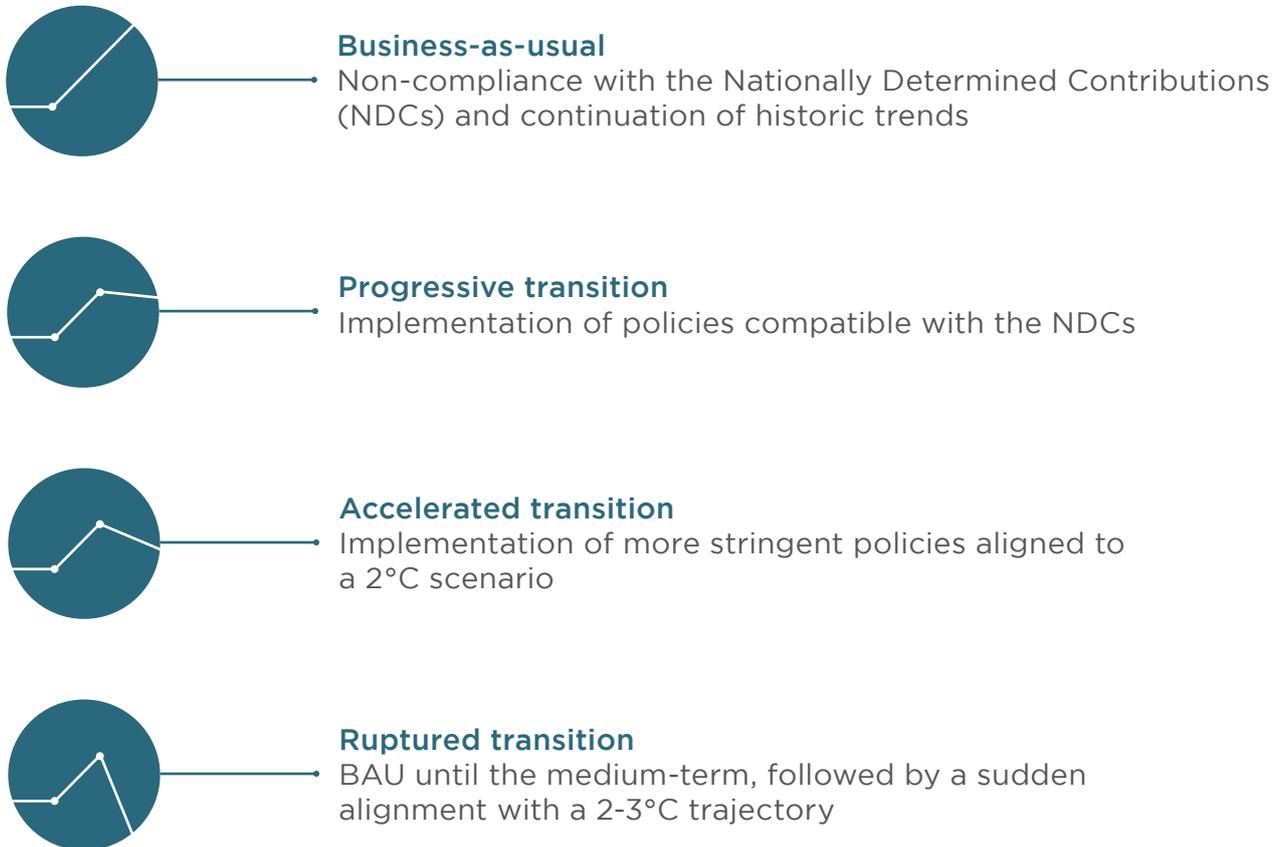


Figure 5: Crédit Agricole's climate scenarios

The four scenarios are distinguished by the significance of climate mitigation measures (indicated by the level of carbon price in a given country) and the speed of their implementation (indicated by the percentage of carbon price affecting the Value Added of a sector/region). Carbon prices are based on national government commitments where possible, such as France's target of EUR 100 per tonne CO₂ by 2030, and were estimated in consultation with carbon market experts. Physical risks are also included in all four scenarios, using climate information (on, for example, flooding or sea levels) published by regional tools such as the European Environment Agency.¹⁸

The scenario analysis takes place over three time horizons: pre-2020 (short term), between 2020 and 2030 (medium term) and beyond 2030 (long term); and is modelling the impact on the Value Added of each sector and region, as per the

P9XCA methodology. Just as with P9XCA, this is a top-down approach to scenario analysis, rather than a bottom-up method measuring impact at the asset level. Crédit Agricole currently assesses 15 countries and 8 sectors.

Initial scenario analysis findings

The results estimate the impact (weak, moderate or extreme) on the Value Added for each sector and region over the three time horizons, for both physical and transition risks. Some high-level findings include:

1. Negligible short term impacts across all scenarios from physical and transition risks
2. Transition risks become potentially significant in the medium term under the accelerated and ruptured transition scenarios
3. Physical risks become material in the longer term under the business-as-usual scenario

From analysis to action: managing the identified risks

With transition risks identified as becoming material in the medium term, further resources were then dedicated to assessing these impacts at the client level. This was because one of the limitations of a top-down scenario analysis approach is it does not account for differences within sectors. The team therefore developed the Medium-Term Transition Risk Index to better understand which clients within a sector had the most to lose or gain from transition risks materialising between 2020 and 2030. The index assigns a score to each customer based on the following criteria:

- The carbon intensity of the sector, i.e. how transition-exposed the corporate customer group is
- The expected emissions reduction in the relevant country: based on nationally-determined contributions (NDCs), this shows the importance the country places on the transition
- The responsiveness of the customer to the transition risks and its ability to adapt, as evaluated by extra-financial agencies

Highly-exposed sectors within more transition-committed countries will yield higher absolute scores. A customer is seen to have above-average readiness to the transition if their score is positive relative to the sector average. This easy-to-understand assessment has been applied to Crédit Agricole's entire corporate and investment banking customer base since 2017 for annual CSR scoring. Last year, the business took the decision to enforce enhanced due diligence on customers identified as laggards within the matrix.

Developing institutional understanding of climate risks through scenario analysis has helped to drive Crédit Agricole's decisions to cease direct financing of new coal mines and coal-fired power plants globally, as well as tar sands and Arctic oil projects, as defined by the sectoral policies put in place by the Group.¹⁹ In beginning to shift its lending criteria today, Crédit Agricole is demonstrating the intended end-goal of the TCFD recommendations: using the insights of scenario analysis to inform strategic direction and drive ambitious climate action.

BOX A: SUMMARISING THE UNEP FI TCFD WORKING GROUP'S SCENARIO ANALYSIS DEVELOPMENT

The UNEP FI TCFD working group is made up of sixteen banks: ANZ, Barclays, BBVA, BNP Paribas, Bradesco, Citi, DNB, Itaú, NAB, Rabobank, Royal Bank of Canada, Santander, Societe Generale, Standard Chartered, Toronto Dominion and UBS – convened by the UNEP FI and coordinated by the management consultancy Oliver Wyman.



Transition risk methodology

In April 2018, the working group published a pilot report focused on building the foundations of a methodology to test transition risk impacts on corporate lending portfolios under three scenarios: 1.5°C, 2°C and 4°C.²⁰ The methodology combines sector-level (top-down) and borrower-level (bottom-up) analysis, making use of industry expert judgement to fill informational gaps. An advantage of this approach is that only a subset of borrower-level analysis is needed to estimate portfolio risk exposure, reducing the workload required relative to bottom-up approaches. The framework is compatible with multiple sectors, regions and scenario types. The approach divides the analysis into three modules:

- Translating transition scenarios – Common scenario model outputs are translated into a set of focused risk drivers appropriate for financial analysis. These risk factor pathways assess the financial gain/loss of a particular region or sector relative to a baseline, business-as-usual future state.
- Borrower-level calibration – Banks then use in-house credit and sustainability expertise to translate the risk factor pathways into a probability of default for an individual borrower. This analysis, which employs both quantitative and qualitative approaches, is undertaken on a subset of the portfolio.
- Portfolio impact assessment – Drawing together insights from the first two modules, a Merton-style credit risk framework is used to extrapolate the borrower-level data to the remainder of the sector. Aggregating the results across sectors yields a portfolio-wide estimation of risk exposure.



Physical risk methodology

The second stage of methodology development, focussing on physical risks, was published in July 2018.²¹ The pilot approach assesses the impact of both extreme weather events and incremental shifts in climate conditions under 2°C and 4°C pathways throughout the 2020s and the 2040s. This initial analysis focused on three climate-exposed industries, agriculture, energy and real estate, but the approach developed can be applied to a wide range of sectors.

- For agriculture and energy, scenario insights into possible incremental climate changes and estimates on the future frequency of extreme weather events are used to assess the impacts on sub-sector performance metrics, such as agricultural yields and power production, at the sector level. This analysis is then employed to estimate the change in revenue, subsequent impact on financial ratings and probability of default for a subset of individual borrowers in the portfolio.
- For real estate, datasets on the frequency of a range of extreme weather events (such as tropical cyclones, flooding, wildfires, drought, and extreme heat) are used to estimate impacts on property values and then the change in loan-to-value ratios for a sample of borrowers in the portfolio.
- For both branches of analysis, the sample of borrowers analysed is chosen to represent the portfolio's geographical distribution to ensure that, when the results are extrapolated to the whole portfolio, geographical climate variation is accounted for.

RECOMMENDATIONS FOR BANKS

Whilst the methodology development for banking-specific scenario analysis has yet to be finalised, banks should not delay in taking steps to understand and implement this tool into its climate-risk management procedures. As a first step, we recommend that banks:

- Dedicate sufficient resources to develop scenario analysis capabilities within the organisation
- Approach scenario analysis as a tool that will eventually be embedded into business strategy
- Join collaborative methodology development initiatives where relevant





Theme 3

Aligning sector policies with the Paris Agreement

SUMMARY

This section focuses on how banks are managing the climate-related risks of business activities in some of the sectors identified as being particularly vulnerable to the low-carbon transition – namely coal mining and coal power, and the unconventional oil and gas subsectors of tar sands, Arctic oil and LNG export.²²

BACKGROUND

One of the objectives of the 2015 Paris Agreement is that of “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development”.²³ As well as mobilising capital towards low-carbon solutions, banks need to concurrently end financing to projects and companies that facilitate the expansion of emissions-intensive infrastructure. Banks must also put in place plans to decarbonise their lending portfolios in line with the achievement of climate goals.

ShareAction’s ranking of European banks, released in December 2017, revealed that most banks have adopted policies to avoid or limit exposure to activities with significant negative climate impacts, such as thermal coal power. Yet our findings also revealed these policies to be mostly not compliant with the below 2°C climate goal set by the Paris Agreement.²⁴

This misalignment means that many banks are still financing projects and companies under substantial threat of becoming unprofitable in the near future due to increasingly likely changes in regulations, taxes, subsidies, technologies and consumer preferences.²⁵ As banks begin to incorporate forward-looking scenario analysis into their strategic decision making processes, increased awareness of the implications of the low-carbon transition should accelerate a shift in minimum standards for financing.

CASE STUDY: Thermal Coal

The thermal coal sector is increasingly vulnerable to the low-carbon transition. Not only is the expansion of coal infrastructure anywhere in the world incompatible with achieving the goals of the Paris Agreement, but the vast majority of existing coal power capacity will have to be retired early to keep global average temperature rises well below 2°C.²⁶ The IEA estimates the losses stemming from the early stranding of these assets as up to \$8.3 trillion by 2060.²⁷ In recognition of these growing transition risks, a number of banks have strengthened their policies to prohibit and phase-out financing and other business activities to thermal coal projects and companies globally (see Figure 6).

Crédit Agricole is one such bank, having taken the decision to end project financing to coal mines globally in May 2015, and then to coal power plants globally in October 2016. This decision saw the bank walk away from its involvement with two Indonesian power plant projects, Cirebon 2 and Tanjung Jati B 2, shortly after implementing its new coal policy. Despite featuring as one of the world’s top 20 banks involved in financing coal-related projects between 2005 and 2014,²⁸ Crédit Agricole has confirmed they have now not been involved in any coal-related projects since April 2017.

According to Crédit Agricole’s sustainability team, the impetus for strengthening the coal policy emerged in the context of the international climate negotiations surrounding COP21 and the subsequent signing of the 2015 Paris Agreement. Implementation was also aided by the bank’s progress in measuring and managing the carbon footprint of its loan and investment portfolio (see Theme 2), and by the bank’s well-established internal infrastructure for ESG monitoring, which has been in place since 2009. The new coal policy did impact some client relationships, with the decision made to end selected relationships, and a gradual decline in Crédit Agricole’s remaining exposure to thermal coal is already apparent.²⁹

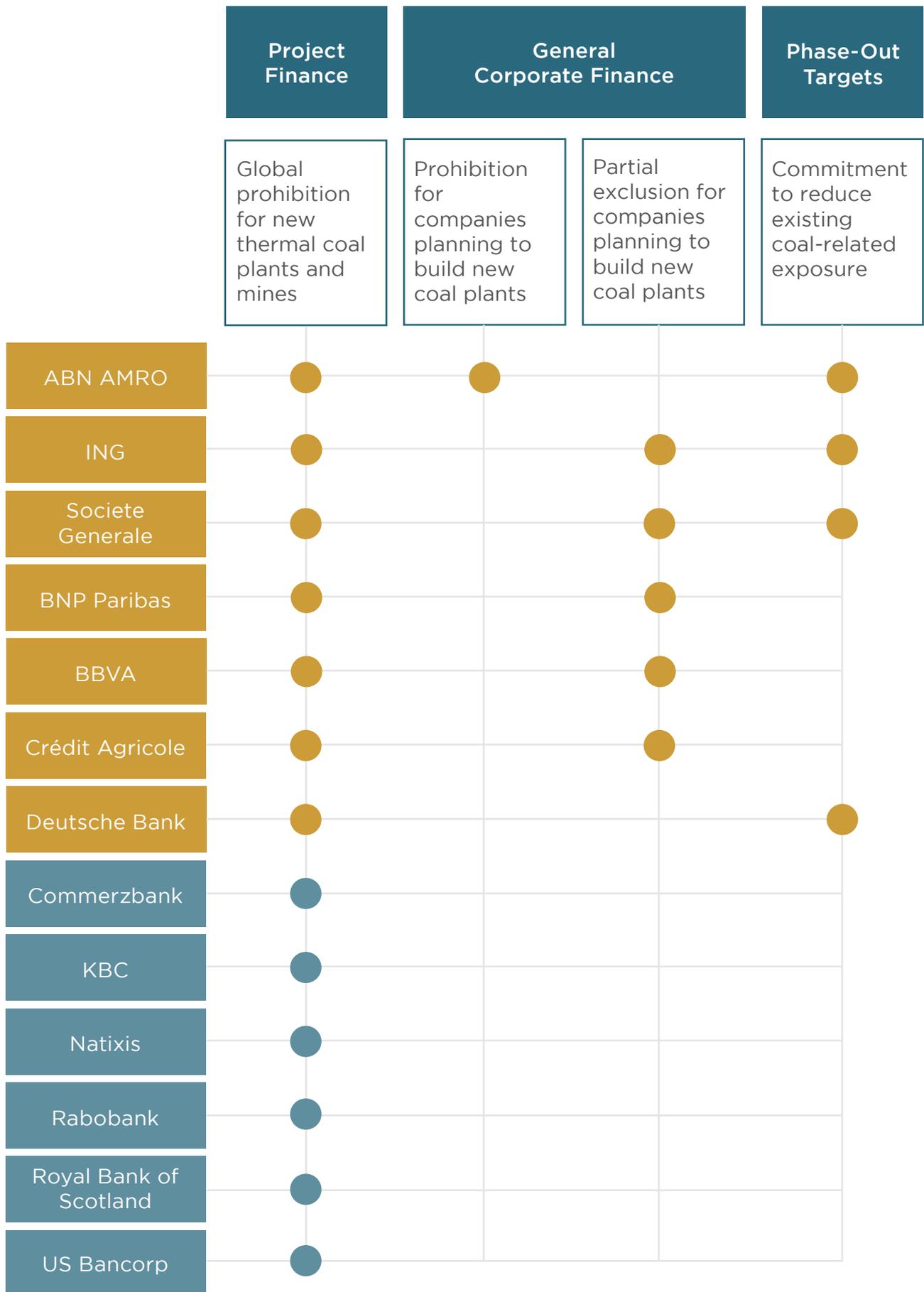


Figure 6: An overview of global banks' thermal coal policies³⁰
 Source: ShareAction research

Further reading: debunking the coal for development myth

Several global banks have ended coal financing in high-income OECD nations, but continue to finance coal expansion in the developing world under the premise that these countries have no reasonable alternative for economic development.

ShareAction recently published a briefing debunking this misconception, *Banking Beyond Coal: Sustainable Development Without Coal Finance*, where we summarise the evidence to demonstrate that developing nations do have affordable and readily-deployable clean energy options.³¹ Moreover, the transition risks that have already sent coal power into an irreversible ‘death spiral’ in the West are just as relevant to the developing world in the near future.³²

CASE STUDY: Unconventional Oil and Gas

Whilst some investment in new oil and gas projects is required even under low-demand scenarios, over 40% of potential capital expenditure would still be at risk under the IEA’s below 2°C scenario (B2DS).³³ The Carbon Tracker Initiative’s Carbon Supply Cost Curve report series identifies the high-carbon, high-cost subsectors that are most incompatible with a reasonable carbon budget: namely, tar sands (also known as oil sands), liquefied natural gas (LNG) export, and drilling located in the Arctic regions.³⁴

BNP Paribas’ sector policy stands out as more advanced than its peers in managing the risks associated with unconventional oil and gas (UOG) subsectors, which it defines as oil sands, shale oil or gas, and oil and gas resources located in the Arctic region. Updated in December 2017, the policy covers all business activities globally and includes the following criteria:

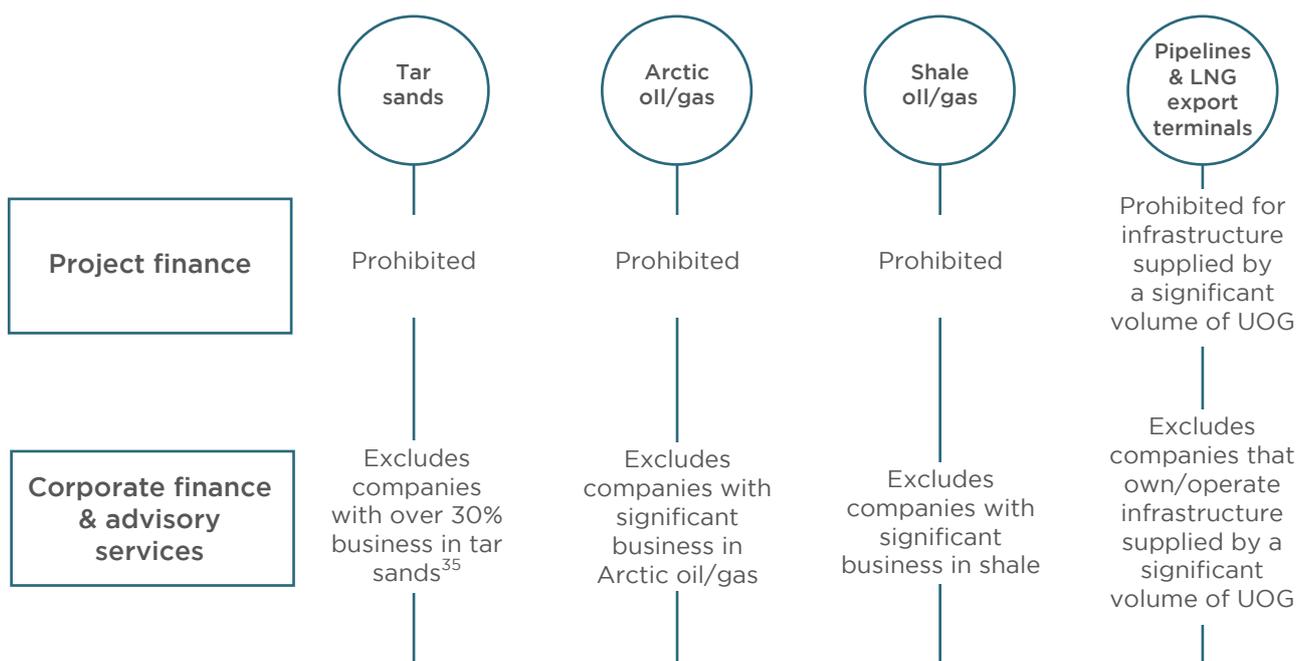


Figure 7: How BNP Paribas manages the risks associated with tar sands, Arctic oil, shale, and LNG
Source: BNP Paribas (2017)³⁶

BNP Paribas undertook a comprehensive impact assessment of its activities in these sectors prior to developing its financing and investment policy for the unconventional oil and gas sector. According to the bank's sustainability team, the driving force behind the updated policy was the Group's Executive Management, which closely monitors efforts towards achieving the bank's commitment to support the energy transition in line with the 2°C goal. From this perspective, the decision to end certain client relationships in these subsectors was a logical consequence of the bank's support of the 2015 Paris Agreement. The main challenge in updating the policy was not seeking internal approval, therefore, but rather the process of defining the criteria and scope to find the right angle to address the bank's exposure to the sector. Explaining strategic rationale behind the policy to the commercial teams was critical, as was ensuring these teams were trained to explain the decision to corporate clients.



EXPLAINING THE CARBON AND CAPEX INTENSITY OF UNCONVENTIONAL OIL AND GAS

Tar sands

Tar sands refers to a thick mixture of clay, sand, water and bitumen that is mined and processed to produce oil. With an expensive extraction process, the world's commercially viable operations are mostly located in Alberta, Canada. Further expansion of tar sands output is dependent on a solution to insufficient transportation infrastructure, and so three major pipeline projects (Enbridge's Line 3, Kinder Morgan's Trans Mountain and TransCanada's Keystone XL) have been proposed. Yet these pipelines have been racked by controversy, widespread opposition from First Nations and local communities, and legal challenges.³⁷ Research has shown that 75% of Canada's tar sands will have to remain unburned for a 50% change of staying below 2°C.³⁸ The combined carbon and capex intensity of tar sands projects, alongside the future emissions lock-in of associated new pipelines, means the sector is particularly vulnerable to the low-carbon transition.

LNG export

LNG refers to gas that has been cooled to a liquid form in order to be shipped to export markets. Around 60% of planned LNG export terminals are being built in the United States, where shale gas producers – sitting on a glut of supply larger than domestic capacity – are hoping for a doorway to new markets.³⁹ Whilst gas is often touted as the energy transition “bridge fuel”, the reality is that its climate credentials are not clear-cut. Gas-fired electricity generation does emit about half the greenhouse gases (GHG) per kWh as coal, but methane emissions leaked during the production process are suspected to have a significant, and unaccounted, climate impact.⁴⁰ The climate impact extends to LNG too; according to the US Department of Energy, the emissions associated with liquefying, shipping and re-gasifying renders LNG twice as carbon-intensive as natural gas.⁴¹ This, combined with the capital intensity of LNG terminal infrastructure, renders the subsector increasingly vulnerable as cheaper renewables, higher carbon prices and better energy efficiency measures see an increased likelihood of gas being leapfrogged altogether during the energy transition.

Arctic oil

Drilling for oil in the Arctic brings increased infrastructure costs and heightened environmental risks, relative to conventional exploration and production, due to the extreme climate. “We think there is almost no rationale for Arctic exploration,” stated a Goldman Sachs commodities specialist last year, noting that these “immensely complex, expensive projects... move too high on the cost curve to be economically doable.”⁴² In addition, the risks to the pristine and already endangered Arctic ecosystem and its communities are significant, as the Indigenous peoples of Alaska have fiercely expressed in their opposition to drilling in the Alaska National Wildlife Refuge (ANWR).⁴³

RECOMMENDATIONS FOR BANKS

To effectively manage climate-related financial risks and to align lending criteria with the goals of the Paris Agreement, banks should strengthen their coal policies to implement:

- A prohibition of project finance for new coal mines and coal-fired power plants anywhere in the world;
- A prohibition of general corporate financing and advisory services to companies who are highly dependent on coal mining or coal powerⁱⁱ;
- A clear, timebound plan to phase out existing exposure to coal-related projects and companies.

Banks also need to update their oil and gas policies to reflect the climate-related financial risks associated with the most climate-exposed subsectors, by implementing:

- A prohibition of project finance for new tar sands, LNG export, and Arctic-located extraction or transportation infrastructure, or for expansions to existing extraction or transportation infrastructure;
- A prohibition of general corporate financing and advisory services to companies who produce or transport tar sands, LNG, or Arctic oil and gas; or who are planning any of the above infrastructure projects;
- A clear, timebound plan to phase out existing exposure to projects and companies related to tar sands, LNG export, and Arctic oil and gas.

ii. Highly coal-dependent companies are defined as those where over 30% of their revenues or energy mix comes from coal; AND/OR annual production, trading, or consumption of coal exceeds 20 million tonnes annually; AND/OR installed coal power capacity is greater than 10,000 MW; AND/OR the company is planning investments into new coal-related infrastructure. Such criteria are designed to ensure that highly diversified companies, such as Tata or Marubeni, who may fall below the 30% threshold but who have large absolute exposures to coal are still accounted for.



Theme 4

Client engagement

SUMMARY

This section focuses on how banks can also manage transition risks by incorporating an assessment of climate-related issues into their engagements with corporate clients.

BACKGROUND

The implementation of sector policies aligned with the Paris Agreement should be accompanied by a robust and transparent process for engaging corporate clients on climate issues. Such an approach can effectively accelerate progress with clients who demonstrate untapped potential to align their business models with the low-carbon transition; but it is also a central tool in managing climate-related financial risks. Individual loans to climate-exposed customers may only be short in duration, but the overall client relationship is usually conceived for the long-term. Effective engagement will help banks to identify which clients will continue to be relevant to the changing mix and exposure of their lending portfolios.

CASE STUDY: ABN AMRO

ABN AMRO has historically engaged with its customers on sustainability issues, and over the years has refined its approaches to develop proactive processes for both investment and lending activities - this case study will focus on the latter.

All new corporate clients which pose a high risk from a sustainability perspective are assessed on their sustainability performance and compliance with ABN AMRO's ESG risk policy framework, including sector-specific lending policies, during the on-boarding process. Whilst most companies will meet these requirements, the bank will continue to monitor ESG performance on a regular basis. Clients that pose a high sustainability risk are periodically reviewed against the bank's policies throughout the length of the relationship.

Where potential or existing clients fall outside of the ESG risk policy framework, but are willing and able to improve, ABN AMRO will enter into an engagement trajectory with the company to agree an improvement plan that sets clear steps, objectives and timelines for implementation. Importantly, the bank only engages with companies it deems can feasibly improve to the required standards within the designated timeframe.

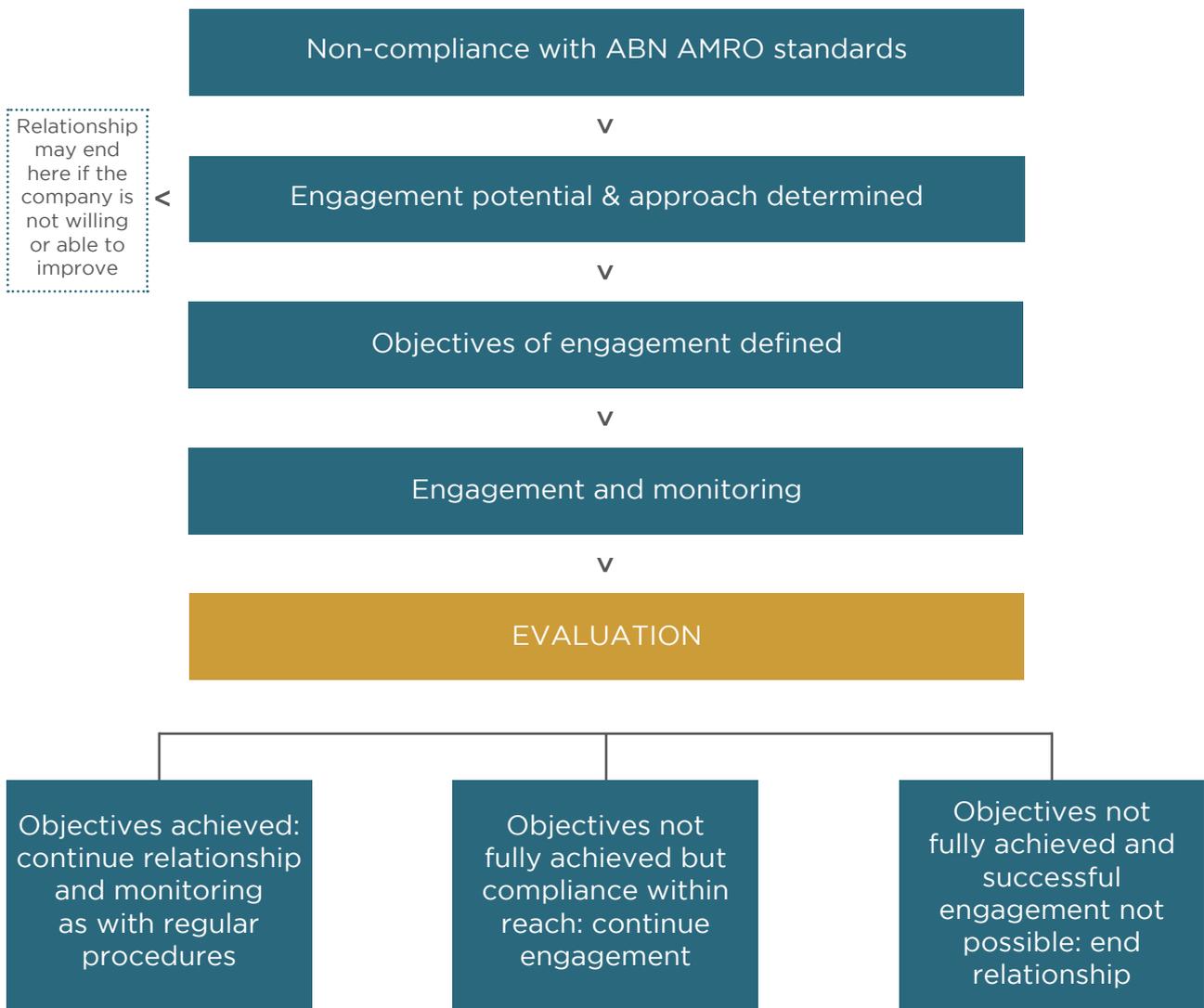


Figure 8: ABN AMRO's framework for sustainability-related corporate client engagement
 Source: ABN AMRO (2017) ⁴⁴

Example: Engaging with the power generation sector

In order to support the power generation sector in the transition away from carbon-intensive power generation, ABN AMRO continues to finance selected clients that are willing to engage and able to improve to meet the required sustainability standards. The criteria that clients are encouraged to meet is continuously updated, thus ensuring that the entire client portfolio consistently improves over time.

Underpinning ABN AMRO's individual client criteria is a commitment to align the lending portfolio with International Energy Agency scenario-based estimates of the power generation energy mixes needed to limit global average temperature risks to 2°C.

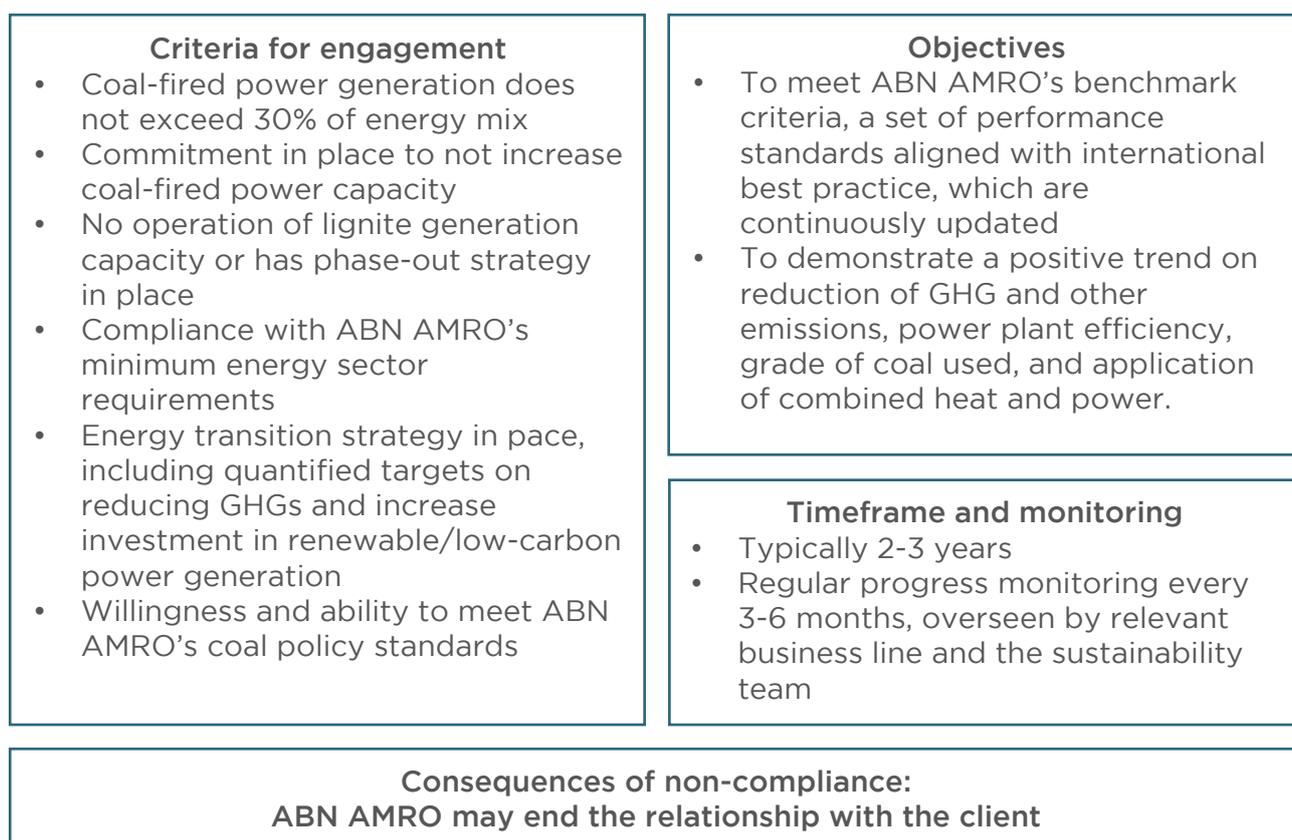


Figure 9: ABN AMRO's process for engaging the power generation sector⁴⁵

Transparency in engagement

ABN AMRO publishes a yearly update on the number of ESG-related engagements ongoing and closed.⁴⁶ In 2017, the bank undertook several climate-related engagements and one relationship was ended due to the company's unwillingness to engage. The most prominent sectors for climate-related engagements were palm oil, energy and utilities.

RECOMMENDATIONS FOR BANKS

- Implement a framework for engaging with corporate clients on climate-related issues, ensuring this sets clear objectives and timelines for improvement, and outlines the consequences for non-compliance
- Ensure this framework is publicly available
- As part of engagement, request that clients adopt the TCFD recommendations
- Publish an annual update on the number of climate-related engagements and outcomes





Theme 5

Mobilising capital for
the low-carbon transition

SUMMARY

This section focuses on leading progress in the development of low-carbon products and services that will mobilise capital needed to facilitate the low-carbon transition.

BACKGROUND

It has been estimated that \$90 trillion in infrastructure investments alone will be required by 2030 to limit global temperature rises to 2°C.⁴⁷ Limiting temperature rises to 1.5°C will require an additional \$460 billion per year over the next 12 years.⁴⁸ Banks – as lenders, investors, underwriters, and financial advisors – have an important role to play in mobilising this much-needed capital. As well as being a necessity for climate change mitigation, low-carbon products and services also represent an important business opportunity for the banking sector.

ShareAction's survey revealed that certain banks are gaining a clear commercial advantage in the development of innovation low-carbon products and services. This case-study focuses on Barclays as an example of current leading practice among European banks – not only due to the range of new products developed, but also because of their implementation of robust internal frameworks to ensure integrity of low-carbon credentials and cross-business collaboration in product innovation.

CASE STUDY: Barclays

The leading progress achieved by Barclays in this area has been driven by its Green Banking Council, which was launched in January 2017 to coordinate the development of products to support clients through the low-carbon transition. Convening the expertise of over 150 employees across all business areas, the Council has successfully implemented the company's innovative Green Product Framework⁴⁹ and has closely supported the development of its Green Bond Framework.^{50 51}

Green Product Framework

Developed in collaboration with Sustainalytics, a leading ESG data and research provider, the Green Product Framework was established to identify projects that would qualify for support through new green products and services. The framework clarifies qualifying environmental activities and exclusion criteria, grouped into key themes:

- Energy efficiency
- Renewable energy
- Green transport
- Sustainable food, agriculture and forestry
- Sustainable water management
- Waste management
- GHG emission reduction attained through activities other than energy efficiency

Recognising the ongoing evolution of environmental standards, Barclays has also committed to reviewing the framework annually to add or remove qualifying activities as necessary. All green products are also subject to review by a separate committee to ensure correct use of funds in line with the terms of the framework.

Green Bond Framework

Emissions from UK buildings were estimated to contribute 34% of total UK emissions in 2014. As a significant UK lender, Barclays established its inaugural Green Bond Framework in September 2017 in order to issue green bonds (senior unsecured debt) where the proceeds are allocated to the financing and refinancing of mortgages on energy efficient residential properties.

Use of proceeds: Eligible mortgage assets are defined as those in the top 15% of the lowest carbon intensive residential properties in England and Wales, as reported by Energy Performance Certificate (EPC) data.

Certification: Verified as compliant with ICMA's 2017 Green Bond Principles by the Carbon Trust. CBI certification is obtained for each issuance.

Reporting: Investor report published online annually, additional annual verification testing by an independent qualified assurance provider.

Following the launch of the framework, Barclays issued its inaugural green bond in November 2017, a EUR 500m senior unsecured note maturing in 2023. It was the first green bond issued by a UK bank backed solely by UK assets. The issue was 3.7x oversubscribed.

Leading the UK in range and ambition of low-carbon products and services

With robust and transparent frameworks in place, Barclays has over the past year developed an innovative range of low-carbon product solutions.

For retail customers, the bank now offers a preferential-rate two- or five-year fixed mortgage for A or B energy-efficiency-rated new-build homes, purchased from certain house builder partners.

For corporate customers, Barclays offers a full suite of green products and services to projects, activities and companies that qualify under the Green Product Framework:

Green loans

Term lending facility available to UK and international clients where proceeds of the loan are used exclusively for eligible green activities

Green asset finance

Financing green assets through lease purchase, finance and operating leases

Green trade loans

Supporting green working capital needs from procurement through to final sale

Green deposits

Cash balances are earmarked to Green Bonds purchased by Barclays' central treasury team. Available in GBP and USD, based on 65 and 95 day notice periods;

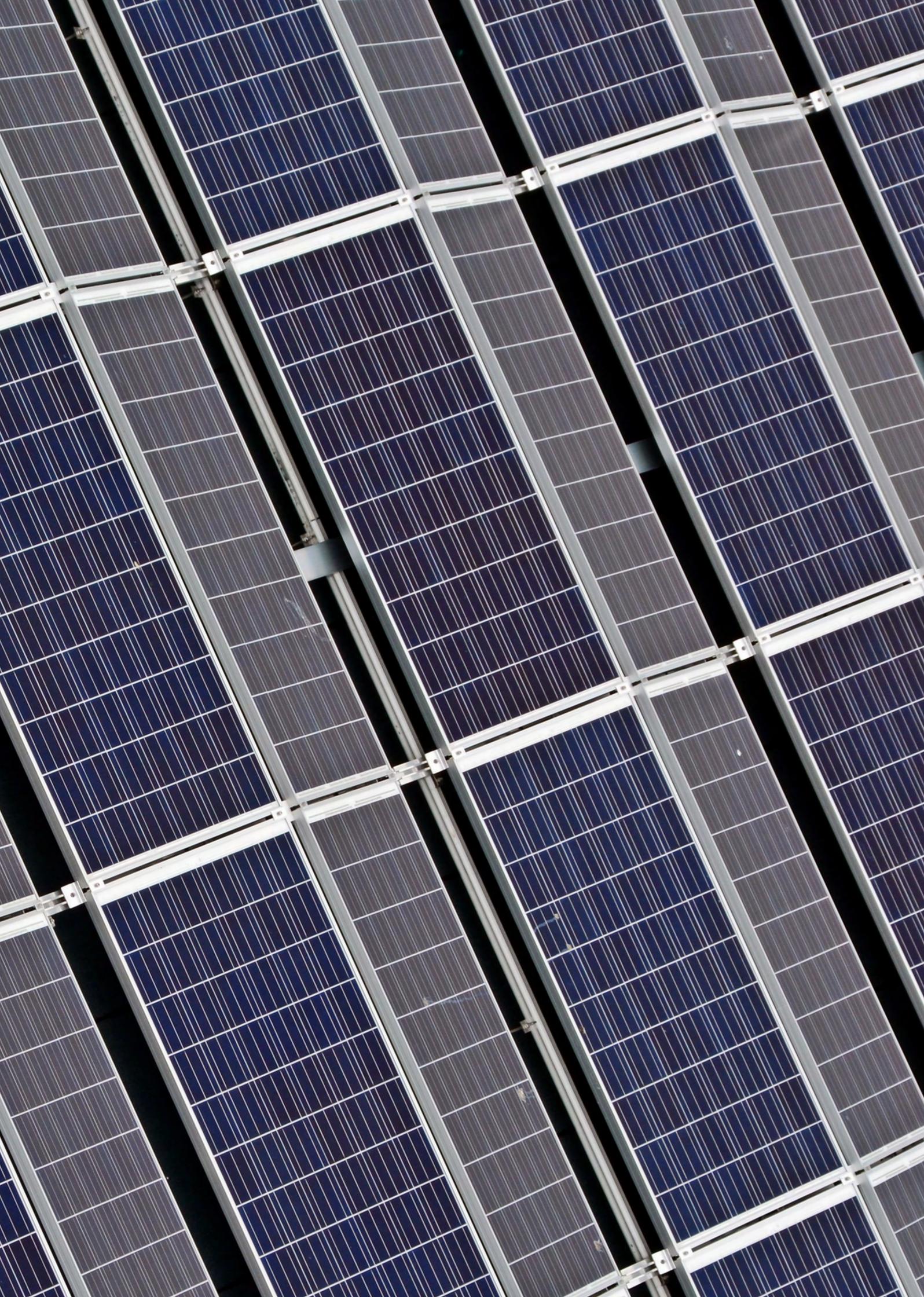
Green innovation finance

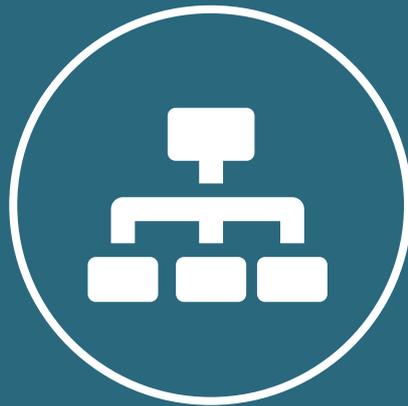
Competitive rate financing of up to £5 million for SMEs, supported by the InnovFin SME Guarantee facility with the financial backing of the European Union under Horizon 2020 Financial Instruments.

These product innovations build on the existing green bond issuing capabilities of Barclays, with the bank raising approximately \$40 billion in green bonds for its clients globally since 2017.

RECOMMENDATIONS FOR BANKS

- Dedicate resources and capacity to support the development of low-carbon products and services across the organisation, including in the retail, corporate and investment banking divisions;
- To ensure transparency and due diligence, implement a publicly available and third-party-verified framework to define which assets are eligible for green financing
- Disclose the percentage of low-carbon assets relative to total, and time-bound targets for increasing financing and underwriting activities to eligible low-carbon activities.





Theme 6

Climate strategy,
governance and education

SUMMARY

This section focuses on how banks should develop a Paris-aligned climate strategy, supported by strong climate-aware governance and an extensive, organisational education programme.

BACKGROUND

Businesses must step up to actively lead the changes required to mitigate the challenges of climate change, rather than just adapt to it.⁵² Such climate leadership requires a comprehensive climate strategy aligned with the goals of the Paris Agreement, senior management support, and a coordinated plan to spread awareness of climate issues across all business divisions.

The findings of ShareAction's ranking of the 15 largest European banks' approaches to climate change revealed that banks who scored better on these three themes were also further advanced in implementing other initiatives for climate risk management and low-carbon opportunity development. By contrast, the lowest scoring banks in the survey frequently cited obstacles to progress including little internal awareness of climate issues or a lack of senior management support.

CASE STUDY: BNP Paribas

BNP Paribas, the highest-ranking bank in ShareAction's survey, has developed an approach to climate strategy, governance and education that stands out compared to peers because:

- The climate agenda is integrated across the whole organisation, not siloed within the CSR team;
- Senior management and the board are a driving force in implementing the climate agenda;
- Organisation awareness of climate issues has been developed through a comprehensive education programme;
- The bank has shown climate leadership by implementing ambitious climate commitments, in many cases being the first major European bank to do so.



CLIMATE STRATEGY

BNP Paribas has implemented a comprehensive corporate and social responsibility (CSR) policy since 2001, based on four pillars (the economy, our people, the community, and the environment). Within this, the bank's climate strategy, developed in the wake of COP21 in 2015, was designed to support the goals of the Paris Agreement of limiting global average temperature rises to below 2°C, and in particular of aligning financial flows to achieve this objective.⁵³ The key themes defined are:

- 1. Mitigating climate risk**
 - Reducing exposure to sectors not compliant with the Paris Agreement, e.g. thermal coal and tar sands
 - Developing an internal carbon audit for the highest-emitting sectors, and a qualitative analysis of their carbon risks
 - Incorporating climate risk analysis into internal ratings methodologies
- 2. Developing financing & investment solutions to drive the energy transition**
 - Implemented €15 billion financing target for renewable energy solutions by 2020 (had reached €12.3bn by end of 2017)
 - Ranked in the Top 3 green bond issuers worldwide in 2017
 - Developed a range of low-carbon investment funds
- 3. Integrating climate management into investing activities**
 - Disclosure of and target to reduce the carbon footprint of investment portfolios managed for clients
 - Divestment from coal in SRI funds
 - Enhancing engagement with the oil and gas industry
- 4. Active engagement with regulators, policymakers and academia to support the energy transition**
 - Ongoing dialogue aimed at helping to develop efficient financial market mechanisms
 - Support scientific research through the Climate Initiative – pledged €12 million to science since 2010
- 5. Carbon neutrality for operational emissions**
 - Target to reach 2.41 tonnes of CO₂eq/FTE by 2020s

Leading practice takeaways: Whilst 13 out of the 15 banks surveyed in ShareAction's ranking had a specific climate change strategy, not all were aligned to the achievement of the goals of the Paris Agreement. Not only does BNP Paribas' strategy explicitly designate this as its guiding purpose, the components of the strategy include the twin priorities of (1) managing and reducing exposure to non-Paris compliant sectors, and (2) mobilising capital to drive the low-carbon transition.

CLIMATE-RELATED GOVERNANCE AND INCENTIVES

BNP Paribas has had a dedicated CSR department since 2001. In 2012 this became a Group function, reporting directly to the Group Executive Management. Since 2017, it is now attached to the Company Engagement department and represented on the Group Executive Committee - who finalises decisions on CSR matters when needed and presents the CSR strategy to the board annually. The board of BNP Paribas convenes a committee dedicated to CSR matters; its core duties include oversight for the Group's contribution to long-term sustainability and reviewing ESG-related policies.

Several board members have sustainability-related experience or expertise:

- Pierre-André de Chalendar has authored a book, *Notre combat pour le climat*, on the role of companies in resolving climate change.
- Along with the CEO, Jean-Laurent Bonnafé, Mr. De Chalendar is also vice-president of French association Entreprises pour l'Environnement.
- Marion Guillou has a background as an agricultural specialist and researcher focused on sustainable food security. As well as sitting on the board of Bioversity International, she has also chaired the Joint Programming Initiative on Agriculture, Food Security and Climate Change.

BNP Paribas underpin its CSR policy with 13 performance indicators, of which nine are used to determine 20% of the deferred variable compensation for the board and for bank's top 6,300 managers.⁵⁴ The climate-related indicators are:

- Renewable energy financing: EUR 15 billion target by 2020, achieved EUR 12.3bn in 2017
- Number of people made aware of climate issues by BNP Paribas: 140,000 target for 2016-18 period.
- Coverage of loan portfolio that is monitored on environmental and social metrics: minimum 40% target, achieved 54.9% in 2017.
- Operational greenhouse gas emission reductions: targeting 2.41 tonnes CO₂eq/FTE by 2020, achieved 2.54 teqCO₂/FTE in 2017.

Leading practice takeaways: By granting the board-level oversight of the climate strategy and including climate-related KPIs within incentive structures and senior remuneration policies, the approach of BNP Paribas to incorporating climate issues into governance structures stands out from many of its European peers.

SPREADING ORGANISATIONAL AWARENESS OF CLIMATE ISSUES

Distributed sustainability employee expertise

In total, around 130 BNP Paribas employees spend all or the majority of their time on CSR matters, spread across all core businesses, support functions and subsidiaries. This includes seven full-time employees employed to develop low-carbon solutions within the Corporate and Investment Banking (CIB) function. BNP is now also in the process of creating a specific *Energy Transition* team to drive specialised product development across all businesses.

Extensive climate education programme

BNP Paribas' climate-specific education programme comprises of e-learning, conferences and seminars designed for employees working in areas for which climate risks and issues are relevant. The programme is linked explicitly to the sustainability topics within the bank's sector policies; the aim is to develop internal expertise on these specific climate issues within the organisation.

Externally, BNP Paribas holds sustainable finance forums for its clients, which many internal employees such as relationship managers also attend as an additional opportunity to learn

from high-level speakers on climate issues.

Supporting science-based climate research

Since 2010, the BNP Paribas foundation has supported 10 international research teams through the Climate Initiative, doubling its endowment to EUR 6 million in 2017. In addition to spreading knowledge on climate issues externally, the Climate Initiative programme is also engaged as an educational tool for all BNP employees through lectures, exhibitions and a dedicated e-book on the energy transition. Last year, 81,000 BNP employees (around 42% of the workforce) received this training.

Promoting a culture of innovation

Finally, the bank has implemented a work stream focused on promoting organisational cultural innovation. The Leadership for Change 500 programme has been a positive driving force in showcasing green product innovation and business adaptability to climate issues across business functions.

Leading practice takeaways: Organisational understanding of climate issues is distributed across the organisation thanks to an extensive educational programme and a culture of sustainability-aligned innovation.

RECOMMENDATIONS FOR BANKS

- Implement a climate strategy aligned with the Paris Agreement goal of limiting global average temperature rises to below 2°C.

The strategy should include the twin priorities of (1) managing and reducing exposure to non-Paris compliant sectors, and (2) mobilising capital to drive the low-carbon transition.

- Ensure that organisational governance structures can facilitate the implementation of the climate strategy.

The board and senior management team should include climate and sustainability expertise; the board should be granted oversight of the climate strategy; and climate-related KPIs should be included into incentive and remuneration frameworks.

- Dedicate resources to enhancing organisational and cultural understanding of climate issues across all business divisions.

Employees working on climate or sustainability issues should be distributed across core businesses and functions, rather than siloed. A climate-specific education programme should be introduced to develop internal expertise on specific climate issues relevant to each business division.



Recommendations

SUMMARY OF RECOMMENDATIONS

This report has showcased examples of leading progress in the European banking sector towards achieving a banking business model that is aligned with the goals of the Paris Agreement. **Investors should prioritise engagement and discussion with banks on the issues highlighted in this report**, and request that banks implement the recommendations below.



To promote market transparency as envisaged by the TCFD...

- Disclose high-carbon and low-carbon assets relative to total assets
- Implement time-bound targets for managing these exposures



To work towards implementing scenario analysis...

- Dedicate sufficient resources to develop scenario analysis capabilities within the organisation
- Approach scenario analysis as a tool that will eventually be embedded into business strategy
- Join collaborative methodology development initiatives where relevant



To align lending criteria with the goals of the Paris Agreement, strengthen policies related to thermal coal power and mining, tar sands, Arctic oil and LNG export to reflect....

- A prohibition of project finance to any projects in these sectors globally
- A prohibition of general corporate financing and advisory services to companies highly dependent on these sectors
- A clear, time-bound plan to phase out existing exposure to these sectors



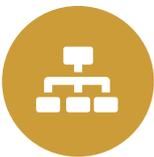
To engage effectively with corporate clients on climate-related issues...

- Implement a public engagement framework that defines clear objectives and timelines for improvement, and outlines the consequences for non-compliance
- Request that corporate clients adopt the TCFD recommendations
- Publish an annual update on the number of climate-related engagements and outcomes



To mobilise capital for the low-carbon transition...

- Dedicate resources and capacity to support the development of low-carbon products and services across the organisation and especially in the retail, corporate and investment banking divisions
- To ensure transparency and due diligence, implement a publicly available and third-party-verified framework to define which assets are eligible for green financing



To ensure that the bank's strategy, governance and education is aligned with the goals of the Paris Agreement...

- Implement a climate strategy that includes the twin priorities of (1) managing and reducing exposure to non-Paris compliant sectors, and (2) mobilising capital to drive the low-carbon transition
- Ensure that climate expertise and oversight is embedded into organisational governance and remuneration structures
- Dedicate resources to enhancing organisational and cultural understanding of climate issues across all business divisions

ENGAGEMENT QUESTIONS FOR INVESTORS

Based on this report's review of leading progress, ShareAction has outlined a series of questions that institutional investors may use in their climate-related engagements with the banking sector.



Task Force on Climate-related Financial Disclosures

- a. When is the bank intending to disclose the banking-specific climate disclosures recommended by the TCFD, i.e. high-carbon and low-carbon asset exposure as a percentage of total?
- b. What are the bank's targets for managing these exposures?
- c. When does the bank expect the results of scenario analysis to be integrated into decision-making?



Aligning lending criteria with the goals of the Paris Agreement

- a. Do the bank's policies related to thermal coal and unconventional oil and gas include a prohibition of project finance to these sectors globally?
- b. If not, when is the bank intending to strengthen its policies to incorporate a global project finance prohibition for these sectors?
- c. How is the bank managing its exposure to clients who are highly dependent or highly involved in thermal coal or unconventional oil and gas?



Engaging with corporate clients on climate issues

- a. Does the bank have a publicly available framework defining how it engages with clients on climate issues?
- b. In engaging with the most climate risk-exposed corporate clients, what are the typical objectives set? What is the typical time horizon for engagement? And what are the consequences if the client fails to progress?
- c. Is the bank asking its corporate clients to adopt the TCFD recommendations?



Mobilising capital for the low-carbon transition

- a. What is the bank's strategy for growth in low-carbon products and services?
- b. How does the bank define which assets are eligible for green financing? Is this framework publicly available?



Embedding the climate agenda within organisational strategy and governance

- a. Does the bank's climate strategy include the twin priorities of (1) managing and reducing exposure to non-Paris compliant sectors, and (2) mobilising capital to drive the low-carbon transition?
- b. Do any members of the board or executive management team have climate-related expertise or experience?
- c. How is the bank developing cultural understanding of climate-related financial risks across the organisation?

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