The Alliance For green Commercial Banks

THOUGHT LEADERSHIP PAPER

DEFINING AN AMBITIOUS CLIMATE STRATEGY OF GREEN BANKING:

A Case Study

October 2023

IN PARTNERSHIP WITH:

CRÉDIT AGRICOLE
CORPORATE & INVESTMENT BANK

CONTENTS

EXECUTIVE SUMMARY............... 3

"5-Step Structure".......................................3

SECTION 1: KEY DRIVING FORCE OF GREEN BANKING... 5

1. Emerging Concept of a "Green Bank" and Green Banking Practices................5

Climate Change's Potential Economic Impact.................................... 5

Mounting Concerns from Financial Market Regulators................................. 6

Market Recognises Climate Change as Material Financial Risk....... 7

Stakeholders' Pressure to Track Progress of Climate Action 7

"Green Bank" Concept as a Trend for the Financial Sector.......................... 8

2. Driving Force in Each Step under "5-Step Structure"................................. 8

ESG Risk Governance............................ 8

Define "Green" in Balance Sheet....... 10

Formulation of Climate Commitments 12

Integration of Climate Commitments 14

Advisory Capabilities 14

SECTION 2: CRÉDIT AGRICOLE GROUP CASE STUDY................................ 15

1. ESG Risk Governance...........................16

2. Define "Green" in Balance Sheet 18

3. Formulation of Climate Commitments 20

4. Integration of Climate Commitments.......................................22

5. Advisory Capabilities 22

APPENDIX 1: CRÉDIT AGRICOLE CIB CASE STUDY – INNOVATIVE GREEN TRANSACTION HIGHLIGHT .23

1. Landmark UoP Transactions in APAC – HKMA Institutional Green Bonds 23

2. First-ever SLB issuance – ENEL Sustainability-Linked Bonds 24

3. Pioneering Diversification of Offerings - ICBC & CCB & SPDB Onshore Green Triparty Repos..........24

4. Nordea Sustainability Bond with SLL Portfolio 25

5. Advisory Capabilities to Support Climate Transition – ICBC Carbon Neutrality Bond 25

APPENDIX 2: REFERENCE LIST (IN ALPHABETICAL ORDER)..26

EXECUTIVE SUMMARY

This paper shares Crédit Agricole's experience on how it has integrated climate strategy and sustainability priorities into its core banking. With this, it aims to layout a pathway for financial institutions to build capabilities and transition towards green banking practices, including the vision to facilitate decarbonisation of banks' clients, supported by robust governance and internal processes.

The increasing severity, frequency and scope of impact of climate change has put more pressure on financial institutions to recognise their role in catalysing a more sustainable and low-carbon future. The realisation of the materiality of climate and ESG-related financial risks has also caused stakeholders such as shareholders and regulators to rethink models in order to price-in ESG factors into financial analysis. With such an increasing prioritisation of sustainability by the market, it has become clear that climate strategy and ambitions are no longer a good-to-have, but a norm and an expected practice for banks.

On the other hand, the transition towards net-zero economy has created new business opportunities and financing needs. The sustainable finance market has been steadily developing since the last decade, and has experienced a phase of exponential growth in the past few years. These new market conditions are encouraging banks to reshape the approach to structuring sustainable financing products for their clients and investors.

For the avoidance of doubt, in this paper, "Green" describes the feature of a project or of a bank, or a financial instrument, which contributes to at least one environmental objective, including climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity, without causing significant harm to any of these objectives. "Sustainable" refers to a concept that takes into consideration environmental and social impact that ultimately meets the needs of the present without compromising the ability of future generations to meet their own needs; and "Climate change" refers to long-term shifts in temperatures and weather patterns. Above mentioned concepts are not mutually exclusive and are all key contextual concepts that might be helpful in constructing common understanding of "green bank" characteristics.

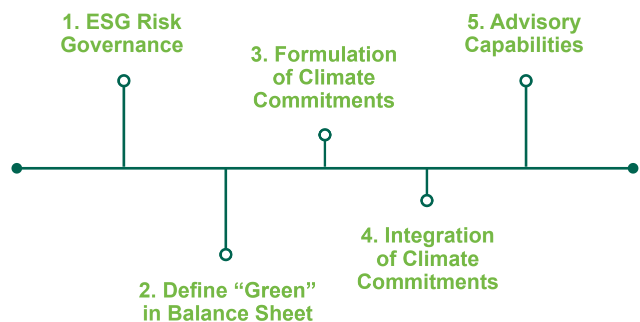
"5-Step Structure"

Setting a robust climate strategy is a process that took the first joiners in the market decades to accomplish, and it is now expected to be done in only a few years by new joiners, given the latest market requirements and developments. The advantage of new joiners is that they can leverage experience of and lessons from others to catch up quickly.

In this paper, the Crédit Agricole Group ("Group", "Bank" or "Crédit Agricole") shares its journey to and practices on how it internally set proper governance and processes to support a robust climate strategy while managing the transition of their clients. This is in line with the Alliance for Green Commercial Bank's ("the Alliance" (1)) vision to develop a community of green financial institutions to collectively finance the infrastructure and business solutions needed to urgently address climate change.

This paper discusses the core elements and the key practices of green banking from Credit Agricole's perspective, drawing references from international advocacy groups, regulatory guidelines, and experiences of market leaders.

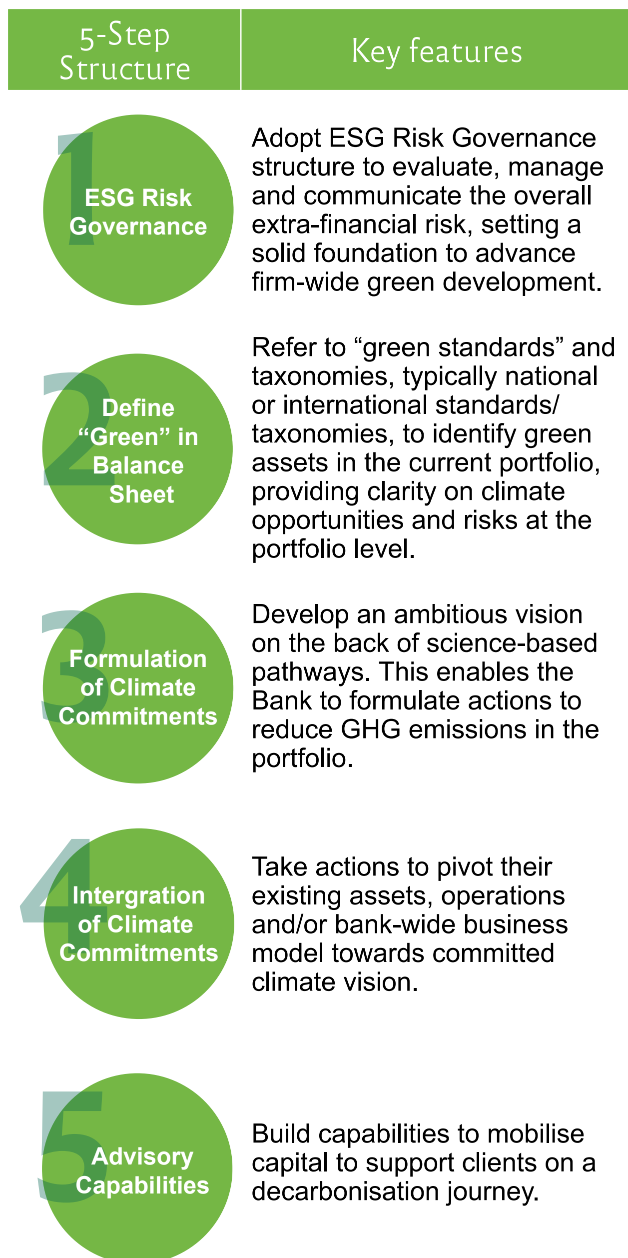
Specifically, it summarises Crédit Agricole's journey toward developing and implementing its green banking practices for more than a decade via the "5-Step Structure", as below:



► Fig. 1: "5-Step Structure"

Each step in the "5-Step Structure" plays a fundamental, functional role in building the Bank's capabilities to create and implement its green banking practices; they are independent yet supplementary, non-exhaustive elements of the Bank's green banking ecosystem.

1 The Alliance For Green Commercial Banks: https://www.allianceforgreencommercialbanks.org/



This Structure merely aims to summarize the Bank's green development strategy, commitments and architecture used in the last decade, which it intends to share with other financial institutions having similar ambitions towards green banking. It serves solely an indicative purpose and should not be considered as a strict sequence wherein each step must be completed before moving on to the next. Rather, it should be regarded as a comprehensive approach that is harmoniously integrated and where all steps are interdependent on one another. It is not intended to be the only or the official pathway for all financial institutions to follow.

Crédit Agricole has pioneered the development of green banking and finance via each step under the Structure. As early as 2003, Crédit Agricole CIB started to adopt the Equator Principles [1] to understand and manage environmental and social risks when financing projects. The Bank established the Sustainable Investment Banking team in 2009 to boost deep expertise in social and environmental aspects and develop close relationships with ESG investors, and borrowers with key social and environmental objectives. Internal green liquidity discount was introduced in 2015 to support business lines to push forward sustainable transactions and align with the Bank's decarbonisation strategy. The Bank also further strengthened its net-zero commitment with science-based sectoral targets recently, in 2022. Moving forward, Crédit Agricole CIB will continue to leverage the strategies outlined in the "5-Step Structure" to further enhance its capabilities in creating and implementing green banking practices.

As a cornerstone member of the Alliance, the Bank would like to make reference to the Alliance Key Pillars ("Key Pillars") through an indicative mapping of the Key Pillars and the "5-Step Structure" for readers' benefit:

	Alliance Key Pillars				
5-Step Structure	Green Portfolio	Green New Business	Strategic Commitment	Carbon Neutral	Environmental, Social & Climate Risk Management
ESG Risk Governance	~	~	~	~	✓
Define "Green" in Balance Sheet	~	~	✓	~	✓
Formulation of Climate Commitments	~	~	✓	✓	✓
Integration of Climate Commitments	✓	✓	✓	✓	✓
Advisory Capabilities	✓	✓	~	✓	✓

Please note that given the rapid development of the market, the report only covers information up to 31st January 2023 to ensure the accuracy and relevance of the data presented.

1 Equator Principles: https://equator-principles.com/

SECTION 1: KEY DRIVING FORCE OF GREEN BANKING

1. Emerging Concept of a "Green Bank" and Green Banking Practices

While there is no single official or globally recognised definition of a "Green Bank" at the moment, for Crédit Agricole, "Green Bank" is a term that generally refers to a mission-driven financial institution that undertakes innovative financing to enable its clients to transition toward the 1.5°C and net-zero target. A Green Bank prioritizes sustainability objectives while pursuing profit.

Climate Change's Potential Economic Impact

From the mid-20th century onwards, the society started to acknowledge that human activities and industrialisation have been significantly contributing to global warming and climate change. Continued greenhouse gas emissions are expected to cause further warming of the earth and scientific evidence suggests that further global warming above 2°C relative to the pre-industrial period could lead to catastrophic economic and social consequences. International organisations and the civic society have since then initiated working groups (for example: the Intergovernmental Panel on Climate Change ("IPCC" [1]) for research, aiming to understand and ultimately manage the society's impact on the nature.

In 2014, Working Group II of IPCC published its fifth Assessment Report ("WGII AR5" [2]) that structured a conceptual risk assessment framework that defines climate risk in three dimensions: Hazards, Exposure and Vulnerability. The framework provides corporates and banks a scientific methodology to evaluate climate-related risks in a comprehensive manner. The IPCC reports also provide science-based forward-looking scenarios to predict potential climate-risk under different policy regimes, enabling market participants to understand and anticipate the variety, severity, likelihood and relevance of the potential impact and disruption climate change will bring.

Climate change is now an undeniable fact proven by science and the way the society responds can greatly affect the resilience of the global economy to meet the challenge. A study conducted by Swiss Re Institute in 2021 examined the severe economic damage caused by climate change and explored the correlation between national GDP and different temperature scenarios. [3] This study estimated that if global temperature rose 3.2˚C from pre-industrial levels by 2050, the world and the Asia region could suffer GDP loss of 18.1% and 26.5% respectively, compared to a world without climate change. In contrast, if the Paris Agreement target of maintaining the temperature rise well-below 2˚C is met, these regions suffer GDP loss of only 4.2% and 5.5% by mid-century. These estimates should encourage global communities to take the required climate actions, which will to a certain degree, effectively mitigate devastating economic losses.

Climate actions require enormous financing for low-carbon businesses and climate-resilient infrastructure. The Asia Investor Group on Climate Change ("AIGCC") estimates that the investments needed for Asia's energy transition to achieve net zero would be USD 26 trillion to 37 trillion, cumulatively from 2020 to 2050, equivalent to 1.7 to 2.0 percent to Asia's GDP. [4]

On the other hand, even as global communities are striving to transition and decarbonise, climate change is already happening and can only be decelerated. In this context, there is an urgent need for societies and economies to focus on climate change adaptation and strengthening climate change resilience. The UNEP estimates the financing gap will be USD 160-340 billion by 2030 and USD 315-565 billion by 2050, for enabling the implementation of adaptation actions. [5]

The financial sector, as the enabler of global economies, will play an instrumental role in mobilizing the capital needed for this inevitable transition. The spirit of green banking, for the Bank, is to have this objective reflected and implemented at the core of what it does – its financing and investments, by tilting towards green sectors, green companies and projects and shying away from carbon-intensive sectors and environmentally unsustainable companies and projects.

1 *Intergovernmental Panel on Climate Change:* https://www.ipcc.ch/
2 *IPCC WGII fifth Assessment Report:* https://www.ipcc.ch/report/ar5/syr/
3 *Swiss Re - The economics of climate change: no action not an option:* https://www.swissre.com/dam/jcr:e73ee7c3-7f83-4c17-a2b8-8ef23a8d3312/swiss-re-institute-expertise-publication-economics-of-climate-change.pdf
4 *Asia Investor Group on Climate Change – Asia's Net Zero Energy Investment Potential:* https://www.aigcc.net/wp-content/uploads/2021/03/March-2021_-Asias-Net-Zero-Energy-Investment-Potential-English.pdf
5 *UNEP FI – Adaptation Gap Report 2022:* https://www.unep.org/resources/adaptation-gap-report-2022

Mounting Concerns from Financial Market Regulators

Climate change poses material financial risks to the viability and continuity of business operations by way of physical impacts, as well as measures taken for transition. In a broader sense, this can be magnified into a systemic risk that could potentially impact financial stability.

Central banks and financial market regulators have largely incorporated climate risks into their supervision practices, to maintain the stability of the broader financial system. In practice, an increasing number of regulatory initiatives have been launched across the globe to set up clearer frameworks and standards to assess banks' exposure, and their management capabilities to address climate risks, including stress testing.

Currently, with the objective to identify potential systemic risks for the financial markets, most regulators in APAC are exploring the application of Climate Stress Test ("CST") frameworks to assess banks' readiness to respond to climate risks while European regulators are a step ahead and are applying quantitative metrics to assess climate-related risks in the wider financial system.

Climate Stress Test (CST) and Climate-related Risk Regulatory Initiatives in Asia				
Geography	**Date**	**Leading Party**	**Number of Banks Participated**	**Climate Stress Test – (Yes/No)**
Singapore	Nov 22	Monetary Authority of Singapore ("MAS") (1)	N/A – representing over 70% of total domestic non-bank lending	No: MAS conducted a climate scenario analysis exercise for selected banks and insurers as part of the country's 2022 Industry-Wide Stress Test
Japan	Aug 22	Financial Services Agency of Japan and the Bank of Japan ("Japan FSA") and Bank of Japan ("BOJ") (2)	3 banks and 3 non-life insurance groups	No: Pilot Scenario Analysis Exercise on Climate-Related Risks Based on Common Scenarios
Hong Kong	Dec 21	Hong Kong Monetary Authority ("HKMA") (3)	20 retail banks and 7 international banking groups	Yes: Pilot Banking Sector Climate Risk Stress Testing
China	Nov 21	People's Bank of China ("PBoC") (4)	23 major banks	Yes: Completed first phase of national CST – focus on target sectors' financial risks under difference climate scenarios
Taiwan	N/A	Financial Supervisory Commission ("FSC") (5)	N/A	No: FSC expected to start the CST exercise in 2023.
CST and Climate-related Risk Regulatory Initiatives in Europe				
Geography	**Date**	**Leading Party**	**Number of Banks Participated**	**Climate Stress Test – (Yes/No)**
European Union	Jan 23	European Central Bank ("ECB") (6)	57 of Euro Area's largest banks, and 42 directly supervised banks outside European Banking Authority ("EBA") Sample	Yes
England	Jun 21	Bank of England ("BOE") (7)	19 largest banks and insurers	Yes: Pilot CST involve largest UK banks and insurers, namely Climate Biennial Exploratory Scenario ("CBES")
France	May 21	Autorité de contrôle prudentiel et de résolution ("ACPR") (8)	9 bank groups and 15 insurance groups	Yes: First Climate Pilot Exercise covering the banking and insurance sector

Table 1: CST and Climate-related Risk Regulatory Initiatives

1 *Climate Scenario Analysis in MAS' Industry-Wide Stress Test : https://www.imf.org/-/media/Files/News/Seminars/2022/120522sti-mcm-apd-climate/s22by-fan-jia-rong.ashx*
2 *FSA Pilot Scenario Analysis Exercise on Climate-Related Risks Based on Common Scenarios : https://www.fsa.go.jp/en/news/2022/20220826/03.pdf*
3 *HKMA Pilot Banking Sector Climate Risk Stress Test : https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/Pilot_banking_sector_climate_risk_stress_test.pdf*
4 中国金融杂志2022年第5期 *http://www.cnfinance.cn/magzi/?template=sample_9201.html*
5 *Taiwan's Banks Mandatory Climate Stress Tests: https://www.bloomberg.com/news/articles/2022-06-08/taiwan-s-banks-face-mandatory-climate-stress-tests-next-year*
6 *ECB Stress Tests : https://www.bankingsupervision.europa.eu/banking/tasks/stresstests/html/index.en.html*
7 *2021 Climate Biennial Exploratory Scenario (CBES) : https://www.bankofengland.co.uk/stress-testing/2022/results-of-the-2021-climate-biennial-exploratory-scenario*
8 *ACPR result of first climate pilot exercise: https://acpr.banque-france.fr/en/communique-de-presse/acpr-publishes-results-first-climate-pilot-exercise-covering-banking-and-insurance-sectors*

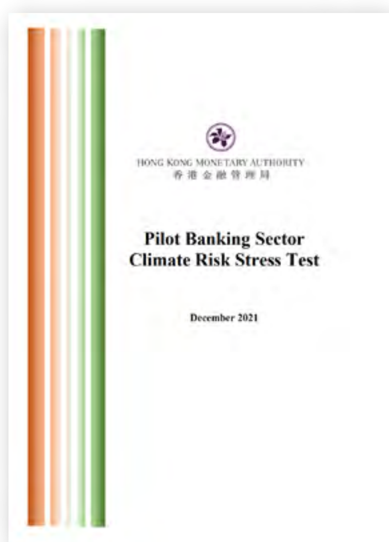
In general, at this stage, central banks and financial supervisors are still exploring how climate risks may affect financial systems. Current climate stress tests are on voluntary-basis and are used only to inform firms with institution-specific climate risk exposure embedded in the current financial system and how it would affect the market under different sustainable development scenarios. The author expects that in the near future, supervisors may start to have higher expectations of banks to demonstrate more detailed climate change mitigation plans with granularity, or even to adopt exposure limits on high-risk assets.

EXAMPLE

Hong Kong Monetary Authority Taking Action in Climate Stress Test

Hong Kong, as a coastal city, is vulnerable and highly exposed to a variety of climate hazards. As such, regulatory bodies in Hong Kong are taking up a leading role to identify and manage regional climate risk through climate stress-testing and to enhance climate risk disclosure.

The Hong Kong Monetary Authority published the result of the "Pilot Banking Sector Climate Risk Stress Testing" in December 2021, which assessed the climate resilience of the Hong Kong banking sector as a whole, under different climate scenarios, and to facilitate building of the requisite capability of participating banks with respect to climate risk management. The assessment included 20 major retail banks and seven branches of international banking groups, accounting for about 80% of the banking sector's total lending.



► Fig. 2: HKMA Pilot Banking Sector Climate Risk Stress Test

Market Recognises Climate Change as Material Financial Risk

Intensifying and frequent extreme weather events and other climate change-related hazards are increasingly affecting day-to-day business operations and posing financial risks to financial values of assets across all asset classes.

As banks play a crucial role in the societal development by interconnecting with clients in a large number of sectors and types of businesses, they are vulnerable to climate risks their borrowers and investees are subject to. Therefore, the financial market, banks included, has an increasingly strong need to gain access to structured and quality information that can enable accurate evaluation of clients' climate risks and readiness, in order to make informed commercial decisions, including lending and investments, that integrate extra-financial climate considerations.

In 2017, the Taskforce on Climate-related Financial Disclosures ("TCFD" (1)) released the Recommendations of TCFD, a framework designed to report climate-related risks and opportunities, specifically those related to governance, strategy, risk management and metrics and targets. The TCFD promotes consideration of financial implications related to climate change and integration thereof into the process of financial and investment decision-making.

Stakeholders' Pressure to Track Progress of Climate Action

With increasing pressure from regulators, shareholders, civic society and other stakeholders, banks simply cannot turn their back on their responsibility to understand, track and manage how their lending and investment decisions will impact the climate and other major environmental issues. In particular, how to assess and disclose environmental performance to the mounting climate change issue has become a top-of-mind topic for the sector.

However, most financial institutions lack tools and metrics to quantitatively evaluate climate impacts and dependencies of their counterparties. Lack of transparency in climate impact data also hinders impact assessment. For that reason, there have been numerous important initiatives to set standards and guidelines to help banks and corporates assess, measure and report on their environmental impacts, including and particularly important for this paper, their GHG emissions.

The Carbon Disclosure Project (now renamed as "CDP" (2)) was founded in 2000 to administer extensive questionnaires and grade corporates on their performance in specific environmental areas so that banks and investors are able to benchmark the environmental impact of their financed portfolios in a comparable manner.

1 Taskforce on Climate-related Financial Disclosures – About : https://www.fsb-tcfd.org/about/
2 CDP – About us: https://www.cdp.net/en/info/about-us

Going further, the Science-Based Targets initiative ("SBTi" [1]) was established in 2015, mobilizing climate experts to define and promote climate science-aligned emissions reduction trajectories for corporates and financial institutions, providing technical assistance and resources to industry players to help them understand industry-specific needs for moving towards net-zero emissions.

International standard-setting bodies have started raising concerns over financed emissions of banks. Recently in 2022, the International Sustainability Standard Board ("ISSB") has confirmed Scope 3 emissions (including financed emissions) as mandatory GHG disclosure requirement. [2] The New Zealand Government has passed the "Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021" [3] to make climate-related disclosure mandatory for over 200 banks and financial institutions.

In view of this, the Partnership for Carbon Accounting Financials ("PCAF" [4]), which is a financial industry-led initiative, set up methodologies to help financial institutions assess and disclose GHG emissions of businesses financed and facilitated by their loans, investments and financing activities, through GHG accounting. PCAF provides detailed methodological guidance for different asset classes, facilitates data transparency and encourages improvements in data quality, ultimately supporting the financial sector to better manage and hopefully, reduce portfolio climate impact.

"Green Bank" Concept as a Trend for the Financial Sector

Financial institutions are becoming increasingly active and committed to a climate-positive vision. More banks are setting targets to increase exposure to green-related lending and investments, while reducing or avoiding exposure to sensitive and controversial activities, including those which are carbon-intensive in nature such as coal mining or coal power generation or fossil fuel exploration.

In 2021, the UN-convened Net-Zero Banking Alliance ("NZBA" [5]) was launched to bring together banks committed to aligning their lending and investment portfolios with the goal of net-zero emissions by 2050. 127 banks from 41 countries have become NZBA signatories and set robust and science-based intermediate targets for 2030 or sooner to calibrate their net-zero commitment.

2. Driving Force in Each Step under "5-Step Structure"

This section discusses the core elements and the key practices of green banking by exploring the rationale behind each step of the "5-Step Structure", drawing references from international advocacy groups, regulatory guidelines and experience of market leaders.

Considering the nature of business of a bank, the majority of its GHG emissions are generated through its investments and lending activities (as a part of its "Scope 3" GHG emissions, according to the GHG Protocol). Therefore, it is the author's strong view that at the core of green banking practices for a bank is to integrate climate commitments into its overall lending and investment strategy and business architecture, and to support clients to move towards a low-carbon transition.

Rationale and key market references for each step of the "5-Step Structure"

ESG Risk Governance

An effective risk management system has been an integral part of business operations of all organisations, as all material risks that could potentially impact the long-term profitability have to be addressed. Beyond "traditional" categories of risks, climate risks are becoming increasingly significant to business continuity in various dimensions.

To enable effective risk management and avoid poor investment decisions, companies and financial institutions are interested in building capabilities to set up ESG risk governance mechanisms. A robust ESG risk governance system should be structured to help monitor, measure and manage exposures to reduce the potential impacts brought by physical climate risks, including risks during the transition phase. It is also a preferred practice for companies to regularly communicate ESG performance to relevant stakeholders to demonstrate compliance with statutory and regulatory requirements.

Key Drivers / Rationale:

Climate risks, both physical and transition risks, are usually transmitted to the financial sector through the overall vulnerability of portfolio companies to the changing climate and evolving transition risks. Such risks can have material impact on profitability of the portfolio and the stability of the wider financial market.

1 *Science-Based Targets initiative - About us* : https://sciencebasedtargets.org/about-us
2 *International Sustainability Standard Board confirms Scope 3 GHG emissions disclosure requirements with strong application support, among key decisions* https://www.ifrs.org/news-and-events/news/2022/10/issb-unanimously-confirms-scope-3-ghg-emissions-disclosure-requirements-with-strong-application-support-among-key-decisions/
3 *Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021:* https://www.legislation.govt.nz/act/public/2021/0039/latest/LMS479633.html
4 *Partnership for Carbon Accounting Financials:* https://carbonaccountingfinancials.com/en/about
5 *Net-Zero Banking Alliance:* https://www.unepfi.org/net-zero-banking/

The Bank has identified 3 major risk types that act as drivers for financial institutions to set up a robust ESG risk management system:

1: Credit Risk – Stranding Assets:

Stranded assets are assets that suffer from unanticipated or premature write-downs, devaluation, or conversion to liabilities. Financial health of companies can be significantly impacted by early write-downs, worsening debt-to-asset ratio, truncated availability of assets for providing collaterals and ultimately a higher risk of debt default. For example, a real estate portfolio with focus on buildings in flood-prone areas may have a much lower resale value, as it is exposed to a potential devaluation.

The evolving transition risks further amplify the effect of asset stranding at the sector level. The oil and gas sector is one of the most heavily-impacted industries. With a gradual shift in market preference from fossil-fuels towards renewable energy, forecasted revenue and valuations of key assets (e.g. oil drills and refinery plants) are expected to decline. A recent research has found that present value of future losses of profit in the upstream oil and gas sector exceed US$1 trillion, assuming plausible changes in expectations about the effects of climate policy. [1] Further in January 2021, S&P Global downgraded credit ratings of 13 leading oil and gas exploration and production (E&P) and integrated companies based on a foreseeable increase in challenges and uncertainties triggered by the energy transition, including market declines due to the growth of renewables. [2] This reflects climate risks considered are financially material and affect creditworthiness of firms. Therefore, it is important for financial institutions to take into account the exposure to vulnerable assets and internalise these risks into portfolio-level decision making.

2: Response to Investor Demand:

An increasing number of investors and companies are seeking greater clarity and confidence when setting up proper internal strategy to identify, monitor and manage long-term climate risks and opportunities. According to a research from S&P Market Intelligence, 80% of the world's leading companies are having climate change-related physical or market transition risks reported, and a similar proportion of companies is also engaging in reducing corporate emissions. [3]

Investors have started to put greater focus on assessing the entire ESG risk profile of an issuer to evaluate extra-financial risks in portfolios. ESG ratings are now commonly adopted as a quantitative representation of an entity's ability to manage ESG risks. Investors integrate ESG ratings into internal analysis and benchmarking and some may conduct even a negative screening to exclude assets with unsatisfactory ESG ratings from the portfolio.

Banks are then encouraged to assess and actively manage extra-financial risks in their portfolios through a robust ESG risk management system.

3: Regulatory Pressure:

Regulators around the globe are raising the bar for sustainability governance and banks that are lagging behind in setting up ESG risk management system should expect notable regulatory pressure. The European Commission rolled out the ESG Risk Management Framework for the Financial Sector [4] in May 2022, offering financial institutions support in reviewing / establishing a sound regulatory framework as well as data and methodologies that guides the development of ESG risks management system. The Framework also encourages participating banks to initiate awareness and capacity building measures, creating a harmonised environment for development of sustainable value chains.

Similar to many financial institutions domiciled in Europe, Crédit Agricole CIB, including its overseas branches and subsidiaries, is obligated to comply and actively follow sustainable finance regulations and guidance set forth by the European Commission. This ensures banks maintain a consistent approach to sustainable finance practices and encourages the adoption of green banking practices in other regions with changing regulatory environments, including the APAC region.

1 Semieniuk, G., Holden, P.B., Mercure, JF. et al. Stranded fossil-fuel assets translate to major losses for investors in advanced economies. Nat. Clim. Chang. 12, 532–538 (2022). https://doi.org/10.1038/s41558-022-01356-y

2 S&P Global - S&P Global Ratings Takes Multiple Rating Actions On Major Oil And Gas Companies To Factor In Greater Industry Risks: https://press.spglobal.com/2021-01-26-S-P-Global-Ratings-Takes-Multiple-Rating-Actions-On-Major-Oil-And-Gas-Companies-To-Factor-In-Greater-Industry-Risks

3 S&P Global - Accounting for Climate: The Next Frontier in ESG : https://www.spglobal.com/en/research-insights/featured/special-editorial/accounting-for-climate-the-next-frontier-in-esg

4 The European Commission - ESG Risk Management Framework for the Financial Sector : https://reform-support.ec.europa.eu/system/files/2022-05/2023%20Flagships%20Techical%20Support%20projects%20-%20esg.pdf

EXAMPLE

ESMA Final Guideline on MiFID II suitability requirements

The MiFID II is a legislative framework instituted by the European Union ("EU") to regulate financial markets and improve protection of investors. In August 2022, the European Securities and Markets Authority ("ESMA" [1]) published its final guidelines ("the ESMA Guideline [2]") on MiFID II suitability requirements, which mandates investment advisors to include an additional consideration on whether clients have sustainability preferences.* The main amendment includes:

Information to clients on sustainability preferences* – Investment advisors will need to help clients understand the concept of sustainability preferences* and explain the difference between products with and without sustainability features in a clear manner, avoiding technical language;

Collection of information from clients on sustainability preferences* – Firms will need to collect information from clients on their preferences in relation to the different types of sustainable investment products and to what extent they want to invest in these products;

Assessment of sustainability preferences* – Once the firm has identified a range of suitable products for a client, in accordance with the criteria of knowledge and experience, financial situation and other investment objectives, the firm shall identify the product(s) that fulfil the client's sustainability preferences*; and

Organisational requirements – Firms will need to give staff appropriate training on sustainability topics and keep appropriate records of sustainability preferences* of the client (if any) and of any updates of these preferences.

As such, if a client has expressed its sustainability preferences* and no available product matches its preferences, then a product cannot be sold to the client unless those preferences are adapted to the product.

**Sustainability preferences can be expressed in the following ways: the percentage of a product's alignment to the EU Taxonomy; and/or The percentage of a product's allocation to sustainable investments as defined in the Sustainable Finance Disclosure Regulation (SFDR); and/or the consideration of principal adverse impacts (PAIs)*

Key Market Reference:

Financial institutions are increasingly aware of its exposure to ESG risks and have started to adopt ESG risk governance practices at both the firm-wide and portfolio levels. Such risk governance structure commonly starts with the board or at senior executive-level, and is embedded into multiple layers of corporate structure and internal processes.

Crédit Agricole CIB has formulated a series of ESG risk governance policies to ensure climate risks are properly addressed and managed effectively across all levels. Please refer to Section 2 of this Paper for Crédit Agricole CIB's ESG risk governance structure in detail.

Define "Green" in Balance Sheet

Considering the proliferation of ESG risk governance across sectors, it is crucial to establish a well-recognised and clear threshold to align the definition of "green activity". A standardised threshold can provide financial market participants with confidence to identify assets that fulfil the vision of sustainable development.

Key Drivers / Rationale:

1: Effective Management of ESG Risks

To review and manage its overall efficiency in managing ESG risks, it is effective for banks to evaluate balance sheet from the perspective of capital exposure – i.e. measuring "green" assets in the portfolio structure. Flagging green activities and understanding the "greenness" of the lending portfolio makes it possible to visualise the magnitude of vulnerability to climate transition.

2: Greenwashing Risks

"Greenwashing" refers to false claims on green commitments or attention deflection from unsustainable practices, and is therefore a serious accusation that could crucially impact an entity's reputation. An important step that could help safeguard against allegations of greenwashing is to provide clarity to stakeholders on the definition of green projects in the balance sheet.

Key Market Reference:

The market has shown interest in green finance and leading banks have acknowledged the importance of defining a green lending portfolio. As such, a number of regional and national regulatory bodies have published a number of green taxonomies, allowing the market to identify "green assets" based on best-market practices.

1 ESMA: https://www.esma.europa.eu/
2 The ESMA Guideline: https://www.esma.europa.eu/press-news/esma-news/esma-publishes-final-guidelines-mifid-ii-suitability-requirements-0

Green Taxonomies:

The European Union ("EU") created an EU-wide classification system for sustainable activities – the EU Taxonomy [1] in 2018, providing companies, investors and policymakers an appropriate definition of economic activities that can be considered as environmentally sustainable. The EU Taxonomy is one of the most well-recognised taxonomies globally and is often referenced to determine the additionality and eligibility of assets by market participants all over the world.

While the EU taxonomy has laid a strong foundation for determining a best-market practice for identifying green activities, other geographies are also publishing their own taxonomies, given the difference in socioeconomic development context. For example, the Asia market includes emerging markets that focus on industrial sectors like China and India, who have developed a number of regional taxonomies to define green assets, such as the K-Taxonomy [2] in South Korea and the ASEAN [3] Taxonomy for Sustainable Finance in the ASEAN region. These localised taxonomies enable lenders to build green lending portfolios while considering needs of sustainable development in particular regions.

Yet, the Asia / APAC market is facing problems of fragmented sustainable finance regulations and a confusing landscape of disclosure frameworks. To further ramp-up the robustness of the definition of green, the PBoC and the European Commission jointly announced the Common Ground Taxonomy ("CGT" [4]) in November 2021, the first comprehensive activity-by-activity mapping and comparison of the EU and China taxonomies, creating coherence for market stakeholders in participating countries.

Below is a summary of green taxonomies commonly referenced in the APAC region:

Major Green Taxonomies Referenced in APAC			
Applicable Geographies	**Name**	**Leading Party**	**Progress**
China	Green Bond Endorsed Projects Catalogue [1]	People's Bank of China ("PBoC")	Ready for market use
China / Global	China-EU Common Ground Taxonomy [2]	PBoC, The European Commission	Not a taxonomy - a comparative study of EU Taxonomy and Green Bond Endorsed Projects Catalogue
European Union / Global	EU taxonomy for sustainable activities ("EU Taxonomy") [3]	European Central Bank ("ECB")	Ready for market use
Global	Climate Bonds Taxonomy	Climate Bonds Initiative ("CBI")	Ready for market use
Singapore	N/A	MAS Singapore's Green Finance Industry Taskforce ("GFIT")	Fourth Consultation Paper, yet to finalised.
ASEAN	ASEAN Taxonomy for Sustainable Finance [4]	ASEAN Taxonomy Board	Ready for market use
Malaysia	Climate Change and Principle-based Taxonomy ("CCPT" [5])	Bank Negara Malaysia	Ready for market use
Korea	The Korean Green Taxonomy ("K-Taxonomy" [6])	The Ministry of Environment of Korea	Ready for market use

► Table 2: Major Green Taxonomies Referenced in APAC

1 The European Commission - EU taxonomy for sustainable activities : https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en
2 Ministry of Environment of Korea - 한국형 녹색분류체계 가이드라인 (K-TAXONOMY) : https://www.me.go.kr/skin/doc.html?fn=20220223103838.pdf&rs=/upload_private/preview/
3 ASEAN Taxonomy Board - Asean Taxonomy For Sustainable Finance Version 1 : https://asean.org/wp-content/uploads/2022/06/ASEAN_Taxonomy_V1_final_310522.pdf
4 Common Ground Taxonomy Table : https://finance.ec.europa.eu/system/files/2021-12/211104-ipsf-common-ground-taxonomy-table_en.pdf
1 Green Bond Endorsed Projects Catalogue (2021 Edition) : http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4342400/2021091617180089879.pdf
2 Common Ground Taxonomy Table : https://finance.ec.europa.eu/system/files/2021-12/211104-ipsf-common-ground-taxonomy-table_en.pdf
3 EU taxonomy for sustainable activities : https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en
4 ASEAN Taxonomy For Sustainable Finance Version 1 : https://asean.org/wp-content/uploads/2022/06/ASEAN_Taxonomy_V1_final_310522.pdf
5 Bank Negara Malaysia - Climate Change and Principle-based Taxonomy : https://www.bnm.gov.my/documents/20124/938039/Climate+Change+and+Principle-based+Taxonomy.pdf
6 Ministry of Environment of Korea - 한국형 녹색분류체계 가이드라인(K-TAXONOMY) : https://www.me.go.kr/skin/doc.html?fn=20220223103838.pdf&rs=/upload_private/preview/

Transition Taxonomies:

In addition to "green" investment activities as identified by green taxonomies, it is also important to finance activities that are yet to be classified as "green" but promote long-term and strategic GHG emissions reduction, namely "Transition Finance".

The International Capital Market Association ("ICMA") Climate Transition Finance Handbook [1] provides a reference for market participants to consider when handling transition financing instruments. In terms of the definition of transition finance, the market is still building capabilities to classify transition labelled assets (e.g., taxonomies) in the balance sheet and a clear definition has not been finalised as yet.

With a solid foundation set by financial regulators, financial institutions can refer to and map green eligibility of assets and build a green lending portfolio in accordance with suitable taxonomies.

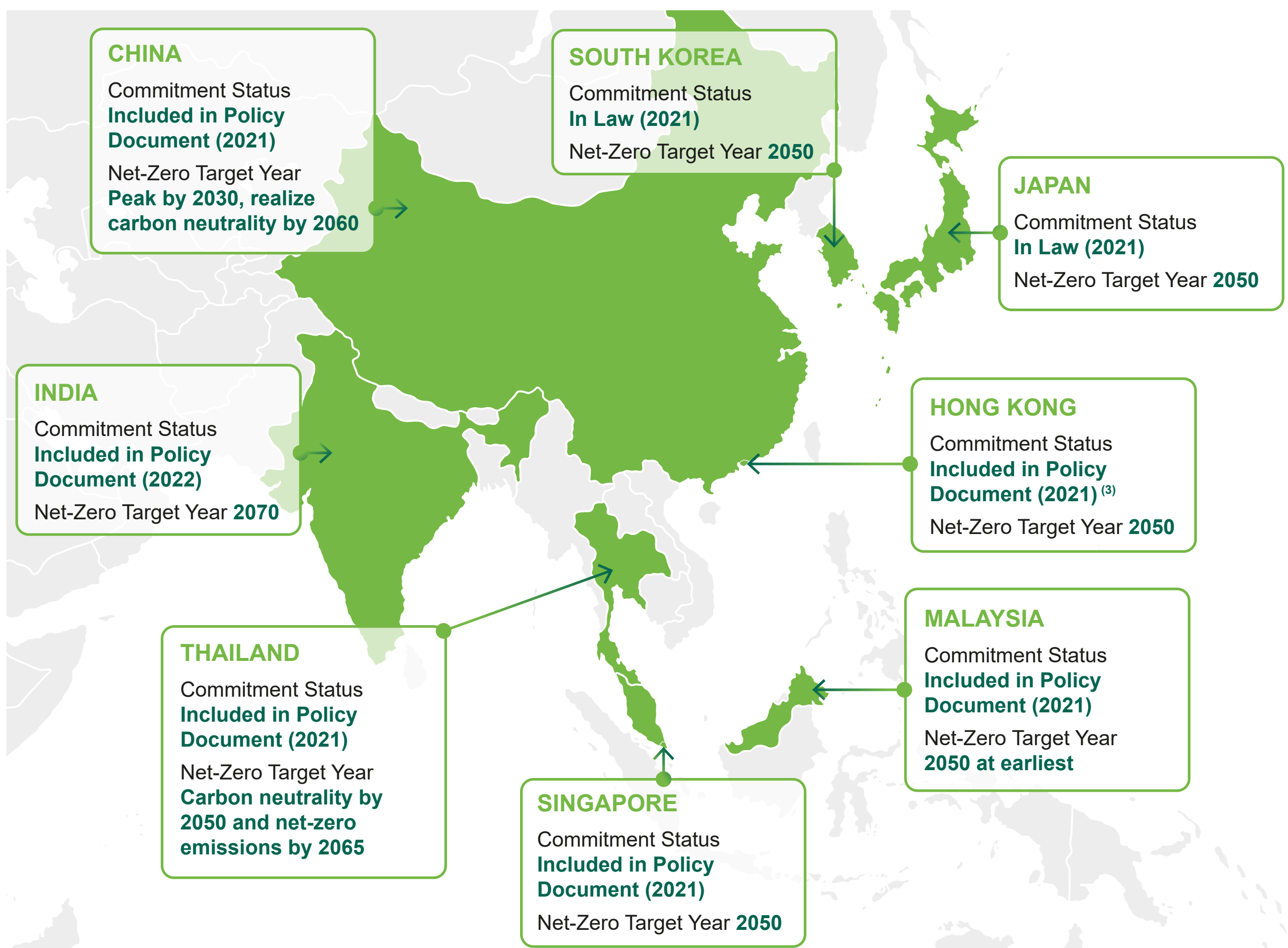
Formulation of Climate Commitments

Many financial institutions, particularly those with portfolios facing significant climate risks, are looking for methods to communicate their desire to mitigate climate risks. GHG emissions associated with financial portfolios or loan books (i.e., financed emissions) are considered a good indicator to illustrate a bank's sustainability efforts.

Key Drivers / Rationale:

1: Transition Risk – Calibrate with Global and National Climate Commitments

Nations have been trying to reach mutual agreement on international climate policies ever since climate-related issues started gaining attention in the 1990s. Most recently in 2015, the Paris Agreement, [2] a non-legally binding agreement was signed in the COP21 with a commonly agreed aspiration to keep global temperature rise "well below 2°C above pre-industrial levels" and to "pursuing efforts" to limit temperature rise to 1.5°C, combined with national efforts by each individual party in this direction. The Agreement expects each signatory country to periodically submit details of Nationally Determined Contributions ("NDC") to the UNFCCC, and tighten the NDC every 5 years. Since then, countries have ramped up their ambitions in NDC by committing to ambitious decarbonisation goals. Below are decarbonisation commitments made by APAC parties:



► Table 2: Selected net-zero commitments made by APAC jurisdictions [4]

1 International Capital Market Association - Climate Transition Finance Handbook : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/climate-transition-finance-handbook/
2 The Paris Agreement: https://unfccc.int/sites/default/files/english_paris_agreement.pdf
3 Hong Kong's Climate Action Plan 2050: https://www.climateready.gov.hk/files/pdf/CAP2050_booklet_en.pdf
4 UNFCCC NDC Registry: https://unfccc.int/NDCREG

In the backdrop of nation-wide decarbonisation commitments, many kinds of stakeholders, including private-sector corporates and financial institutions, expect government policies to favour decarbonisation and sustainable development in the future. This encourages them to align targets with the national commitment to cope with market trends and participate in collaborative transition actions initiated by the government.

2: Peer Pressure

Recognising the importance of financial institutions managing their "financed emissions", more banks have started to make pledges to align their lending and investment portfolios with a decarbonisation trajectory. Some ambitious industry players are also setting intermediate targets with reference to science-based guidelines to further reinforce their commitments.

Indeed, a number of industry-led climate initiatives are aiming to develop guidance and accelerate quality target setting by the market. The NZBA is one of the leading alliances to promote carbon neutrality among banks. NZBA members are committed to aligning the aggregate emissions from all lending and investment portfolios of the bank with a net-zero pathway. By 2020, 129 banks from 41 countries had joined the NZBA, representing a total of US $74 trillion in assets, equivalent to 41% of the global banking assets.

3: Reputational Risk – Active Ownership and Proxy Voting

Active ownership is a responsible investment strategy that defines the rights and position of ownership to influence the activities or behaviours of investee companies. Active ownership can be applied differently in each asset class. For listed equities, investors can also influence investee companies through engagement and voting activities.

The emerging trend of active ownership has encouraged consumers, or shareholders with strong sustainability focus to initiate demands on investee's climate performance and relevant targets. In extreme cases, failure to manage stakeholders' expectations may lead to change in board structure or divestment. In 2021, the oil giant ExxonMobil failed to respond to investors' demand to set up proper carbon reduction strategies, and eventually lost board seats to activist investors in the Annual General Meeting.

A climate commitment in line with international best standards enables financial institutions to effectively communicate strategy to shareholders and other stakeholders.

Key Market Reference:

Application of Science-based Decarbonisation Pathways

One important voluntary standard for the financial industry is the Financial Sector Science-Based Targets Guidance developed by the Science-Based Target initiative [(1)] in 2022. It provides guidance on potential approaches and conditions that financial firms can create and align their portfolios with decarbonisation targets based on climate science or the Paris Agreement commitment. The SBTi suggested the following possible methods:

Sectoral Decarbonisation Approach ("SDA" [(2)]): the SDA defines emission-based physical intensity targets for investment and loans in specific sectors, with priority given to emission-intensive sectors, including steel, buildings and cement. Banks shall also expand and apply this to all asset classes whenever sector methods are available.

SBTi portfolio coverage: this approach ensures financial institutions increase proportion of science-based target-aligned assets and companies in their portfolios.

Temperature Rating Approach: this approach sets targets on the estimated temperature rating for a financial portfolio and requires financial institutions to engage with portfolio companies to minimise impact to global warming.

Net Zero Commitments in the Financial Sector – Sectoral Targets

Lending portfolios of banks are generally exposed to multiple sectors and decarbonisation pathway varies among different industries, such that a single bank-wide carbon neutral target would not be sufficient to calibrate a bank's decarbonisation efforts. It is therefore suggested that banks consider sector-specific decarbonisation targets along with a bank-wide carbon neutral vision.

Some banks are collaborating with market players in hard-to-abate sectors to develop solutions and standards. For example, Poseidon Principles [(3)] for the shipping industry and the Sustainable STEEL Principles [(4)] for the steel industry are created to provide climate standards and assessment criteria specifically for green/transition financing in the maritime and steel industries.

1 SBTi Financial Sector Science-Based Targets Guidance: https://sciencebasedtargets.org/resources/files/Financial-Sector-Science-Based-Targets-Guidance.pdf

2 SBTi Sectorial Decarbonisation Approach (SDA): A method for setting corporate emission reduction targets in line with climate science : https://sciencebasedtargets.org/resources/files/Sectoral-Decarbonization-Approach-Report.pdf

3 Poseidon Principles – Principles Overview : https://www.poseidonprinciples.org/finance/principles/

4 Sustainable STEEL Principles – Framework : https://climatealignment.org/wp-content/uploads/2022/06/sustainable_steel_principles_framework.pdf

Integration of Climate Commitments

With decarbonisation targets in place, banks shall also find credible ways to identify strategies to integrate net-zero commitments into their commercial execution while maintaining business viability.

Key Drivers / Rationale:

1: More than Words

For a financial institution achieving meaningful decarbonisation can be a complex exercise requiring strong coordination of all functions and departments. It is also a very long-term journey that take decades. A clear, by-design architecture to impose climate commitments as a cornerstone of a bank's governance, lending preferences, sectoral ESG policies, organizational structure and management agenda, could be an effective and incremental way for banks to fulfil their climate visions.

2: Calibration of Targets

Regular assessment, monitoring and reporting on the emissions exposure of relevant financing activities helps financial institutions to gain insights into how banks can fulfil their commitments, enhance strategic planning processes and identify red-flags of potential risks of deviating from pre-set trajectories. It allows banks to adjust targets and calibrate business focus upon material changes in the market.

Key Market Reference:

Common practices adopted by leading green banks:

Translate Targets into Credit Policies: A good practice for banks is to embed carbon neutrality targets into credit granting process whenever possible. Leading players in the market are having dedicated frameworks in place to integrate targets into the whole business value chain, from data collection process, product development and credit assessment to pricing.

Translate Targets into Client Engagement: Despite employees' strong tendency to focus on short-term return, it is important to educate or incentivize employees, especially client-facing bankers, to take into account the bank's long - term net-zero targets while developing new offerings or engaging with a client. Banks may start with building capabilities of frontline teams and integrate ESG specialists into the development of product offerings and client engagement.

Advisory Capabilities

A bank's capability to support clients' transition journey signifies its expertise and leadership in green banking. With sustainable finance and advisory solutions, banks can unlock new business opportunities and further push forward their decarbonisation targets.

Key Drivers / Rationale:

Monetization of Leadership in Green Banking:

An increasing number of entities have adopted sustainable business strategies and they may require creative solutions to finance their sustainable assets or projects. While banks in general might not be comfortable in taking up green-related deals, clients may be inclined to engage banks with strong ESG commitment that could structure the best-fit sustainable solutions and guide them through their transition and decarbonisation journey.

ESG advisory capacity to support the client base is especially important in the APAC region. APAC is one of the fastest-growing regions and hard-to-abate sectors such as iron & steel, oil & gas and cement are the main economic engines for many countries in the region. Clients in hard-to-abate sectors are urged to push forward green projects given the need for energy transition but the majority of them are yet to fully integrate ESG considerations into day-to-day business operations. These corporates imply a huge gap that looks for banks with knowledge and expertise to provide ESG solutions from deal origination, structuring and execution to tapping sustainable funds or mandates in the market.

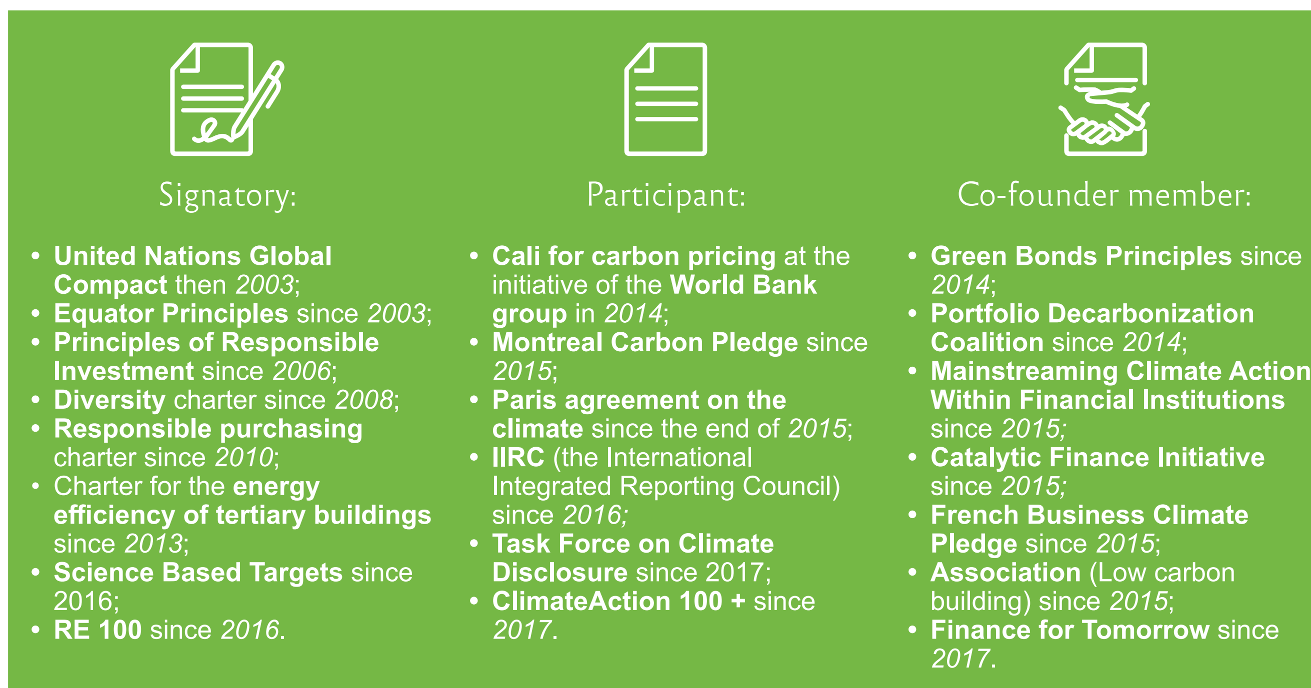
Key Market Reference:

Crédit Agricole CIB has been structuring innovative solutions for clients that showcase the Bank's pioneering position in sustainable finance and green banking practices. The Bank has participated in multiple landmark sustainable financial transactions, including the first-ever SLB globally for ENEL in 2019 and the Carbon Neutrality-themed bonds for ICBC to help the client to strengthen its position in supporting the long-term decarbonisation vision. Please refer to Appendix I for details.

SECTION 2: CRÉDIT AGRICOLE GROUP CASE STUDY (1) (2) (3)

Given the emergence of climate change impacts across the globe, and that banks will inevitably be affected, the Group has been leading the evolution of sustainable banking since the inception of many sustainability standards. It is Crédit Agricole's endeavour to be a useful and responsible bank. It is determined to play a significant role in fighting global climate change. It also believes that it can facilitate the realization of sustainable development goals, preservation of biodiversity and ensuring respect for human rights.

The positive and negative environmental and social impacts indirectly created by the Group's financing activities are far greater than its direct footprint. This is why considering these indirect impacts into account is one of Crédit Agricole's main sustainable development challenges. The Bank's existing climate vision and actions aim to increase the positive impacts and to reduce the negative impacts linked to the Bank's financings and investments.



► Fig. 3: Crédit Agricole Long Term Commitments

The Group integrates these climate-change issues into its business activities, from strategic approach, internal governance, organisational structure, targets and commitments, to collaboration with market stakeholders, including regulators and investors, which is explored further with the "5-Step Structure":

1 Crédit Agricole CIB - CSR Policy : https://www.ca-cib.com/sites/default/files/2022-06/CSR_Policy_EN_2022.pdf
2 Crédit Agricole CIB - Green Bond Framework : https://www.ca-cib.com/sites/default/files/2020-10/Credit-Agricole-Green-Bond-Framework-Green-ABCP-Programs-Annex.pdf
3 Crédit Agricole CIB Universal Registration Document : https://www.ca-cib.com/sites/default/files/2021-03/URD_2020_EN_Credit_Agricole_CIB_25-03.pdf

1. ESG Risk Governance

Climate change carries risks linked to its consequences for assets, economic activities and population (physical risks) and to the mitigation measures to be implemented or to possible legal actions (transition risks). As these climate-related risks affect Crédit Agricole's clients and portfolio, the Group must endeavour to assess and integrate such risks into day-to-day business.

Evaluation and Management System for Environmental (and Social) Risks:

Crédit Agricole has developed a system to evaluate and manage risks stemming from environmental and social impacts linked to transactions and clients, which is codified in a governance text.

The evaluation is based on three pillars: the application of the Equator Principles for transactions directly linked to a project, CSR sector policies, and an analysis of clients' or transactions' environmental and social sensitivity. The system ensures Crédit Agricole's loan portfolios are aligned with internal policies and externally committed targets.

The system developed by Crédit Agricole CIB is based on the daily involvement of all members of staff, viewed as sustainable development players within their business lines, to appreciate and manage direct or indirect environmental, social and climate-related risks. Of these, environmental and social (E&S) risks refer to potential negative consequences brought by the impact on the natural environment and communities of people, while climate-related risks refer to risks that arise from potential impacts of climate change and human responses to climate change.

Relationship managers and senior bankers are in charge of analysing social and environmental issues linked to the business. They are helped, if necessary, by the Economic Research specialists of Crédit Agricole S.A. ("ECO"), and by the expertise of the Corporate Social Responsibility division which reports to the Risk and Permanent Control department and coordinates Crédit Agricole CIB's sustainable development initiatives. Relationship managers and senior bankers use the analyses of independent environmental and social experts of cases provided for by procedures. ECO sector specialists provide additional help for all types of clients and transactions according to the sectors of activity.

The most complex transactions, from an environmental or social perspective, are submitted to an ad hoc Evaluation Committee for transactions involving an Environmental or Social Risk ("CERES") to obtain a recommendation. The CERES committee evaluates the file once it has been examined by the Corporate Social Responsibility Division.

The CERES committee, chaired by the Head of Compliance, acts as the Head of the Committee for the evaluation and management system for environmental and social risks linked to the Bank's business activities. This committee ratifies in particular the transaction scoring defined by the Equator Principles, issues opinions and recommendations on "Category A" transactions or those considered sensitive from an environmental or social point of view, and on CSR sector policies before their approval by the Strategies and Portfolios Committee.

Transactions rated "A" or "sensitive" by the CERES committee can only be approved by the Bank's highest credit committee chaired by its General Management.

The Bank has formulated the "Societal Engagement Committee", comprising executive managers of Group entities and regional banks, in charge of co-building the alignment of the Group Climate Strategy with the Paris Agreement and ensuring that all Group entities are on board. A Scientific Committee, made up of the Group experts, with the support of academic partners, conducts high-level scientific analysis and informs the decisions of the Societal Engagement Committee.

► Fig. 4: Crédit Agricole Evaluation and Management System for ESG Risks

Due diligence and CSR client scoring

For transactions directly linked to a project, the quality of the management of environmental and social aspects of the project is evaluated on the basis of information provided by the client. The depth of analysis, generally conducted by independent consultants, depends on each specific context and in particular on the nature and importance of the likely environmental and social impacts.

In other cases, the lack of specific information concerning a project (study of impacts, impacts' management plan) leads to an approach that is more focused on the client. In addition to analysis of sector specific policy criteria, the quality of the environmental and social management of clients with which the Bank would like to develop a business relationship is appraised to reach a CSR scoring of corporate clients on the following scale: Advanced, Compliant, Sensitive.

In 2016 the Bank tested the use of ratings calculated by an extra-financial agency. These tests allowed a change in CSR scores of clients according to three levels of due diligence: a light level, a standard level and a strengthened level.

A light level is confined to the search for negative information and excludes cases with respect to the applicable sector policy. It involves certain clients in very regulated environments (High Income OECD countries) as long as the rating given by the extra-financial agency is not judged too low.

The standard level involves seeking the client's explicit commitments in terms of environmental and social management (system to manage impacts, reference to International Labour Organization ("ILO") standards).

The strengthened level involves a more detailed analysis of the client's commitments and practices on issues considered very important by the Bank: climate, water and human rights. This strengthened level is triggered according to sectoral and geographical criteria and the client's apparent expertise on the issues involved. The client can be rated independently on all three issues.

Work initiated in 2021 made it possible to identify the risks associated with the loss of biodiversity for the Bank's clients. While certain sectors appear to be dependent on the good state of biodiversity, others generate negative impacts on natural environments. Based on this observation, risk indices can be calculated on the basis of sectoral and geographic data, in order to identify the most exposed clients.

Crédit Agricole CSR Sector Policy

The Group's CSR sector policies specify the social, environmental and societal criteria that guide its financing and investment policies. These criteria essentially reflect the civic issues that seem most relevant for all of the Bank's activities, and in particular with regard to respect for human rights, the fight against climate change and preservation of biodiversity.

Crédit Agricole looks for good practices recognised by international institutions or important professional bodies, and defines analysis and exclusion criteria using these references. The principles and rules apply to all Crédit Agricole's financings and investments and are revised according to the progress of its knowledge and its assessment of challenges.

The CSR policies specify principles and rules for extra-financial considerations concerning financing and investment activities in covered sectors. For each sector, a framework of reference lists the relevant norms and standards that apply to clients' environmental and social practices compared with the sector's good practices. The policies specify the criteria used to analyse the transactions. Exclusion criteria are designed to act as the Bank's minimum safeguard to define the projects and transactions the Group does not wish to support going forward.

The CSR sector policies represent a large portion and key sectors of the Bank's footprint. The Bank is committed to further expand the scope to cover 80% of the total footprint. The CSR sector policies currently cover the following industries:

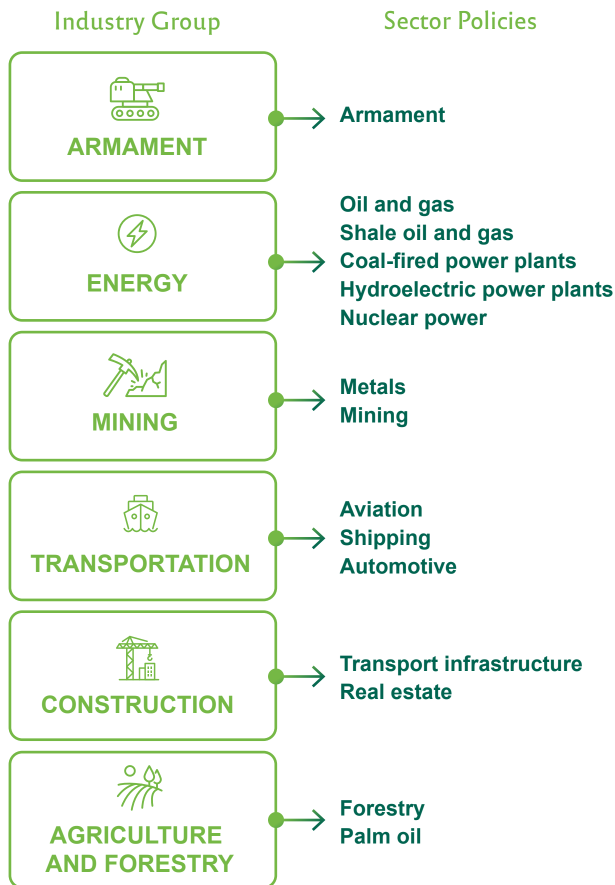


Table 4: Crédit Agricole CSR Sector Policies list

Crédit Agricole Operational Carbon Inventory

Concerning the management of climate risks, Crédit Agricole has worked to better understand and manage climate risks over the last several years. Crédit Agricole actively monitors and manages its global Scope 1 and 2 greenhouse gas emissions by its main entities (excluding fuel consumption by Crédit Agricole S.A.'s vehicle fleet) and Scope 3 emissions related to all investments and financing. The Bank reduces these impacts through initiatives linked to the management of its buildings, IT and staff travel, and to offset all its residual emissions.

A Dedicated Sustainable Investment Banking Team

In 2010, Crédit Agricole established a standalone Sustainable Investment Banking team within the commercial division. This team has ever since been one to advise the Group's main clients worldwide on their transactions, taking social and environmental considerations into account. The team includes sectoral experts to enable more sophisticated and detailed transition conversations with clients.

Crédit Agricole is the structuring advisor for all four rounds of the Government of the Hong Kong Special Administrative Region institutional green bonds and have a strong track record in advising clients on sustainable transactions. The Bank received the Global Capital Award SRI for the 7th consecutive year and IFR's ESG House of the Year award for the 6th year in 2021.

2. Define "Green" in Balance Sheet

Crédit Agricole has contributed to the development of best market practices in green lending, of which one key element is the definition of green loans and green projects, also known as "green taxonomy". A reflection of the Bank's green taxonomy would be the publicly available Crédit Agricole SA Green Bond Framework, which elaborates the key green project categories that the Bank would support with green funding.

CASE STUDY

Crédit Agricole S.A. Green Bond Framework

Crédit Agricole became an issuer of Green Bonds and developed in 2013 a new product called 'Crédit Agricole Green Notes'. Green Notes are bonds or any other financing tools issued by Crédit Agricole for which the proceeds are dedicated to projects with an environmental purpose.

Funds raised by Crédit Agricole through the issuance of Green Notes support its green loans portfolio, comprising loans granted to companies and projects that demonstrate a very good environmental and social performance and that belong to a key sector in the transition towards an economy that is more respectful of the environment.

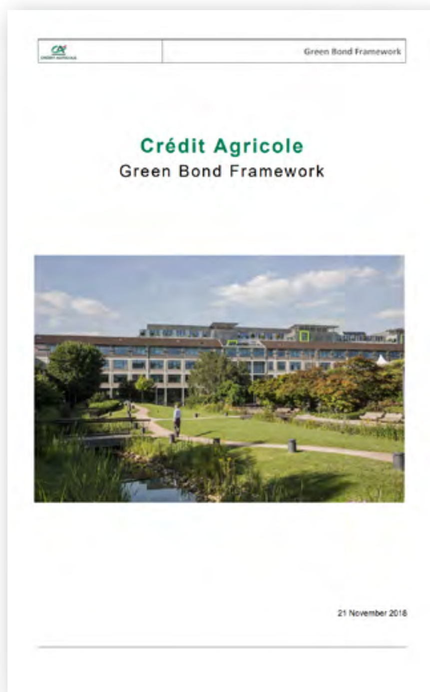


Fig. 5: Crédit Agricole Green Bond Framework

Green Liquidity Discount Mechanism

In 2015, Crédit Agricole CIB introduced the Green Liquidity Discount Mechanism to encourage green financing products. This mechanism supports business lines that push forward sustainable transactions by offering more favourable internal costs for accessing funds. This makes it possible to offer attractive terms to investors, thus increasing the amount of responsible finance. In 2020, this incentive was increased for assets eligible for the Crédit Agricole Group Green Bond Framework.

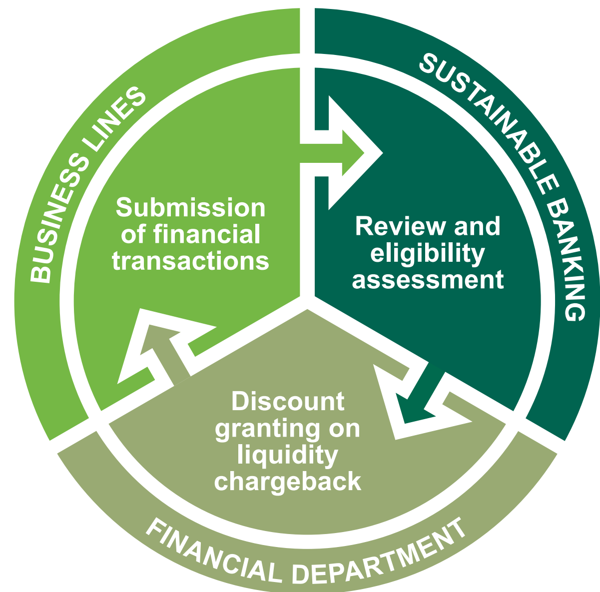


Fig. 6: Credit Agricole Green Liquidity Discount Mechanism

Collaboration with Other Market Actors in standard setting

As the green banking sector is still being defined and developed, Crédit Agricole's mission is to contribute towards encouraging sustainable financing activities, and promoting ESG integration through supporting companies to issue sustainable financing instruments. Crédit Agricole has been pioneering the sustainable finance market mobilizing support for sustainable development of different industries under its business portfolio.

The Bank was part of the consortium of banks which initiated the Green, Social [1] and Sustainability Bond Principles [2], the Green Bond Principles ("GBP" [3]) Executive Committee Chair and Co-Chairman of the working group of ICMA. It played an instrumental role in driving the 2022 GBP. The Bank was also the initiator of the Sustainability Linked Bond ("SLB") working group and acted as joint coordinator with three other GBP ExCom members.

1 ICMA Social Bond Principles : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/
2 Sustainability Bond Guidelines : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/
3 ICMA Green Bond Principles : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/

In June 2018, the European Union Technical Expert Group ("TEG" [(1)]) was set up to assist the European Commission in implementation of the Action Plan on Sustainable Finance. [(2)] Crédit Agricole took part in the TEG in 2019 and 2020, contributed to the implementation of the Action Plan on Sustainable Finance and has made significant contributions to the EU Taxonomy as well as the EU Green Bond Standard.

Crédit Agricole has also played a crucial role in the development of sustainable finance market in the APAC region. The bank has become one of the five cornerstone members of the the "Alliance". The Asia chapter of the Alliance was co-launched with the International Finance Corporation and the Hong Kong Monetary Authority. Crédit Agricole is also the co-chair of the working group on Green Investment Principles of the Belt and Road Initiative and one of the financial institutions represented in the establishment of Sustainable Finance Advisory Panel by the Monetary Authority of Singapore.

3. Formulation of Climate Commitments

Crédit Agricole's Climate Commitments

Crédit Agricole has been working consistently and efficiently to define market standards along with its peers. The Group, thus, spearheaded or was in the first circle of institutions that supported and developed important initiatives to encourage good practices such as the Equator Principles, Climate Principles and Mainstreaming Climate Action within Financial Institutions principles, Green Bonds Principles, Poseidon Principle, etc.

Overarching or Portfolio-based Commitments

Crédit Agricole was the first French bank to adopt the Equator Principles when they were launched in 2003. The Equator Principles are a voluntary commitment to analyse in detail environmental and social aspects of each new project financing or advising mandate related to a project, and to require that projects be developed and operated in compliance with the environmental and social standards of the International Finance Corporation ("IFC"). It has become within a few years a reference point for responsible project finance, demonstrating Crédit Agricole's foresight in pioneering green banking in the early 2000s.

In 2016, Crédit Agricole joined the "Science Based Target" initiative founded by CDP, United Nations Global Compact, World Resources Institute and World Wildlife Fund. Participating companies agree to set greenhouse-gas emissions reduction targets to keep overall global warming at below 2°C.

In July 2021, the Group joined the Net Zero Banking Alliance. This means that by 2050, the Group's net "financed carbon emissions" will have to be down to zero. In other words, clients' emissions will have to be offset by their carbon sinks (from projects in reforestation, carbon capture, etc.).

In practice, in addition to the Bank's achievements since 2019, the Group will publish by 2023 decarbonisation strategies for its portfolios in 10 economic sectors representing 75% of global emissions and around 60% of credit exposure.

► Fig. 7: Crédit Agricole's Roadmap to commit to global carbon neutrality by 2050

1 Technical expert group on sustainable finance (TEG): https://finance.ec.europa.eu/publications/technical-expert-group-sustainable-finance-teg_en
2 European Commission - Sustainable finance: Commission's Action Plan for a greener and cleaner economy: https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_18_1404/IP_18_1404_EN.pdf
3 On Crédit Agricole S.A. and its subsidiaries. Regonial banks to be included in 2023
4 CACIB only 3. Decrease of Crédit Agricole S.A.'s absolute emissions linked to energy consumption (scopes 1 & 2) and business travels between 2019 and 2030

These strategies will be formulated for short-, medium- and long-term action plans and will provide significant support to renewable energy and carbon-free mobility as well as to new green sectors and technologies.

The Bank has made a number of commitments to decarbonise its sectoral portfolios. In line with the International Energy Agency's Net Zero Emissions by 2050 Scenario ("NZE Scenario" [1]), carbon emissions associated with financing activities in the oil and gas sector will fall by 30% between 2020 and 2030. Over the same period, Crédit Agricole will reduce the carbon intensity of its lending to the automotive sector by 50%. Crédit Agricole's direct carbon footprint will also be halved by 2030.

Since 2022, the Group is committed to ceasing financing of all new projects that are directly related to unconventional hydrocarbons, and for new oil or gas projects in the Arctic.

Recently, in October 2022, Crédit Agricole became a signatory of PCAF that commits it to measure and disclose GHG emissions associated with the Group's portfolio loans and investments.

Sector-based Commitments:

Shipping Industry:

1. The shipping industry accounts for 2% of world emissions and is growing. It is a carbon-intensive industry by nature. The industry is expecting a radical transition as the development of zero-emission technologies makes progress.
2. In June 2019, Crédit Agricole signed the Poseidon Principles along with ten other banks active in ship finance, with the aim to measure carbon footprints of ships financed by the participating banks and to identify measures to lower the carbon intensity.

Aviation Industry:

In 2022, Crédit Agricole has become one of the founding members of the Aviation Climate-Aligned Finance Working Group along with 5 industry peers and the RMI Center for Climate-Aligned Finance. [2] The Working Group aspires to create a collective climate-aligned finance ("CAF") framework that defines common goals for aviation sector decarbonisation. The framework will create consistency and transparency in reporting, establishing a level playing field for measuring progress against climate targets. With the CAF framework, financial institutions will be able to assess the emissions of their aviation loan books and work with their clients to report their emissions, fund lower-carbon solutions and support investments in new technologies.

Steel Industry:

In September 2022, Crédit Agricole was one of the founding signatories of the Sustainable STEEL Principles co-developed with five other banks. These principles provide the steel industry a common measurement and disclosure framework to support it in forging a pathway to net-zero carbon emissions.

The Sustainable STEEL Principles enable banks to measure the climate alignment of their steel lending portfolios by providing insights into their clients' emissions intensity, compared to net-zero pathways. Consequently, the Principles help empower peer financial institutions in providing clients with the tools necessary for decarbonisation.

1 IEA Net Zero Emissions by 2050 Scenario (NZE): *https://www.iea.org/reports/global-energy-and-climate-model/net-zero-emissions-by-2050-scenario-nze*
2 Six Global Financial Institutions Chart a Flight Path to Decarbonizing Aviation : *https://rmi.org/press-release/banks-chart-flight-path-to-decarbonize-aviation/*

Oil & Gas Industry:

Crédit Agricole has placed the highest emphasis upon green and sustainable finance and has formulated a series of targets to gradually phase out financing of projects in the oil and gas industry:

- No financing of projects directly linked to shale oil and gas, oil from tar sands and certain other hydrocarbons projects.
- 25% reduction of upstream oil related exposure by 2025, compared to a 2020 baseline
- 30% decrease of financed Oil & Gas CO_2e absolute emissions by 2030, compared to a 2020 baseline
- 60% increase of the Bank's exposure to low-carbon energy (production and storage) by 2025, compared to a 2020 baseline

Arctic Region:

To avoid overexploitation of the vulnerable Arctic ecosystem, the Group made a commitment in 2017 to cease direct financing of oil projects in this area. These rules of exclusion are now extended to all gas projects. It also further extended the Arctic perimeter to the AMAP area and beyond the Köppen line in the offshore Arctic.

4. Integration of Climate Commitments

To date, Crédit Agricole is one of the few banks in the world that has estimated the carbon footprint linked not only to its direct operations, but also to its financing and investment activities.

For the part of Scope 3 related to GHG emissions from financing and investments made by Crédit Agricole, the Group has been implementing since 2011 a methodology for quantifying greenhouse gas (GHG) emissions by a financial institution, developed at its request by the Finance and Sustainable Development Chair of Paris-Dauphine and the École Polytechnique. This innovative methodology called P9XCA has been recommended since 2014 for finance and investment banks by the sector guide for the financial sector, "Realization of a greenhouse gas emissions report", published by the Environment and Energy Management Agency, the Observatory for Corporate Social Responsibility and the Bilan Carbone Association.

It allows the Group to estimate, without multiple counting, the order of magnitude of the financed emissions and to determine a sectoral and geographic mapping of these. Greenhouse gas emissions are allocated to economic players according to their ability (and their economic interest) to reduce them according to an allocation qualified "by issue" as opposed to the usual allocation "by scope". The estimated emissions linked to the Group's investments and financing (Scope 3) have increased significantly since the previous calculation (dating from 2018). This increase is mainly due to the sustained growth of around 10% in the Group's investment and financing outstandings, particularly in industrial sectors. Certain methodological adjustments were made in 2018 in parallel with the revision of the factors of program.

5. Advisory Capabilities

Assisting clients in their climate transition and meeting the related commitments is an essential component of the Bank's strategy.

Crédit Agricole CIB relies on more than 250 internal experts to assist clients on these issues. Because climate transition needs vary considerably with the nature of activities and markets, the Bank is strengthening its organisation by developing a Sustainable Investment Banking team in key geographies and sectors. A new Climate & Sustainability Strategy team has been formed to focus on the energy transition and manage the Bank's decarbonisation strategy and commitments under the UN-convened Net-Zero Banking Alliance as well as Crédit Agricole CIB's own ESG-labelled portfolios and targets.

Finally, Crédit Agricole CIB implemented, in May 2020, a network of Sustainable Banking Coordinators, appointed in each of the Bank's business lines all over the world. The network was rolled out to maintain a robust shared culture and expertise across all the business lines and support functions, the key objectives being to seize new opportunities, anticipate emerging risks and manage industrialisation of certain sustainable finance products, and ultimately, to enhance advisory capabilities of employees involved in green finance in their day-to-day work.

APPENDIX 1: CRÉDIT AGRICOLE CIB CASE STUDY – INNOVATIVE GREEN FINANCE TRANSACTION HIGHLIGHTS

1. The Government of the Hong Kong Special Administrative Region of the People's Republic of China Green Bonds Offering

The Government of the Hong Kong Special Administrative Region of the People's Republic of China (the "HKSAR Government") Green Bond Programme (the "Programme") is an initiative of the HKSAR Government to promote the development of green finance, especially the green bond market, in Hong Kong. Proceeds raised under the Programme will be credited to the Capital Works Reserve Fund to finance or refinance government projects that provide environmental benefits and support the sustainable development of Hong Kong.

As of January 31 2023, the HKSAR Government has announced the below green bonds offering under the Green Bond Programme:

- May 2019: Inaugural Green Bond offering, with an issuance size of USD1 billion and a 5-year tenor
- January 2021: Offering of USD2.5 billion of green bonds in three tranches – USD1 billion 5-year, USD1 billion 10-year and USD500 million 30-year
- November 2021: Offering of US3 billion worth of green bonds in three tranches – USD1 billion 10-year, EUR1.25 billion 5-year, and EUR500 million 20-year
- November 2021: Offering of RMB5 billion offshore green bonds in two tranches – RMB2.5 billion 3-year and RMB2.5 billion 5-year
- January 2023: Offering of USD5.75 billion worth of green bonds in seven tranches – USD500 million 3-year, USD1 billion 5-year, USD1 billion 10-year, USD500 million 30-year, EUR750 million 2-year, EUR500 million 7-year, RMB5 billion 2-year and RMB5 billion 5-year

The HKSAR Government published its Green Bond Framework in 2019, which sets out how green bond proceeds will be used to fund projects that will improve the environment and facilitate the transition to a low carbon economy. Vigeo Eiris* has provided a Second Party Opinion for the Green Bond Framework. The Green Bonds have also received the Green Finance Certificate (Pre-issuance Stage) from the Hong Kong Quality Assurance Agency. The HKSAR Government has since published two annual reports on the allocation of the proceeds from previous green bond issuances and the expected environmental benefits.

Crédit Agricole CIB has acted as the Joint Global Coordinator, Joint Lead Manager, Joint Bookrunner, and Joint Green Structuring Bank for all rounds of HKSAR Government's institutional Green Bond issuances since its 2019 inaugural issuance.

* External Review provider Vigeo Eiris (V.E) is now under Moody's Investors Service, Inc.

2. Launch of the First Sustainability-Linked Bond – ENEL General Purpose SDG-Linked Bond

Summary of the Transaction:

On September 5, 2019, Enel Finance International NV, the Group's Dutch-registered finance company controlled by Enel S.p.A. ("Enel"), launched a single-tranche "sustainable" bond for institutional investors in the US and international markets totalling USD1.5 billion, equivalent to about EUR1.4 billion.

This bond issuance, the first of its kind and intended to meet the company's ordinary financing needs, is linked to Enel's ability to achieve, by December 31, 2021, a percentage of installed renewable generation capacity (on a consolidated basis) equal to or greater than 55% of total consolidated installed capacity. To ensure the transparency of the results, the achievement of this target (as of June 30, 2019, the figure was equal to 45.9%) will be certified by a specific assurance report issued by the auditor engaged for this purpose.

The interest rate will remain unchanged to maturity, subject to the achievement of the sustainability target indicated above as of December 31, 2021. If the target is not achieved, a step-up mechanism will be applied, by increasing the rate by 25 bps starting from the first interest period subsequent to the publication of the assurance report.

Innovation and Significance of this Transaction:

The strong investor demand for the "General Purpose SDG Linked Bond" issued by Enel Finance International NV once again reaffirmed the credential of the Group's sustainability strategy and the consequent impact on the economic and financial results.

Crédit Agricole CIB acted as Joint Bookrunner in this transaction.

3. Pioneering Diversification of Offerings - ICBC & CCB & SPDB Onshore Green Triparty Repos

Summary of the Transaction:

In September 2022, Crédit Agricole CIB executed the first onshore green triparty repos through China Foreign Exchange Trade System (CFETS) with three leading banks in China – Industrial and Commercial Bank of China (ICBC), Shanghai Pudong Development Bank (SPDB) and China Merchants Bank (CMB).

The collaterals of this transaction consist of green bonds, and the seller is also committed to use an amount equal to the repo proceeds towards green purposes. It was also the first green repos traded under CFETS, setting a strong benchmark for the onshore green repo market.

Innovation and Significance of this Transaction:

Green repos have the potential to become a pivotal sustainable financing instrument that brings higher flexibility to companies. While the green bond and green loan markets are increasingly mainstreamed, proper green structuring aspects remain to be explored by the market for new products such as green repos. The deal is significant for its innovative and stringent approach to ensure the products fulfil the purpose of creating variety for the sustainable capital markets.

Crédit Agricole CIB acted as Collateral Giver and Cash Receiver in this transaction.

4. Advisory Capabilities to Support Climate Transition – ICBC Carbon Neutrality Bond

In October 2021, Industrial and Commercial Bank of China ("ICBC") issued its global multi-currency overseas "carbon neutrality" green bonds on October 21, 2021 through five branches, including Hong Kong, Singapore, Macau, Luxembourg and London. The total issuance size was equivalent to USD3.23billion, marking the largest international green issuance of Chinese issuers.

This bond obtained green certifications from three authoritative organizations at home and abroad, including the "carbon neutrality" labelling certification evaluation report issued by Beijing Zhongcai Green Financing Consultant Ltd., the green financial bond certification issued by the Climate Bonds Initiative (CBI), and the pre-issuance green and sustainable financial certificate issued by the Hong Kong Quality Assurance Agency (HKQAA).

The use of proceeds will fund low-carbon fields, and is earmarked for green projects with significant carbon emissions reduction effect, such as clean transportation and renewable energy.

Crédit Agricole CIB acted as the Green Structuring Advisor, Joint Global Coordinator and Joint Lead Manager in this transaction.

APPENDIX 2: REFERENCE LIST (IN ALPHABETICAL ORDER)

No.	Author	Reference Link
1	ASEAN Taxonomy Board	ASEAN TAXONOMY FOR SUSTAINABLE FINANCE Version 1 : https://asean.org/wp-content/uploads/2022/06/ASEAN_Taxonomy_V1_final_310522.pdf
2	Asia Investor Group on Climate Change	Asia's Net Zero Energy Investment Potential: https://www.aigcc.net/wp-content/uploads/2021/03/March-2021_-Asias-Net-Zero-Energy-Investment-Potential-English.pdf
3	Autorité de contrôle prudentiel et de résolution ("ACPR")	The ACPR publishes the results of the first climate pilot exercise covering the banking and insurance sectors https://acpr.banque-france.fr/en/communique-de-presse/acpr-publishes-results-first-climate-pilot-exercise-covering-banking-and-insurance-sectors
4	Bank Negara Malaysia	Climate Change and Principle-based Taxonomy : https://www.bnm.gov.my/documents/20124/938039/Climate+Change+and+Principle-based+Taxonomy.pdf
5	Bank of England ("BOE")	Results of the 2021 Climate Biennial Exploratory Scenario (CBES) : https://www.bankofengland.co.uk/stress-testing/2022/results-of-the-2021-climate-biennial-exploratory-scenario
6	CDP	CDP – About us : https://www.cdp.net/en/info/about-us
7	China Finance (中国金融杂志)	中国金融杂志2022年第5期 http://www.cnfinance.cn/magzi/?template=sample_9201.html
8	Climate Bonds Initiative ("CBI")	Climate Bonds Taxonomy : https://www.climatebonds.net/standard/taxonomy
9	Crédit Agricole CIB	Crédit Agricole CIB CSR Policy : https://www.ca-cib.com/sites/default/files/2022-06/CSR_Policy_EN_2022.pdf
10	Crédit Agricole CIB	Crédit Agricole CIB Green Bond Framework : https://www.ca-cib.com/sites/default/files/2020-10/Credit-Agricole-Green-Bond-Framework-Green-ABCP-Programs-Annex.pdf
11	Crédit Agricole CIB	Crédit Agricole CIB Universal Registration Document : https://www.ca-cib.com/sites/default/files/2021-03/URD_2020_EN_Credit_Agricole_CIB_25-03.pdf
12	Equator Principles	Equator Principles: https://equator-principles.com/
13	European Central Bank ("ECB")	ECB Stress Tests : https://www.bankingsupervision.europa.eu/banking/tasks/stresstests/html/index.en.html
14	European Securities and Markets Authority ("ESMA")	Final Report - Guidelines on certain aspects of the MiFID II suitability requirements : https://www.esma.europa.eu/sites/default/files/library/esma35-43-3172_final_report_on_mifid_ii_guidelines_on_suitability.pdf
15	Financial Services Agency of Japan and the Bank of Japan ("Japan FSA")	Pilot Scenario Analysis Exercise on Climate-Related Risks Based on Common Scenarios : https://www.fsa.go.jp/en/news/2022/20220826/03.pdf
16	Hong Kong Monetary Authority ("HKMA")	Pilot Banking Sector Climate Risk Stress Test : https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/Pilot_banking_sector_climate_risk_stress_test.pdf
17	Hong Kong Special Administrative Region ("HKSAR")	Hong Kong's Climate Action Plan 2050: https://www.climateready.gov.hk/files/pdf/CAP2050_booklet_en.pdf

18	Intergovernmental Panel on Climate Change ("IPCC")	IPCC Fifth Assessment Report (AR5) : https://www.ipcc.ch/report/ar5/syr/
19	Intergovernmental Panel on Climate Change ("IPCC")	The Intergovernmental Panel on Climate Change : https://www.ipcc.ch/
20	International Capital Market Association ("ICMA")	ICMA Social Bond Principles : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/
21	International Capital Market Association ("ICMA")	Sustainability Bond Guidelines : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/
22	International Capital Market Association ("ICMA")	Climate Transition Finance Handbook : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/climate-transition-finance-handbook/
23	International Capital Market Association ("ICMA")	ICMA Green Bond Principles : https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/
24	International Energy Agency	IEA Net Zero Emissions by 2050 Scenario (NZE): https://www.iea.org/reports/global-energy-and-climate-model/net-zero-emissions-by-2050-scenario-nze
25	International Labour Organization	International Labour Organization: https://www.ilo.org/global/lang--en/index.htm
26	Ministry of Environment of Korea	한국형 녹색분류체계 가이드라인(K-TAXONOMY) : https://www.me.go.kr/skin/doc.html?fn=20220223103838.pdf&rs=/upload_private/preview/
27	Monetary Authority of Singapore ("MAS")	Climate Scenario Analysis in MAS' Industry-Wide Stress Test : https://www.imf.org/-/media/Files/News/Seminars/2022/120522sti-mcm-apd-climate/s22by-fan-jia-rong.ashx
28	Net-Zero Banking Alliance ("NZBA")	NZBA – home : https://www.unepfi.org/net-zero-banking/
29	Organisation for Economic Co-operation and Development	Organisation for Economic Co-operation and Development: https://www.oecd.org/
30	Partnership for Carbon Accounting Financials ("PCAF")	PCAF – About : https://carbonaccountingfinancials.com/en/about
31	PBoC and The European Commission	Common Ground Taxonomy Table : https://finance.ec.europa.eu/system/files/2021-12/211104-ipsf-common-ground-taxonomy-table_en.pdf
32	People's Bank of China ("PBoC")	Green Bond Endorsed Projects Catalogue (2021 Edition) : http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4342400/2021091617180089879.pdf
33	Poseidon Principles	Poseidon Principles – Principles Overview : https://www.poseidonprinciples.org/finance/principles/
34	Principles of Responsible Investment ("PRI")	PRI – About the PRI : https://www.unpri.org/about-us/about-the-pri
35	RMI	Six Global Financial Institutions Chart a Flight Path to Decarbonizing Aviation : https://rmi.org/press-release/banks-chart-flight-path-to-decarbonize-aviation/
36	S&P Global	Accounting for Climate: The Next Frontier in ESG : https://www.spglobal.com/en/research-insights/featured/special-editorial/accounting-for-climate-the-next-frontier-in-esg
37	S&P Global	S&P Global Ratings Takes Multiple Rating Actions On Major Oil And Gas Companies To Factor In Greater Industry Risks: https://press.spglobal.com/2021-01-26-S-P-Global-Ratings-Takes-Multiple-Rating-Actions-On-Major-Oil-And-Gas-Companies-To-Factor-In-Greater-Industry-Risks

38	Science-Based Targets initiative ("SBTi")	SECTORAL DECARBONIZATION APPROACH (SDA): A method for setting corporate emission reduction targets in line with climate science : https://sciencebasedtargets.org/resources/files/Sectoral-Decarbonization-Approach-Report.pdf
39	Science-Based Targets initiative ("SBTi")	SBTi – About us : https://sciencebasedtargets.org/about-us
40	Science-Based Targets initiative ("SBTi")	SBTi Financial Sector Science-Based Targets Guidance: https://sciencebasedtargets.org/resources/files/Financial-Sector-Science-Based-Targets-Guidance.pdf
41	Securities and Futures Commission ("SFC")	The Management and Disclosure of Climate-related Risks by Fund Managers : https://apps.sfc.hk/edistributionWeb/gateway/EN/circular/intermediaries/supervision/doc?refNo=21EC31
42	Semieniuk, G., Holden, P.B., Mercure, JF. et al.	Stranded fossil-fuel assets translate to major losses for investors in advanced economies. Nat. Clim. Chang. 12, 532–538 (2022). https://doi.org/10.1038/s41558-022-01356-y
43	Sustainable STEEL Principles	Sustainable STEEL Principles Framework : https://climatealignment.org/wp-content/uploads/2022/06/sustainable_steel_principles_framework.pdf
44	Swiss Re	The economics of climate change: no action not an option: https://www.swissre.com/dam/jcr:e73ee7c3-7f83-4c17-a2b8-8ef23a8d3312/swiss-re-institute-expertise-publication-economics-of-climate-change.pdf
45	Taiwan Financial Supervisory Commission ("FSC")	Taiwan's Banks Face Mandatory Climate Stress Tests Next Year : https://www.bloomberg.com/news/articles/2022-06-08/taiwan-s-banks-face-mandatory-climate-stress-tests-next-year
46	Taskforce on Climate-related Financial Disclosures ("TCFD")	TCFD – About : https://www.fsb-tcfd.org/about/
47	The Alliance For Green Commercial Banks ("The Alliance")	https://www.allianceforgreencommercialbanks.org/
48	the European Commission	ESG Risk Management Framework for the Financial Sector : https://reform-support.ec.europa.eu/system/files/2022-05/2023%20Flagships%20Techical%20Support%20projects%20-%20esg.pdf
49	the European Commission	EU taxonomy for sustainable activities : https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en
50	the European Commission	European Commission - Sustainable finance: Commission's Action Plan for a greener and cleaner economy: https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_18_1404/IP_18_1404_EN.pdf
51	the European Commission	Technical expert group on sustainable finance (TEG): https://finance.ec.europa.eu/publications/technical-expert-group-sustainable-finance-teg_en
52	United Nation Global Compact ("UNGC")	The Ten Principles of the UNGC : https://www.unglobalcompact.org/what-is-gc/mission/principles
53	United Nations	Paris Agreement : https://unfccc.int/sites/default/files/english_paris_agreement.pdf
54	United Nations Environment Programme Finance Initiative ("UNEP FI")	Adaptation Gap Report 2022 : https://www.unep.org/resources/adaptation-gap-report-2022
55	United Nations Framework Convention on Climate Change ("UNFCCC")	NDC Registry: https://unfccc.int/NDCREG

IN PARTNERSHIP WITH: