Criteria Guidance
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ESG Factors and Credit Risk Analysis

1. Overview

Environmental, social, and governance (ESG) considerations are becoming an increasingly important component of credit risk analysis, although their relative importance differs by entity, sector, and country. This guidance note outlines CIôs approach to capturing ESG risks in credit analysis. It does not establish new criteria; rather it explains how ESG factors are, or may be, considered within CIôs current credit rating methodologies.

Key Points

- Governance factors have long been a staple of credit analysis and CI already incorporates such considerations into its ratings for all sectors.
- Social factors are an important element of sovereign ratings but have so far received little weight in the analysis of financial institution (FI) and corporate creditworthiness due to limited evidence of a direct causal link between many social factors and default risk, as well as the normative nature of a number of social issues.
- Environmental factors have not generally been considered as a significant rating factor for the entities in our ratings universe, around 90% of which are FIs (mostly banks).
- Although ESG factors have seldom driven credit rating actions, their significance is growing due to greater awareness of the potential risks to franchise value, cash-flow generation, and debt serving capacity posed by a number of ESG risks, as well as by ESG-related changes in public policy, evolving social norms, the rise of socially responsible investing, and the integration of ESG analysis into portfolio management.
- Climate change is generally recognized as the biggest long-term environmental challenge facing the global financial system. However, we currently do not expect long-horizon risks associated with climate change to trigger rating changes in the short to medium term for most of the entities we rate. Further ahead, climate-related financial risks could emerge as a potential ratings driver unless ameliorated by appropriate mitigation and adaptation strategies.
- CI is cognizant of the practical challenges of assessing ESG risks in a consistent manner, including the lack of information on many of these risks at the issuer level, as well as measurement difficulties and the absence of common metrics for comparative analysis. While international initiatives to improve data quality should eventually help make it easier to assess some of the risks, progress on improving ESG-related disclosures is likely to vary by industry and country in the years to come.
- The timing and magnitude of some ESG risk factors is uncertain and the eventual impact on future debt repayment capacity is impossible to assess with any degree of accuracy. Some risks are also unlikely to materialise until well beyond the typical rating horizon. Nevertheless, we may incorporate probable long-horizon risks into our ratings analysis ï albeit qualitatively ï if exposures or identifiable vulnerabilities indicate that debt is likely to be significantly harder to service in the long term if such risks crystallise.
- While the focus of this guidance note is on risks, ESG factors are not simply a potential credit rating constraint. The effective management of ESG risks, or exploitation of ESG-related opportunities, may help to support or enhance ratings. The integration of ESG factors into a companyôs risk analysis and business strategies should help it to better manage and mitigate potentials risks and ultimately build resilience to ESG-related shocks, as well as structural and secular changes, including the consequences of climate change.

2. Introduction

ESG considerations are becoming an increasingly important component of international finance, driven by rising institutional investor interest in socially responsible investing, growing awareness of the material impact ESG issues may have on corporate performance, and global policy initiatives to promote sustainable finance.

For example, as of end-March 2020, more than 3,000 investors across the world, representing USD103.4 trillion in assets under management, had pledged to incorporate ESG issues into investment analysis and decision-making processes by signing up to the UNôs Principles for Responsible Investment (PRI) initiative.

At the intergovernmental level, the Paris Agreement on climate change and the UN 2030 Agenda for Sustainable Development adopted by nearly 200 governments in 2015, as well as growing public awareness of sustainability issues, suggests that ESG considerations will feature more prominently in policy agendas over the coming decades. Indeed, multilateral organisations, such as the G20, OECD and IOSCO have begun to issue ESG guidance or incorporate sustainability into financial workstreams, increasing the possibility that minimum globally adhered-to standards might be introduced in the medium term.

Of all ESG factors, climate change is receiving perhaps the most attention since it poses a systemic risk to the global economy and could have significant implications for financial stability. Accordingly, the demand for corporate disclosure of climate-related information is growing quickly. The most prominent initiative in this regard is the industry-led Task Force on Climate-related Financial Disclosures (TCFD), which is supported by the G20ôs Financial Stability Board (FSB). In June 2017, the TCFD published recommendations on the disclosure of exposure to climate-related risks and opportunities, as well as related strategies, governance and risk management practices.

While companies are being encouraged to adopt the recommendations on a voluntary basis, a number of governments and national regulators have begun to integrate them into their guidance and policy frameworks. For example, the Network for Greening the Financial System (NGFS), which is comprised of 66 central banks and supervisors and 13 observers, representing five continents, has called for all companies issuing public debt or equity, as well as financial sector institutions, to disclose information in line with the TCFD recommendations.

In the banking sector, the Basel Committee on Banking Supervision recently established the Task Force on Climate-related Financial Risks, a high-level group which is charged, among other things, with developing effective supervisory practices to mitigate climate-related financial risks. In the European Union, the European Banking Authority (EBA) is currently considering how to include ESG risks in supervisory reviews and has been given until June 2025 by EU authorities to report on whether a dedicated prudential treatment of exposures related to assets or activities associated with environmental and/or social objectives would be justified. In addition, in May 2020 the EBA published guidelines on loan origination and monitoring which, among other things, require credit institutions to consider ESG factors, environmentally sustainable lending and associated risks in their credit policies and procedures. The guidelines will apply from 30 June 2021.

3. Defining ESG Factors

There is currently no common classification of ESG risks and the scope of ESG factors has the potential to be very wide. Focusing on those with perhaps the most immediate relevance for credit risk and drawing on the work of the European Commission[1], the key elements can be described as follows.

E ï includes climate change mitigation and adaptation, as well as the environment more broadly (e.g. natural resource depletion, pollution, water scarcity, waste management, and biodiversity loss) and related risks such as natural disasters.

S ï covers issues relating to labour standards, health and safety, inequality, inclusiveness, and consumer protection.

G ï refers to the management and oversight of public and private institutions and includes board/management structure (skills, independence, diversity); executive pay; shareholder rights; disclosure of information; bribery and corruption; internal controls and risk management; and employee relations.

Many of these issues overlap or are interrelated. For example, climate change has social and welfare implications; diversity is both a social and governance issue; while a companyôs environmental management policies may also be viewed as a governance issue.

An overview of the types of ESG issues that could have an impact on an entityôs business risk profile, financial performance, and overall credit strength is provided below.

3.1 Environmental Factors

Environmental issues have increased in prominence in recent years as the impacts of climate change and environmental degradation have become more visible and rising regulatory and socio-political pressures have begun to affect the performance of some emission-intensive sectors.

The most pressing concern in the financial sphere is climate change as it is expected to drive long-term, broad-based structural change across the global economy. Climate change gives rise to financial risks via two main channels: physical risks and transition risks.

- Physical risks arise from the increasing severity and frequency of (climate change-related) weather events and changing climate patterns. These risks may manifest in direct damage to property, infrastructure, agricultural land, and health, and may also disrupt business supply chains and drive mass migrations in those parts of the world that become less hospitable to human settlement or uninhabitable.

- Transition risks arise from the process of adjustment towards lower-carbon and more sustainable economies (since emissions must eventually reach ñnet zeroò to prevent further climate change). The process of combating climate change will necessitate major changes in environmental regulations and other public policies, and is likely to be accompanied by technological innovations and changes in consumer preferences (e.g. for more sustainable products) ï developments which are likely to give rise to significant challenges for some entities, particularly those in natural resource and extractive industries, as well as those engaged in carbon-intensive activities (e.g. power generation, chemicals, cement and steel production, transportation etc).

The speed of transition matters from an economic and financial stability perspective. In an extreme scenario in which the transition to a low-carbon economy is delayed and consequently has to be achieved quickly, many companies and financial market participants might struggle to adapt to rapid changes in policies while fossil fuel industry assets would likely plummet in value in a short period of time and possibly become stranded (i.e. unusable). Such developments and associated spillovers into other parts of the economy could lead to a wave of corporate defaults and financial sector instability, as well as severe fiscal stress for governments reliant on hydrocarbon industries. Moreover, the later

[1] Action Plan: Financing Sustainable Growth, published by the European Commission on 8 March 2018.

the transition, the greater the physical risks from climate change and the more economically and socially disruptive the environmental consequences of climate change are likely to be.

Even under less disruptive scenarios, fossil fuel companies and other greenhouse gas emitters are likely to face credit-relevant challenges. These may include: significantly higher costs of doing business (e.g. from carbon taxes or other measures to change the relative price of carbon-intensive assets); more expensive and possibly less stable access to capital markets (due to the stigmatisation of the sector and/or redirection of investor funding to ógreenôactivities); the expense and challenge of switching to low-carbon technologies (which for some applications may not yet exist) or of acquiring carbon capture technology; regulatory and technical constraints to output growth; and lower demand due to changing consumer values and the increasing availability of more sustainable alternatives.

Besides climate change, credit risk may also arise from environmental degradation (e.g. scarcity of fresh water, loss of biodiversity, air and water pollution) and hazardous environmental events (including natural disasters and major accidents, such as oil spills) ï some of which will have obvious physical impacts.

Key risks for banks and other FIs

CIôs ratings universe consists overwhelmingly of FIs (mainly banks). FIs are primarily vulnerable to climate change through their exposure ï via lending or investing ï to those entities or business segments that are more likely to be directly impacted by physical hazards and transition-related developments (ranging from coastal real estate and agriculture to mining and oil production).

Some examples of the possible ways in which FIs might be impacted by the materialisation of physical and transition risks are shown in table1.

Table 1. Physical and Transition Risks for Financial Institutions

	Asset Quality & Credit Risk	Market & Liquidity Risk	Operational & Reputational Risk
Physical	Increased risk of default from underinsured clients impacted by extreme natural events / climate change.	Marked-to-market losses on financial instruments issued by entities whose performance is vulnerable to extreme natural events / climate change.	Disruption to business and reduced profits if a bankôs key infrastructure and personnel are directly impacted by a natural disaster or hazardous event.
	Higher expected losses / increase in loss given default due to the fall in value of collateral damaged by, or at increased risk of being affected by, such events.	Liquidity pressures if a natural disaster triggers sizable deposit withdrawals.	
	Credit losses from the materialisation of concentration risk for lenders with high exposure to areas or sectors impacted by extreme natural events / climate change.		
Transition	Higher probability of default and/or loss given default if clients are adversely impacted by changes in regulation and taxation, the cost of new ógreenô technologies, shifts in consumer values, or the devaluation of their carbon-based assets.	Marked-to-market losses on financial instruments issued by entities whose performance is significantly affected by climate change policies or technological or market shifts.	Loss of customers and potential liability risk due to financing heavy users of fossil fuels (particularly firms with inadequate transition plans).
	Decline in collateral values driven by shift to higher energy efficiency standards.	Systemic liquidity stress if transition risk concerns trigger a sharp and sudden change in investor sentiment and asset prices, in turn driving up counterparty risk perceptions and contributing to the hoarding of liquid assets and severe funding-market dislocations.	

3.2 Social Factors

The social issues most relevant to FI and corporate credit analysis typically concern labour relations, health and safety, and customer and community relations.

Failure to establish and foster good employee relations and safe working conditions may contribute to lower productivity, higher rates of absenteeism and sick leave, as well as labour disputes. It may also drive up recruitment costs due to lower retention rates.

Violations of employment or safety laws may result in regulatory action against an entity, as well as fines or legal challenges, while practices that are below internationally acceptable standards could damage an entityøs reputation and brand image, contributing to a loss of sales. Similar adverse consequences could also arise for entities with operations that pose a health risk to, or have a significant socioeconomic impact on, local communities.

Customer-driven risks may arise from concerns about product safety and quality, the mis-selling of products and services (which is often linked to governance deficiencies), and fears about privacy and data security. Product responsibility failings, financial misconduct and data breaches may damage the entityøs brand and increase legal and regulatory risk ï potentially resulting in compensation claims and fines.

An entity may also be vulnerable to shifts in customer preferences driven by changing views on environmental and social issues linked to its activities or products. Exposure to social risks may also arise from the policies and actions of an entityøs supply chain partners and clients (e.g. sourcing inputs from firms that utilise child labour).

3.3 Governance Factors

Governance has traditionally been the most heavily emphasised ESG factor in credit ratings analysis due to the number of FI and corporate failures that have been attributable to poor management decisions, weak risk management, or ineffective internal controls.

Good corporate governance helps to protect the legitimate interests of depositors, creditors, shareholders and other stakeholders, including employees. It also plays an important role in an entity implementing successful business strategies, using resources efficiently, and conducting day-to-day operations in a safe and sound manner, consistent with its established risk appetite and overall risk profile.

Good corporate governance is also a key contributor to an entityøs ability to identify and respond to new risks and emerging challenges and to cope with adverse changes in business, economic and financial conditions. Conversely, governance deficiencies can lead to a range of potential credit-relevant problems. For example, concentrated ownership structures (e.g. institutions owned by management, families or non-financial corporates) may give rise to potentially harmful conflicts of interest, while overly-complex or non-transparent structures can create significant challenges for board of director oversight.

Boards of directors that lack independence or sufficient diversity and expertise may be less committed to fulfilling their fiduciary and other responsibilities, opening the door to ineffective or irresponsible management behaviour. Similarly, weak governance may contribute to the pursuit of aggressive business growth strategies and excessive risk taking ï particularly if accompanied by inadequate risk management or inappropriate incentive structures and compensation schemes.

The quality and transparency of financial information is another key governance-related rating consideration. For example, a lack of comprehensive and timely disclosures, or an aggressive interpretation of accounting standards, can make it difficult for non-executive board members, shareholders, and other stakeholders to monitor performance and identify adverse developments at an early stage. Accounting deficiencies and weak internal controls ï such as an internal audit function lacking in independence and authority ï may enable operational and other risks to go undetected or be used to hide fraudulent activity or corrupt practices.

4. Consideration of ESG Factors in Rating Methodologies

CIôs credit ratings are an indicator of creditworthiness: they summarise the ability and willingness of an entity to meet its financial obligations on time and in full.

Credit ratings are not sustainability assessments. An entity could have a strong (favourable) ESG profile but be weak from a credit perspective. Conversely, an entity could have strong debt repayment capacity, but less impressive ESG credentials. That said, it would be unusual for a bank or non-bank FI with weak ESG characteristics (particularly with regard to governance, customer welfare and employee safety practices) to receive a high investment grade credit rating.

CI does not treat ESG risk as a separate analytical category in rating methodologies. At present, only governance tends to be identified explicitly as a key rating factor in our rating criteria. Nevertheless other ESG factors could potentially be captured in our credit analysis provided they are of material importance to the ability and willingness of the rated entity to honour its financial obligations in full and on time.

The analytical dimensions and key rating factors of our Sovereign Rating Methodology and Bank Rating Methodology that may involve ESG considerations are identified below.

4.1 Sovereign Rating Methodology and ESG Considerations

CI may assign either a public credit rating or an internal óshadowô rating to a sovereign using our Sovereign Rating Methodology. Shadow sovereign ratings are not intended for publication and are used to ensure that sovereign risk factors are adequately reflected in the ratings of FI and corporate issuers. Consequently, although publicly-rated sovereigns account for just 6% of CIôs public ratings universe, sovereign credit risk is an important consideration in almost all ratings we assign, regardless of asset class or sector.

CI assigns sovereign credit ratings following a detailed analysis of a range of political, economic and financial factors which we believe have a significant bearing on the ability and willingness of sovereign governments to adopt and implement sustainable fiscal policies (from a debt perspective) and to take other measures that reduce the risk of default.

The ratings we assign take into account the governmentôs capacity to service its debts under present and expected political and economic conditions, as well as its capacity to continue doing so through typical macroeconomic fluctuations and in the event of plausible shocks, which could include ESG-related events.

Within our Sovereign Rating Methodology, ESG factors are explicitly considered as part of our assessment of:

- Political and Institutional Risk;
- Economic Strength;
- Long-Term Risks for Exporters of Non-Renewable Resources; and
- Information Risk.

In addition, ESG factors could also be considered as part of our assessment of Reform Efficacy.

(a.) Political and Institutional Risk

This analytical dimension of our sovereign methodology captures the potential effect or influence of political and institutional factors on the willingness and ability of a government to pursue sustainable economic and financial policies and to undertake, where necessary, reforms and other measures to safeguard its capacity to repay maturing financial obligations.

Domestic and external political risk factors, as well as governance standards, can have an important bearing on sovereign creditworthiness and may in some settings emerge as the dominant rating driver. Stable political environments and policymaking institutions support government effectiveness and lower the risk of dramatic swings in the direction of policy. Political and social cohesion reduces

the likelihood of damaging internal power struggles and civil unrest, and also facilitates long-term planning and economic growth.

Governance and social factors are considered in this analytical dimension as part of two key rating factors:

- Political and Policy Risk; and
- Institutional Strength and Administrative Capacity.

Political and policy risk ï refers primarily to policy decisions and political events that could materially affect sovereign creditworthiness. It also takes into account the durability of the social and political fabric of a country and the existence of any underlying vulnerabilities that could potentially engender political instability and undermine the workings of government.

As part of this assessment we consider the ability and willingness of the government to implement reforms to improve economic and social outcomes and mitigate or reduce any fiscal and external vulnerabilities.

Our assessment of political risk also takes into account the general volatility of the political environment, including the tendency for governmental instability and the propensity for civil disobedience and social unrest. Risks to political stability are often highest in countries with a recent history of violent conflict and in societies characterised by factionalism, where politics is polarised between competing groups with self-perceived irreconcilable differences (often based on ethnic, religious and other identity cleavages) and, in particular, where systematic discrimination is strong.

The determination of the relative position of each country is largely subjective. However, we typically use survey-based indicators of political risk as a guidepost, in particular: (i) the political stability and absence of violence/terrorism index ï one of the World Bankôs six Worldwide Governance Indicators (WGI); (ii) the voice and accountability indicator ï another of the WGIs; and (iii) the Fragile States Index, produced by The Fund for Peace.

Institutional Strength and Administrative Capacity ï refers to the effectiveness and equity of the rules and conventions that govern political and economic interaction within a country and the ability of state organisations that operate within these rules and conventions (for example the executive, legislature, judiciary, bureaucracy and monetary authorities) to perform their mandated functions competently, achieve policy objectives, and respond effectively to changing circumstances.

The evidence suggests that the quality of institutions matters for economic performance and fiscal outcomes, as well as for the level of political stability. Sound institutions and high standards of governance are associated with transparency and predictability in policymaking and in the application of laws, as well as greater oversight of the use of public resources.

Our assessment takes into account several dimensions of institutional strength, including:

- The predictability of the legal system, the independence of the judiciary, and the enforcement of property rights.
- The strength of institutions for holding the executive accountable for its actions, including for the use of public resources and funds (e.g. the national legislature, internal and external audit functions and non-governmental bodies). We also consider the strength and impartiality of the media and whether the government is sufficiently open to enable adequate public scrutiny of its activities.
- The extent of corruption in the public sector.
- The effectiveness of state institutions in terms of their ability to perform mandated functions and meet operational targets.

Our opinions on institutional quality are largely based on analytical judgment, but may draw on international surveys, particularly: (i) the rule of law and government effectiveness indices from the World Bank WGIs database; and (ii) Transparency Internationalôs Corruption Perceptions Index.

(b.) Economic Strength

Social and, to a lesser extent, environmental factors are considered in this analytical dimension as part of our assessment of three key rating factors:

- Economic Growth Performance;
- GDP per Capita; and
- Economic Diversification.

Economic Growth Performance ï To evaluate economic growth performance we first consider a countryôs real GDP growth record over a five-year horizon (a period that would generally be long enough to cover most, if not all, of the duration of a typical economic cycle). We next consider the durability of real output growth going forward and its effectiveness in improving socio-economic outcomes. In accordance with our criteria we may consider lowering our quantitative based assessment if economic growth is vulnerable to natural disasters, climatic factors, or resource scarcity ï and there is a reasonable likelihood of such adversities materialising in the medium term ï or if unemployment is stubbornly high.

GDP per Capita ï Nominal GDP per capita is an indicator of economic affluence and a useful proxy for a countryôs ability to absorb shocks. In addition, the level of public debt that a country can sustain tends to be positively correlated with the level of GDP per capita, in part because the economic and institutional context for borrowing tends to improve as a country moves up the income scale.

However, while GDP per capita facilitates comparative analysis, it has a number of limitations as a measure of economic strength as it does not take into account income distribution and might not provide an accurate gauge of the standard of living. Consequently, while we initially assess countries based on the level of GDP per capita, we will mark down a countryôs assessment if income inequality is relatively high (proxied by a large Gini coefficient) or if other indicators of socio-economic development (e.g. the UN human development indices for health and education) suggest that relative living standards are significantly lower than indicated by income per head.

Economic Diversification ï Countries with diversified production and export sectors are often more resilient to adverse external shocks and tend to experience more broad-based and sustainable GDP growth. When assessing a countryôs relative strength in this area, we tend to view negatively a high reliance on primary commodities or agriculture ï sectors which typically have weak international pricing power and also tend to be vulnerable to adverse weather shocks and longer-term climate change.

(c.) Long-Term Risks for Exporters of Non-Renewable Resources

Our sovereign methodology explicitly recognises hydrocarbon exporting economies to be among those most vulnerable within our ratings universe to international efforts to combat climate change and reduce carbon emissions. The intensification of such initiatives, together with related technological developments, would likely constrain or reduce demand for hydrocarbon products and weigh on real export prices.

The degree of vulnerability and risk associated with a global move towards lower carbon economies will depend on the pace of transition (and therefore the aggressiveness of the policy response to emerging environmental threats), as well as on the rated sovereignôs relative reliance on hydrocarbon revenues and the success of efforts during the transition period to diversify, de-carbonise, and reform the domestic economy.

We currently view climate-related risks for hydrocarbon exporters to be of a long-term nature and unlikely to significantly impact sovereigns in the medium term. However, we may adjust ratings downwards if our assumptions are subsequently challenged by developments ï in particular if the pace of climate mitigation policies, or secular shifts in consumption, suggest that oil demand will decline significantly in the medium-to-long term.

The above notwithstanding, since climate-related risks could potentially materialise quickly, with systemic implications, particularly for under-prepared economies, we intend to monitor more closely countriesô climate mitigation efforts and resilience to such risks. Indeed, we currently expect the

relative importance of these factors in credit rating analysis to gradually increase over the medium term and for them to eventually emerge as key rating drivers (positive as well as negative).

(d.) Information Risk

The quality and transparency of data on public and external finances tends to vary across countries and hence is often an important rating consideration. Indeed, it is widely accepted that informational deficiencies were a major factor behind the failure of many economists to accurately assess the extent of underlying imbalances in many Asian economies prior to the 1997 crisis. Moreover, the misreporting of fiscal data, once uncovered, contributed to the sharp lowering of Greeceôs sovereign ratings in 2010.

CI generally sources economic, fiscal and external accounts data from national authorities. The quality and timeliness of the data are a function of each governmentôs statistical and administrative capacities, reporting requirements, and willingness to disclose accurate and comprehensive information, particularly on the public finances. Any concerns we have about the accuracy and coverage of data may be reflected in the ratings assigned.

(e.) Reform Efficacy

As part of our assessment of sovereign creditworthiness we also consider whether recently adopted or planned reforms will help to strengthen the sovereignôs credit profile over the medium term or, conversely, whether the government is pursuing policies that are likely to contribute to a deterioration in sovereign risk or is failing to address emerging threats to creditworthiness.

In this context, for sovereigns exposed to environmental risks, policies aimed at reducing risks and improving resilience could have a positive impact o n the ratings, while failure to address material risks could weigh on the ratings.

4.2 Bank Rating Methodology and ESG Considerations

In order to assign foreign currency issuer ratings to a bank, we consider both the bankøs standalone credit profile and the likelihood of it receiving extraordinary external support from owners or the government should such assistance be required in order to avoid default. Our assessment of standalone repayment capacity is reflected in the Bank Standalone Rating (BSR), while potential extraordinary support is indicated by the External Support Level (ESL).

The BSR in turn is derived from two key analytical inputs: the Operating Environment Risk Anchor (OPERA) and the Core Financial Strength (CFS) rating.

ESG factors may be considered in the context of OPERA and CFS.

4.2.1 OPERA

OPERA encapsulates our assessment of the political, economic, institutional, and system-wide factors that may impact the standalone financial strength of a bank and is, therefore, a key element of the BSR.

To assign OPERA we consider a number of key rating factors across five analytical dimensions:

- Macroeconomic Strength
- Monetary Flexibility and Capital Market Development
- Industry Structure and Performance
- Regulatory Environment and Institutional Frameworks
- Political and Policy Risk

Macroeconomic Strength takes into account a number of key rating factors from our Sovereign Rating Methodology. These factors include some of those identified in section 4.1 (above) as ESG relevant, such as Economic Growth Performance, GDP per Capita, and Economic Diversification. The assessment of Political and Policy Risk is also derived from our sovereign methodology (see above). Consequently, if ESG considerations have shaped our assessment of these key rating factors in the context of our sovereign criteria, they will also have an impact on a bankøs ratings through OPERA.

ESG factors ï specifically governance ï also feature in our assessment of Regulatory Environment and Institutional Frameworks. This key rating factor is based on two sub-factors:

- The effectiveness of bank regulation and supervision; and
- The quality of the legal and financial infrastructure.

In the first sub-factor we consider:

- The scope and quality of prudential regulations and disclosure requirements;
- The capacity of supervisory authorities to identify institution-specific and systemic risks;
- Their ability and willingness to take timely corrective action (including independence from political influence); and
- Their track record in doing so.

The second sub-factor is highly governance focused. Besides general banking laws and regulations, the elements of a countryøs legal infrastructure that are of high importance to financial institutions include those governing creditor rights, ownership, contract enforcement, accounting, auditing and disclosure. Also important are laws and practices relating to failure resolution, particularly rules and procedures concerning insolvency, deposit insurance, and the recovery and resolution of distressed banks.

4.2.2 Core Financial Strength

CFS is based on six analytical pillars:

- Business Model and Strategy
- Ownership and Governance
- Risk Profile and Risk Mitigation
- Earnings Strength and Sustainability
- Funding and Liquidity
- Capitalisation and Leverage

In terms of ESG factors, governance has historically been the most important risk factor for the banking industry and is considered as part of the second analytical pillar.

Social and environmental factors are addressed less explicitly in our bank methodology but may be considered in the context of Business Model and Strategy and Risk Profile and Risk Mitigation. High exposure to ESG risk could also have implications for a bankôs earnings strength, capital position and funding, but for brevity we allude to the potential impact on financial fundamentals in our discussion of the business model and risk profile.

(a.) Business Model and Strategy

This part of our methodology focuses on a bankôs business model (including the nature, scope, and stability of its activities), franchise strength, and the managementôs ability to develop and execute strategic plans.

ESG factors may be relevant in cases where we expect a bankôs franchise strength or market position to be adversely affected by practices or exposures that are socially or environmentally sensitive and may therefore render it vulnerable to shifts in public opinion or public policy.

A bankôs reputation and the loyalty of its customers could be potentially tested by a number of social issues ranging from a lack of diversity and a high gender pay gap to product mis-selling and the (perceived) overcharging of retail clients. Similarly, a bank with an unfavourable ESG profile may find it increasingly challenging to raise debt and equity as more and more institutional and other investors incorporate ESG analysis into their decision-making processes.

High direct or indirect exposure to sectors at risk from climate change may pose a long-term risk to asset quality and financial strength and a more immediate strategic challenge of transitioning the business model (or at least the risk profile of the corporate loan portfolio) towards more sustainable income-generating activities.

The pace at which banks may have to reduce or eliminate ESG risks ï and adapt business models ï may accelerate with shifts in societal expectations and ESG-driven changes in laws and regulations. For example, for institutions that lend heavily to carbon intensive sectors, the adaptation challenge could become more urgent if regulators revised prudential capital rules and introduced high risk weights for existing fossil fuel exposures and set risk weights for new fossil fuel exposures at levels that would imply full equity financing of the loan.[2]

On the positive side, the financing of investments in, for example, carbon-neutral transportation, renewable energy and building energy efficiency is expected to provide significant opportunities for FIs in the coming decades and could help bolster business profiles.

[2] Although unlikely to be adopted in the near future, these measures were proposed by the NGO Finance Watch in its report ôBreaking the climate-finance doom loopõ published in June 2020.

(b.) Ownership and Governance

Corporate governance tends to be an asymmetrical rating factor. The impact of good governance on an FIôs ratings is usually neutral, in part because it cannot on its own outweigh weaknesses in an entityôs business or financial risk profile.

However, significant governance deficiencies may result in a rating being notched below the level that might otherwise have been assigned because of the high associated risks, such as poor decision making, insufficient planning, and excessive risk-taking (e.g. if the board of directors is uninformed or passive). Moreover, where governance and oversight are weak, there is greater scope for financial and other key risks to be missed by senior management and directors, or ï more nefariously ï hidden from investors and other stakeholders.

Our overall assessment of Ownership and Governance is based on four key rating factors:

- Ownership;
- Organisational structure and complexity;
- Risk management and control; and
- Accounting, disclosure and transparency.

Ownership ï The focus of this key rating factor is on identifying potential challenges and conflicts of interests arising from a bankôs ownership model and structure, including how these are mitigated and how they might affect its risk profile and financial strength.

Potentially problematic characteristics include overly complex and non-transparent ownership structures (as these can create significant challenges for management and board overview), the exercise of undue public or political influence by owners (e.g. directed lending or investments, insider and related-party transactions), as well as unrealistic or aggressive financial expectations by shareholders (which may give rise to poor strategic decision making and threaten the viability of the bankôs business model).

Organisational Structure and Complexity ï In some countries the organisational and legal structure, as well as business model of banks has become increasingly complex and opaque. This partly reflects domestic and cross-border acquisitions, but has also been driven by tax and regulatory arbitrage considerations. Unnecessary complexity makes it hard for senior management (as well as supervisory authorities and investors) to understand the organisational structure and assess the implications for the bankôs risk profile, funding, profitability, and capitalisation.

Complexity may be treated as a negative rating factor if not adequately mitigated by appropriate understanding from senior management teams (including boards) and if sufficient public transparency and disclosure is lacking.

Risk Management and Control ï A critical factor in assessing the current and prospective risk profile of a bank is the quality and adequacy of risk management and risk control. This includes the comprehensiveness of risk management and control systems, the standing and independence of the risk management function within the bank, and the strength and rigour of underwriting standards. It also includes the bankôs management of, and vulnerability to, operational risk ï including risks involving people (conduct, fraud, incompetence), system failures (breakdowns in systems or technology), and process failures (e.g. back-office problems).

In terms of conduct risk, CI assesses the relevance and significance of possible exposure to social and governance-related issues such as:

- Product mis-selling in retail and wholesale markets;
- Potential breaches of political sanctions and money-laundering legislation;
- Poorly designed distribution channels that may enable conflicts of interest with false incentives, including pushed cross-selling of products to retail customers;
- Conflicts of interest in conducting business; and
- Cases concerning the manipulation of benchmark interest rates, foreign exchange rates or any other financial instruments or indices.

As the risks associated with climate change evolve, we may also consider a bankôs approach to climate risk management, including whether it has been integrated into the bankôs more established risk management frameworks and processes and supports pre-emptive risk monitoring and mitigation (e.g. to avoid excessive exposure to climate-sensitive sectors).

Accounting, Disclosure and Transparency ï Timely, relevant and comprehensive accounting, disclosure and transparency regarding a bankôs financial condition and performance, business activities, risk profile, and risk management practices are essential for sound and effective corporate governance.

When assessing the quality of transparency and disclosure, we focus on potential weaknesses and warning indicators which may warrant further investigation. These include:

- A lack of independence, skills, experience and diversity of non-executive boards;
- A lack of quality and independence of external and internal auditors;
- Instances where external auditors have issued an adverse opinion, determining that the financial statements are materially misstated and do not conform to the relevant accounting, regulatory or legal standards;
- Aggressive interpretation of accounting standards; and
- Shortcomings regarding the timeliness, comprehensiveness, materiality and consistency of disclosures.

Where we observe deficiencies in, or have significant concerns about, the quality and integrity of the data produced by a bank, this may have a negative impact on the ratings assigned.

(c.) Risk Profile and Risk Mitigation

Our assessment of a bankôs risk profile includes consideration of its balance sheet structure, asset quality and exposure to market risk, as well as its ability to withstand credit losses in its loan book and investment portfolio without impairing its capital and earnings base. Concentration risk is an important part of this assessment as the most important vulnerabilities in the asset structure tend to arise from high exposure to individual borrowers or single sectors.

CI generally regards credit risk to be highly concentrated and a potential rating constraint when a bank has high exposure to a single issuer, industry or economic sector, or to a highly correlated set of sectors or activities, particularly if they are inherently cyclical or volatile and dependent on potentially more volatile income streams (e.g. commercial real estate, construction, subprime lending, ship financing, and airlines).

By extension, we could consider as a potentially constraining rating factor a bankôs high exposure (via lending or investment) to businesses, sectors or territories that, in our opinion, are potentially vulnerable to ESG-related risks. In the case of large exposure to carbon-intensive sectors, expected losses could potentially be high, not just because of the diminished debt-servicing capacity of the borrower, but also because the assets that form part of any loan collateral ï if carbon linked ï may become partially or fully stranded.

Determining the rating impact of climate-related risks in particular is not a straightforward exercise since such risks might not be expected to materialise until well beyond the term of a typical bankôs current loan portfolio. Consequently, these long-term risks have to be weighed against the likelihood of the bank taking timely and appropriate steps to de-risk its balance sheet from carbon-linked assets and build the capabilities needed to compete in new business segments and markets.

5. Incorporating ESG Risks into Credit Analysis: Key Challenges

The incorporation of ESG factors into credit risk analysis is complicated by a lack of data and, in the case of climate change, the long-term nature of many of the associated financial risks.

Reporting on ESG factors ï including bank disclosures of climate-related financial risks ï is relatively low in most jurisdictions. A contributing factor (and analytical challenge in its own right) is the lack of timely, consistent and reliable indicators (quantitative and qualitative) for assessing a large number of ESG risks. Indeed, in terms of environmental exposures there is no universal classification of what constitutes a sustainable activity.[3]

Given that most types of credit ratings are meant to measure relative credit risk on an internationally comparable basis, significant work still needs to be done to develop standardised data and metrics that can be used for peer group analysis.

In addition, social and governance risks are generally hard to quantify, and some significant threats to an entityôs reputation, financial performance and business viability are difficult to detect and assess before they have materialised. For example, the likelihood and impact of fraud, money laundering, sanctions violations, market manipulation, and cyber attacks (that compromise customer data) are seldom easy to evaluate ex ante.

The long-horizon nature of a number of environmental risks poses further challenges. Climate-related risks in particular are unlikely to materialise for many FIs until well beyond current credit rating horizons. At present we are unable to provide even an approximate time of impact ï it could be years or decades depending on a host of factors, including the timing and depth of policy and regulatory changes. We are also unable to assess with any degree of certainty the magnitude of such risks and their impact on credit strength.

This lack of certainty, and the fact that for many entities credit strength on a 5-10 year horizon is more likely to be driven by other key rating factors, means that the weight attached to very long-term risks by rating committees may often be relatively low.

Moreover, while for some carbon-intensive sectors climate-related risks are a current or emerging challenge, for many FIs (and sovereigns) the time to impact is sufficiently long for resilience to be built up with the implementation of appropriate mitigation and adaptation strategies, including adjustments in the composition of corporate loan portfolios.

That said, we fully expect the relative importance of such considerations to increase over the time as climate-related disclosures improve and as public policy to de-carbonise economies advances. Consequently, the weight given to the management and mitigation of environmental risks (as well as the exploitation of associated opportunities) is expected to increase steadily over the next decade or so.

[3] The EU is, however, in the process of developing a detailed classification system for sustainable activities following the adoption of framework legislation in June 2020.

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