



Climate risk in the financial statements

Executive summary

US GAAP

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Continued focus on climate risk



Voluntary sustainability reporting is giving way to mandatory reporting. The International Sustainability Standards Board and the European Union have issued standards that set the foundation for global sustainability reporting, and the SEC is expected to finalize its climate rule in the near term.

Whichever framework is applied, climate reporting is at the forefront; with metrics and narrative that provide greater visibility into a company's actions, plans and prospects. The picture those disclosures paint – and how it connects to a company's financial position and performance – is coming under increasing scrutiny.

At the same time, as emissions reduction target dates get closer and as intentions change to strategies and then to actions, the potential effects on the financial statements are becoming more apparent. The volume and ingenuity of transactions linked to emissions reductions continue to increase—with the FASB expected to issue a proposal on accounting for environmental credit programs in the coming months.

These and other emissions-related transactions are testing the application of US GAAP in cases where there might not be explicit guidance, and leaving the finance function to develop processes and controls to help it monitor the financial reporting implications of the organization's sustainability initiatives.

With the growing awareness of the implications of climate risk for the preparation of financial statements, we hope this latest edition of our US GAAP handbook will help you prepare. Ask yourself the questions that we pose, create your own checklist, and monitor your environment and circumstances.

Maura Hodge

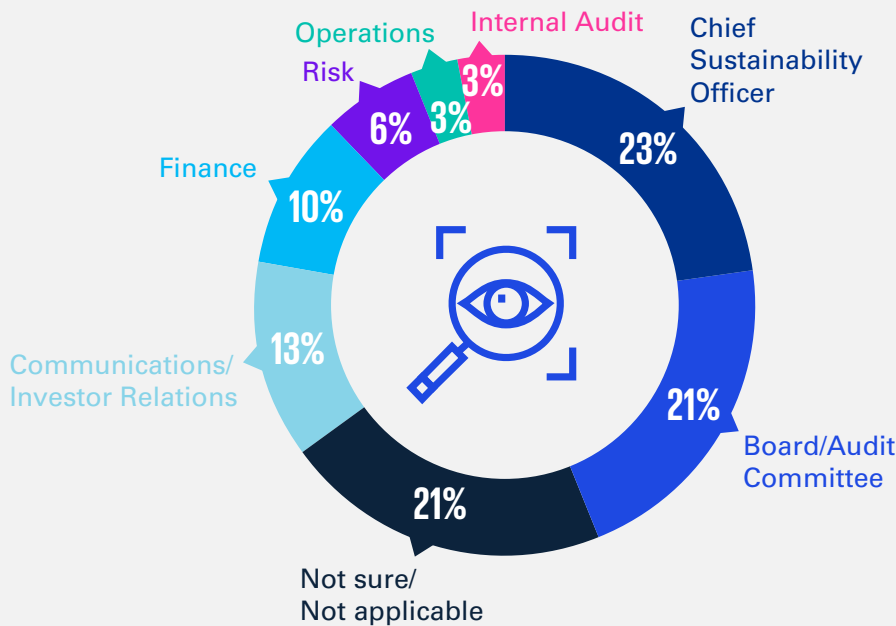
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In a KPMG survey on companies' ESG reporting efforts, we asked who was involved with the company's ESG reporting strategy.

What function has the greatest focus and input regarding your company's ESG reporting strategy?



Only 10% of respondents indicated that the finance function has the greatest focus and input; another 21% were unsure or indicated 'not applicable'.

The finance function does not need to lead, but it should have a seat at the table, and it does need to analyze and understand the connectivity between ESG reporting and financial reporting. Regardless of the SEC's final climate rule, this is clear from the [SEC staff's probing](#) of climate-related disclosures in filings.

Source: [KPMG survey on companies' ESG reporting efforts](#)

This Executive Summary is an excerpt from our in-depth guide, [Climate risk in the financial statements](#). That publication comprises a collection of issues and examples that we believe are relevant for entities thinking about the ways in which climate risk can affect their financial statements. Our intent is to stimulate your thinking about how climate risk might manifest in your financial statements. The issues highlighted in that publication are based on our experience in responding to questions about the application of US GAAP when climate risk was one of the drivers in the background. We expect these issues to evolve over time.

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About climate risk

The recommendations of the Task Force for Climate-related Financial Disclosures (TCFD) categorize climate risk as follows.

Physical risk

Effects of climate risk on the physical environment

Examples: floods, hurricanes, wildfires, drought, rising temperatures and sea levels, and weather pattern changes.

Transition risk

Risks arising from transition to a lower-carbon economy

Examples: changing customer behavior, availability of capital, stigmatization of industries, stranded assets.



High-risk industries

While the effects of climate risk are relevant to all entities, certain industries are more susceptible by their nature.

The following industries are identified as high risk in the TCFD recommendations: finance because of its central role in the economy, and the other industries by virtue of being responsible for the largest proportion of greenhouse gas emissions, energy usage and water usage.

Although industry is an indicator of risk, ultimately the nature and extent of risk to which an entity is exposed depends on numerous factors, including its business model, assets, geographical locations, services provided and supply chains.



Finance

- Banks
- Insurance companies
- Asset owners
- Asset managers



Energy

- Oil and gas
- Coal
- Electric utilities



Transportation

- Air freight
- Passenger air
- Maritime
- Rail
- Trucking
- Automobiles, components



Material and buildings

- Materials, mining
- Chemicals
- Construction materials
- Capital goods
- Real estate



Agriculture, food, forestry products

- Beverages
- Agriculture
- Packaged foods, meats
- Paper, forest products

Questions to ask

To help you formulate a view of the potential effects of climate risk on your financial statements, we ask a series of questions – first at the business level and then specific to each accounting topic.

These questions are not intended to be exhaustive. Instead, they are designed to help you create your own personal checklist that you can modify and adapt to suit the company's specific circumstances.



As a starting point to understanding the potential effects of climate risk on your financial statements, an in-depth understanding of your organization and its business environment is required.

The objective is to gain an understanding of the pressures the entity faces that may give rise to climate risk – if not now, then in the future.

These pressures are multi-dimensional.

- Internal (arising from the entity's actions) and external (arising from third-party actions).
- Domestic and foreign.
- Direct (e.g. via physical operations or a stock exchange listing) and indirect (e.g. via customers and suppliers).

The following are some general questions (not exhaustive) that look at the bigger picture and help you determine the pressure points in the business; none are determinative.

They are supplemented by more specific accounting-based questions in the sections that follow.

Big picture

QUESTION

Does the company operate in a high-risk industry?

Will the company be affected by country or jurisdictional plans to reduce emissions?

What is the company's exposure via its wider supply chain and customer base?

Has the company committed to reduce emissions? Have its competitors?

Is the company planning acquisitions and/or disposals?

What climate risk information is the company communicating outside of financial reporting?

What are investors telling the company?

What are lenders telling the company?

What can the company learn from its insurance premiums?

What pressure is the company getting from key customers?

What pressure is the company placing on key suppliers?

RELEVANCE

In general, entities in higher-risk industries are predisposed to a wider variety of risks related to climate, and the severity of any particular risk may be greater.

Exposure to country or jurisdictional actions or plans to reduce emissions results in increased likelihood of transition risk.

The ecosystem is interconnected, with each party potentially putting pressure on its suppliers to reduce emissions. As a result, every entity faces potential pressure from its customers, and may in turn put pressure on its suppliers.

While a commitment to reduce emissions may in the first instance be little more than a statement of intent, the plans and actions that follow are likely to have widespread accounting implications.

Many plans to reduce emissions are accompanied by strategic acquisitions and disposals.

In addition to a formal sustainability report, other communications that may be relevant to financial reporting include information posted on the corporate website, CDP questionnaires and social media.

Shareholder activism related to emissions reduction plans is becoming increasingly common and more successful.

Lending facilities linked to sustainability (and emissions targets and ratings) are common. Potential access to lower interest rates may provide an incentive to embark on a plan to reduce emissions, or speed the progress of an existing plan.

Insurers are at the forefront of pricing climate risk into their business models. Increasing insurance premiums may provide early warning of high-risk operations from a climate perspective.

Are key customers making inquiries as to the entity's emissions reduction plans? This may provide early warning of more direct action as customers seek to credentialize their supply chain.

In the reverse of pressure from customers, is the entity making inquiries as to the emissions reduction plans of key suppliers.

In formulating an understanding of these pressure points, not all of the information may be in the finance function. Other sources of information may include the teams covering sustainability, asset management, client relationships, sales and marketing, among others.

In addition, the entity may produce a sustainability or other impact report outside of the finance function, which may be another key source of information in understanding the pressure points.

Long-lived assets

QUESTION

Will existing assets be replaced earlier than expected (required or voluntary)?

For assets that are routinely replaced while they still have significant resale value, are market changes affecting those values?

Are market changes affecting customer sentiment?

Are assets located in areas that are becoming high risk for extreme weather events?

Are new environmental regulations requiring assets to be disposed of in a certain way, or changing the manner of disposal for assets that were already subject to regulation?

Is significant expenditure on new assets expected?

Will future expenditure have a significant software component?

ACTIONS IF 'YES'

Review the estimated useful lives of property, plant and equipment.

Review the salvage values used in calculating depreciation.

Review the useful lives of intangible assets, including the appropriateness of any that are indefinite-lived.

Understand the timing of the different accounting entries, which can be in different reporting periods: loss recognition, loss recovery, additional gains.

New asset retirement obligations may need to be recognized and existing ones may need to be remeasured.

Understand which costs are capitalized versus expensed.

The accounting for software costs is complex; understand the requirements for what costs are capitalized versus expensed.

Leases

QUESTION

Is an asset used for multiple purposes?

ACTIONS IF 'YES'

Understand how consideration of the asset's primary use may affect whether there is an identified asset.

Do leases contain rights that allow the lessor to substitute the asset?

Understand the limited circumstances in which substitution rights lead to a conclusion that there is no lease.

Has the company entered into a battery energy storage system (BESS) usage arrangement?

Understand the terms of the arrangement as a starting point to identifying whether there is a lease and, if so, whether it comprises a single or multiple separate lease components.

Lessee: Is the exercise (or non-exercise) of renewal options in leases being reconsidered?

Understand how a business decision can trigger the need to reassess or remeasure the lease term or the lease payments.

Lessee: Will modifications be negotiated with the lessor?

Understand when a modification results in the remeasurement of the lease liability and right-of-use asset versus a separate contract.

Lessee: Will leases be terminated?

Understand the accounting for termination payments.

Lessor: Will leases be modified?

Understand the accounting from the lessor's perspective, which is not aligned (conceptually or mechanically) with the lessee's accounting.

Research and development

QUESTION

Has the company communicated R&D activities as part of its net-zero strategy?

ACTIONS IF 'YES'

Understand whether the communicated activities are R&D within the scope of Subtopic 730-10.

Will costs be incurred?

Understand the types of expenditure that will be incurred, and the assets (tangible or intangible) that will be developed or acquired.

This is a starting point to analyzing which costs should be capitalized (and the subsequent timing of recognition in profit or loss) versus expensed immediately.

Has the company received funding for R&D activities, or is it funding R&D activities?

Understand the terms and conditions of the R&D funding arrangement to determine whether it is a borrowing or an obligation to perform services.

Impairment of nonfinancial assets

QUESTION

- Are industry and market conditions changing?
- Is the legal or regulatory environment changing?
- Are new competitors emerging?
- Are costs increasing?
- Is financial performance deteriorating?
- Are projects essential to the company's future strategy struggling to produce results?
- Are operations exposed to areas that are becoming high risk for extreme weather?
- Are operations being reorganized, either physically or in terms of reporting?

ACTIONS IF 'YES'

- Understand the external and internal pressure points that affect the recoverability of assets.
- Set up a process for monitoring events that might trigger the impairment testing of groups of assets or of goodwill more broadly.
- Understand the ripple effect of extreme weather events on all aspects of the entity's value chain as one of the pressure points on the entity.
- Consider whether there is a change in how goodwill or long-lived assets should be grouped for impairment testing, which may lead to a need for immediate testing.

Power purchase agreements

QUESTION

- Did the company execute a PPA?
- Does the PPA represent or contain a variable interest in the energy producer?
- Is the PPA a lease or does it contain a lease?
- Is the PPA a derivative or does it contain embedded derivatives?

ACTIONS IF 'YES'

- Understand the terms and conditions of the PPA that affect the determination of the appropriate accounting, which may be different for a physical versus a virtual PPA.
- Evaluate whether the entity holds a variable interest in the power producer, and if so determine if consolidation is required.
- Consider whether the PPA conveys the right to control the use of an identified asset for a period of time in exchange for consideration.
- If the PPA is not a lease, consider whether it contains the characteristics of a derivative.

Financial instruments

QUESTION

Will debt instruments containing an ESG feature be issued (e.g. a sustainability-linked bond?)

ACTIONS IF 'YES'

Evaluate whether the ESG feature represents an embedded derivative and, if so, whether it needs to be separated from the host contract.

Does the company provide financing to entities in industries that are susceptible to climate risk?

Climate risk may introduce idiosyncratic risk to a borrower or industry, requiring the lender to evaluate their expected credit loss methodology.

Do the company's climate-related commitments require changes to the measurement or classification of available-for-sale or held-to-maturity debt securities?

Review the measurement and classification of available-for-sale and held-to-maturity debt securities.

Available-for-sale: assess whether there has been a change in the intent to sell, or it is more likely than not that the entity will be required to sell, debt securities classified as available-for-sale.

Held-to-maturity: assess whether the intent and ability to hold securities that remain in the held-to-maturity category to maturity is in doubt.

Have the underlying investees associated with equity securities without readily determinable fair values or equity method investments experienced losses due to extreme weather events?

Consider whether investee operating losses may have impaired the value of investments.

Has the company provided guarantees to parties that are susceptible to climate risk?

Consider whether performance under guarantees is more likely, or expected losses greater.

Has climate affected the probability of forecasted transactions occurring?

Review hedging relationships to determine if they should be discontinued.

Does the company hold over-the-counter derivative instruments in which the counterparty is in an industry susceptible to climate risk?

Contingencies and insurance

QUESTION

Are new environmental regulations changing what assets require environmental remediation or the manner in which remediation is done?

Is there pending or threatened litigation or possible claims related to climate risk?

Are operations exposed to areas that are becoming high risk for extreme weather events?

Is insurance coverage changing?

ACTIONS IF 'YES'

Consider whether new environmental remediation liabilities need to be recognized or existing ones remeasured.

Consider whether accrual and/or disclosure related to pending or threatened litigation, actual or possible claims or assessments is required or whether existing accruals need to be remeasured.

Understand the timing of the different accounting entries, which can be in different reporting periods: loss recognition, loss recovery, additional gains.

Understand the implications for financial performance if losses are becoming more likely with shrinking insurance recoveries.

Revenue and inventories

QUESTION

Do revenue contracts include emissions reduction targets?

Are customers seeking to negotiate modified (or even terminate) contracts?

Is climate risk affecting the selling price of inventories?

Is climate risk affecting the cost of materials used in production?

Is climate risk affecting the availability of materials used in production?

Are production facilities located in areas that are becoming high risk for extreme weather events?

ACTIONS IF 'YES'

Understand the implications for revenue recognition.

Understand when a modification results in an adjustment to revenue recognized under the current contract (current period or prospective) versus a separate contract.

Review the net realizable (or market) value of inventories.

Reassess what is considered 'normal' operating capacity in allocating overhead to inventory.

Understand the accounting for 'normal' versus 'abnormal' inventory costs.

Compensation and benefits

QUESTION

Will emissions reduction targets be included in stock option awards?

Is vesting of an award linked to a sustainability target (e.g. scope 3 emissions reduction)?

Will emissions reduction targets be included in other compensation arrangements?

Will emissions reduction plans result in employees being terminated?

Will voluntary terminations be offered?

Will an arrangement for ongoing termination benefits be set up for longer term use as the company carries out its strategy?

Will a restructuring result in a one-time arrangement under which employees will be involuntarily terminated?

ACTIONS IF 'YES'

Understand the implications for the recognition of compensation.

Analyze whether the vesting condition meets the definition of a performance condition and consequently whether the award is equity-classified.

Understand the implications for the recognition of compensation.

Understand the different types of termination benefits, which have different accounting requirements.

Understand the timing of liability recognition, which is based on 'acceptance'.

Understand the timing of liability recognition, which is based on 'probability of entitlement'.

Understand the timing of liability recognition, which is based on 'communication' date.

Income taxes and related incentives

QUESTION

Are industry and market conditions changing?

Is the legal or regulatory environment changing?

Are new competitors emerging?

Are costs increasing?

Is financial performance deteriorating?

Are projects essential to the company's future strategy struggling to produce results?

Are operations exposed to areas that are becoming high risk for extreme weather events?

Are tax laws changing in jurisdictions in which the company operates?

Will the company enter into transactions that qualify for tax credits?

ACTIONS IF 'YES'

Understand the external and internal pressure points that affect the recoverability of deferred tax assets.

If a process is set up for monitoring events that might trigger the impairment testing of groups of assets or of goodwill more broadly, that same process can be used to help assess valuation allowances.

Understand the timing of accounting for the effects of changes in tax law or tax rates.

Understand the nature of the various credits to be received as a starting point to determining the appropriate accounting.

Carbon credits

QUESTION

Do the company's sustainability communications refer to the use of carbon credits in reducing emissions?

Has the company purchased carbon credits on a stand-alone basis, or are they linked to or embedded in other acquisition transactions?

Is the company selling or retiring carbon credits as part of revenue transactions, or otherwise advertising low-carbon attributes in goods or services being sold?

ACTIONS IF 'YES'

Understand the terms and conditions of the arrangement(s) being referred to in communications, which are often written without involvement of the finance function.

Understand how the arrangement(s) works, and whether the carbon credits are linked to or embedded with other goods or services in the contract(s). This is a starting point to determining the appropriate accounting.

Acquisitions and restructuring

QUESTION

Do contracts to acquire businesses include consideration that is contingent on emissions reduction targets?

Will operations be restructured?

Will the company dispose of assets as part of its strategy?

Will the disposals represent a significant change in operations?

ACTIONS IF 'YES'

Understand the accounting for contingent consideration, as part of the acquisition accounting and subsequently.

Understand how to account for the cost of exit activities, including terminating contracts.

Assess the criteria for classifying assets (disposal groups) as held-for-sale, and understand the related measurement.

Assess whether a (planned) disposal rises to the level of a discontinued operation.

Fair value measurement and projections

QUESTION

Are any assets measured at fair value?

Are any liabilities measured at fair value?

Are different approach(es) used to measure fair value?

Has climate risk been considered in measuring fair value using the income approach?

Is climate risk a factor in assessing the recoverability of long-lived assets?

ACTIONS IF 'YES'

Prepare an inventory of assets measured at fair value.

Prepare an inventory of liabilities measured at fair value.

Map the inventory of assets and liabilities measured at fair value to the approaches used.

Review the key assumptions in measuring fair value.

Review the key assumptions in estimating the recoverability of long-lived assets.

Presentation and disclosure

QUESTION

Do conditions and events related to climate risk raise substantial doubt about the company's ability to continue as a going concern?

ACTIONS IF 'YES'

Understand the steps required in management's assessment of whether it is probable the entity will be unable to meet its obligations over a period of one year from the date the entity's financial statements are issued (or available to be issued).

Are operations being reorganized, either physically or in terms of reporting?

Consider whether there is a change in operating segments or reportable segments.

Does the company have climate-related contingencies that do not meet the criteria to be recognized?

Assess the disclosures being made, particularly in light of SEC staff concerns about the robustness of disclosures.

Is the company subject to climate-related risks and uncertainties that could affect estimates in the financial statements in the near term?

Assess the quality of the disclosures being made.

Does the company have significant concentrations (e.g. through its supply chain or customer base) that create exposure as a result of climate risk?

Has the company made purchase commitments as a result of its emissions reduction strategy that require disclosure?

Assess purchase contracts and determine if they fall in the scope of disclosures for commitments.

Has the company received government assistance to support any of its climate-related actions?

Assess whether the disclosure requirements of Topic 832 (government assistance disclosures) apply.

KPMG resources

Use our resources to learn more about sustainability, what it means for you, and how we can help.



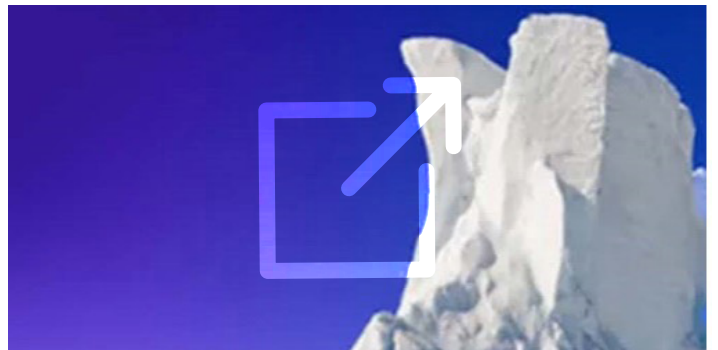
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Read the in-depth guide of which this Executive Summary is an excerpt



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