



Welcome to your CDP Climate Change Questionnaire 2019

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

UBS provides financial advice and solutions to wealthy, institutional and corporate clients worldwide, as well as private clients in Switzerland. The operational structure of the Group is comprised of our Corporate Center and business divisions:

- Global Wealth Management
- Personal & Corporate Banking
- Asset Management and the
- Investment Bank

UBS' strategy builds on the strengths of all of its businesses and focuses its efforts on areas in which it excels, while seeking to capitalize on the compelling growth prospects in the businesses and regions in which it operates, in order to generate attractive and sustainable returns for its shareholders. All of its businesses are capital-efficient and benefit from a strong competitive position in their targeted markets. Headquartered in Zurich, Switzerland, UBS is present in all major financial centers worldwide. It has offices in 54 countries, with about 34% of its employees working in the Americas, 35% in Switzerland, 18% in the rest of Europe, the Middle East and Africa and 13% in Asia Pacific. UBS Group AG employs approximately 60,000 people around the world. UBS Group AG is the holding company of the UBS Group. Under Swiss company law, UBS Group AG is organized as an Aktiengesellschaft, a corporation that has issued shares of common stock to investors.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

Start date	End date	Indicate if you are providing emissions data for past reporting years
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Row 1	January 1, 2018	December 31, 2018	No
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C0.3

(C0.3) Select the countries/regions for which you will be supplying data.

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board Chair	Our climate strategy is overseen by UBS Group AG's Corporate Culture and Responsibility Committee (CCRC), a Board of Directors committee chaired by the Board Chair of UBS Group AG. The committees, chaired by the Board Chair, also consist of three additional board members. The responsibility of the CCRC for the climate strategy is embedded in its mandate in the Organization Regulations of UBS. The UBS in society organization coordinates activities in climate-related topics for UBS. The CCRC is the firm's highest governance body for UBS in society. The head UBS in society is a permanent guest of the CCRC as is UBS's Group CEO.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Setting performance objectives Monitoring implementation and performance of objectives	Our climate strategy is overseen by the Corporate Culture and Responsibility Committee (CCRC) as part of the UBS in society governance. This oversight role of the CCRC is embedded in the Organization Regulations of UBS. Within the parameters set by the CCRC, climate-related opportunities are overseen by the UBS in society Operating Committee, and climate change risks by the Global Environmental and Social Risk (ESR) Committee. In 2018, climate-related risks were also for the first time discussed by a joint meeting of UBS Group AG's BoD's CCRC and

	Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<p>Risk Committee.</p> <p>The CCRC regularly and critically reviews the assessments and steps taken by these management bodies towards executing the climate change strategy. It approves UBS’s annual climate strategy objectives and plans and decides on the progressive alignment of our climate strategy disclosure pathway, with TCFD’s recommendations. The CCRC supports the Board in its duties to safeguard and advance the Group’s reputation for responsible and sustainable conduct. It reviews and guides UBS in society’s overall strategy and annual objectives, reviews that the UBS in society constitutional document is relevant and up to date, and oversees the program’s annual management review.</p>
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C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Chief Risks Officer (CRO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

- Climate change is one of the most significant challenges of our time. The world’s key environmental and social challenges – such as population growth, energy security, loss of biodiversity and access to drinking water and food – are all closely intertwined with climate change. We believe the transition to a low-carbon economy is vital and we are focused on supporting our clients in

preparing for success in an increasingly carbon-constrained world. We are determined to understand the risks that our clients', and our own, assets are exposed to in the context of uncertain policy and technology developments. We support this transition through our comprehensive climate change strategy.

- **Because UBS recognizes the significance of the challenges presented by climate change, below-board level responsibility for climate change issues are given to highest levels of leadership under the board: UBS Group CEO through leadership of the UBS in society organization and Group CRO through leadership for climate-related risks.**
 - UBS in society is the firm's dedicated Group-wide organization within the firm, focused on maximizing our positive effect and minimizing any negative effects UBS has on society and the environment. It covers topics such as sustainable and impact investing, client philanthropy, environmental and human rights policies governing client and supplier relationships, and our community investment. Through UBS in society, UBS is driving change that matters by using our firm's expertise to bring about sustainable performance. The Group CEO proposes the UBS in society strategy and annual objectives to the Corporate Culture and Responsibility Committee (CCRC, Board of Directors level committee), supervises their execution, and informs the CCRC and Group Executive Board (GEB).
 - The Head UBS in Society is UBS's senior level representative for environmental and sustainability issues. He or she is nominated by the Group CEO, chairs UBS in Society Operating Committee, is a member of the Global Environmental Social Risk Committee, and is a permanent guest to the CCRC. On behalf of the Group CEO, he or she develops the UBS in society strategy, leads in its execution, and submits annual objectives to the CEO, as well as, a management review to the CCRC. He or she is supported by the UBS in society Executive Committee (EC) in this effort.
 - The UBS in society Operating Committee (OC) ensures execution of UBS in society strategy across divisions and regions. The Committee is chaired by the Head UBS in society and is composed of divisional, APAC, and Group COO EC members, as well as, UBS in society EC members. OC members are nominated by their respective GEB members and/or the Head of UBS in society, and ensure plan and objective sign off by them.
 - Chaired by the Group Chief Risk Officer (CRO), the Global Environmental & Social Risk Committee defines an environmental and social risk (ESR) framework and independent controls that align UBS's ESR appetite with that of UBS in society. These include climate-change risks.
 - The Global Environmental & Social Risk Committee defines an ESR framework and independent controls that align UBS's environmental and social risk appetite with that of UBS in society. The CRO is responsible for the development and implementation of principles and appropriate independent control frameworks for environmental and social risks within UBS. The Committee and CRO are updated quarterly.
 - All corporate responsibility and sustainability developments at UBS are monitored and reviewed by the UBS Corporate Culture and Responsibility Committee, a Board of Director's committee. The Committee supports the Board in its duties to safeguard and advance UBS's reputation for responsible corporate conduct. In this capacity it reviews and monitors the implementation of UBS's ESR framework.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Who is entitled to benefit from these incentives?

Board Chair

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

Of the Board of Directors committees, the Corporate Culture and Responsibility Committee (CCRC) shoulders the main undertaking for corporate responsibility & sustainability, including our firm's climate change strategy and all its aspects. The CCRC and its members as a group, are expected to:

- commit such time to the role as may be necessary for the proper discharge of their duties (an indication of the time expected for this purpose is set out in each of the CCRC members' letter of appointment; and
- have good knowledge of corporate responsibility and relevant political issues and such other experiences in order to perform their duties. The CCRC's chairman (=board chair) is expected to have good knowledge of the Committee's area of responsibility together with experiences that

the Board considers desirable in the context of that committee's work. This is in addition to establishing and maintaining a close working relationship with the Group CEO and other GEB members, and providing advice and support when appropriate. The share component of the compensation (blocked for distribution for four years) ensures that the Chairman's pay is aligned with the longer-term performance of the firm. Additional information and compensation details of the Chairman of BoD is available in the 2018 compensation for the Board of Directors' section of UBS 2018 Annual Report

Who is entitled to benefit from these incentives?

Chief Executive Officer (CEO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

UBS in society objectives, which include climate change objectives, are set for all relevant levels of the firm, including group CEO. Execution of these objectives is evaluated through annual performance appraisals that impact compensation.

KPIs and objectives for UBS in society include, e.g. meeting our emission reduction objective (75% CO2 reduction by 2020 on 2004 level) or pushing closer towards our impact investing objective (have USD 5 billion of client assets invested into new impact investments by the end of 2021, which encompasses climate-change related impact investments) and are factored into objectives and compensation.

Who is entitled to benefit from these incentives?

Corporate executive team

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

At the executive level, the UBS in society Operating Committee oversees the implementation of UBS in society Constitutional Document, which encompass Climate Change objectives. The committee is chaired by the Head of UBS in society (who reports to the Group CEO). It consists of divisional and regional executive committee representatives, among others. The committee focuses on implementing the UBS in society agenda across the entire firm. Execution of these objectives is evaluated through annual performance appraisals that impact compensation.

Targets and performance indicators include, e.g. meeting our emission reduction objective (75% CO2 reduction by 2020 on 2004 level) or pushing closer towards our impact investing objective (have USD 5 billion of client assets invested into new impact investments by the end of 2021, which encompasses climate-change related impact investments) and are factored into objectives and compensation.

Who is entitled to benefit from these incentives?

Energy manager

Types of incentives

Monetary reward

Activity incentivized

Energy reduction target

Comment

Energy saving is part of the overall CO2 emission reduction strategy (75% CO2 reduction by 2020 on 2004 level) and is factored into targets and compensation.

Who is entitled to benefit from these incentives?

Environment/Sustainability manager

Types of incentives

Monetary reward

Activity incentivized

Energy reduction project

Comment

Environmental managers contribute to the UBS climate change strategy to reduce emissions by 75% by 2020 on 2004 baseline. Meeting their individual annual targets within their area contributing to the overall target is factored into compensation/ bonus.

Who is entitled to benefit from these incentives?

Facilities manager

Types of incentives

Monetary reward

Activity incentivized

Energy reduction target

Comment

Facility managers directly contribute to the UBS CO2 emission reduction strategy. Meeting their individual annual reduction targets within their area is factored into their compensation/ bonus.

Who is entitled to benefit from these incentives?

Risk manager

Types of incentives

Monetary reward

Activity incentivized

Behavior change related indicator

Comment

Environmental and social risk managers to integrate and assess climate change risks for the bank which is part of their annual objectives and factored into compensation.

Who is entitled to benefit from these incentives?

Business unit manager

Types of incentives

Monetary reward

Activity incentivized

Behavior change related indicator

Comment

Performance indicators for business teams include sales / success of sustainable products (e.g. SRI products, SRI and climate change related research) which is factored into individual targets and compensation.

Who is entitled to benefit from these incentives?

Public affairs manager

Types of incentives

Monetary reward

Activity incentivized

Behavior change related indicator

Comment

Communicating about climate change risks and opportunities for the bank is part of annual objectives and factored into compensation (e.g. disclosure according to GRI comprehensive standard).

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	3	To align with our Risk and Opportunities disclosure in 2.3a and 2.4a we included "Current" in the short-term here.
Medium-term	3	6	
Long-term	6	40	We also analyze longer timelines over 40 years in our scenario analyses that look at risks at and past the year 2060, and till 2100 (= Paris Agreement objective year).

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	<p>We identify, assess, and manage climate change risks and opportunities via our certified Environmental Management System (EMS) and we monitor implementation on an ongoing basis.</p> <p>Climate change developments require regular and critical assessment of our policies and practices, based on an accurate monitoring and analysis of societal topics of potential relevance to UBS. This process is the responsibility of a committee at Group Executive Board-level, the Global Environmental and Social Risk Committee (GESRC), which sets the overall risk appetite for the firm and resolves transactional and policy matters relating to environmental and social risks and their associated reputation risks.</p> <p>It is chaired by the Group Chief Risk Officer, who is responsible for independent control frameworks for environmental and social risks within UBS.</p> <p>The GESRC meets between 3 and 4 times annually, when it reviews ongoing risk monitoring and assessment reports.</p>

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Climate change (CC) risks and opportunities are identified and assessed on company and on asset (products and services, client portfolios, etc.) level across the principles of "how we do business" and "how we support clients" and through the UBS in society organization and policy. Banking activities and in-house operations must be conducted in compliance with this policy, where CC risks are further identified

on the operational level. All types of material risks and opportunities are in-scope (including regulatory, customer behavior changes, reputational and weather-related).

- **On company level:** Cross-divisional teams, led by Environmental and Social Risk Unit, identify where and if CC has a material impact on UBS AG as a global firm, by conducting scenario-based stress testing on UBS AG group-wide financial exposure (balance sheet) to estimate our firm's vulnerability to climate change risks.
- **Substantive impact is defined** as whether any impact from CC on UBS has to be of concern for our shareholders or clients or, in other words, whether CC is a "factor that would make an investment in [UBS] speculative or risky" (as described by the US Securities and Exchange Commission Guidance Regarding Disclosure Related to CC; Final Rule, p. 6294). In this sense, we currently do not see that CC has a material impact on UBS as a whole.
 - How: To better understand climate change impact on the financial sector and on UBS as a whole **we conduct scenario-based stress testing and other forward-looking analyses**, based on UBS financial exposure to climate-related risks. UBS has conducted such tests in various forms, since 2014.♣
 - We engage in international efforts and collaborate to develop better methodologies to conduct such analyses going forward, specifically for carbon and physical risk assessments.
 - For example, 38 banks, including UBS and the UNEP FI have partnered again, to collaboratively develop tools that will help banks disclose their exposures to climate risks and opportunities as envisioned by the TCFD and further refining scenario-based stress-testing methodologies. These efforts are led by our cross-divisional teams within the Risk Control organization, and led by the Environmental and Social Risk Unit and presented to both the Global ESR Committee (GESRC) and the CCRC (BoD committee). ♣
 - As UBS plans to further align our disclosure within the five-year pathway outlined by the TCFD, we will continue to better understand if and how CC may impact UBS as a whole.
- **On an asset level:** We seek to protect our clients', and our own, assets from climate change risks, within our sphere of influence. We are determined to understand the risks that our clients', and our own, assets are exposed to in the context of uncertain policy and technology developments addressing climate change.
- **Substantive financial impact risks** are those rated highly frequent and/or highly severe, as individually reviewed and rated through this assessment: We prioritize and substantiate the materiality of risks and opportunities by focusing on the impact of climate change and on our exposure to the risk, considering factors such as the product, service, client base, etc. The process to prioritize environmental/CC risks and opportunities is defined within our environmental management system (EMS). Each business division assesses and rates the potential for risks/ opportunities arising in the products and services offered according to a step-by-step procedure of evaluation and ranking, review and approval, and documentation.
 - On a quarterly basis, internal environmental experts identify emerging climate risks and UBS exposure to these risks through **systematic monitoring of news, stakeholder expectations (investors, shareholders, current and emerging regulation, NGOs,**



- etc.), climate change science (e.g. scenario analysis,)** and other climate-related societal challenges. Reviews are also presented the GESRC for assessment and potential decision on mitigating action(s).
- On an annual basis Environmental and Social Risk Unit coordinates a **systematic materiality assessment in accordance with the ISO 14 001 standard (assured)** and report of all business divisions and all products and services within the divisions, to assess if and where products may have an impact on the climate (and/or environment) and/or pose a risk (financial, reputational, etc.) to UBS .
 - Operationally, our standard risk, compliance and operations processes involve procedures and tools for identifying, assessing and monitoring environmental and social risks. These include **client onboarding, transaction due diligence, product development and investment decision processes, own operations, supply chain management and portfolio reviews**. These processes are geared toward identifying clients, transactions or suppliers potentially in breach of our standards or otherwise subject to significant environmental and human rights controversies, including climate change.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>As a public bank, with corporate clients who rely on the bank to finance their activities in a range of sectors, UBS is both directly and indirectly exposure to climate change regulation both designed to constrain the impacts of climate change and promote adaptive response to climate change impacts.</p> <p>UBS routinely assesses impact of current regulation directly on UBS operations and indirectly through regulation in sectors where UBS has clients and therefore is exposed. Assessments are conducted annually through UBS environmental management system (EMS). Additionally, regulation are assessed for impacts through quarterly monitoring.</p> <p>For example,in the UK, UBS is directly impacted by the Prudential Regulatory Authority Supervisory Statement (SS 3/19), calling for banks to adopt a strategic response to climate change and its financial impacts. The regulation is aimed at increasing resiliency of the financial system to both the physical and transition risks related to climate change. UBS has assessed this regulation, which asks for enhanced governance, risk management, scenario analysis, and disclosure of climate-related financial risks and has engaged with the PRA towards filing a response plan in 2019.</p>
Emerging	Relevant,	As a public bank with corporate clients who rely on the bank to finance their activities in a range of sectors, UBS is both

regulation	always included	<p>directly and indirectly exposure to climate change regulation both designed to constrain the impacts of climate change and promote adaptive response to climate change impacts.</p> <p>UBS routinely identifies and assesses risks from emerging regulation risks, through its environmental management system (EMS) with ongoing monitoring of regulatory developments coordinated through experts within individual business units and the Environmental Social Risk Unit, with quarterly updates to the Global ESR Committee.</p> <p>For example, in the EU the European Commission Action Plan (recently published) recommends a series of regulatory responses within the EU in response to growing climate risks. These include, for example, codifying the TCFD recommendations for mandatory reporting by banks, and developing a green and brown supporting factor in the capital adequacy requirements of banks (as governed by banking regulators). UBS Environmental and Social Risk Unit identified this emerging regulation through news monitoring and industry engagement. Once identified, the risk was assessed in partnership with UBS Group Governmental Affairs unit. The assessment analyzed the impact of the proposed regulations on UBS business and climate strategy and the assessment then was presented to the Global ESR Committee for action.</p>
Technology	Relevant, sometimes included	<p>As a bank exposed to corporate clients in various sectors, which may be exposed to technology risks which alter the competitive landscape of the sector, UBS is directly and indirectly exposed to technology risks.</p> <p>UBS evaluates the impact of such technological shifts when relevant, notably through scenario analysis efforts. Technology risks, such as the rise of electric vehicle/battery technologies in the automotive sector or energy storage technology advancement impacts on the power utility sectors, are analyzed by UBS, based on the makeup (quality of names) in our own portfolio.</p> <p>For example, in our efforts to align with the TCFD recommendations, UBS is partnering with 38 banks and the greater Integrated Assessment Modeling community (e.g. scientific partners Potsdam Institute for Climate Impact Research and the International Institute for Applied Systems Analysis) to translate 2 and 1.5 degree climate scenarios, which contain technology risk factors, into impacts in specific sectors and subsequently impacts on bank balance sheets (loan books in such sectors). Results will be summarized and communicated to senior management. This effort was piloted in 2018, with a smaller group of 16 banks, where UBS analyzed impacts of renewable energy technologies growing market share on our power utilities lending portfolio.</p>

<p>Legal</p>	<p>Relevant, sometimes included</p>	<p>UBS has a legal fiduciary responsibility in its role as an underwriter of public debt and equity, to ensure that all material risks are disclosed in offering documents of the financial instruments.</p> <p>As a bank exposed to clients in various sectors, some (like energy) which carry higher exposure to carbon-related assets and therefore transition risks, UBS plays such an underwriting role of new public debt and equity issuances. These issuances are required to contain faithful disclosures of all material risks, like transition risks (where material).</p> <p>UBS assesses this risk when conducting transactional due diligence. Specifically, trained environmental experts identify if there are material climate-related risks. If such risks are identified in the course reviewing a new public debt or equity issuance, a recommendation is made to the client to include disclosures of the risk and any related mitigants in the offering prospectus of the financial instrument.</p> <p>For example, when underwriting new stock or bond equity issuances for companies with a high reliance on coal-fired power generation, UBS experiences legal risks when and if we do not fulfill our fiduciary duties as an advisor and underwriter by failing to advise our clients to disclose the risk of coal reliance in e.g. countries that are seeking to completely phase out coal-fired power generation (e.g. the UK has a target date of 2025 to phase-out coal power plants completely) and related mitigants (like a forward-looking strategy of the company with respect to coal reliance).</p> <p>In addition, as an Asset Manager, UBS also has a fiduciary duty to clients (to protect clients from risks to their investments, including climate-related risks) as UBS is not a pure traders but active owners. This duty in AM would extend then to influence the transition to a low carbon economy</p> <p>Here, UBS has both developed a fund (the Climate Aware Fund) to help protect clients from climate-related transition risks. The fund uses a unique methodology to identify investees aligned with global warming objectives. Where investees are misaligned, UBS pursues an engagement approach with the investee company to bring the company in alignment. These are further detailed in 2.4a, Opportunity 2.</p>
<p>Market</p>	<p>Relevant, sometimes included</p>	<p>As a bank exposed to corporate clients in various sectors, including raw materials, clients may be exposed to market risks to their goods, commodities, or other products and services. Where clients have exposure to such shifts, UBS is also indirectly exposed to these market risks through our clients and strategy.</p>

		<p>UBS manages this risk through both ongoing monitoring of market developments in key markets (e.g. energy or palm oil production), with quarterly assessments of materiality and/or reporting to the Global ESR Committee. UBS also regularly reviews sensitive sectors and activities prone to bearing environmental and social risks. We assess client exposure and revenue in such sectors and attempt to benchmark the portfolio quality against regional and or sector averages.</p> <p>Such portfolio reviews give us an accurate aggregated exposure profile and an enhanced insight into our transaction and client onboarding processes. Based on the outcome of these reviews, we can explore ways to improve the future portfolio profile along a range of risk parameters.</p> <p>For example, in the palm oil sector, UBS review of market developments in the sector found that demand for products developed in accordance with the 'No Deforestation, No Peat and No Exploitation' (NDPE), which is increasingly being adopted in the palm oil sector. As a result, the Global ESR Committee took action, and UBS has adopted the standard in its banking practices with clients in the sector.</p>
<p>Reputation</p>	<p>Relevant, always included</p>	<p>Reputation is one of UBS' most valuable assets, key to the success of a global financial firm and to its brand. The firm's Code of Conduct & Ethics underscores the vital importance of protecting and advancing UBS' reputation (and also makes explicit reference to UBS' "constantly looking for better ways to do business in an environmentally sound and socially responsible manner").</p> <p>Climate change (CC) involves certain reputational risks if not properly addressed, notably through negative stakeholder perceptions of UBS. More concretely, UBS' approach to CC directly affects whether or not, respectively at which level, UBS is listed in indices and ratings related to Environmental, Social and Governance (ESG) topics, how the firm is viewed by rating & research agencies in general, and whether UBS remains a credible investment for those investors sensitive to sustainability issues. Input on our UBS and Society strategy and activities (incl. CC) are regularly sought from employees, including via a large, internal UBS and Society Forum of employees from across all business regions and business divisions. Our approach to society and the environment is guided by our understanding of the concerns of our diverse stakeholders. The Corporate Culture and Responsibility Committee therefore regularly reviews stakeholder expectations and concerns about these areas, including CC.</p>

		<p>We regularly engage with a wide range of stakeholders and many significant external organizations via a range of means of exchange, (incl. significant meetings such as UBS' AGM at which topics like CC are regularly addressed). In 2017 we conducted a survey, which was completed by nearly 1,600 stakeholders (with clients making up nearly half of this amount). We also included a question on the SDGs in the survey. Stakeholders were asked which SDGs UBS should contribute most to, and the most frequent response was quality education, followed by climate action.</p> <p>In 2018 UBS continued to face reputational risks, in the context of Climate Change, specifically around stakeholders criticizing banks, incl. UBS, for providing finance to companies active in the production and burning of fossil fuels such as coal. At the same time, UBS' climate action can also create positive reputational impact, as demonstrated by the firm being rated second-best in investor organization ShareAction's December 2017 report.</p>
Acute physical	Relevant, sometimes included	<p>More frequent extreme weather conditions (Typhoons, Hurricanes) may have an adverse impact on UBS locations. This may increase the need for higher insurance coverage and lead to increased costs for UBS. Additionally, the combination of such factors are exacerbated by climate change (severity and intensity) continue to be an increasing threat to UBS production and continuity of business.</p> <p>Business Continuity Management, within UBS, established to manage these risks and is particularly important in key areas where concentration of knowledge, revenues, product delivery, premises, systems and infrastructure creates a high level of risk to the organization. Critical locations get an annual Threat and Vulnerability Assessment (TVA) to identify such threats based on relative severity and likelihood. The output of the key risks and their mitigation status is reviewed annually and documented in the "Location Risk Profile" to ensure that we address specific risk such as extreme weather events for all global critical locations. We have business continuity (BC) plans in place covering people, processes and technology. These are tested on a regular basis for survival and business critical activities.</p>
Chronic physical	Relevant, sometimes included	<p>As a global bank exposed to corporate clients around the world, UBS is both directly and indirectly exposed to the impacts incremental climate change. Incremental changes in climate (such as rising temperatures and changes in precipitation patterns) can affect economic output and productivity, and exacerbate other weather events that can lead to damage, operational downtime and lost production for fixed assets, and potential changes to property value. Incremental changes have the potential to gradually erode the financial performance of entire borrower segments. Insofar as we are exposed to these businesses in investment or loan portfolios this may affect our assets. This may have a devaluating effect on the assets we hold in our portfolio (lending portfolio and securities we hold).</p>

		<p>In order to manage our own (direct to UBS), and our clients', risk (indirect to UBS) derived from physical risks associated with incremental climate change, we have previously performed top-down stress tests (modeled on increased frequency of extreme weather events, affected by incremental climate change), and in 2018, we jointly (with UNEP-FI and 16 other banks) developed a methodology for a physical climate risk assessment. The methodology examines risks from incremental (e.g. increasing temperatures) climate change on our loan portfolio. We piloted the effort on our utilities portfolio and published a subsequent case study in a joint report in 2018 and plan to expand on the methodology in another collaborative project in 2019.</p>
Upstream	Relevant, always included	<p>Upstream risks are defined as climate-related risks embedded in UBS supply chain operations.</p> <p>Regulatory, legal, reputational, and physical risks are which are included in UBS ongoing risk assessments with mitigating policy decisions taken at the senior committee level. Policies are then embedded in the UBS Responsible Supply Chain Management (RSCM) framework (operational assessment implementation).</p> <p>The RSCM framework includes an impact assessment of newly sourced goods and services, which takes into account potential environmental/climate impacts along the lifecycle of a product or a service, and all purchased goods and services are categorized accordingly. Suppliers of potentially high-impact goods or services, are requested to conduct a self-assessment on their responsible management practices and to provide corresponding evidence.</p> <p>UBS applies the RSCM framework: incl. environmental criteria for the procurement of goods and services. UBS sourcing and procurement is done by Chain IQ, which performs supplier due diligence and establishes remediation measures, supported by experts within UBS. Evaluation of energy efficiency and carbon emissions are included in the RSCM background checks. in 2018 remediation measures were requested for 27% of 224 suppliers of newly-sourced goods or services with potentially high impacts to improve their adherence to our RSCM framework, which includes energy efficiency standards.</p>
Downstream	Relevant, always included	<p>Notably, UBS is exposed to downstream risks through stakeholder perception/reputational risks of UBS responsible management of climate-related issues. Additionally, UBS financing of carbon-intensive industry further exposes UBS to downstream reputational concerns. Reputation is one of UBS' most valuable assets, key to the success of a global financial firm and to its brand. The firm's Code of Business Conduct & Ethics underscores the vital importance of protecting and advancing UBS' reputation (and also makes explicit reference to UBS' environmental commitment). Climate</p>

		<p>change (CC) involves certain reputational risks if not properly addressed, notably through negative stakeholder perceptions of UBS. More concretely, UBS' approach to CC directly affects whether or not UBS is listed in indices and ratings related to Environmental, Social and Governance (ESG) topics, how the firm is viewed by rating & research agencies in general, and whether UBS remains a credible investment for those investors sensitive to sustainability/ESG issues.</p> <p>Our approach to corporate responsibility (CR) is guided by our understanding of the expectations and concerns of our diverse stakeholders (investors, shareholders, NGOs). This requires regular and multi-faceted interactions with stakeholders via a range of means of exchange, (incl. significant meetings such as UBS' AGM at which topics like CC are regularly addressed).</p> <p>For example, In 2018 UBS continued to face reputational risks, in the context of Climate Change, specifically around stakeholders criticizing banks, incl. UBS, for providing finance to companies active in the production and burning of fossil fuels such as coal and was approached by investor organization ShareAction (representing ~\$2 Trillion in assets under management) on the topic.</p>
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C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Our commitment is implemented through a firm-wide management system steered by defined measurable objectives. Their achievement is reviewed on a semi-annual basis by the Head of UBS in society, and on an annual basis by the Corporate Culture and Responsibility Committee (CCRC), a Board of Directors (BoD) committee.

- As outlined in the UBS and Society Policy, UBS manages climate change risks and opportunities Within the parameters set by the CCRC, climate-related opportunities are overseen by the UBS and Society Operating Committee, and climate change risks by the Global Environmental and Social Risk (GESRC) Committee. The CCRC regularly and critically reviews the assessments and steps taken by these management bodies towards executing the climate change strategy. It approves UBS's annual climate change objectives and plans and decides on the progressive alignment of our climate change disclosure pathway, with TCFD's recommendations. These annual objectives and plans are managed as part of our ISO 14001 certified environmental management system (EMS) with defined management accountabilities across the firm.

- The EMS helps us to systematically reduce environmental risks, seize climate change / environment-related market opportunities and to continuously improve UBS's climate change / environmental performance and resource efficiencies and is established according to the ISO14001 standard and codified in the UBS ISO14001 manual. This certificate attests that UBS's management system is an appropriate tool for evaluating compliance with the relevant environmental regulations, achieving self-defined environmental objectives, and maintaining continual improvement of environmental performance.
- The EMS, structured in an annual cycle consisting of planning, implementation, controlling and review including corrective actions, applies world-wide to all transactions, services and activities involving CC/environmental issues entered into by or on behalf of UBS, with quarterly monitoring and reporting to the Global ESR Committee. Banking activities and in-house operations must be conducted in compliance with this policy. All types of material risks and opportunities are in-scope (including regulatory, customer behavior changes, reputational and weather-related).
- We prioritize risks and opportunities by focusing on the impact of climate change and on our exposure to the risk, considering factors such as the product, service, client base, etc. The process to prioritize environmental/CC risks and opportunities is defined within our environmental management system, as well. Each business division assesses and rates the potential for risks/ opportunities arising in the products and services offered according to a step-by-step procedure of evaluation and ranking, review and approval, and documentation. Items rated as having a substantive impact (as defined in 2.2b), are further referred for management and mitigation.
- For example, in order to manage our own, and our clients', risk derived from transition risks associated with climate change and better understand UBS exposure to transition risks within specific product lines (asset-level) and at the company-level as a whole, we have performed both top-down balance sheet stress testing, as well as targeted, bottom-up analysis of specific sector exposures. In doing so, we identified challenges ranging from the suitability of climate scenarios for banking risk modelling to data availability. To address these challenges, we have committed to work towards alignment and knowledge-sharing within the industry. 38 banks, including UBS and the UN Environment Programme Finance Initiative (UNEP FI), have partnered to collaboratively develop analytical tools that will help banks disclose their exposures to climate-related risks and opportunities as envisioned by the TCFD. This includes further refining scenario-based stress-testing methodologies.
- UBS also manages physical climate risks within its in-house operations. Here, UBS responds to these risks by ensuring that our infrastructure is not only efficient but also highly resilient in order to cope with current and future demands likely to be placed upon it. UBS plans for potential disruptions to its business, from adverse weather events, with its Business Continuity Management (BCM) unit.
 - For example, due diligence processes on any new vendor would routinely include a Threat and Vulnerability Analysis. It is essential that vendors performing critical activities on behalf of UBS have appropriate Business Continuity Management (BCM) arrangements in place for addressing the risks associated with the locations in which they operate, and for internal UBS departments to understand these critical dependencies.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

• UBS is directly affected by various regulatory drivers targeting energy efficiency or reducing CO2 emissions. Such regulation may include, fuel or energy taxes and regulation, mandatory carbon tax schemes and regulation of buildings in terms of energy efficiency, affecting our costs for energy incurred by our buildings (i.e. heating, cooling, lighting, IT, etc.). As UBS operates (and occupies) buildings in many countries, regulation directly affects our operational costs, specifically, in Switzerland, UBS is mandated to pay its share of the Swiss CO2 levy, while in the UK UBS is subject to the Carbon Reduction Commitment scheme.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,400,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

- Taxes applied to energy use and CO2 emissions from commercial buildings may present increasing operational costs. For example, under the Carbon Reduction Commitment (CRC) scheme in the UK, UBS bought carbon certificates for emitting 19,551 tonnes in the reporting year 2018 which amounted to paying approx. \$400k . All CO2 emissions (and initiated reduction efforts) directly affect these costs. If we assume similar programs will come into effect in other European countries, the potential financial impact per year would be approx. \$1.4 million (\$20 per tonne for approx. 70'000 tonnes of CO2 emissions from our European locations)

Management method

- UBS seizes the opportunity to save energy through its energy efficiency initiatives prioritized through UBS' ISO 14001 certified environmental management system (EMS).

(1) Building control: steering groups sanction changes in building operations, incl. operational run times for central building plant & equipment/ data center facilities. Energy consumption for our buildings is the largest contributor to our CO2 emissions which we reduced by 63% between 2004 and 2018 , towards a target of 75% reduction by 2020.

(2) Improvements in building design/ investment in infrastructure: we seek opportunities to invest in infrastructure with the purpose of reducing operating cost. As part of our efforts to meet our RE100 objectives, in, in 2018 59.0% of UBS' worldwide electricity consumption was sourced from renewable energy.

(3) UBS applies a Responsible Supply Chain Management (RSCM) framework: for the procurement of goods and services. done by Chain IQ, who performs supplier due diligence and establishes remediation measures, supported by experts within UBS. Evaluation of energy efficiency and carbon emissions are in RSCM background checks. in 2018 remediation measures were requested for 27% of 224 suppliers of newly-sourced goods or services to improve adherence to our RSCM framework, including energy efficiency standards.

Costs: investments in energy efficiency measures and potentially higher costs for new (sustainable) buildings and equipment. This is ~USD 223m per year.

Cost of management

223,000,000

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Customer

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

Type of financial impact

Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations)

Company- specific description

- Increased pricing of GHG emissions are designed to limit GHG emissions, in particular CO₂, in order to meet country GHG reduction commitments. For example the EU has committed, with legally-binding resolution, to at least a 40% reduction of CO₂ emissions by 2030 on 1990-levels (NDC).
- As a global financial services firm active in wealth management (WM), asset management (AM) and investment banking (IB), UBS can be affected indirectly such limits as they may impact business operations of our corporate clients. E.g., air pollution limits could present a risk for UBS clients in GHG intensive industries, e.g. utilities/energy generation, or basic materials. An estimated \$20 trillion in assets across a broad range of sectors are at-risk, for the financial sector, in the transition to a low-carbon economy (Sarah Breeden, PRA).
- Companies in GHG intensive sectors that are unprepared for regulatory changes could suffer increasing costs and/or a major declining demand for their goods and services with a negative impact on revenues and financial condition. Insofar as we are (indirectly) exposed to fossil fuel intensive businesses in investment or loan portfolios this may affect our own and our clients' assets. This may have a devaluating effect on the assets we hold in our portfolio (lending portfolio and securities we hold).
- UBS seeks to better understand this indirect risk by advancing methodologies in 2 degree and lower scenario analysis. 2 degree scenarios used by UBS and developed by the research community (e.g. IEA, Potsdam Institute for Climate Impact Research, and the International Institute for Applied Systems Analysis as a few examples) describe an evolving economic environment in a consistent manner across time, sectors, and geographies. Scenarios provide detailed outputs which help assess the economic impact on sectors, where one key output are carbon pricing factors in the scenarios, that reflect one lever for how carbon emissions could be constrained in the future, to meet warming targets.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,700,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

- Potential impacts in the future could be asset devaluation losses up to \$2.7bn. Impacts would be a fraction of up to the total UBS loan-book exposure to carbon-related assets. According TCFD definition: UBS balance sheet exposure to carbon-related power, oil & gas, and coal assets.

This total amount is currently calculated as \$2.7bn of UBS total net credit exposure in the Investment Bank and Personal and Corporate banking divisions. Potential financial impacts would be a fraction of this amount as a result of not managing regulatory risks in our investment or lending decisions. Driven by reduced financial performance of carbon-related assets, as a result of increased costs from carbon pricing (direct or indirect). Direct financial impacts on those borrowers, could result in credit events (e.g. credit downgrades).

Management method

- We seek to protect our and our clients' assets from climate change risks by limiting our risk appetite for carbon-related assets and by estimating our firm's vulnerability to climate change risks using scenario-based stress testing approaches and other forward-looking portfolio analyses.

- We have performed both top-down balance sheet stress testing, as well as targeted, bottom-up analysis of specific sector exposures. No material risk identified on UBS balance sheet, however UBS collaborates in industry to further refine scenario-based stress-testing methodologies.

We limit our risk appetite through our standards, and UBS is committed to:

- not providing project-level finance to new coal-fired power plants globally
- only supporting financing transactions of existing coal-fired operators (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or the transaction is related to renewable energy
- severely restricting lending and capital raising to the coal mining sector and not supporting coal mining companies engaged in mountain-top removal (MTR) operations
- We have also established standards in the forestry sector to support our clients' efforts to achieve "zero deforestation" in their supply chains.

- Overall cost of management is integrated in existing risk management processes, with additional direct costs in developing stress testing capabilities: 500k represents staff resources and direct project spend.

Cost of management

500,000

Comment

- UBS follows TCFD recommendation to measure and disclose exposure to "carbon-related" assets in order to foster an early assessment of climate-related risks and facilitate market discipline* amongst other systemic rationale identified by the FSB.
- **The TCFD suggests banks define carbon-related assets as those assets tied to the energy and utilities sectors under the Global Industry Classification Standard, excluding water utilities and independent power and renewable electricity producer industries, which UBS has done here.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Customer

Risk type

Transition risk

Primary climate-related risk driver

Market: Changing customer behavior

Type of financial impact

Reduced demand for goods and/or services due to shift in consumer preferences

Company- specific description

- Clients increasingly ask UBS for products and services which protect them from climate-related risks. If UBS does not provide such solutions, we run the risk of losing such business and seeing a reduction in demand for UBS investment products.
- UBS believes the transition to a low carbon economy is vital, and therefore we are focused on supporting our clients in preparing for success in an increasingly carbon constrained world. As a leading global financial services provider, UBS does this in several ways. One way is by protecting UBS clients' assets from climate-related risks. UBS supports our client's efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

87,500,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

- Potential financial impacts could be the loss of up to USD 87.5bn in climate-related investments (Assets under Management) allocated to products and services innovated by UBS, and upon which UBS derives revenues in the form of management fees, which protect asset owners from climate-related transition risks (risk-aware investments). This is in response to client demand.

The financial risk to UBS is losing these AuM (and related revenues) if UBS did not innovate products and services to meet this client demand, and develop the approach, methodology, and tools for clients to mitigate climate-related risks in their investments. Additionally, there is an intangible component, loss of market share, competitive positioning, failure to qualify for RFP for new business, associated with not managing the risk.

Management method

- We support our client's efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research. For 3 examples:
- In 2018, AM followed expanded its climate-aware fund: The portfolio is oriented towards companies that are better prepared for a low-carbon future while reducing exposure to, rather than excluding, companies with higher carbon risk, in order to pursue strategic engagement with these companies. The strategy involves an innovative approach to aligning the portfolio with the two degree carbon reduction scenario in the future.
- We recognize that building efficiency regulations and standards may impact UBS indirectly through our real estate investment portfolio. The Real Estate (RE) team factors CC regulation as it may create additional costs (contractual penalties through emissions trading or tax incentives, increased obsolescence of older buildings = CAPEX, higher vacancy in less efficient buildings) and potentially have an impact on the valuation of Real Estate funds offered through UBS to its clients. RE assesses current and/or future financial effects by including such risks in standard calculations and in the complete deal value chain.

Costs: USD 30m per year are the estimated cost (annualized). Employees are the main cost driver for UBS to manage this risk and innovate products and services. UBS has 135 full-time specialists in the UBS in society organization.

Cost of management

30,000,000

Comment

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

• UBS has experienced higher than average rain and storms in the form of typhoons and hurricanes which may impact the continuity of business, but also increase the need for higher insurance coverage to cover impacts to UBS locations and buildings. More frequent extreme weather conditions (Typhoons, Hurricanes) may have an adverse impact on vulnerable UBS locations (buildings).

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

500,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

• UBS faces ~\$500k in higher premium from a storm harder than a 1/100 years event (e.g. Hurricane Sandy). Insurance costs will increase as more frequent and severe losses have to be paid by the insurance industry. The financial risk of a 1/100 years US windstorm for UBS is estimated at \$10m, the 1/250 at \$25m.

Management method

• UBS responds to these risks by ensuring that our infrastructure is not only efficient but also highly resilient in order to cope with current and future demands likely to be placed upon it. For example, UBS due diligence processes on any new property acquisition would routinely include a Threat and Vulnerability Analysis. In order to minimize insurance related costs from natural catastrophes, UBS Group Insurance Management (GIM) identifies potential risks by collecting data on all insurable physical assets (e.g. buildings, IT, content, securities, banknotes, precious metals etc.). Together with external natural catastrophe experts and actuaries, GIM conducts specific risk assessments every 3 to 5

years based on the risk from natural catastrophes. Risks linked to CC that are currently taken into account under this framework include European windstorms, US east coast hurricanes and typhoons in the Asia Pacific region.

Operationally, precipitation events in southeast Asia, specifically Cyclone Vardah in Chennai, India, resulted in invocation of Business Continuity Management (BCM) arrangements. Specifically, 3rd party vendors Tech Mahindra and HCL were invoked to support Finance and Asset Management businesses, resulting in no residual impacts as successful implementation of BCM.

- Costs: Approximately \$100k every 3 to 5 years as a result of Group Insurance Management (GIM) risk assessments.

Cost of management

100,000

Comment

Identifier

Risk 6

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact

Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)

Company- specific description

• UBS experiences a growing threat from a combination of various physical climate-risk factors, i.e. heavy storms and flooding (extreme weather events), exacerbated by incremental climate change (e.g. sea level rise), at UBS locations like New York City, Weehawken and Jersey City, and for some locations in the Asia Pacific region, such as Philippines, Indonesia, India, Thailand and certain parts of Australia. UBS office facilities located in these vulnerable areas pose an increasingly threat to UBS production capacity (office impacts). UBS employs its Business Continuity Management (BCM) team, who has an appropriate set of responses in order to mitigate the risk from such events.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

• UBS estimates a 1/100 years event US wind storm to generate a potential of \$10m (expected to increase), from e.g business disruption, personnel not being able to work, loss of clients and/or loss of not being able to conduct business affected the entire industry in an affected location.

Management method

- UBS Business Continuity Management (BCM) manages these risks in key areas where concentration of knowledge, revenues, product delivery, premises, systems and infrastructure creates a high level of risk to UBS. Critical locations get an annual Threat and Vulnerability Assessment based on relative severity and likelihood. Risks and mitigants are reviewed annually and documented in the “Location Risk Profile” to ensure we address specific risk like extreme weather events for global critical locations.
- We have business continuity (BC) plans in place covering people, processes and technology. These are tested on a regular basis for survival and business critical activities. Crisis Management Plans are exercised with extreme weather scenarios for locations with a history of extreme weather events. Specific extreme weather scripts have been developed in the APAC and the Americas regions to allow for efficient preparation of such events, also for the smaller locations where no BC team is available. Additionally, contingency plans are being developed for weather related events, if it is felt that these events cannot be addressed by the standard BC plans. An example would be the Contingency Plan for the Haze in Singapore. Similarly, a hurricane crisis preparation plan exists for the Eastern seaboard of the United States.

Costs: \$50m costs for BCM includes the annual global run costs which are composed of costs for dedicated recovery seating, the spend on tools and head-count.

Cost of management

50,000,000

Comment

Identifier

Risk 7

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact

Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)

Company- specific description

• Extreme weather events may play a role in affecting UBS businesses, as UBS relies on a network of business vendors (footprint of UBS critical activities being undertaken) in regions impacted by heavy rains (e.g. Monsoons). Recently, UBS has seen an increase in the risk that heavy rains and/or typhoons, for example, may reduce production capacity of UBS critical vendors, as a result of both a changing climate (increased severity and frequency) and as a result of an increase of UBS's dependence on Vendors operating in vulnerable regions, notably southeast Asia and India. Left unmanaged, these climate-related risks may pose a business continuity risk to UBS.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

- UBS estimates a 1/100 years event US wind storm to generate a potential of \$10m (expected to increase) in revenue losses, from disruption of business, personnel not being able to work, loss of clients and/or loss of not being able to conduct business affected the entire industry in an affected location.

Management method

- It is essential that vendors performing critical activities on behalf of UBS have appropriate Business Continuity Management (BCM) arrangements in place with UBS for addressing the risks associated with the locations in which they operate, and for internal UBS departments to understand these critical dependencies.
- Previously, precipitation events in southeast Asia, specifically Cyclone Vardah in Chennai, India, resulted in invocation of BCM arrangements. Specifically, 3rd party vendors Tech Mahindra and HCL invocation to support Finance and Asset Management businesses, with no residual impacts as successful implementation of BCM. The BCM Vendor Framework identifies key touch points in the sourcing lifecycle impacting BCM, and outlines relevant roles and responsibilities, focusing specifically on critical vendors.

Costs: \$50m includes the annual global run costs which are composed of costs for dedicated recovery seating, the spend on BCM tools and BCM head-count.

Cost of management

50,000,000

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Customer

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact

Increased credit risk (e.g., increased probability of default and/or loss given default)

Company- specific description

- UBS is exposed to businesses through our investment or loan portfolios, where physical climate risks may affect those businesses and their assets and therefore the balance sheet of UBS. More specifically, impacts from incremental climate change (gradual erosion of financial performance of our borrowers) and extreme weather events (direct impacts on production at our clients) may have a devaluating effect on the assets UBS holds in our portfolio (lending portfolio and securities we hold).
- Incremental changes in climate (such as rising temperatures and changes in precipitation patterns) can affect economic output and productivity, while extreme events can lead to damage, operational downtime and lost production for fixed assets, and potential changes to property value. Extreme events, which are increasing in both frequency and intensity, often attract more attention as their impacts are more apparent. However, the risks from incremental changes, which are already underway, should not be overlooked. Extreme events may only occur in specific locations (such as floodplains or tropical cyclone regions) and require banks to have the ability to assess the probability of their borrowers being impacted by these events. In contrast, incremental changes have the potential to gradually erode the financial performance of entire borrower segments.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

154,200,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

- Potential financial impacts would be asset valuation losses of a fraction of UBS exposure to areas with high vulnerability to physical climate risks, which is estimated to be up to a max of \$154.2 billion.

This amount represents the total value of all UBS assets (loans) to vulnerable sectors and thus actual impacts would be a fraction of the total potential impact (as not all assets would be totally eliminated from physical climate impacts). High-risk sectors here defined through UBS collaboration within 16-bank working group, who reviewed and prioritized Agriculture, Energy, and Real Estate sectors as sectors with higher material physical risks climate change. UBS does not have material exposure to Agriculture.

Management method

- In order to manage our own, and our clients', risk derived from both the physical and transition risks associated with climate change, we have performed both top-down balance sheet stress testing, as well as targeted, bottom-up analysis of specific sector exposures.
- We performed a top-down scenario-based stress test on UBS's balance sheet vulnerability where a series of extreme weather events

prompted a regulatory response. Financial impacts were moderate, while the biggest risk from severe weather events was damage to properties in Zurich due to concentration of assets. The operational income impact was minimal

- We assessed potential impacts of increasing climate change regulations and extreme weather events scenarios on our energy and real-estate loan portfolios. Potential financial impact on UBS was moderate, due to short-term maturity profile and availability of insurance coverage for real estate.
 - UBS conducted a bottom-up stress test of its energy lending in North America against impacts of climate-change related drought.
 - We jointly developed a methodology that examines risks from both incremental and extreme weather on our loan portfolio. The aim was to estimate the financial impact of physical climate risk, which required translating climate risk data into change in probability of default (PD). See UNEP project in Q3.1d.
- Overall cost of management are additional direct costs of capacity development: 500k represents staff resources and direct project spend

Cost of management

500,000

Comment

Identifier

Risk 8

Where in the value chain does the risk driver occur?

Customer

Risk type

Transition risk

Primary climate-related risk driver

Reputation: Increased stakeholder concern or negative stakeholder feedback

Type of financial impact

Reduction in capital availability

Company- specific description

- Reputation is one of UBS' most valuable assets, key to the success of a global financial firm and to its brand. The firm's Code of Conduct & Ethics underscores the vital importance of protecting and advancing UBS' reputation (and also makes explicit reference to UBS' "constantly looking for better ways to do business in an environmentally sound and socially responsible manner"), this includes how UBS addresses climate change in its business activities.
- Climate change (CC) involves certain reputational risks if not properly addressed, notably through negative stakeholder perceptions of UBS. More concretely, UBS' approach to CC directly affects whether or not, respectively at which level, UBS is listed in indices and ratings related to Environmental, Social and Governance (ESG) topics, how the firm is viewed by rating & research agencies in general, and whether UBS remains a credible investment for those investors sensitive to sustainability/ESG issues. In 2018 UBS continued to face reputational risks, in the context of Climate Change, specifically around stakeholders criticizing banks, incl. UBS, for providing finance to companies active in the production and burning of fossil fuels such as coal. At the same time, UBS' climate action can also create positive reputational impact, as demonstrated by the firm being rated second-best in investor organization ShareAction's report on climate risk management within European banks. For it, the organization (representing ~\$2 trillion Assets under Management) approached 15 banks (including UBS) about their efforts to analyze and interpret climate-related risks in the context of their financing policies.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

459,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

• Implications are indirect (e.g. negative reaction of sustainability oriented clients/ investors, negative effect on recruiting). In the long term increased reputational risks could lead to loss of business and changes in regulation, which might impact UBS' business model. As of December 2018, UBS' market capitalization was USD 45.9 billion. Reputational risks can impact how the firm is viewed by rating & research agencies in general and whether UBS remains a credible investment for investors sensitive to sustainability/ESG issues in the long term. Hypothetically, a 1% decrease in the share price due to reputational risk would decrease the market capitalization by approximately USD 459 million. We do not expect direct financial implications associated with this risk driver in the short term.

Management method

- Our approach to sustainability is guided by our understanding of expectations and concerns of our diverse stakeholders. This requires regular and multi-faceted interactions with stakeholders via a range of means of exchange, (incl. our AGM).
- We Communicate: We maintain detailed information on our website about our CC commitment. We also actively engaged in internal and external education and awareness-raising on sustainability.
- Input on UBS in Society strategy (incl. CC) are regularly sought from employees, including a UBS in Society Forum of employees from all business regions and divisions. We train employees on UBS in Society.
- We Engage: We communicate with investors, financial analysts and rating agencies who are focused on sustainability to discuss topics that are relevant to our long-term performance, such as climate change
 - AM signed the 2018 Global Investor Statement to Governments on Climate Change calling for urgent action. As part of this group representing USD 32tr in assets, AM indicates support for the Paris Agreement, in line with the goals of our climate change stewardship strategy.
 - We regularly interact with NGOs as it helps us formalize our approach. In 2018 this focused on climate change and human rights.

Costs: Hence employees are the main cost driver for UBS to manage the risk. UBS employed 135 full-time specialists in UBS in society, at an annual cost of ~\$30m. This includes related membership fees, communications costs, and assessments.

Cost of management

30,000,000

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Move to more efficient buildings

Type of financial impact

Reduced operating costs (e.g., through efficiency gains and cost reductions)

Company-specific description

• UBS is incentivized to reduce the carbon intensity of its energy supply and improve the efficiency of its energy demand. Climate change-related regulatory developments such as renewable energy regulation and fuel or general energy regulation and taxes support or enhance incentives that UBS faces to seek energy efficiencies, which in turn lead to cost savings for UBS' in-house operations and reduced emissions. For example, in the UK, UBS faces carbon costs related to the UK Carbon Reduction Commitment based on the amount of emissions UBS generates in the region.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

• We estimate that we will approximately save an additional \$ 4 million in energy cost per year: Regulatory opportunities can support or enhance the incentives to seek energy efficiencies which in turn lead to cost savings. They depend on the energy efficiency improvement and on energy prices. In 2018, we reduced our energy consumption, through seeking energy efficiencies, by more than 19% compared with 2012, thus outperforming our target of a 10% reduction by 2020. Energy efficiency investments resulted in estimated annual energy cost savings of approx. \$4.4 million in 2017/2018.

Strategy to realize opportunity

• UBS ISO14001 certified environmental management system prioritizes energy efficiency and we seize the opportunity to save energy.

(1) Building control: steering groups sanction changes in building operations, incl. operational run times for central building plant & equipment/ data center facilities. For example, in the UK (where UBS reports Carbon Reduction Commitment (CRC) Energy Efficiency Scheme), UBS is working with its landlord to provide 70,000 sqm of new office space delivered against LEED and BREEAM standards with the aim to reduce CO2 emissions (and associated costs) from real estate portfolio. The new building (5 Broadgate, London) has been designed to consume 54% less energy than the buildings it replaces.

(2) Improvements in building design/ investment in infrastructure: we seek opportunities to invest in infrastructure with the purpose of reducing operating cost. As part of our efforts to meet our RE100 objectives, in 2018 59% of UBS' electricity consumption was renewable.

(3) UBS applies a Responsible Supply Chain Management (RSCM) framework: incl. environmental criteria for the procurement of goods and services. In 2018 remediation measures were requested for 27% of suppliers with potentially high impacts. Evaluation of energy efficiency and carbon emissions are included in the RSCM background checks.

Costs investments in energy efficiency measures and higher costs for new (sustainable) buildings and equipment. This is ~\$223m per year (annualized).

Cost to realize opportunity

223,000,000

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Type of financial impact

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company-specific description

- An estimated USD 85 trillion will be needed for low-carbon climate-resilient infrastructure investments by 2030, to meet the Paris agreement's goal to keep global average temperature increases well below 2 degrees C. (Brookings Institution (2018)). Achieving this mission will require action not only by governments and companies. Investors have a crucial role to play. UBS identifies the investment needs involved in the transition to a low- carbon economy and sees a strong business rationale for catering to the growing importance of and demand for sustainability.
- UBS supports clients' efforts (and requests for products) to assess, manage and protect them from climate-related risks by offering innovative investment products and services. We mobilize private and institutional capital towards investments facilitating climate change mitigation and adaptation.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

87,500,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Climate- related investments represent 2.8% of total invested assets, or \$87.5bn, thus represents the upper estimate of potential revenues as UBS collects fees as a fraction of this amount. This has grown 18%, up from \$74 billion in 2017.

We expect the demand for such assets to continue to grow as demonstrated by our ambitious target to double the penetration of core SI assets that will include a significant climate component by the end of 2020 (from 5.6% of our total invested assets in 2017 or \$182 bn. UBS will benefit from revenues associated with the management of these investments. The revenues are collected in the form of fees as a percentage based on the amount managed.

Strategy to realize opportunity

Opportunities are identified through the UBS in society organization, which is responsible for climate-related opportunities, and managed through an annual review process of our environmental management system to identify such low-carbon business opportunities (ISO 14001 certified).

For example:

In 2018, Asset Management (AM) followed its successful UK Climate Aware rules-based fund with a fund for international investors outside of the UK. Portfolio is oriented towards companies better prepared for a low-carbon future while reducing exposure to, rather than excluding, companies with higher carbon risk, in order to pursue strategic engagement with these companies. The strategy involves not only a reduction of the CO2 footprint of the portfolio but also an innovative approach to aligning the portfolio with the 2 degree carbon reduction scenario in the future.

AM engages with companies in which it invests on behalf of clients to discuss approaches to mitigating climate-related risk, as well as actively voting on shareholder resolutions to improve transparency and disclosure around climate-related reporting. Engagement makes possible for AM collect feedback, communicate objectives for change in corporate practices with investee companies and further enhance the model used to inform the under/overweights in the strategy.

- Costs for seizing this opportunity are employee salaries and marketing costs. This is \$30m per year (UBS employs 135 specialists for UBS in society)

Cost to realize opportunity

30,000,000

Comment

Identifier

Opp4

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

- An estimated USD 85 trillion will be needed for low-carbon climate-resilient infrastructure investments by 2030, to meet the Paris agreement's goal to keep global average temperature increases well below 2 degrees C. (Brookings Institution (2018)). UBS identifies the financing needs involved in this transition and sees a strong business rationale for catering to the growing importance of and demand for sustainability. We support the transition to a low-carbon economy as corporate advisor, and/or with our lending capacity
- Any regulatory development such as renewable energy regulation and fuel or general energy regulation and taxes may offer opportunities for a bank to offer products & services for clients to prepare for a low-carbon economy. In the face of this regulatory development, clients' move towards increasing resource efficiency, while seeking to mitigate their own climate-regulatory risks. To help our clients prepare for a low-carbon economy, UBS intends to provide respective research, investment and financing capacities.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

56,500,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

- Total estimated deal value in equity or debt capital market and financial advisory services relating to these areas is USD 56.5 bn, thus represents the upper estimate of potential revenues as UBS benefits from the revenues associated with the provision of these services, which are therefore a fraction of this amount.

Moving to a low carbon economy requires new infrastructure, which requires capital. Banks that can efficiently match capital from their clients with the needs of a low carbon economy have a competitive advantage. Our Investment Bank offers capital-raising and strategic advisory services globally to companies that make a positive contribution to climate change mitigation and adaptation, either in supporting in equity and debt capital market transactions or as financial advisor.

Strategy to realize opportunity

- We manage this opportunity by globally providing capital raising and strategic advisory services to companies offering products that provide a positive contribution to climate change mitigation and adaptation, including those in the solar, wind, hydro, energy efficiency, waste and biofuels, and transport sectors. As part of our climate strategy, UBS has committed to supporting renewable energy and clean tech transactions.. In 2017 and 2018, UBS Investment Bank was involved in a number of high profile issuances in the Green Bonds industry, including the first ever green bond offering from a Swiss public sector entity, and a climate awareness bond from the European Investment Bank.
- We strive to be the preferred strategic financial partner relating to Switzerland's energy strategy 2050. The UBS Clean Energy Infrastructure Switzerland strategy offers institutional investors unprecedented access to a diversified portfolio of Swiss infrastructure facilities and renewable energy companies. Due to client's demand, a successor strategy was launched in September 2017. The fund raised CHF 222 mn
- Costs for seizing this opportunity are employee salaries and marketing costs. This is \$30m per year (UBS employs 135 specialists for UBS in

society)

Cost to realize opportunity

30,000,000

Comment

Identifier

Opp5

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

• Various legislations have been introduced to promote sustainable buildings e.g. the EU Directive on Energy Performance of Buildings which aims to contribute to a reduction of 5-6% of the EU final energy consumption in 2020 and the amended environmental law passed in Switzerland in 2011 promoting sustainable renovation. Such regulatory developments increase awareness of buyers and tenants for energy efficiency and contribute to increasing consumer demand for efficient real estate and are likely to increase the value differential between sustainable and "non-sustainable" buildings. This creates demand for existing UBS products, such as our real estate investment portfolio, which we manage based on our Responsible Property Investment Strategy.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

96,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

• The potential annual financial impact in the short term is associated with the revenues generated by the management fees as a portion of the full USD 96bn. Thus this represents the upper estimate of potential financial impact.

Regulatory developments increase awareness of buyers and tenants for energy efficiency and contribute to increasing consumer demand for efficient real estate and infrastructure, The demand is measured by the upward trend in invested assets YoY. The UBS Real Estate (RE) business is one of the largest industry-wide today. By end-2018 we had USD 96 bn assets under management.

Strategy to realize opportunity

We have developed a Responsible Investment Strategy (RI) to enhance investment performance of mandates for direct & in-direct real estate and infrastructure investments. RI is implemented by all functions during the entire ownership cycle of a project, from its development or acquisition to the ongoing asset management, maintenance and sale. A working group is responsible to promote the strategy, which factors climate change regulation. We develop & integrate RI into fund strategies, set objectives in order to make achievements transparent and measurable, measure performance against objectives and report results to key stakeholders.

Our ambition is to be an industry leader in sustainability by retaining favorable positions in key ratings, thus creating a positive exposure of and driving demand for our products. The 2018 GRESB awarded 10 of our real estate & infrastructure funds 5-star ratings, and 7 funds ranked 1st in their own peer groups.

Implementing RI Strategy doesn't create additional costs as it is integrated in the investment process. Specialist third party advisers are selected to oversee the entire program across various regions. The cost of these engagements is borne by the funds/mandates where appropriate and managed through the Real Estate & Private Markets organization.

Direct costs for seizing this opportunity are mainly linked to employee salaries. The investment team consists of 20 employees, therefore the costs amount to approx. USD 4.4m per year.

Cost to realize opportunity

4,400,000

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Type of financial impact

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company-specific description

- Increased awareness of climate change (CC) and the associated potential regulatory and physical impacts have galvanized a wide range of stakeholder expectations. Therefore, addressing changing stakeholder perceptions regarding CC is an opportunity for UBS to build its brand. This is an opportunity in Switzerland where UBS is headquartered as well as in all of its other markets as recognition of a strong brand is important to build client relationships globally.
- Reputation is one of UBS' most valuable assets, key to the success of a global financial firm and to its brand. The firm's Code of Conduct & Ethics and its Organization Regulations underscore the vital importance of protecting and advancing UBS' reputation (and the Code also makes explicit reference to UBS' "constantly looking for better ways to do business in an environmentally sound and socially responsible manner").

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

459,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

- A strong reputation supports the attraction of prospective and retainment of existing clients, which has both, direct and indirect financial implications and we expect this to become more important as the issue of climate change increases in importance. Reputation impacts how the firm is viewed by rating & research agencies in general and is relevant to attract investors sensitive to sustainability/ESG issues in the long term. As of December 2018, UBS' market capitalization was USD 45.9 billion. Hypothetically, a 1% increase in the share price due to excellent reputation would increase the market capitalization by approximately USD 459 million.

Strategy to realize opportunity

UBS in society is our dedicated organization within the firm, that focuses on maximizing our positive effect and minimizing any negative effects UBS has on society and the environment. It covers topics such as sustainable and impact investing, client philanthropy, environmental and human rights policies governing client and supplier relationships, and our community investment. Through UBS in society, UBS is driving change that matters by using our firm's expertise to bring about sustainable performance.

To provide sustainability information to our stakeholders, we maintain detailed information on our website & actively engaged in internal and external education and awareness-raising on sustainability.

We communicate with investors, analysts and rating agencies who are focused on sustainability to discuss topics that are relevant to our long-term performance, such as CC.

We also regularly interact with NGOs as it helps us formalize our approach to societal issues. The discussions in 2018 focused on the subjects of CC (i.e. fossil fuels) and human rights.

- Costs for seizing this opportunity are employee salaries and marketing costs. This is \$30m per year (UBS employs 135 specialists for UBS in

society). We expect them to stay stable over time.

Cost to realize opportunity

30,000,000

Comment

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	<p>Climate change-related regulatory developments such as renewable energy regulation and fuel or general energy regulation and taxes offer opportunities for a bank to offer products & services for clients to prepare for a low-carbon economy because their demand for becoming more resource efficient or to mitigate their risks rises. Additionally, an estimated USD 90 trillion will be needed in low-carbon investments by 2030, to finance the transition and meet Paris Agreement goals (Sarah Breeden PRA, OECD).</p> <p>UBS identifies the investment requirements involved in this transition and supports clients' efforts to assess, manage and protect them from climate-related risks by developing and offering innovative products and services in investment, financing and research. UBS also mobilizes private and institutional capital towards investments facilitating climate change mitigation and adaptation, through its role as a corporate advisor and/or lending capacity.</p> <p>Climate-change related investments represented 2.8% of total invested assets (end 2018). Revenues associated with the management of these investments represent an opportunity that UBS has benefitted from. We further recognize that as new regulations develop here, this portion will grow, and as will the associated magnitude of impact on UBS.</p>

		<p>Additionally, potentially missed opportunities on the financing side mount to fees from our Investment Bank supporting clients that provide a positive contribution to climate change mitigation and adaptation, either in supporting in equity and debt capital market transactions or as financial advisor.</p> <p>In 2018, the total deal value in equity or debt capital market services relating to these areas was USD 31.6 billion, and USD 2.49 billion in financial advisory services.</p>
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	<p>Extreme weather events may play a role in affecting UBS businesses. The footprint of UBS critical activities being undertaken in regions impacted by heavy rains (e.g. Monsoons) has increased as a result of dependence on Vendors operating in these regions, notably in India. Left unmanaged, these climate-related risks may pose a business continuity risk to UBS.</p> <p>UBS responds to these risks by ensuring that our infrastructure is not only efficient but also highly resilient in order to cope with current and future demands likely to be placed upon it. UBS plans for potential disruptions to its business, from adverse weather events, with its Business Continuity Management (BCM) unit. For example, due diligence processes on any new vendor would routinely include a Threat and Vulnerability Analysis. It is essential that vendors performing critical activities on behalf of UBS have appropriate Business Continuity Management (BCM) arrangements in place for addressing the risks associated with the locations in which they operate, and for internal UBS departments to understand these critical dependencies.</p> <p>Additionally, vendor BCM arrangement costs are built into the original contract. Other BCM related costs include mainly the annual global run costs (approx. CHF 50m) which are composed of costs for dedicated recovery seating, the spend on BCM tools and BCM head-count (not including in-built IT capabilities).</p>
Adaptation and mitigation activities	Impacted	<p>As a result of physical climate risks posed to UBS operations, including impact of increased severity of acute weather events to UBS value chain partners (e.g. vendors) in Southeast Asia, UBS has seen impact on its own adaptation activities. UBS estimates a 1/100 years event US wind storm to generate a potential of CHF 10m (expected to increase), from e.g. business disruption, personnel not being able to work, loss of clients and/or loss of not being able to conduct business affected the entire industry in an affected location. UBS plans for potential disruptions to its business, from adverse weather events, and has sought to manage the risk with its Business Continuity Management (BCM) unit. For example, due diligence processes on any new vendor would routinely include a Threat and Vulnerability Analysis. It is essential that vendors performing critical activities on behalf of</p>

		<p>UBS have appropriate Business Continuity Management (BCM) arrangements in place for addressing the risks associated with the locations in which they operate, and for internal UBS departments to understand these critical dependencies.</p> <p>As far as mitigation activities, UBS has identified both a risk (increased operating costs) and an opportunity (cost-savings from efficiency investments) from regulations intended to mitigate climate change and keep the world with the ambitions of the Paris Agreement. UBS has established an objective, as part of the RE100 program, to source 100% of our electricity from renewable sources by 2020. In 2018, UBS has sourced 59% of its electricity from renewable sources. The impact of UBS achieving its 100% by 2020 renewable energy sourcing goal, will enable UBS to achieve its goal to reduce GHG emissions 75% by 2020, over 2004 levels.</p>
<p>Investment in R&D</p>	<p>Impacted</p>	<p>An estimated USD 90 trillion will be needed in low-carbon investments by 2030, to finance the transition and meet Paris Agreement goals (Sarah Breedon PRA, OECD). UBS identifies the investment requirements involved in the transition to a low-carbon economy and supports clients' efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research. This requires investment in staff (capacity building) and projects to support such innovation.</p> <p>For example, Our Asset Management division has developed a string of products allowing its clients to identify the carbon intensity of their investments and/or to align them with the Paris agreement. Related investments represent 2.3% of UBS total invested assets, and the organization has set a broader target of USD 5 billion of client assets invested into new impact investments by the end of 2021, which includes climate-related investments. UBS employed 135 full-time sustainability specialists in UBS in Society, by the end of 2018 at an estimated cost of USD 30m. This increased from 2017 (108 full time specialists).</p> <p>We also seek to protect our assets from climate change risks partly by estimating our firm's vulnerability to climate change risks using scenario-based stress testing approaches and other forward-looking portfolio analyses. In order to do so, UBS has invested resources and collaborated with the research community(e.g. Potsdam Institute for Climate Impact Research), 16 peer banks, and consultants (Oliver Wyman and UNEP) to develop methodologies for performing scenario analyses, while closing data and methodological gaps . Additional direct costs in developing the capabilities are 500k and it represents staff resources and direct project spend.</p>

Operations	Impacted	UBS operations are directly impacted by both transition and physical climate risks (and opportunities. Policies targeting energy efficiency or reducing CO2 emissions affect us directly. Such incentives/disincentives or regulations may include, fuel or energy taxes and regulation, mandatory carbon tax schemes and regulation of buildings in terms of energy efficiency, affecting our costs for energy incurred by our buildings (i.e. heating, cooling, lighting, IT, etc.). As UBS operates (and occupies) buildings in many countries, regulation directly affects our operational costs. This is also seen as an opportunity for UBS, as regulatory opportunities can support or enhance the incentives to seek energy efficiencies which in turn lead to cost savings. They depend on the energy efficiency improvement and on energy prices. UBS has integrated this risk/opportunity when setting a goal for sourcing 100% of our electricity from renewable sources by 2020 (RE100). UBS sourced 59% of our electricity from renewable sources in 2018 at a cost premium of CHF 3m.
Other, please specify		

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Impacted	<p>UBS has identified opportunity to meet client demand for products and services which both help mitigate risks from the transition to a low-carbon economy and capture investment opportunities in the transition. An estimated USD 90 trillion will be needed in low-carbon investments by 2030, to finance the transition and meet Paris Agreement goals (Sarah Breeden PRA, OECD).. UBS identifies the investment needs involved in the transition to a low-carbon economy and supports clients' efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research. UBS also mobilizes private and institutional capital towards investments facilitating climate change mitigation and adaptation, through its role as a corporate advisor and/or lending capacity.</p> <p>End of 2018, UBS had mobilized a Total deal value in equity or debt capital market services related to climate</p>

		<p>change mitigation and adaptation of USD 31.6 billion, and USD 24.9 billion in financial advisory services, while had managed 87.5 bn or 2.8% of UBS clients total invested assets in climate-related investments.</p> <p>As demand for both are expected to rise, we plan for increased revenues from fees associated with advisory and lending deals and management of client assets (investment management) to increase.</p>
Operating costs	Impacted	<p>UBS has set a goal to source 100% of our energy from renewable sources by 2020. In 2018, UBS sourced 59% of its energy from renewable sources. Energy has represented 0-5% of UBS budgeted operational costs in previous years, (estimated at CHF 80m/year).</p> <p>We anticipate that to grow by an estimated 5-10% as we drive towards our RE100 objective. Additionally, UBS projects new hiring in its UBS in society organization. In 2016, UBS had ~89 FTE in UBS & Society at an estimated cost of USD 24m. This grew to 108 by 2017, and was 135 in 2018, representing USD an estimated cost of USD 30m.</p>
Capital expenditures / capital allocation	Impacted	<ul style="list-style-type: none"> • As UBS aligns our disclosure within the five-year pathway outlined by the TCFD, we will further undertake a strategic impact assessment and better understand the implications of climate change on our business strategy. • Planning for shifts in UBS business strategy with respect to climate-related risks and opportunities has already impacted planning capital expenditures, and may be further impacted as we continue to align. • For example, UBS is building intellectual capital in our asset management division, through innovating new products and services (e.g. staffing SI), to meet shifting consumer demand for such products that mitigate climate-related risks and provide investment opportunities in the transition to a low-carbon economy. Growing the organization requires investment in staffing (all of UBS in society had 89 FTE in 2016, 108 FTE in 2017, and it grew to 135 in 2018). • In the risk organization, investments in implementing the TCFD recommendations are expected to increase as UBS gradually moves closer to full alignment. Investments in capacity and staff resources in TCFD implementation were an estimated at CHF 500k.

<p>Acquisitions and divestments</p>	<p>Not impacted</p>	<ul style="list-style-type: none"> • UBS financially planning for future acquisitions and divestments are not impacted. This is because, based on historical activities, UBS has not typically engaged in M&A (as a company). UBS has before and plans to continue to be more focused on organic growth. This is more relevant when considering climate-related risks and opportunities. • UBS is continuously identifying, assessing, and managing climate-related risks and opportunities, through its environmental management system.
<p>Access to capital</p>	<p>Not yet impacted</p>	<ul style="list-style-type: none"> • So far, we currently do not see that CC has a material impact on UBS as a whole, based on the approach that for it have an impact it has to be of concern for our shareholders or clients or, in other words, whether CC is a "factor that would make an investment in [UBS] speculative or risky" (as described by the US Securities and Exchange Commission Guidance Regarding Disclosure Related to CC; Final Rule, p. 6294). In this sense. • We both continue to better understand if and how climate change may impact products, sectors, clients and monitor concerns of stakeholders which may impact UBS access to capital. For example, as UBS monitors the impact of emerging regulation in the European Union, specifically the "green supporting factor" and "brown supporting factors" actions in EU prudential regulations (covering banks) of the European Commission Action Plan on Sustainable Finance. UBS may face incentives and disincentives to use its financing capacity to encourage the transition to a low-carbon economy. Accordingly the incentives and disincentives would impact UBS by aligning such incentives with UBS capital buffer. • The EC Action Plan on Sustainable Finance is scheduled to rollout in 2019/2020.
<p>Assets</p>	<p>Not yet impacted</p>	<ul style="list-style-type: none"> • In order to manage our own risk derived from both the physical and transition risks associated with climate change, we have performed both top-down balance sheet stress testing, as well as targeted, bottom-up analysis of specific sector exposures. We have so far not identified significant climate-related financial risk on our balance sheet. We explain this by UBS's relatively small lending book in exposed sectors and availability of insurance where we have relevant exposures to such sectors (e.g., Swiss mortgage lending book). <p>We should however continue to work on improving data availability, scenario applicability and methodology</p>

		<p>development. As long as they are not reliably available, we cannot consider respective financial risk analysis to be robust.</p> <ul style="list-style-type: none"> • Our top-down approach consisted of a scenario- based stress test to assess UBS's balance sheet vulnerability. • Leveraging its existing firm-wide top-down stress testing methodology, we developed a climate change scenario and its related regulatory response to assess the impacts on financial assets, operational income and physical assets. Financial impacts were moderate and in line with other stress scenarios, particularly those that foresee an oil shock component. • The biggest risk from the regulatory response (i.e. transition risk) was for exposures to large corporates that are most sensitive to shocks in market variables like equity indices. • The impact on smaller unlisted companies, including the Swiss corporate portfolio, was limited. The biggest risk from severe weather events (i.e. physical risk) was damage to properties in Zurich due to the concentration of assets owned here. • As UBS moves closer to full alignment with the TCFD it will better understand if UBS is impacted. This alignment will occur within the 5 year implementation pathway outlined by the TCFD.
Liabilities	Impacted for some suppliers, facilities, or product lines	<ul style="list-style-type: none"> • Amongst other growing liability impacts from climate-related risks that UBS monitors on an ongoing basis, UBS can be held liable for its failure to meet regulatory requirements. <p>This compliance risk includes climate-related requirements. In the EU, UBS is exposed to mandatory requirement known as the EU Energy Efficiency Directive, which applies to companies with 500 or more employees.</p>

		<ul style="list-style-type: none"> • To meet the requirements of this directive, UBS establishes a system and documents it in an Energy Management Manual. The Manual reflects how UBS fulfills the requirements of ISO 50001 (UBS Energy Management System) in order to ensure compliance to the EU Energy Efficiency Directive of the established environmental management system across own operations in European locations. • The impact to UBS is the cost to manage and meet the regulatory requirement. This is approximately CHF 100k for external assurance of UBS Energy Management System against the ISO 50001 standard.
Other		

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

Yes, qualitative and quantitative

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

Climate related issues are integrated into business strategy through the UBS in society organization, which is headed by UBS CEO.

- Strategy and reviews are presented to the UBS in society Operating Committee which shapes the strategy & suggests priorities to the Group Executive Board and Corporate Culture and Responsibility Committee (CCRC) for approval (with ongoing updates). At the Group Executive Board level, climate-related priorities are considered within the context of broader UBS strategy.
- Chaired by the Group Chief Risk Officer (CRO), the Global Environmental & Social Risk Committee defines an environmental and social risk (ESR) framework and independent controls that align UBS's ESR appetite with that of UBS in society. These include climate-change risks.
- UBS' first CC strategy was developed in 2006 with a main focus on our operations (40% reduction of GHG footprint by 2012 from 2004). In 2012, we achieved our target & defined a new target (-50% by 2016 from 2004, early overachieved in 2014), including our banking business and risk management to support the low-carbon economy transition. Now, we have committed to sourcing 100% of the firm's electricity from renewable sources by 2020 and reduce the firm's GHG footprint by 75% by 2020 from 2004. Further, UBS Chairman joined the European Financial Services Round Table in signing the Call for a strong, ambitious implementation of the Paris Agreement, submitted to COP22.
- How: Internal environmental experts develop & regularly review our strategy and present it to senior management. Strategy is influenced by long-term science about climate change (CC), stakeholder expectations (eg clients, investors, shareholders, governments/regulators, NGOs), CC-related societal challenges and our business model – and how UBS can best contribute to these challenges.
- Aspects: Strategy influence factors by CC are regulatory uncertainty, physical climate change factors and market uncertainty – all regarded by their direct impact on us and indirect impact through our clients. The most influencing factor in our CC strategy is the impact of the transition to a low-carbon economy. To plan for climate-related developments, UBS employs forward-looking scenario analyses, eg stress testing exercises around CC and climate-related regulatory and market developments (e.g. Paris Agreement). These exercises inform our risk management processes and our businesses & strategy.
- What: We believe the transition to a low-carbon economy is vital and we are focused on supporting our clients in preparing for success in an increasingly carbon-constrained world. As a leading global financial services provider, we do this in four different ways today:
 - We seek to protect our assets from climate change risks by limiting our risk appetite for carbon-related assets and by estimating our firm's vulnerability to climate change risks using scenario-based stress testing approaches and other forward-looking portfolio analyses. So far, no material risk on our balance sheet has been identified.
 - For example, UBS has taken a substantial business decision to limit its risk appetite for carbon-related assets. In 2018, UBS took a decision to not finance any new coal-fired projects globally, while only financing coal-fired operators that have a strategy to reduce coal dependency along a Paris Agreement-aligned pathway. Further, UBS already severely restricts capital raising for the coal-mining sector as a whole, and, support clients' to achieve "zero deforestation" in supply chains.
 - We support our clients' efforts to assess, manage and protect themselves from climate-related risks by offering innovative products and services in investment, financing and research. We have developed several products that allow clients to identify the weighted carbon intensity of their investments and / or to align them with the Paris Agreement.
 - We mobilize private and institutional capital toward investments that facilitate climate change mitigation and adaptation and we support the transition to a low-carbon economy as a corporate advisor and / or with our lending capacity.
 - We continue to reduce our greenhouse gas (GHG) emissions and increase the firm's share in renewable energy. ♣
 - Another example of a substantial business decision, in 2015, UBS set quantitative targets and continue to reduce UBS's Group-wide GHG emissions and increase our share in renewable energy in line with our commitment to RE100. This will reduce the firm's GHG footprint by 75% by 2020 compared with 2004 levels.



- In the long-term, we recognize that financial institutions are increasingly expected to play a key role in the transition to a low-carbon economy and we are determined to support our clients in preparing for success in an increasingly carbon-constrained world. As one of the leading wealth management firms worldwide and the leading universal bank in Switzerland backed by a top asset management business and a client-centered investment bank, our short and long term CC strategy focuses on the above-mentioned areas. The long-term timeframe spans over the next 30 years.
- Advantage: By including environmental and social considerations in our strategic thinking & risk management and in our products & services, we gain & retain business and position ourselves for future growth. UBS offers products and services to help its clients with the transition, and we work to create value for our clients by generating long-term, sustainable and measurable benefits with these products & services. This thinking is embedded in one of our firm's Principles, namely sustainable performance, and we focus on ensuring that our investment-related activities take into consideration long-term sustainability and the broader perspective.

C3.1d

(C3.1d) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios	Details
<p>REMIND MESSAGE-GLOBIOM Nationally determined contributions (NDCs)</p>	<p>In order to manage our own, and our clients’, risk derived from both the physical and transition risks associated with climate change, we have performed both top-down balance sheet stress testing (firm-wide UBS), as well as targeted, bottom-up analysis of specific sector exposures (in real estate, utilities, and oil & gas), in short and mid terms (where some UBS loan maturities fall), and long time horizons (2100). In doing so, we identified challenges ranging from the suitability of climate scenarios for banking risk modelling to data availability. To address these challenges, we have committed to work towards alignment and knowledge-sharing within the industry, and have selected the scenarios represented in the UNEP-FI project below.</p> <p>Our top-down approach consisted of a scenario-based stress test to assess firm-wide UBS’s balance sheet vulnerability. Leveraging its existing firm-wide top-down stress testing methodology, we developed a climate change scenario (scenario assumes severe weather events result in governments around the world agreeing to implement carbon pricing mechanisms (tax and trading) COP Paris)) to assess the impact on financial assets, operational income and physical assets. The scenario anticipates that these mechanisms will prompt a shift away from coal and other fossil fuels to cleaner alternatives and adversely impact markets and GDP. Financial impacts were moderate and in line with other stress scenarios, particularly those that foresee an oil shock component. The biggest risk from the regulatory response (i.e. transition risk) was for exposures to large corporates that are most sensitive to shocks</p>

	<p>in market variables like equity indices. The impact on smaller unlisted companies, including the Swiss corporate portfolio, was limited.</p> <p>This analysis was however instrumental in UBS senior management decision to limit our risk appetite in sectors with carbon-related assets (restricting/excluding certain coal financing).</p> <p>In the most recently scenario analysis, UBS collaborated with UNEP-FI and 16 banks. The working group uses Integrated assessment models (IAMs) as key scenario inputs. These are a suite of integrated energy-economy-climate models developed by the scientific community. These models explore the relationship between emissions, the climate outcome until 2100, and socioeconomic developments including a detailed representation of the energy and land-use systems. Have been relied upon in various Intergovernmental Panel on Climate Change assessments, which is the international body for assessing the science related to climate change.</p> <p>We tested the methodologies developed in this working group for both transition risk and physical risk. The transition risk tool that uses a combined top-down and bottom-up approach has mainly highlighted challenges of translating climate transition scenarios into banking risk models based on macroeconomic factors. Bottom-up analysis is time consuming and not suited for international, multi-sector analysis. The physical climate risk methodology has highlighted additional challenges, mainly relating to lack of data related to climate risk and its impact on production processes, and asset-level information of individual companies</p> <p>Findings of this pilot confirmed what we had found in previous pilot stress tests that we have been performing on climate since 2014: We have so far not identified significant climate-related financial risk on our balance sheet.</p> <p>We should however continue to work on improving data availability, scenario applicability and methodology development. As long as they are not reliably available, we cannot consider respective financial risk analysis to be robust. A 2019 expansion of this effort to 38 banks and more academic partners will seek to address identified challenges. UBS will also partner with 2 degrees investing initiative in 2019/2020, to test the alignment of its lending portfolio (corporate), with Paris Agreement-linked scenarios (PACTA)</p>
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C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Scope

Scope 1+2 (market-based) +3 (upstream)

% emissions in Scope

100

Targeted % reduction from base year

75

Base year

2004

Start year

2006



Base year emissions covered by target (metric tons CO2e)

360,502

Target year

2020

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

% of target achieved

87

Target status

Underway

Please explain

UBS' first climate change strategy was developed in 2006. So far, the strategy has been updated twice, in 2012 and 2015. In 2012, our reduction target was updated with the guidance of Sir David King and his team from the Smith School of Enterprise and the Environment at Oxford University. Sir David King was the Chief Scientific Adviser to H.M. Government under both Tony Blair and Gordon Brown and Head of the Government Office for Science.

Target reference number

Abs 2

Scope

Scope 1

% emissions in Scope

100

Targeted % reduction from base year

100

Base year

2004

Start year

2006

Base year emissions covered by target (metric tons CO2e)

41,858

Target year

2040

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

% of target achieved

72

Target status

Underway

Please explain

Replacement of all fossil-fuel heating systems in owned real estate at end of life.

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target

Renewable electricity consumption

KPI – Metric numerator

% of renewable electricity (in relation to total electricity consumption)

KPI – Metric denominator (intensity targets only)

Base year

2004

Start year

2015

Target year

2020

KPI in baseline year

28

KPI in target year

100

% achieved in reporting year

59

Target Status

Underway

Please explain

UBS is part of the RE100 initiative and aims to source 100% renewable energy by 2020

Part of emissions target

Is this target part of an overarching initiative?

RE100

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	3	197
To be implemented*	0	0
Implementation commenced*	9	694
Implemented*	21	21,864
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative type

Energy efficiency: Building services

Description of initiative

Other, please specify

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

280

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

75,000

Investment required (unit currency – as specified in C0.4)

375,000

Payback period

4 - 10 years

Estimated lifetime of the initiative

6-10 years

Comment

Measures include changes of LED lighting

Initiative type

Energy efficiency: Building services

Description of initiative

Other, please specify
Building operations

Estimated annual CO2e savings (metric tonnes CO2e)

266

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

71,000

Investment required (unit currency – as specified in C0.4)

230,000

Payback period

4 - 10 years

Estimated lifetime of the initiative

6-10 years

Comment

This includes a MSRL system renovation in Switzerland and four operational improvements in the Americas (data center, cooling system, air conditioning)

Initiative type

Energy efficiency: Building fabric

Description of initiative

Insulation

Estimated annual CO2e savings (metric tonnes CO2e)

29

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

3,500

Investment required (unit currency – as specified in C0.4)

85,000

Payback period

>25 years

Estimated lifetime of the initiative

>30 years

Comment

Measure concern a facade renovation in Switzerland

Initiative type

Energy efficiency: Building fabric

Description of initiative

Other, please specify

New building in London

Estimated annual CO2e savings (metric tonnes CO2e)

7,618

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

4,000,000

Investment required (unit currency – as specified in C0.4)

80,000,000

Payback period

21-25 years

Estimated lifetime of the initiative

21-30 years

Comment

Employees moved to a highly efficient building in London

Initiative type

Low-carbon energy purchase

Description of initiative

Other, please specify

Wind, Hydropower,PV

Estimated annual CO2e savings (metric tonnes CO2e)

13,672

Scope

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

30,000

Payback period

>25 years

Estimated lifetime of the initiative

<1 year

Comment

Our company has purchased Renewable Electricity since 2007. In 2018 we sourced additional RE in Mexico, USA, Monaco.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	The Zurich Energy Model is a capacity building project established in 1987 by fourteen major energy consumers - among them UBS - in the city of Zurich. The objective of the firms involved in the Zurich Energy Model is a joint increase in energy efficiency, to optimize investments and corporate costs, and to communicate innovative solutions to the general public. In 2013, the group agreed with canton Zurich to set a revised target of increasing energy efficiency by 40% until 2020 based on 2000 (old target 16.5% between 2000 and 2012). In 2007, UBS was awarded the Zurich Energy Model trophy for its achievements and successes in the field of energy efficiency and energy management.
Dedicated budget for energy efficiency	As part of the climate change strategy, a dedicated budget for energy efficiency measures has been established.
Dedicated budget for other emissions reduction activities	As part of the climate change strategy, a dedicated budget for other emission reductions (such as offsetting) has been established.
Employee engagement	By providing incentives, education and awareness on environmental matters to its employees and suppliers, we encourage people to make the right choices and promote sustainable behavior both at work and in their domestic situations. In 2017 UBS provided training and awareness raising to some 3700 employees.
Financial optimization calculations	Financial optimization calculations are a standard method to identify and assess projects to reduce energy consumption and as a result reduce carbon emissions.
Lower return on investment (ROI) specification	UBS has adopted a technical standard supporting worldwide oversight of measures taken to improve energy efficiency in fields such as building operation, replacement investments and rehabilitations. The standard sets energy efficiency target values, for example for heating boilers, chillers and heat pump systems as well as for glazing, facades and lighting. It also includes a specification to assess projects according to their live-cycle costs.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

We support our client's efforts to assess, manage and protect them from climate related risks by offering innovative products and services in investment, financing and research. In 2018, we rolled out a series of low- carbon products and services to our clients that reduce energy use, improve access to renewable energy sources, and invest in companies that have a track record of reducing carbon emissions as well as align their carbon reduction strategy with the transition to a low- carbon economy.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

UBS proprietary calculation based

% revenue from low carbon product(s) in the reporting year

2.8

Comment

2.8% is a proxy as it represents the portion of total invested assets that are formally categorized as low-carbon.

—Our Asset Management (AM) business has developed the capability for equity portfolio managers to examine the carbon footprint of their portfolios and comparing the relative carbon footprints of their company holdings to that of the benchmark. Carbon emissions data is also made available to all equity portfolio managers through the Portfolio Optimization Platform (6k companies).

— In 2018, AM followed its successful UK Climate Aware fund with an Irish based fund that is available for international investors. Portfolio is oriented towards companies that are better prepared for a low carbon future while reducing exposure to, rather than excluding, companies with higher carbon risk, in order to pursue strategic engagement with these companies. The strategy involves not only a reduction of the CO2 footprint of the portfolio but also an innovative approach to aligning the portfolio with the two degree carbon reduction scenario in the future. The Climate Aware fund received Fund Launch of the Year award from Funds Europe Magazine. The solution provides a unique way for investors to reduce passive portfolio exposures to carbon risks.

—AM engages with companies in which it invests on behalf of clients to discuss approaches to mitigating climate-related risk, as well as actively voting on shareholder resolutions to improve transparency and disclosure around climate-related reporting. Engagement makes it possible to share the results of the quantitative and qualitative assessments included in the fund methodology with investee companies too. This allows for the verification of company performance with additional information collected before and after meetings. It also means AM can collect feedback, explicitly communicate objectives for change in corporate practices and further enhance the model used to inform the under / overweights in the strategy.

-- Our AM and GWM businesses have in place a comprehensive approach to environmental and social factors and to corporate governance across investment disciplines. The 2018 GRESB (Global Real Estate Sustainability Benchmark) awarded ten of AM's real estate and infrastructure funds 5 – star ratings, and seven funds ranked first in their respective peer groups.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2004

Base year end

December 31, 2004

Base year emissions (metric tons CO₂e)

41,858

Comment

Scope 2 (location-based)

Base year start

January 1, 2004

Base year end

December 31, 2004

Base year emissions (metric tons CO₂e)

243,308

Comment

Scope 2 (market-based)

Base year start

January 1, 2004

Base year end

December 31, 2004

Base year emissions (metric tons CO₂e)

219,727

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

Defra Voluntary 2017 Reporting Guidelines

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

Other, please specify

VfU

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.



Methodology in VfU Indicators (available on www.vfu.de) The VfU indicators to measure the in-house environmental performance of financial institutions were presented in 1996 by the Association of 'Environmental Management in Banks, Saving Banks, and Insurance Companies' (German abbreviation VfU) and have since been widely applied within financial institutions.

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO₂e?

Reporting year

Gross global Scope 1 emissions (metric tons CO₂e)

11,522

Start date

July 1, 2017

End date

June 30, 2018

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO₂e?

Reporting year

Scope 2, location-based

150,957

Scope 2, market-based (if applicable)

99,216

Start date

July 1, 2017

End date

June 30, 2018

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Hydrofluorocarbons (HFCs) (Air-conditioning, chillers, etc)

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions excluded

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions excluded

Explain why this source is excluded

Not a material source of greenhouse gases for the business - analysis done and confirmed by external auditor (ISO 14064)

C6.5

(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

9,436

Emissions calculation methodology

Emissions related to production of used paper. Papier is one of the biggest continuous material accounts of a financial institution. Activity data: quantity of purchased paper Emissions factor: based on a study on emissions from paper lifecycle GWP. Same as Scope 1 and 2 data quality: high data quality External verification according to ISO 14064 performed by EY.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Capital goods

Evaluation status

Not relevant, explanation provided

Explanation

GHG emissions from capital goods are not considered to be relevant nor material for our company (as a financial services firm). Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy. The application of the principles is fundamental to ensure that GHG related information is a true and fair account. Relevance: To be useful, information must be relevant to the decision-making needs of users. Information has the quality of relevance when it is capable of making a difference in a decision of users by helping them to evaluate past, present or future events, or to confirm or correct prior expectations and evaluations. To be relevant, information must have predictive value or feedback value or both and it must be timely.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Not relevant, explanation provided

Explanation

GHG emissions from fuel-and-energy-related activities are not considered to be relevant nor material for our company. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy. The application of the principles is fundamental to ensure that GHG related information is a true and fair account.

Relevance: To be useful, information must be relevant to the decision-making needs of users. Information has the quality of relevance when it is capable of making a difference in a decision of users by helping them to evaluate past, present or future events, or to confirm or correct prior expectations and evaluations. To be relevant, information must have predictive value or feedback value or both and it must be timely.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Explanation

GHG emissions from upstream transportation and distribution are not considered to be relevant nor material for our company. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy. The application of the principles is fundamental to ensure that GHG related information is a true and fair account. Relevance: To be useful, information must be relevant to the decision-making needs of users. Information has the quality of relevance when it is capable of making a difference in a decision of users by helping them to evaluate past, present or future events, or to confirm or correct prior expectations and evaluations. To be relevant.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4,526

Emissions calculation methodology

Emissions related to the generation of waste Activity data: Quantity of generated waste sent to landfill or incineration Emissions factor: from Ecoinvent database GWP: same as Scope 1 and 2 Data quality: High data quality External verification according to ISO 14064 performed by EY.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

51,093

Emissions calculation methodology

Business travel, in the form of business trips and visits to clients, is an important environmental aspect of a financial institution, particularly for globally-active companies due to air travel. Activity data: Distance traveled Emissions factor: from Ecoinvent database or Defra / DECCs Guidance GWP: same as Scope 1 and 2 Data quality: High data quality External verification according to ISO 14064 performed by EY. Methodology described in Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting - Annex 6 - Passenger Transport: Air Passenger Transport Conversion Factors Developed by AEA (2009) using the methodology developed in discussion with the Department for Transport and the airline industry, 2008. These emissions factors are intended to be an aggregate representation of the typical emissions per passenger km from illustrative types of aircraft for the 3 types of air services.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Employee commuting

Evaluation status

Not relevant, explanation provided

Explanation

GHG emissions from employee commuting are not considered to be relevant nor material for our company. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy. The application of the principles is fundamental to ensure that GHG-related information is a true and fair account. Relevance: To be useful, information must be relevant to the decision-making needs of users. Information has the quality of relevance when it is capable of making a difference in a decision of users by helping them to evaluate past, present or future events, or to confirm or correct prior expectations and evaluations. To be relevant, information must have predictive value or feedback value or both and it must be timely.

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

6,334

Emissions calculation methodology

Emissions related to leased office space. Activity data: Estimated energy used for heating purposes in lease office space. (Electricity included in scope 2 emissions) Emissions factor: same as scope 1 or 2 GWP: same as Scope 1 and 2 Data quality: High data quality External verification according to ISO 14064 performed by EY.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Explanation

As a financial services company, emissions from transportation and distribution of products sold, are not relevant nor material. Transportation of own staff is included in business travel. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Explanation

As a financial services company, emissions from processing of sold products, are not relevant nor material. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy.

Use of sold products

Evaluation status

Not relevant, explanation provided

Explanation

As a financial services company, emissions from use of sold products, are not relevant nor material. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Explanation

As a financial services company, emissions from end of life treatment of sold products, are not relevant nor material. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

GHG emissions from downstream leased assets are either already included in scope 1 and 2 emissions or the emissions are not material. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy.

Franchises

Evaluation status

Not relevant, explanation provided

Explanation

UBS do not operate franchises.

Investments

Evaluation status

Not relevant, explanation provided

Explanation

As there is no industry-wide developed and agreed standardized methodology and approach to calculate scope 3 emissions from investments for financial services-type companies, this category as a Scope 3 emissions inventory is not relevant to UBS. In place of this industry gap for the financial services industry, UBS undertakes an alternative approach to evaluating emissions trajectories associated with its investing/financing activities. As outlined under C3 ("Business Strategy" and "Scenario Analysis"), UBS plans to conduct a forward-looking analysis of the GHG emissions trajectories of its financing activities, in relation to Paris Agreement pathways, in 2019 (through the 2 degrees investing initiative and PACTA tool development).

Going forward, UBS plans to further align our disclosure within the five-year pathway outlined by the TCFD and collaborate within the industry to close gaps, like those in calculating scope 3 emissions related to investments. In June 2017, the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) provided its recommendations on climate-related disclosures. They call on companies to disclose the impacts of climate change on their businesses. Investors and financial institutions will gain transparency to help them make better investment decisions with a common set of data to assess the climate change risks and opportunities of specific companies (including footprinting of investment portfolios).

Other (upstream)

Evaluation status

Not relevant, explanation provided

Explanation

No relevant emissions in this category. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Explanation

No relevant emissions in this category. Our GHG accounting and reporting is externally verified by EY according to ISO 14064 and is based on the principles: relevance, completeness, consistency, transparency and accuracy.

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00000367

Metric numerator (Gross global combined Scope 1 and 2 emissions)

110,738

Metric denominator

unit total revenue

Metric denominator: Unit total

30,213,000,000

Scope 2 figure used

Market-based

% change from previous year

17.2

Direction of change

Decreased

Reason for change

Intensity figure in metric tonnes per operating income in CHF. Reasons for change: The decrease in this intensity figure is driven by increase in operating income of 6.7% (Total operating income was CHF 30,213 million in 2018 compared with CHF 28,320 million in 2017) and decrease of 11.7% of combined scope 1 and 2 emissions.

This was mainly driven by energy efficiency measures in the building portfolio (operational improvements, investments in energy efficient equipment), IT infrastructure (data center efficiency), sustainable renovation of buildings and the move into more efficient buildings (building portfolio strategy), increase in share of renewables.

Intensity figure

1.72

Metric numerator (Gross global combined Scope 1 and 2 emissions)

110,738

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

64,281

Scope 2 figure used

Market-based

% change from previous year

15.1

Direction of change

Decreased

Reason for change

The reduction of 15.1% is due to a 4% increase in the number of FTE's and the decrease of 11.5% of combined scope 1 and 2 emissions. This was mainly driven by energy efficiency measures in the building portfolio (operational improvements, investments in energy efficient equipment), IT infrastructure (data center efficiency), sustainable renovation of buildings and the move into more efficient buildings (building portfolio strategy), increase in share of renewables.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	11,494	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	17	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	11	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Switzerland	7,761
United Kingdom of Great Britain and Northern Ireland	1,505
United States of America	2,007
Other, please specify Rest of world	249

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By activity

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Stationary combustion	11,327
Mobile combustion	196

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons)	Scope 2, market-based (metric tons)	Purchased and consumed electricity, heat, steam or	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted
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	CO2e)	CO2e)	cooling (MWh)	in market-based approach (MWh)
Switzerland	5,175	1,538	159,634	159,634
United Kingdom of Great Britain and Northern Ireland	30,767	0	71,056	71,056
United States of America	58,544	45,264	155,447	27,215
Other, please specify Rest of the world	56,471	52,413	101,746	11,140

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By activity

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Electricity	146,554	94,812
District heating	4,404	4,404

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	13,672	Decreased	10.9	We bought additional renewable energy in Mexico, Monaco & USA
Other emissions reduction activities	8,192	Decreased	6.5	Emissions were reduced by 6.5% as result of implemented energy measures in the building portfolio (operational improvements, investments in energy efficient equipment). Last year 8192t CO2e were reduced by our emissions reduction projects and our total Scope 1 and Scope 2 in the previous year was 125'407t CO2e, therefore we arrive at 6.5% $(8192/125'407)*100=6.5\%$
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	0	No change	0	
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating	6,270	Increased	5	Weather conditions were much hotter than in previous years (especially the summer was very hot). Therefore the consumption of electricity for cooling went up

conditions				
Unidentified	207	Increased	0.2	
Other	0	No change	0	

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes

Generation of electricity, heat, steam, or cooling	Yes
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C8.2a

(C8.2a) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	59,682	59,682
Consumption of purchased or acquired electricity		270,429	186,376	456,805
Consumption of purchased or acquired heat		39,426	27,295	66,721
Consumption of purchased or acquired cooling		232	0	232
Consumption of self-generated non-fuel renewable energy		257		257
Total energy consumption		310,344	273,353	583,698

C8.2b

(C8.2b) Select the applications of your organization’s consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

52,742

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

52,742

Comment

Fuels (excluding feedstocks)

Distillate Oil

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

4,737

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

4,737

Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

801

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

801

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1,402

MWh fuel consumed for self-generation of electricity

1,402

MWh fuel consumed for self-generation of heat

0

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor

251.5

Unit

kg CO2e per MWh

Emission factor source

UK Defra 2016

Comment

Distillate Oil

Emission factor

267.82

Unit

kg CO2e per MWh

Emission factor source

UK Defra 2016

Comment

Motor Gasoline

Emission factor

240.53

Unit

kg CO2e per MWh

Emission factor source

UK Defra 2016

Comment

Natural Gas

Emission factor

184

Unit

kg CO2e per MWh

Emission factor source

UK Defra 2016

Comment

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	958	958	257	257
Heat	57,479	57,479	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor

Contract with suppliers or utilities (e.g. green tariff), supported by energy attribute certificates

Low-carbon technology type

Solar PV

Wind

Hydropower

Region of consumption of low-carbon electricity, heat, steam or cooling

Other, please specify

worldwide

MWh consumed associated with low-carbon electricity, heat, steam or cooling

226,144

Emission factor (in units of metric tons CO₂e per MWh)

0

Comment

Our offices in Switzerland, Germany, Luxembourg, UK and New Zealand have contracts with suppliers which guarantee electricity from renewable sources (backed by local certificates, such as GO, REC etc).

Basis for applying a low-carbon emission factor

Contract with suppliers or utilities (e.g. green tariff), not supported by energy attribute certificates

Low-carbon technology type

Other low-carbon technology, please specify

Waste incineration and biomass

Region of consumption of low-carbon electricity, heat, steam or cooling

Other, please specify
worldwide

MWh consumed associated with low-carbon electricity, heat, steam or cooling

14,393

Emission factor (in units of metric tons CO₂e per MWh)

0.107

Comment

Various offices are connected to district heating with low carbon emission factor (e.g. waste incineration, biomass)

Basis for applying a low-carbon emission factor

Contract with suppliers or utilities (e.g. green tariff), not supported by energy attribute certificates

Low-carbon technology type

Solar PV

Wind

Hydropower

Region of consumption of low-carbon electricity, heat, steam or cooling

Other, please specify
worldwide

MWh consumed associated with low-carbon electricity, heat, steam or cooling

1,294

Emission factor (in units of metric tons CO₂e per MWh)

0

Comment

Estimated MWh consumed associated with low carbon electricity in markets with no certification system in place.

Basis for applying a low-carbon emission factor

Energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type

Wind

Region of consumption of low-carbon electricity, heat, steam or cooling

North America

MWh consumed associated with low-carbon electricity, heat, steam or cooling

27,975

Emission factor (in units of metric tons CO₂e per MWh)

0

Comment

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 ISO 14064 - EY assurance report.pdf

Page/ section reference

Page 1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 ISO 14064 - EY assurance report.pdf

Page/ section reference

Page 1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 ISO 14064 - EY assurance report.pdf

Page/ section reference

Page 1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope

Scope 3- all relevant categories

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Attach the statement

 ISO 14064 - EY assurance report.pdf

Page/section reference

Page 1

Relevant standard

ISO14064-3

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Renewable energy products	ISO 14064-3	EY performs a reasonable assurance engagement on an annual basis. Verification of renewable energy purchase is an essential part of our greenhouse gas footprint calculation. It covers 100% of our operations globally. EY - ISO 14064 Assurance Report.pdf
C8. Energy	Other, please specify Energy consumption	ISO 14064-3	EY performs a reasonable assurance engagement on an annual basis. Verification of energy consumption (such as gas, oil, fuels, district heat and cooling, electricity) is an essential part of our greenhouse gas footprint calculation. It covers 100% of our operations globally. EY - ISO 14064 Assurance Report.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

Switzerland carbon tax

C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.

EU ETS

% of Scope 1 emissions covered by the ETS

9

Period start date

January 1, 2018

Period end date

December 31, 2018

Allowances allocated

0

Allowances purchased

1,138

Verified emissions in metric tons CO₂e

1,042

Details of ownership

Facilities we own and operate

Comment

C11.1c

(C11.1c) Complete the following table for each of the tax systems in which you participate.

Switzerland carbon tax

Period start date

January 1, 2018

Period end date

December 31, 2018

% of emissions covered by tax

67

Total cost of tax paid

808,000

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

UBS is committed to be certified according to ISO 14001 and 50001, which ensures compliance with all local regulations where UBS is operating. The goals we set yearly for energy efficiency and the measures we implement to achieve them also take into account carbon pricing systems.

In the UK, for example, we are required to purchase allowances according to our CO2 emissions at our building at 5 Broadgate and our data center in London. Here we work with an external provider (ecoact): They track and verify our emissions and support us with purchasing the correct amount of

allowances and implementing our strategy. Additionally, 5 Broadgate is a new and highly energy efficient building, which enabled us to move employees from our less efficient buildings there. This resulted in overall lower energy consumption and less CO2 emissions, so we have to purchase less allowances.

UBS also uses an internal price on carbon.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

- Navigate GHG regulations
- Stakeholder expectations
- Drive energy efficiency
- Drive low-carbon investment
- Stress test investments
- Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Scope 2

Scope 3

Application

UBS employs differentiated carbon pricing depending on the business unit and region in which the internal carbon price is used.

In Switzerland for in-house operations, a price as set by the Swiss CO2 Levy is referenced when pricing internal investments in cleaner energy systems. This price is held as a price point for decision making on financial planning costs.

For risk management, scenario-based carbon prices used in scenario analyses are taken as guidance and input. These are considered modeled information, specific to a scenario, and therefore have a more research-based advisory role in decision-making, rather than strict guidance.

Actual price(s) used (Currency /metric ton)

110

Variance of price(s) used

UBS employs differentiated carbon pricing depending on the business unit and region in which the internal carbon price is used. Carbon prices progress from 0 in 2015 to over 100+ in subsequent decades, as implied by the scenario (for risk management). CO2 Levy prices in Switzerland are as set by the government.

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In Switzerland for in-house operations, a price as set by the Swiss CO2 Levy is referenced when pricing internal investments in cleaner energy systems. This price is held as a price point for decision making on financial planning costs.

For risk management, scenario-based carbon prices used in scenario analyses are taken as guidance and input. These are considered modeled information, specific to a scenario, and therefore have a more research-based advisory role in decision-making, rather than strict guidance.

Type of internal carbon price

Shadow price

Implicit price

Impact & implication

Our top-down approach uses an internal carbon price to assess UBS balance sheet vulnerability, consisted of a scenario-based stress test.

Leveraging its existing firm-wide top-down stress testing methodology, we developed a climate change scenario and its related regulatory response to assess the impacts on financial assets, operational income and physical assets.

Financial impacts were moderate and in line with other stress scenarios, particularly those that foresee an oil shock component. The biggest risk from the regulatory response (i.e. transition risk) was for exposures to large corporates that are most sensitive to shocks in market variables like equity indices.

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In Switzerland for in-house operations, a price as set by the Swiss CO2 Levy is referenced when pricing internal investments in cleaner energy systems. This price is held as a price point for decision making on financial planning costs.

For risk management, scenario-based carbon prices used in scenario analyses are taken as guidance and input. These are considered modeled information, specific to a scenario, and therefore have a more research-based advisory role in decision-making, rather than strict guidance.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

Climate change performance is featured in supplier awards scheme

Offer financial incentives for suppliers who reduce your downstream emissions (Scopes 3)

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% Scope 3 emissions as reported in C6.5

93.3

Rationale for the coverage of your engagement

The UBS Responsible Supply Chain Management (RSCM) approach is contract-based. All suppliers must agree to the Responsible Supply Chain Standard (including requirements towards environment (including climate performance), human right, health and safety and anti-corruption), for contracts to be awarded. Supplier relationships are terminated for non-compliance.

To assess the compliance with the Responsible Supply Chain Standard, we focus on suppliers with high impact (i.e. high potential for environmental and social risks and climate related issues). In 2018, our sourcing and procurement services continued to be performed by Chain

IQ, a company that applies UBS' unchanged RSCM framework and processes. The RSCM framework is operated by experienced and specifically trained procurement and sourcing specialists (in 2018, 67 specialists were trained globally) and supported by internal and external experts.

Strategy for Prioritization· The RSCM framework includes an impact assessment of newly sourced goods and services, which takes into account potential environmental impacts along the lifecycle of a product or a service, and all purchased goods and services are categorized accordingly Suppliers of potentially high-impact goods or services, are requested to conduct a self- assessment on their responsible management practices and to provide corresponding evidence. Actual and potential negative impacts that are considered in the impact assessment of purchased goods and services include:- Adverse environmental impacts due to inefficient use of resources (e.g. water, energy, biomass) and emissions during the lifecycle of the product- Hazardous substances, emissions, pollutants and limited biodegradability of products, adversely affecting people and the environment- Unfair employment practices, e.g. low wages, excessive overtime, absence of occupational health & safety measures- Risks for consumer health and safety, e.g. low indoor air quality, inappropriate warning signage- Procurement and use of materials with a strongly negative environmental and/or social impact- Insufficient management of subcontractors regarding sustainability aspects

Impact of engagement, including measures of success

In 2018, 224 suppliers were classified as suppliers that provide UBS with goods or services with potentially high impacts, both newly sourced as well as ongoing engagements, which are regularly re-assessed. 27% of these suppliers were considered as in need of improving their management practices.

Specific remediation actions were agreed with all of them and the implementation progress has been closely monitored.

In 2018, no UBS supplier relationship was terminated as a result of RSCM assessments. This can partly be related to the fact that we assess the supplier's potential risks before entering into a contract with them.

We estimate the 224 new and potentially high-impact suppliers to be about 20% of our spend based upon previous years data, however this number is subject to revision. We also screened all our significant active suppliers for environmental and human rights issues and 9 suppliers with potential material risks were referred to a specialized environmental and social risk unit for enhanced due diligence.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

100

% Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

We engage with corporate clients on enhanced transaction due diligence when conducting Investment Banking transactions (advisory, lending, equity or bond underwriting) transactions, which are linked to high GHG emitting projects or business activities that have a close link to and negative impact on climate change.

Corporate clients/customers present proportionally large impacts on emissions (from their commercial activities) and thus opportunities to mitigate emissions, and Investment Banking transactions are directly linked to commercial activities of those clients in many cases.

We prioritize engagement where the GHG (or other climate change sensitive) impact of the project is material to the climate change issue. This is the case e.g. for coal-fired power plants or the palm oil sector. There are various ways of evaluating success in this context.



Impact of engagement, including measures of success

An engagement is particularly successful if we can facilitate change in behaviour on the client side (e.g. that based on our engagement the client commits to joining the Roundtable on Sustainable Palm Oil and establishes a time-bound plan to certifying their palm oil plantations in a certain time frame). Alternately on coal power, an engagement is successful if a client can present a time-bound plan that aligns with the coal power diversification trajectory of a Paris-aligned climate scenario.

The impacts are proportionally greater on emissions abatement, as such engagements shift the forward-looking strategies of corporate clients. Impacts vary based on the size of the current misalignment with climate objectives, and the size of the client.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Carbon tax	Support	Joining others in support of the Paris Agreement, UBS signed the World Economic Forum’s open letter from CEOs to world leaders urging climate action.	We believe that effective climate policies have to include explicit or implicit prices on carbon achieved via market mechanisms or coherent legislative measures according to national preferences, which will trigger low-carbon investment and transform current emission patterns at a significant scale. We support global mitigation approaches that promote cost effective incentives for cutting emissions, while respecting level playing fields and preventing carbon leakage. We urge a strategic action agenda?—?supported by clear and consistent policies and robust monitoring, reporting and verification (MRV)?—

			<p>?that will complement business efforts to stimulate innovation as well as collaborative actions across value chains, and to develop and scale up alternative and renewable energy sources, promote energy efficiency, end deforestation and accelerate other low-carbon options and technologies such as ICT. We welcome transparency and disclosure regarding financial investments and policies in relation to all energy-related activities?—?including fossil-based and alternative. We support assessments of resilience to climate risks and call for new financial instruments to stimulate alternative energy and efficiency projects as well as green bonds. This will enable climate action to be integrated with financial reporting and instruments. We encourage governments to set science-based global and national targets for the reduction of GHG emissions and the development of alternative energy sources.</p>
Mandatory carbon reporting	Support with minor exceptions	Further supporting the Paris Agreement, UBS signed the European Financial Services Round Table statement in support of a strong, ambitious response to climate change.	<p>We will work with policy-makers and regulators to incentivize and leverage further private climate finance, co-operating closely with national and international development banks. There is further scope for expanding the activity of these existing and emerging institutions to fulfil their potential in driving private investment flows into low carbon and renewable energy projects. It is equally important that they both take emissions positively into account when assessing a project and ensure their wider investments do not undermine climate change objectives. We will work with policy-makers and companies on consistent voluntary standards for disclosure by companies. A consistent and comparable mechanism for disclosing information on carbon emissions and climate change strategy will assist sustainable investor decisions and allow stress testing of climate change risk within a portfolio. We will work with policy-makers, regulators and companies to develop methods for assessing forward-looking exposure to climate-related risks, providing greater transparency of preparedness and sensitivity to climate risk of investee companies and issuers.</p>
Climate	Support	Joint statement by our CEO and the alliance	A global network of chief executive officers who see the business benefits of

finance		members to urge G20 governments to act on the recommendations of the TCFD.	<p>bold and proactive action to ensure a smooth transition to a low-carbon and climate-resilient economy. The group represents business leaders from diverse industry sectors and regions that use their position and influence to drive change.</p> <p>Priority areas for this group include: implementation of the Financial Stability Board’s Task Force recommendations on Climate-related Financial Disclosures; building support for effective carbon markets; and, transformational change in the energy, mobility and agriculture value chains.</p>
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C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Financial Stability Board, Task Force on Climate-Related Financial Disclosures

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association’s position

The TCFD seeks to develop recommendations for voluntary climate-related financial disclosures that are consistent, comparable, reliable, clear, and efficient, and provide decision-useful information to lenders, insurers, and investors. The TCFD believes that better access to data will enhance how climate-related risks are assessed, priced, and managed. Companies can more effectively measure and evaluate their own risks

and those of their suppliers and competitors. Investors will make better informed decisions on where and how they want to allocate their capital. Lenders, insurers and underwriters will be better able to evaluate their risks and exposures over the short, medium, and long-term.

How have you influenced, or are you attempting to influence their position?

Our Head Sustainable Equity Team at Asset Management is a member of the task force and helped to shape the recommendations the task force has made to financial institutions and corporations.

Trade association

Swiss Bankers Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Position on Switzerland's energy strategy (which is linked to climate change as it directs a transition to renewable energy sources) is supportive, with some reservations on the impact on the Swiss economy and energy security which is a high priority for banks.

How have you influenced, or are you attempting to influence their position?

As a member of the Swiss Bankers Association (SBA), UBS took part in the consultation process for the Swiss Energy Strategy 2050. We worked on influencing the position in line with our climate change commitment and the role of banks in the transition towards a low-carbon economy.

Trade association

Verein für Umweltmanagement und Nachhaltigkeit in Finanzinstituten (VfU)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

VfU has a position statement on the financing of the energy transition. The six core aspects are: 1) security of energy service, 2) security of planning, 3) currently continued support of renewable energy investments, 4) energy transition is more than renewable energy development, 5) supporting cap and trade schemes, 6) regulating financial market may impede the financing of the energy transition. This position was mainly developed with the energy transition in Germany in mind.

How have you influenced, or are you attempting to influence their position?

We have influenced their position as a member of the board and have participated in the discussions to shape a position paper that would be in line with our climate change strategy.

Trade association

Economiesuisse

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Economiesuisse promotes a coordinated global approach to tackle the challenges caused by climate change. The approach should allow companies to develop innovative solutions and technologies. Economiesuisse promotes a reliable, affordable, and environmentally friendly energy supply.

How have you influenced, or are you attempting to influence their position?

We have participated in the discussions to shape a position that would be in line with our climate change strategy.

Trade association

Institute of International Finance (IIF) Sustainable Finance Working Group

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

IIF member firms around the world have been launching a wealth of new products, investment vehicles and programs to help bring sustainability considerations into the mainstream of global finance. The IIF helps connect these initiatives and align forces with public sector efforts to reach the same vitally important goals. E.g. the IIF supports the recommendations of the Task Force on Climate-related Financial Disclosures.

How have you influenced, or are you attempting to influence their position?

Our Board Chair was instrumental in establishing the Sustainable Finance Working Group, as Chairman of the IIF.

Trade association

United Nations Environment Program – Finance Initiative (UNEP-FI) climate and banking working group

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Supports implementation of the recommendations of the Task Force on Climate-related Financial Disclosures, specifically the recommendation on scenario analysis. The working group foci are on refining methodologies, climate scenarios and data sources to measure climate-related financial risk in loan portfolios, under climate change physical and transition risk scenarios. Providing legal guidance for climate risk disclosure and promoting industry learning and adaptation by including a larger group of banks than in phase I (16) and communicating about the project.

How have you influenced, or are you attempting to influence their position?

UBS was a founding member bank of the initiative, as part of the original founding working group on TCFD recommendations UBS helped to shape the objectives and methodologies which are now employed across more than double the banks in a broader initiative (Phase II).

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

- UBS' governance of sustainability ensures that relevant functions are involved and informed about UBS' climate change strategy. The Board of Directors' Corporate Culture and Responsibility Committee (CCRC), chaired by the UBS Chairman (=Board Chair), and with the Group CEO and the Head UBS in society as permanent guests, meets six times a year. The CCRC regularly considers UBS' strategy on climate change, including also external engagements & positions and relevant regulatory developments.
- The UBS in society Operating Committee, chaired by the Head UBS in society (reporting directly to the Group CEO) ensures that relevant aspects are communicated to and discussed with the CCRC and relevant functions within the firm, including Group Governmental Affairs.
- Internal communication of the climate change strategy ensures all employees are informed and educated about the firm's climate change strategy. For example, regular intranet articles inform employees about our CC strategy and the economic impact of CC on the economy and the financial sector.
- Both the Chairman and Group CEO of UBS are directly involved in initiatives that influence policy consistent with our firm's climate change strategy (including e.g. via the World Economic Forum CEO Climate Leader Alliance). In addition:
 - UBS contributes to pertinent external discussions and consultation, including on climate-related matters. UBS is a member of the Sustainable Finance Working Group and is represented on the TCFD. Headquartered in Switzerland, UBS representatives regularly interact with government officials, including on climate-related matters.
 - UBS chairs the joint CSR working group of major Swiss trade associations economiesuisse and SwissHoldings, which consider sustainability topics, including climate change. It is also a member of economiesuisse's working group on energy, which also considers climate change, including how it pertains to policy-making in Switzerland.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

 gri-2018-en.pdf

Page/Section reference

2018 GRI reporting document contains UBS TCFD-aligned climate strategy disclosure, starting on page 37.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

UBS GRI was part of its regulatory filings in 2018, in the US and Germany (year-end financial filings).

Publication

In voluntary communications

Status

Complete

Attach the document

 ubs-climate-strategy-march-2019-en.pdf

Page/Section reference

2018/2019 Climate Strategy document is TCFD-aligned climate-specific disclosure document for UBS.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication

In other regulatory filings

Status

Complete

Attach the document

 gri-2018-en.pdf

Page/Section reference

2018 GRI reporting document contains UBS TCFD-aligned climate strategy disclosure, starting on page 37.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics



Comment

UBS GRI was part of its regulatory filings in 2018, in the US and Germany (year-end financial filings).

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	UBS Group AG Chair, Axel A. Weber Chairman of the Board of Directors / Chairperson of the Corporate Culture and Responsibility Committee	Board chair

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors



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