



Climate Report 2021

Following the recommendations of the TCFD

Taking action on a net-zero future – our climate report

From words to action

2021 marked a pivotal year in climate pledges and commitments by companies and governments. The global community voiced a clear need for focused action and solutions. Notably, the mobilization of finance for the low-carbon transition in order to reach net-zero emissions by no later than 2050 and achieve the Paris goal of limiting global warming to 1.5°C above pre-industrial levels.

The impacts of climate change are already upon us. This is highlighted by the sixth report by the Intergovernmental Panel for Climate Change (the IPCC). We have growing evidence that human activity is a significant contributor to increasing global temperature averages. These, in turn, can intensify extreme weather events such as heatwaves, droughts and cyclones. The Glasgow Climate Pact at the 2021 United Nations Climate Change Conference (COP 26) acknowledged that unless we act urgently, global temperatures will rise above the 1.5°C limit, and by 2100, the planet will be warmer than at any other time in human history.

We have a window of opportunity to turn things around. As a leading global bank, we recognize our unique position and ability to contribute to that turnaround by mobilizing capital and supporting our clients, employees, investors and society in the transition to a net-zero economy.

In 2021, UBS once again received external recognition for our climate action by maintaining the leading score across the environmental dimension of the Dow Jones Sustainability Indices.

Out of nearly 12,000 companies ranked by the global environmental non-profit CDP, we were one of only 200 that were A-listed for environmental transparency and action to cut emissions, mitigate climate risks and develop the low-carbon economy.

We also took part in the Global Association of Risk Professionals (GARP) Climate Risk questionnaire and were recognized as one of the firms currently providing leading practice in climate risk management.

Why does UBS see climate change as a strategic topic? Aside from it being the right thing to do for the planet, we believe it is the right thing to do for our business.

Protecting our clients' assets and those of our firm from the devastating effects of climate change, while also seizing the opportunities from the low-carbon transition, is vital to maintaining our leading approach on climate.

UBS became a founding member of both the Net Zero Asset Managers initiative (NZAMi) in 2020 and the Net-Zero Banking Alliance (NZBA) in 2021. We also published our firm's commitment to net zero in April 2021, reinforcing our dedication to climate action.

In the following pages, we highlight the key signposts on the journey toward our net-zero goal, including steps we're already taking, as well as our ambitions for the future.

The time to move from words to action is now.

Our climate journey – 15 years of continuous strategic development



Key climate-related activities – 2021 at a glance

Key thematic areas	Progress in 2021
Governance and strategy	<ul style="list-style-type: none">– Appointed the Group Executive Board (the GEB) lead for sustainability and impact to steer our efforts on sustainability (including climate).– Oversaw climate strategy and activities at the highest level of our firm.– Assigned environmental, social and governance (ESG)-related goals for all GEB members.– Became founding member of the NZBA and Glasgow Financial Alliance for Net Zero (GFANZ).
Risk management	<ul style="list-style-type: none">– Further developed a transition risk heatmap methodology and introduced a novel physical risk heatmap to inform our climate risk management.– Launched an engagement program focused on 46 companies from high-carbon intensity sectors and engaged with a total of 140 companies across all sectors.– Supported 70 climate-related resolutions.– Developed a UBS climate materiality assessment that maps out material climate-related risks and opportunities.
Metrics and targets	<ul style="list-style-type: none">– Set decarbonization targets for 2030 for financing of fossil fuels, power generation and real estate sectors.– Reduced own greenhouse gas (GHG) emissions by 92% against 2004 baseline.– Disclosed net-zero 2030 interim targets for Asset Management.– Further aligned climate-related risk metrics with the updated recommendations by the Task Force on Climate-related Financial Disclosures (TCFD) (for carbon-related assets).
External recognition	<ul style="list-style-type: none">– Awarded top ratings and rankings by industry experts:<ul style="list-style-type: none">– CDP: Climate A List;– Dow Jones Sustainability Index: leading in the environmental dimension;– GARP: providing leading practice in climate risk management.

Climate governance

Embedding our approach to climate

The Corporate Culture and Responsibility Committee (the CCRC) of UBS Group AG’s Board of Directors (the BoD) oversees UBS’s climate strategy. This is set by our firm’s Group Executive Board (the GEB), and includes our appetite for climate-related risks. In its six annual meetings, the CCRC regularly reviews the GEB’s activities in executing UBS’s climate strategy and, jointly with the BoD’s Risk Committee, evaluates the progress of the firm’s climate risk program.

As part of its annual approval of UBS’s sustainability and impact objectives, the CCRC considers our firm’s climate-related objectives, as set by the GEB. The committee also reviews the alignment of our climate disclosures with the recommendations of the TCFD. We manage these annual plans and goals through our ISO 14001-certified environmental management system (the EMS) and management accountabilities across UBS Group AG. The EMS helps us reduce environmental risks, seize market opportunities and continually improve our environmental, climate and resource-efficiency performance.

In 2021, we established a net-zero task force to help ensure we become a net-zero firm by 2050.

The GEB lead for sustainability and impact chairs the task force. Senior stakeholders from across our business attend the task force’s monthly meetings, including senior leaders from risk and finance.

Climate strategy

We launched our first climate strategy 15 years ago. In the 2010s, we expanded our focus beyond our own operations, to encompass the protection of our assets and those of our clients, together with the mobilization of capital to tackle climate concerns. We refined our strategy by including, and disclosing, a growing number of climate-related metrics. As we move into the 2020s, we are taking steps to advance further.

Currently, no bank can perfectly quantify its climate risks. Emissions figures are a blend of official data, expert views and information shared between organizations. But we aim to lead by example – by continuously developing and refining our sustainable products and services, by focusing on climate risks in our company-wide risk management framework and operations, and by sharing best practice with stakeholders, such as authorities, central banks, policymakers, academia and peers.

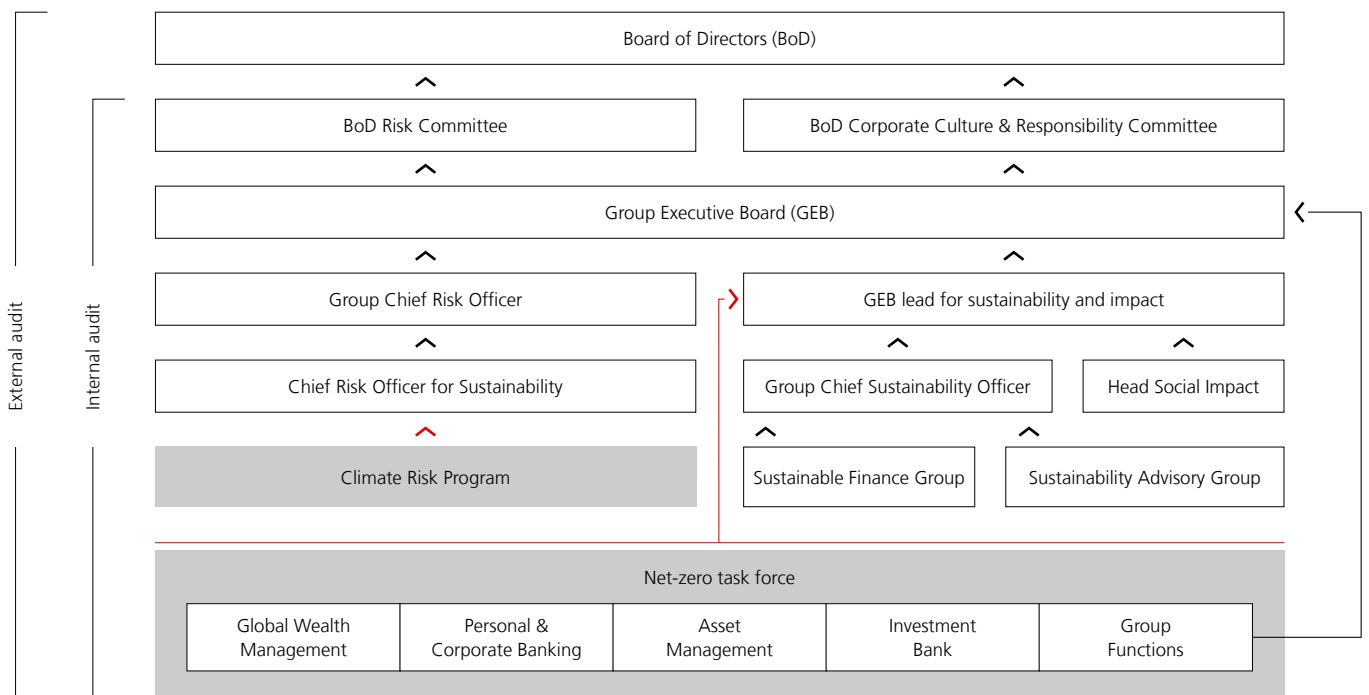
Strengthening our commitment

In April 2021, we published our ambition to reach net-zero GHG emissions across our entire operations by 2050 (scope 1, 2 and 3 emissions). We committed to developing a comprehensive and ambitious climate roadmap.

While we recognize the critical relevance of climate action, we also know the world’s problems extend further, encompassing many challenging issues such as inequality, poverty or access to clean water, as reflected by the UN Sustainable Development Goals (the SDGs).

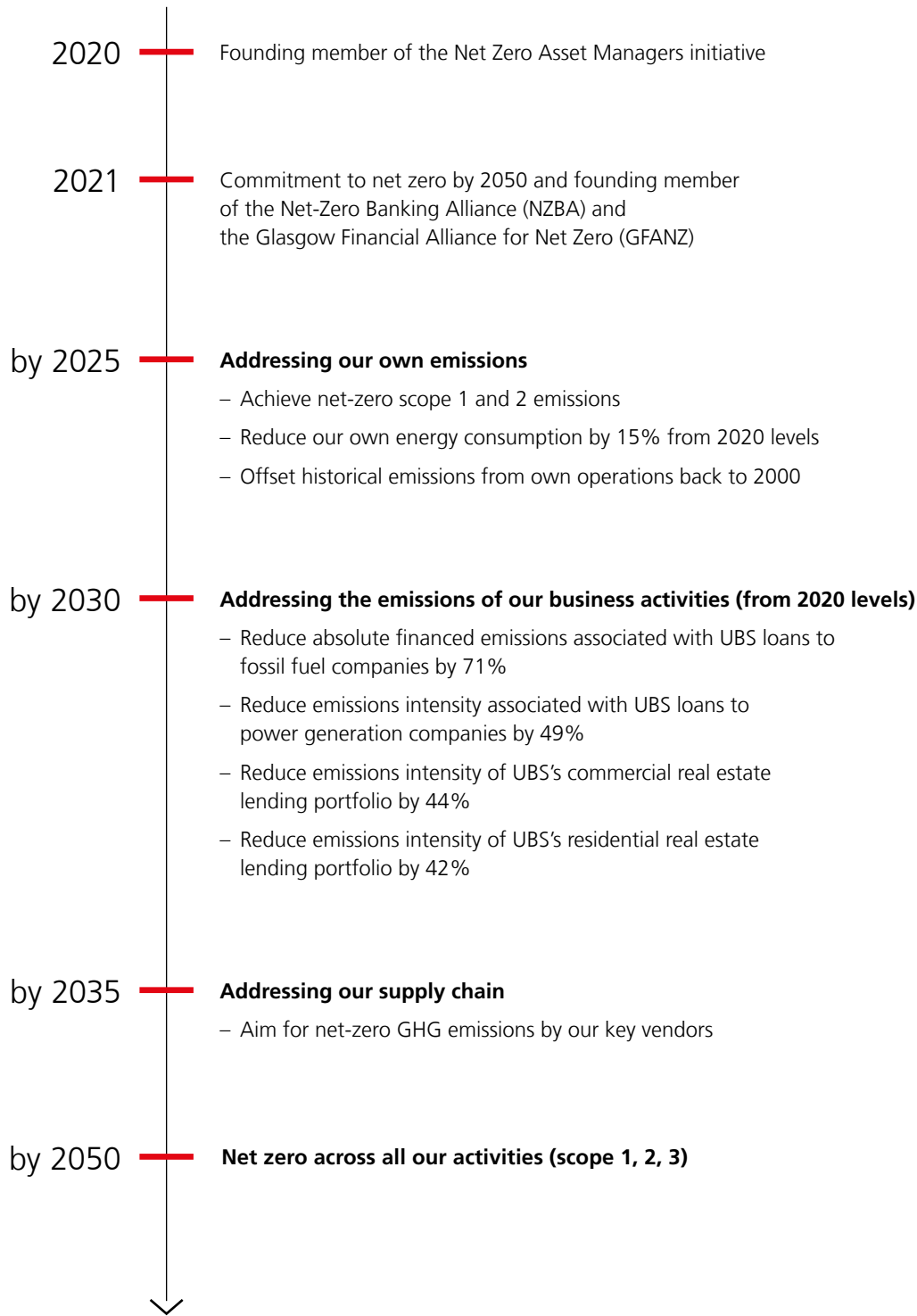
› Refer to the UBS Sustainability Report 2021 for more details on UBS’s sustainability commitments and activities

UBS sustainability and climate governance



Our climate roadmap

In 2021, we extended our long-standing climate strategy with a commitment to reach net zero resulting from all aspects (scopes 1, 2 and 3) of our business by 2050.



Our four strategic pillars

Our climate strategy covers two main areas: managing climate-related financial risks, and taking action on a net-zero future.

Underpinning these two main areas are four strategic pillars.

- › Refer to the diagram below for a visual description of the two main areas and four strategic pillars of our climate strategy

1. Protecting our clients' assets

As a global financial institution, it is our responsibility to help clients navigate through the challenges of the transition to a low-carbon economy. We help our clients assess, manage and protect their assets from climate-related risks by offering innovative products and services in investment, financing and research.

We work collaboratively across our industry and with our clients, ensuring they have access to best practice, robust science-based approaches, standardized methodologies, and quality data for measuring and mitigating climate risks. Our activities include engaging on climate topics with the companies we invest in. For example, our Asset Management business division has implemented an engagement program with 46 companies from the following sectors: oil and gas, electric and other utilities, metals and mining, construction materials, chemicals, and automotive. During 2021, we also supported 70 climate-related resolutions.

2. Protecting our own assets

We seek to protect our assets by limiting our risk appetite for carbon-related assets. We use scenario-based stress-testing approaches and other forward-looking portfolio analyses to estimate our vulnerability to climate-related risks. As of 31 December 2021, we had reduced our lending exposure to carbon-related assets to 9.9% (USD 45.6 billion) of our total customer lending exposure. This is down from 10.4% at the end of 2020 and 10.7% at the end of 2019.

Carbon-related assets are defined as significant concentrations of credit exposure to assets tied to the four non-financial groups as defined by the TCFD (using Global Industry Classification Standard, GICS). These four groups are (i) energy; (ii) transportation; (iii) materials and buildings; and (iv) agriculture, food and forest products. Recognizing that the term carbon-related assets is currently not well defined, the TCFD encourages banks to use a consistent definition to support comparability. We continue to collaborate with the industry to drive further consistency.

3. Reducing our climate impact

We are committed to achieving net-zero emissions in our own operations (scopes 1 and 2) by 2025. We will do this by replacing fossil fuel heating systems, maintaining our 100% renewable electricity coverage and investing in credible carbon removal projects (including negative emissions technology). We are compensating our historical scopes 1 and 2 emissions back to the year 2000 and have sourced credible and clear carbon offsets and investments in nature-based solutions. Furthermore, we are currently working to understand and quantify the scope 3 emissions in our supply chain. We are engaging with our key vendors on targeting net zero by 2035.¹

Many of our climate impacts are indirect, arising from emissions in our financing, lending and assets under management. As such, we plan to align these activities toward our net-zero goal. As set out in this report, we have already started to quantify our indirect climate impacts, which will enable us to improve our performance in this area.

4. Mobilizing capital

We mobilize private and institutional capital through investments that help the world mitigate and adapt to climate change.

We were the first major global financial institution to have made sustainable investments the preferred solution for our private clients wishing to invest globally. We also support our goal of mobilizing capital as a lender and as an arranger, underwriter and / or structurer of securities. For corporate clients, we support the issuance of green, social, sustainability and sustainability-linked bonds – as well as the raising of capital in international capital markets – in line with recognized market guidelines, such as the ICMA Green Bond Principles and, in relation to green and sustainable loans, the Loan Market Association Sustainability Principles. In 2021, we began offering borrowers *Green Mortgages* via our *key4* platform, the first Swiss real estate platform for investment properties that promotes sustainable mortgages.

Detailed data accounting of our financed emissions helps us to identify climate-related opportunities requiring capital, and to improve and tailor our sustainable product range for clients. Additionally, such insights help UBS, our partners and our clients in a number of ways. For instance, they reduce the risk of stranded assets.

- › Refer to “What we do for our clients,” “Reducing our environmental footprint” and Appendix 4 to the UBS Sustainability Report 2021 for more information about key activities pertaining to the four strategic pillars

¹ A GHG key vendor is a top GHG scope 3 emitter relative to UBS's overall scope 3 supply chain emissions and with whom UBS has a long-term ongoing relationship. Together our GHG key vendors contribute to a significant portion of UBS's estimated supply chain scope 3 emissions.

Governance

Strategy

Managing climate-related financial risks

Acting on a low-carbon future

Protecting our clients' assets

- managing climate-related risks and opportunities through our innovative products and services in investment, financing and research

Protecting our own assets

- limiting our risk appetite for carbon-related assets
- estimating our firm's vulnerability to climate risks

Reducing our climate impact

- sourcing 100% of our electricity consumption from renewable sources
- responsible supply chain management

Mobilizing capital

- from private and institutional clients
- toward the orderly transition to a low-carbon economy

Risks and opportunities

Metrics and targets

Our strategic resilience to climate change

UBS wants to be part of the solution to climate change while protecting our clients' and our own assets. To do so, we embed climate change considerations in our strategic planning and processes. We observe the materiality of climate change impacts through a "double-materiality"-lens: (1) how UBS can best contribute to the transition to a net-zero world; and (2) how climate change can impact UBS and its strategy, business planning and processes.

To determine the materiality of key drivers of climate risks and opportunities, such as policy and regulatory developments, or climate investment opportunities, we have developed a UBS materiality assessment for climate risks and opportunities.

Our goal is to identify the time horizon and potential impact that these drivers may have on a bank's business strategy (if materialized). We will further refine this approach over time, by reflecting new client data, climate scenario and business projections and enhanced methodologies to quantify risks and opportunities.

Time horizons for climate assessments	
Short-term time horizon	0–3 years
Medium-term time horizon	3–10 years
Long-term time horizon	Beyond 10 years

Methodology for assessing climate risks

At UBS climate risks can arise either from changing climate conditions (physical risks) or from efforts to mitigate climate change (transition risks). Physical and transition risks contribute to a structural change across economies and consequently can affect banks and the financial sector through financial and non-financial impacts.

UBS takes a materiality-driven approach to assessing the potential impacts of climate risks, while considering the time horizon of these impacts. UBS defines short term as less than three years, medium term as three to ten years and long term as beyond ten years. For selected climate risk assessments, we use a time horizon of up to 2050 for transition risk and up to 2100 for both transition and physical risk. According to current understanding of the potential impacts of climate change, physical risks identified today are most commonly expected to materialize in the long term while transition risks can materialize in short-, medium- and long-term time horizons.

On an annual basis the sustainability and climate risk (SCR) unit coordinate a systematic materiality assessment of risks in accordance with the ISO 14001 standard.

The assessment covers all business divisions, as well as the products and services within them, to assess if and where products and services may have an impact on climate (and / or the environment) and / or pose a risk (e.g., financial, reputational, etc.) to UBS (rated on severity and frequency, where frequent and / or severe sustainability or climate risks are defined as having a substantive impact).

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. Each business division assesses and rates the potential for risks and / or 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 are further referred to management.

For the climate risk materiality assessment, we applied two different criteria: We rated (i) potential financial risk to UBS (direct and indirect impact), and (ii) climate impact through UBS activity based on internal methodology, using as reference scientific and regulatory publications on climate risk. We subsequently added up these assessments to arrive at the overall materiality assessment on a relative basis.

Transition risks

1. **Policy and regulatory:** As a global financial services firm active in wealth management, asset management, investment banking, and the provision of services to corporate and institutional clients, our firm can be affected directly and indirectly by new carbon pricing regulation and energy transition policies. These measures can be designed to both constrain the impacts of climate change and / or promote an adaptive response to climate change impacts. They could impact UBS's own operations, as well as the business operations of our corporate clients given that such clients rely on the bank to finance their activities across a range of sectors. We routinely assess the impact of current and emerging regulation, either directly affecting our operations or indirectly affecting those sectors where we have clients. Assessments and gap analysis exercises are conducted several times a year following a standardized identification process defined by the climate risk program. Additionally, regulatory developments are assessed for impacts via quarterly monitoring. We see the below potential risks emerging in the short term.
2. **Technological change:** UBS, together with corporate clients that rely on the bank to finance their activities in a range of sectors, is both directly and indirectly exposed to technological changes. These changes, 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 through scenario analysis approaches. We see these potential risks emerging in the short to medium term.
3. **Reputation:** Climate-related methodologies and standards will continue to change in the coming years. Our reputation may be adversely affected if our climate-related actions and methods are not perceived as meeting existing or future industry standards and best practice. Examples of this would be allegations related to greenwashing or inadequate action on climate change. Increased reputational risks could lead to loss of business and may result in changes in regulations, which in turn could impact UBS's business model. We see these potential risks emerging in the short term.
4. **Market and sentiment:** We have made protecting our clients' assets a strategic pillar in our firm's climate approach. Amid a growing demand for climate-focused products and services, UBS needs to actively respond to market changes driven by the low-carbon transition and clients' interest in managing climate-related risks. We address this potential risk through our comprehensive sustainability and climate-focused product and service offering. We see the potential risks arising from a failure to do so in the short term.

Physical risks

1. **Acute:** Impacts from extreme weather events may affect the value of physical assets that UBS owns and finances. We address the risks to our own physical assets through our comprehensive business continuity planning and physical climate risk identification process.
2. **Chronic:** Impacts from incremental climate change may affect the value of physical assets that UBS owns and finances. Incremental changes in climate (e.g., rising temperatures and changes in precipitation patterns) can exacerbate extreme events, making them more frequent and severe, which in turn affects economic output and productivity. Such events could reduce the value of properties held as collateral. We see these potential risks emerging in the long term.

While we put the necessary focus on identifying, assessing and managing climate-related risks, the transition to net zero opens new opportunities as well. Our approach to capturing and expanding such opportunities is elaborated below.

- › Refer to "Climate scenario analysis" below for more details on how UBS performs scenario analyses and considers time horizons

Methodology for assessing climate opportunities

Climate change has become integral to the way we conduct business at UBS.

Our materiality assessment starts with an in-depth analysis of the various products and services directly related to climate in our business divisions (Global Wealth Management, Personal & Corporate Banking, Asset Management, and the Investment Bank). In addition, a cross-divisional team of experts has identified those areas where the business divisions are planning new products and services with a direct link to climate.

The definitions of the time horizons are described above. A product is considered to have “a direct link to climate change” if it is intended to primarily contribute to one or more of the identified impact areas: climate mitigation, climate adaptation or climate transition.

Having identified the overall list of opportunities, we then classified them according to six categories recognized as major climate-related opportunities for the financial sector, based on insights from various relevant studies and publications. Using this list, we assessed the materiality according to the definition of the Global Reporting Initiative (the GRI). According to the GRI a topic is material if it has “a direct or indirect impact on an organization’s ability to create, preserve or erode economic, environmental and social value for itself, its stakeholders and society at large.”

In the assessment matrix on the following page, the materiality of a given initiative combines both its business and its societal impact. We sounded and assessed the various expert inputs to create a standardized methodology for the overall materiality outcome of the different initiatives. These assessments are aggregated according to the main categories and presented on the following page.

For the assessment, we used three different criteria: (i) overall revenue opportunities; (ii) strategic relevance of the opportunity for the business division; and (iii) potential impact that the opportunity can have on society. We subsequently added these assessments together to arrive at the overall materiality assessment on a relative basis.

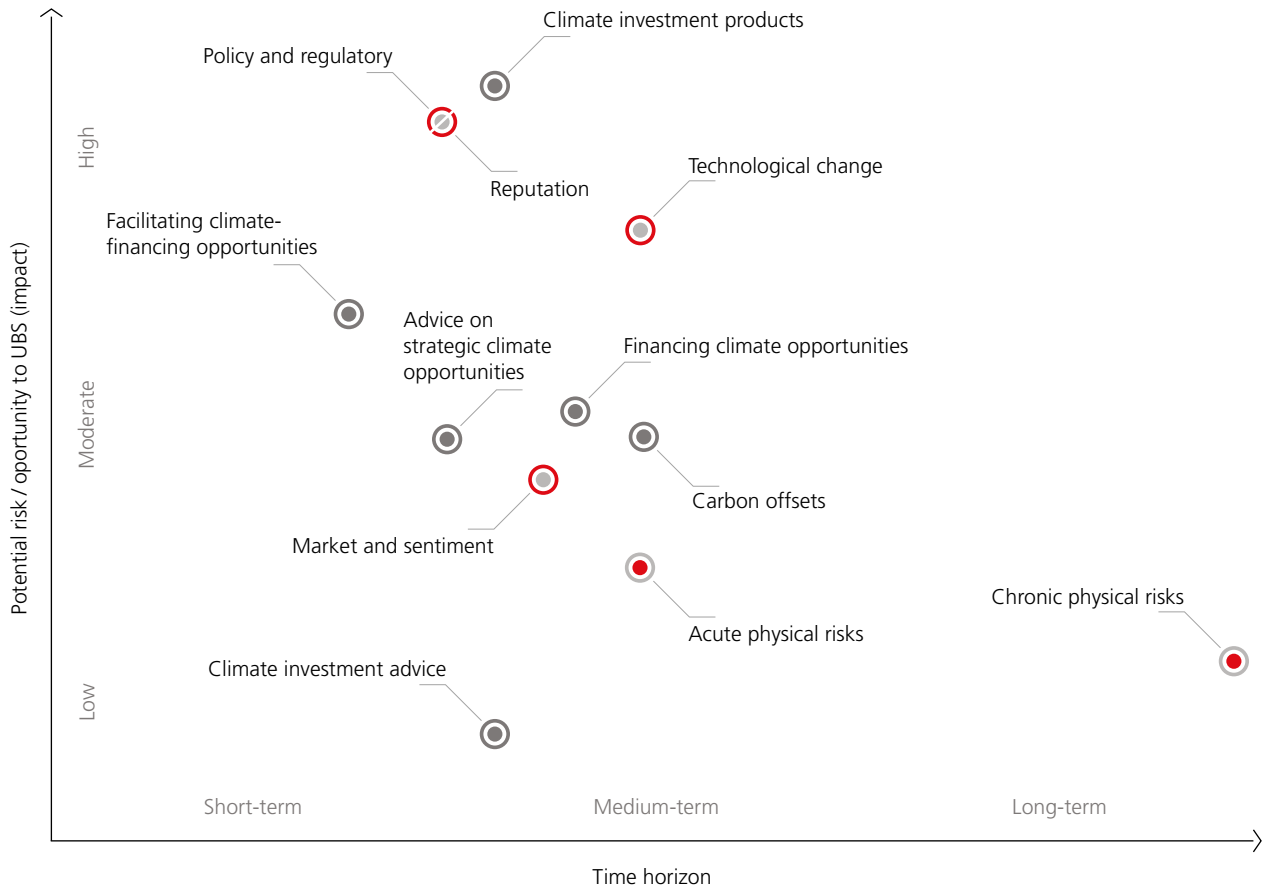
› **For more information on the GRI’s definition of materiality refer to [globalreporting.org](https://www.globalreporting.org)**

Climate-related client opportunities

The transition to a low-carbon world will be a significant catalyst for the overall allocation of capital. As a financial service provider UBS is at the center of this re-direction. As such, it is well placed to develop opportunities for offering innovative products and services to our client base.

We have categorized the various initiatives and opportunities identified within the business divisions into six groups:

1. **Advice on strategic climate opportunities:** This includes advice to clients on strategic opportunities related to client investment opportunities, market sentiment and transactions insights, as well as engaging with corporates on environmental solutions.
2. **Carbon offsets:** This includes supporting our clients on assessing and offsetting the overall carbon footprints of their investment portfolios. This can include digital solutions to assess carbon footprints for both private and institutional investment clients. Services can also include tools for assessing and offsetting carbon footprints for corporate clients, leveraging expertise in carbon-offsetting markets.
3. **Climate investment products:** This includes further expanding our wide range of climate-focused investment products for our private and institutional clients. For example, we may use our experience in offering indexed solutions with a customized profile to develop climate-focused index-linked products. Non-traditional asset classes (e.g., hedge funds) may focus on specific climate investments relating to climate transition or climate adaptation.
4. **Climate investment advice:** This includes opportunities to support our clients in directing capital to support climate goals, for example through education on sustainable finance, or the provision of meaningful climate metrics that can be used in supporting the goals of individual investors. In a broader sense this would also include products that highlight the effects of climate change topics on investment opportunities and risks.
5. **Facilitating climate-financing opportunities:** This includes all opportunities within the bank to support clients, in particular our corporate clients, with advice and structuring of debt related to climate financing. This could for example be green, sustainability-linked and transition bonds. Additional opportunities may encompass advising and underwriting transactions (e.g., IPOs, follow-ons or private placements) for clients with products and services that are focused on climate innovations.
6. **Financing climate opportunities:** This includes financing opportunities for green projects and infrastructure (e.g., renewable energy) including the opportunity to generate positive externalities on other SDGs. Products and services that support our clients in lowering the carbon intensity of their real estate exposure also fall within this category.



Transition risks¹

Policy and regulatory

- Climate-related litigation
- Carbon-pricing and pollution control regulation
- Energy transition policies

Technological change

- Shift to clean technologies
- Shift to energy-efficient technologies

Reputation

- Greenwashing allegations
- Environmental / climate action

Market and sentiment

- Changes in consumer preferences (products and services)
- Changes in investor sentiment (assets)

Physical risks¹

Acute

- Extreme weather events: tropical cyclones / typhoons, floods, winter storms, heat waves, droughts, wildfires, hailstorms

Chronic

- Droughts
- Sea level rise
- Changes in precipitation
- Landslides

Climate-related opportunities

Advice on strategic climate opportunities

- Mergers and acquisitions
- Strategic insights / Data Lab / Evidence Lab
- Climate solutions and advice

Carbon offsets

- Carbon footprint management

Climate investment products

- Climate-focused strategies
- Climate transition solutions

Climate investment advice

- Advice on directing capital
- Climate-related information
- Portfolio transparency
- Industry collaborations
- Climate-focused strategies

Facilitating climate-financing opportunities

- Debt and loan arranging, underwriting, structuring and financing
- Alternative structuring
- Equity capital markets
- Private financing markets
- Acquisition financing

Financing climate opportunities

- Real estate financing
- Project financing

¹ Risk categories have been adopted from definitions by the NGFS and the TCFD.

Key climate-related memberships and commitments (as of 31 December 2021)

Initiative	UBS role / activity	Key outcome of initiative in 2021	UBS contribution / commitment
Task Force on Climate-related Financial Disclosure (TCFD)	Member of the TCFD, which includes 32 individuals from financial and non-financial companies.	Updated TCFD recommendations, including guidance on disclosing metrics, targets, transition plans, and portfolio alignment metrics.	<ul style="list-style-type: none"> – Contributed to the updating of the TCFD recommendations.
UN Environment Programme Finance Initiative (UNEP FI)	Participant in the UNEP FI's second TCFD banking program, which includes 39 global financial institutions from six continents.	Further developed approaches to help banks assess and disclose their exposures to climate-related risks and opportunities, as envisioned by the TCFD.	<ul style="list-style-type: none"> – Participated in a year-long engagement, wherein we, along with other participating banks, worked together with climate risk experts to improve financial assessments of climate-transition risks.
Net Zero Asset Managers initiative (NZAMi)	<p>Founding member of NZAMi, which includes 220 asset managers managing over USD 57 trillion of assets.</p> <p>In November 2021, we were one of the largest and most diversified firms to set an interim 2030 target.</p>	Published first progress report in November 2021 which contained interim targets from 43 asset managers. As per the progress report, signatories disclosed an average of 35% of total assets under management (AuM) as being managed in line with achieving net zero by 2050 (USD 4.2 trillion out of a possible USD 11.9 trillion).	<ul style="list-style-type: none"> – Work in partnership with asset owner clients on decarbonization goals, consistent with an ambition to reach net-zero emissions by 2050 or earlier across all AuM. – Committed to align USD 235 billion AuM, equivalent to 35% of eligible assets and 20% of our total AuM. – Will review interim target at least every five years, with a view to increasing the proportion of AuM covered until 100% of assets are included.
Net-Zero Banking Alliance (NZBA)	<p>Founding member of NZBA.</p> <p>Active participant in working groups on "Sectoral target-setting," "Data and Methodologies," "Financing and Engagement" and "Implementation."</p>	Developing guidelines, frameworks, methodologies, and timelines for net-zero implementation in the global banking sector.	<ul style="list-style-type: none"> – Contributed to setting up the NZBA and actively involved in working groups. – Work with member banks to develop necessary methodologies, frameworks and guidelines to reach net-zero emissions latest by 2050. – Committed to publishing ambitious intermediate targets for priority sectors within 18 months of signing, and for all sectors within 36 months of signing, and to regularly review targets in line with NZBA guidelines.
Glasgow Financial Alliance for Net Zero (GFANZ)	<p>Founding member of GFANZ.</p> <p>Active participant in workstreams on "Financial institution transition plans," "Portfolio alignment measurement" and "Policy call to action."</p>	Bringing together existing and new net-zero finance initiatives in one sector-wide coalition, GFANZ provides a forum for leading financial institutions to accelerate the transition to a net-zero global economy.	<ul style="list-style-type: none"> – Active involvement in working groups. – Work with members institutions from across the financial services industry on supporting the economy-wide transition to net zero.
Institute of International Finance (IIF) Sustainable Finance Working Group (SFWG)	Chair of SFWG.	Produced a report titled "Navigating Climate Headwinds," which summarized the experiences to date of more than twenty banks across eight jurisdictions with regulatory climate risk scenario analysis exercise; and provided recommendations to the Central Bank and Supervisory Network for Greening the Financial System (NGFS) and the Basel Committee on Banking Supervision's (BCBS) Taskforce on Climate-related Financial Risks (TCFR) on how to take forward regulatory and supervisory activity.	<ul style="list-style-type: none"> – Committed to providing leadership for this key financial services industry forum. – Worked with SFWG members from across the financial industry on identifying policy and regulatory frameworks and capital market solutions that support the development and growth of sustainable finance.

Note: In addition to the memberships listed above, UBS also joined the Partnership for Carbon Accounting Financials (PCAF) in 2022. We aim to disclose emissions in future reporting across our loan book based on PCAF standards, in accordance with PCAF's expectations regarding implementation timelines.

› Refer to Appendix 7 to the UBS Sustainability Report 2021 for more details about UBS memberships and commitments

Managing climate risks

At UBS, SCR is defined as the risk that UBS is negatively impacted by or negatively impacts climate change, loss of biodiversity, human rights infringements, and other environmental, social and governance factors.

› Refer to the “Risk management and control” section of the UBS Annual Report 2021 for the UBS risk categories

Sustainability and climate risks may manifest as credit, market, liquidity or operational risks, resulting in potential adverse financial or reputational impacts for UBS. They may also negatively impact the value of investments. Climate risks can arise from either changing climate conditions (physical risks) or from efforts to mitigate climate change (transition risks). Physical and transition risks from a changing climate contribute to a structural

change across economies and consequently can affect banks and the financial sector through financial and non-financial impacts. In March 2020, Group Risk Control established our firm’s climate risk program to further integrate climate risk in the firm’s risk management framework and standard processes. The program follows a multi-year roadmap to address current and emerging regulations and is engaging with stakeholders and experts both internally and externally to further develop climate risk methodologies, deliver on climate stress test exercises, and build capacity to respond to climate risk management expectations.

We currently identify and manage climate risks in our own operations, our balance sheet, client assets and the supply chain. To protect our clients’ and our own assets from climate-related risks, in 2021 we continued to drive the integration of climate-related risk into our standard risk management framework.

We further integrated climate risk in: (i) risk identification and measurement; (ii) risk monitoring and appetite setting; (iii) risk management and control; and (iv) risk reporting processes across the organization. Our Climate Risk Management Framework is described in more detail in the graph and text below. Implementation of the framework is in progress.

Climate Risk Management Framework (implementation in progress)

1 Identification and measurement

Climate-related physical and transition risks are identified and integrated in the Group risk identification process.

✂ Climate toolkit:

- Climate materiality assessment¹
- Climate risk heatmaps¹
- Climate scenario analysis and stress test exercises²
- Climate scorecard³

4 Reporting

Key climate risk considerations are included in internal and external reporting.

✂ Climate toolkit:

- Periodic risk reports⁴
- External disclosures¹

2 Monitoring and risk appetite setting

Climate risk exposures are monitored, and metrics reported internally to enable risk appetite setting.

✂ Climate toolkit:

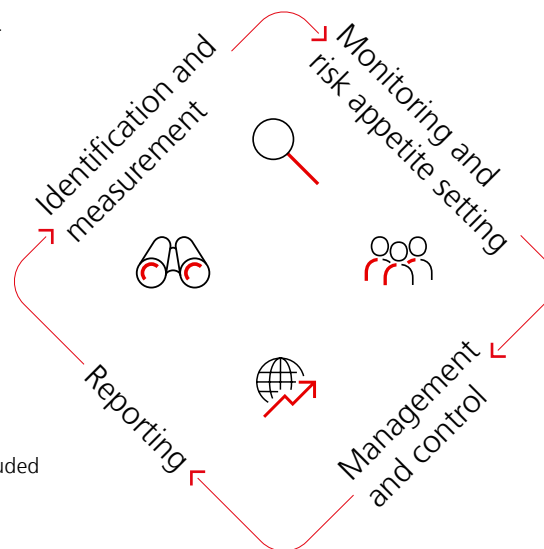
- Climate risk metrics¹
- Qualitative climate risk appetite¹
- Quantitative climate risk appetite³

3 Management and control

Management and control processes ensure that material climate risks are identified, measured, monitored and escalated in a timely manner.

✂ Climate toolkit:

- Process controls⁵
- Capacity building and training⁵



Disclaimer: This framework will be updated based on progress on integration of climate risk in firm-wide processes

¹ Implemented, externally disclosed, further development underway ² Historic scenario assessments disclosed, scenario analysis and stress test exercises underway ³ Under development ⁴ Implemented, internal disclosure, further development underway ⁵ Climate risk-specific controls and capacity building ongoing and being further developed

Climate risk identification and measurement

UBS approaches climate risk identification through climate risk heatmaps, which enable us to take a materiality-driven approach to climate risk management.

Climate-related physical and transition risks are identified at divisional and cross-divisional level and integrated in the firm-wide risk identification process.

› Refer to our climate materiality assessment above

The heatmaps enable UBS to take a materiality-driven approach to further inform our climate risk management strategy by:

- helping us to identify concentrations of exposure with high climate risk vulnerability, which, in turn, enables resource prioritization for a detailed risk analysis and management action;
- supporting a client-centric strategy in order to best assist clients that may benefit from UBS products and services in support of their climate transition strategies; and by
- providing information to senior management to support decision making and the provision of external disclosure to stakeholders.

Our climate risk heatmaps rate cross-sectoral credit risk exposure to climate sensitivity, from high to low, through a risk segmentation process. These ratings are based on climate risk ratings determined by ratings agencies, regulators and expert consultants and have been further developed by UBS subject matter experts. Using the climate heatmaps, UBS defines “climate-sensitive” exposures, by examining exposures that are rated moderate and higher, under both the physical and transition risk methodologies.

The two methodologies are distinct in their approach and application. Counterparties may therefore appear in one or both of the heatmaps and are assigned a climate vulnerability rating based on the primary industry code (GICS) and risk domicile in UBS data systems.

Transition risk heatmap

The transition risk heatmap methodology is based on dividing economic sectors with similar risk characteristics into risk segments and rating those segments according to their vulnerability to climate policy, low-carbon technology risks, and revenue or demand shifts under an aggressive approach to meeting the well-below-2°C Paris goal. As a result, the ratings in the heatmap reflect the levels of risk that would likely occur under an ambitious transition (in a short- to medium-term time horizon).

The current transition risk heatmap shows that UBS’s exposure to activities rated as having high, moderately high or moderate vulnerability to climate transition risks is relatively low.

Most fluctuations from 2020 to 2021 were driven by the combination of the 2020 COVID-19-related dip in energy demand and prices, followed by increased energy demand and higher energy prices in 2021. Despite these fluctuations, we have continued to reduce our exposure to climate-sensitive sectors since 2019.

Physical risk heatmap

We continued to innovate new methodologies in 2021, by developing a novel physical risk heatmap methodology.

The physical risk heatmap methodology groups corporate counterparties based on exposure to key physical risk factors, by rating sectoral, geographic, and value chain vulnerabilities in a climate change trajectory, in which no additional policy action is taken. A rating is applied based upon:

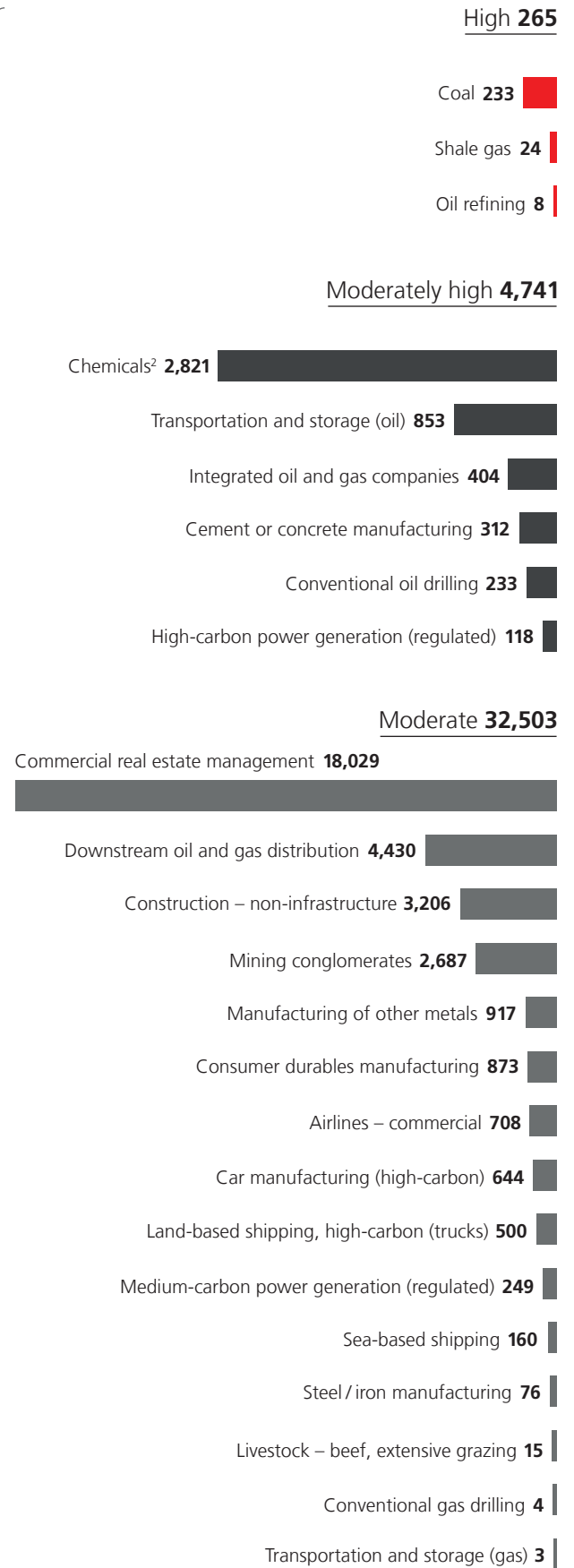
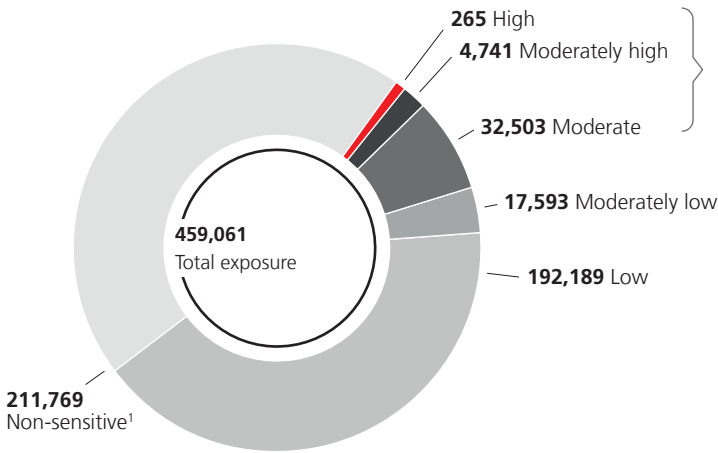
- the counterparty’s sectoral activity (e.g., primary energy extraction presents higher physical risks than banks);
- the counterparty’s geography (e.g., countries in Southeast Asia tend to be higher risk than those in western Europe, with some exceptions); and
- the potential disruption to a counterparty’s value chain, where relevant (both its supply chain, customer base and distribution channels).

UBS will continue to build upon the methodology in 2022, further enhancing our approach with relevant subject matter experts. The current physical risk heatmap shows that UBS has no exposure to high-risk activities, and relatively low exposure to activities rated as having moderately high or moderate vulnerability to physical climate risks.

Key concentrations of exposure include high volumes of lending collateralized by real estate in Switzerland. Most of our lending is to the financial sector, which is by nature lower risk, with the key exception of lending to property insurance companies or lending in particularly higher-risk regions, such as South Asia. Both transition and physical risk heatmap (as proof of concept) are presented on the next pages.

Climate risk heatmap (transition risks)

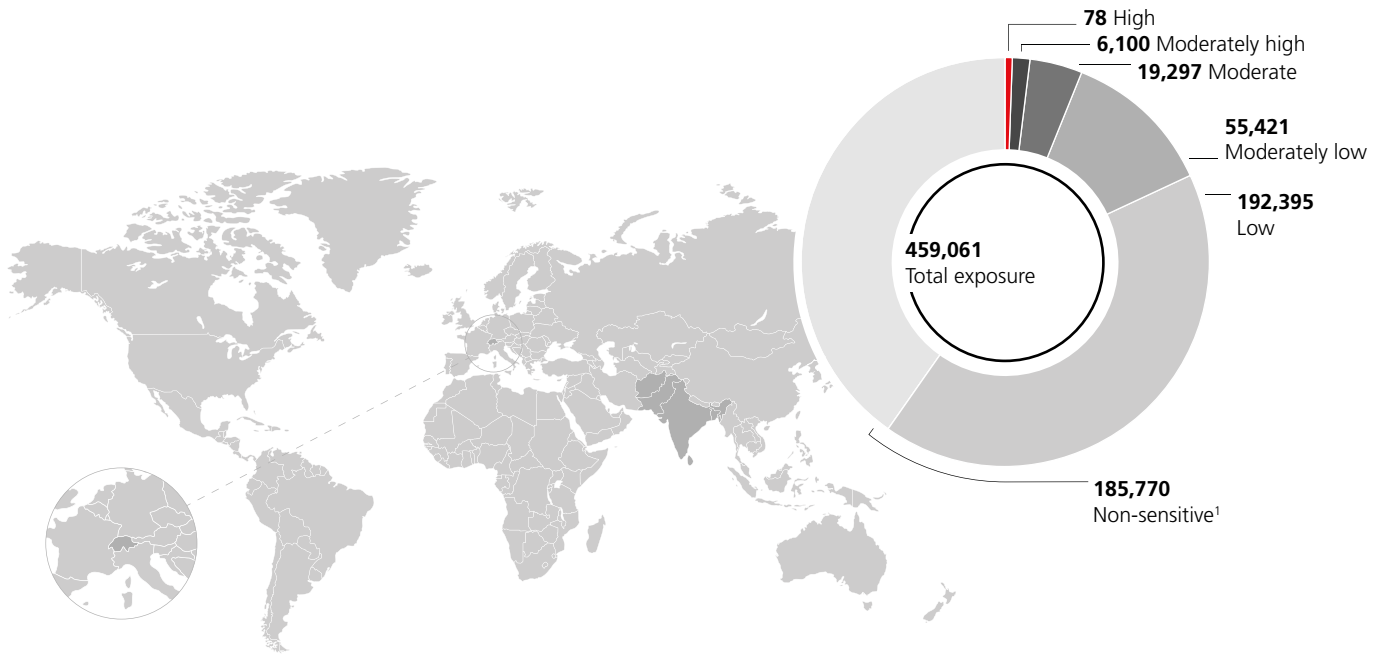
in USD million



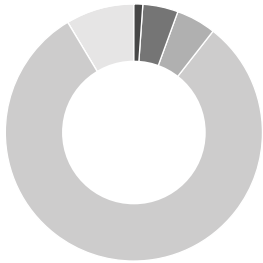
¹ Non-sensitive is mostly composed of private Lombard lending. ² Includes pharmaceuticals.

Climate risk heatmap (physical risks)

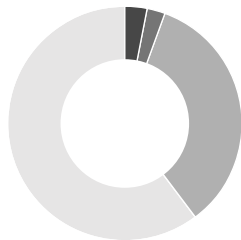
in USD million



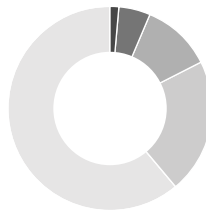
Switzerland
215,560
Moderately low



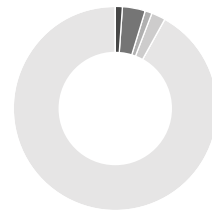
North America
107,940
Low



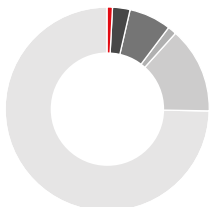
Europe and Central Asia
49,757
Low



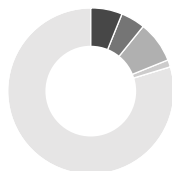
Latin America and the Caribbean
38,502
Low



East Asia and the Pacific
33,773
Low



Middle East and North Africa
11,511
Low



Sub-Saharan Africa
1,332
Low



South Asia
687
Moderately low


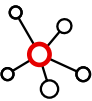


¹ Non-sensitive is mostly composed of private Lombard lending.

Climate scenario analysis

Since 2014, we have been using scenario-based approaches to assess our exposure to physical and transition risks stemming from climate change.

Early in-house scenario analyses have been followed by a series of assessments performed through industry collaborations in order to harmonize approaches for addressing methodological and data gaps. We have performed both top-down balance sheet stress testing (across the firm), as well as targeted, bottom-up analysis of specific sector exposures covering short-, medium-, and long-term time horizons. In 2021, UBS began to participate in regulatory stress test exercises. The table below summarizes the UBS scenario assessments performed to date.

	Assessment	Year	Scenarios used	Time horizon ¹	Outcomes
Regulatory stress test exercises 	Bank of England Climate Biennial Exploratory Scenario (CBES): Financial risks from climate change	2021–2022	CBES scenarios (consistent with but not identical to NGFS scenarios): – early action – late action – no additional action	Long-term (LT)	Stress test exercise is ongoing (UBS is participating on a voluntary basis)
	European Central Bank (ECB) climate risk stress test	2021–2022	Macro-financial scenarios based on NGFS scenarios	LT	Stress test exercise is ongoing
	Swiss Financial Market Supervisory Authority (FINMA) / Swiss National Bank (SNB) climate risk assessment: Focus on measurement of climate-related transition risks	2021	NGFS-based scenarios	LT	UBS participated in assessment in 2021 FINMA expected to publish conclusions in its Annual Report 2021
Scenario analysis informed by industry collaboration 	UNEP FI TCFD phase III project for banks and investors: Deep dive on climate transition risks in real estate, portfolio alignment methods, and client-centric approaches for supporting transition strategies	2021	NGFS scenarios	Short-term (ST) Medium-term (MT) LT	Phase III informed internal projects, capacity building, training and further enhancement of climate materiality and heatmap methodologies
	UNEP FI TCFD phase II project for banks: Further development of climate scenarios, in line with the range of reference scenarios published by the NGFS Development of a heatmap methodology Pilot testing the credit analysis methodology on our oil and gas portfolio and physical risk analysis on our real estate mortgage portfolio	2020	Integrated Assessment Modeling Consortium (IAMC) scenarios (presented in the table below as part of NGFS scenarios) Other academic research supporting scenario-aligned natural catastrophe analysis	ST MT LT	UBS has a very low exposure to economic activities with moderate to high transition risk No significant credit loss from transition risks in orderly and disorderly 1.5°C scenarios No significant losses expected from lending collateralized by real estate neither in Switzerland nor the United States
	Paris Agreement Capital Transition Assessment (PACTA) 2020 climate alignment test: Studying the climate alignment of Swiss mortgages, direct real estate investments and listed investments portfolios	2020	IEA ² , B2DS ³ , SDS ⁴ , NPS ⁵ , CPS ⁶	ST MT	Listed investments results show that UBS has a relatively low exposure to power, automotive and fossil fuel sectors overall, compared with the aggregated results of all participating banks' portfolios
	PACTA: Testing the alignment of UBS corporate lending portfolios with Paris Agreement benchmarks	2019–2020	IEA ² , B2DS ³ , SDS ⁴ , NPS ⁵ , CPS ⁶	ST MT	UBS has a low lending exposure to high-carbon sectors

	Assessment	Year	Scenarios used	Time horizon ¹	Outcomes
	UNEP FI TCFD phase I project for banks: Development of a credit analysis methodology that uses integrated assessment modeling (IAM) climate scenarios; pilot testing the methodology on UBS power utilities credit portfolio	2018–2019	IAMC	ST MT	No significant credit loss neither from transition risks in 2-degree scenarios, nor impacts from physical risks in 4- and 2-degree scenarios
	Natural Capital Finance Alliance / United Nations Environment Programme Finance Initiative (UNEP FI): Assessment of the impact of increased drought on productivity of borrowers in UBS energy credit portfolio	2017	Historic academic precipitation observations	ST MT	No significant production impact from drought
In-house scenario analysis	Assessment of physical climate hazard impacts on mortgage portfolios secured by real estate	2015	Climate scenario developed in-house	ST MT	Low financial impact due to insurance coverage and loan maturity profile
	Assessment of climate transition risk impacts (changing oil, gas and coal prices, implying an increased carbon price) on oil, gas and electric utilities credit portfolios	2015	Climate scenario developed in-house	ST MT	Low financial impact due to high quality and maturity profile of portfolio
	UBS climate stress test to assess firm-wide vulnerability to climate change (impacts to balance sheet, operational income and physical assets)	2014	Climate scenario developed in-house	ST MT	Moderate financial impact in line with other stress scenarios, such as those that foresee an oil shock

¹ ST= short-term, 0–3 years; MT = medium-term, 3–10 years; LT = long-term, over 10 years. ² International Energy Agency (IEA), World Energy Outlook. ³ Beyond 2-Degree Scenario ⁴ Sustainable Development Scenario ⁵ New Policies Scenario ⁶ Current Policies Scenario.

Note: Climate scenario analysis is a novel area of research, and we expect the methodologies, tools and availability of data to evolve and improve over time. This overview summarizes the key scenario assessments and pilots conducted at UBS since 2014. We will build upon these to deepen our understanding of climate risks and opportunities.

Climate scenarios used at UBS

Scenario name	Developed by	Temperature alignment	Type ³	Carbon Dioxide Removal (CDR) ⁴	Description (as provided by the developing organization)
Net Zero 2050 (2021)	NGFS ¹	1.5°C	Orderly	Moderate reliance	Net Zero 2050 is an ambitious scenario that limits global warming to 1.5°C, with stringent climate policies and innovation, reaching net-zero CO ₂ emissions around 2050. Some jurisdictions such as the US, EU and Japan reach net zero for all greenhouse gases by this point. This scenario assumes that ambitious climate policies are introduced immediately. CDR is used to accelerate the decarbonization but kept to the minimum possible and broadly in line with sustainable levels of bioenergy production. Net CO ₂ emissions reach zero around 2050, giving at least a 50% chance of limiting global warming to below 1.5°C by the end of the century, with no or low overshoot (< 0.1 °C) of 1.5°C in earlier years. Physical risks are relatively low, but transition risks are high.
Below 2°C (2021)	NGFS	1.8°C	Orderly	Moderate reliance	Below 2°C gradually increases the stringency of climate policies, giving a 67% chance of limiting global warming to below 2°C. This scenario assumes that climate policies are introduced immediately and become gradually more stringent, though not as high as in Net Zero 2050. CDR is deployment is relatively low. Net-zero CO ₂ emissions are achieved after 2070. Physical and transition risks are both relatively low.
Divergent Net Zero (2021)	NGFS	1.5°C	Disorderly	Low reliance	Divergent Net Zero reaches net zero by 2050 but with higher costs due to divergent policies introduced across sectors and a quicker phase out of fossil fuels. This scenario differentiates itself from Net Zero 2050 by assuming that climate policies are more stringent in the transportation and building sectors. This mimics a situation where the failure to coordinate policy stringency across sectors results in a high burden on consumers, while decarbonization of energy supply and industry is less stringent. Furthermore, the availability of CDR technologies is assumed to be lower than in Net Zero 2050. Emissions are in line with a climate goal giving at least a 50% chance of limiting global warming to below 1.5°C by the end of the century, with no or low overshoot (<0.1°C) of 1.5°C in earlier years. This leads to considerably higher transition risks than Net Zero 2050 but overall the lowest physical risks of the six NGFS scenarios.
Delayed Transition (2021)	NGFS	1.8°C	Disorderly	Low reliance	Delayed Transition assumes global annual emissions do not decrease until 2030. Strong policies are then needed to limit warming to below 2°C. Negative emissions are limited. This scenario assumes new climate policies are not introduced until 2030 and the level of action differs across countries and regions based on currently implemented policies, leading to a “fossil recovery” out of the economic crisis brought about by COVID-19. The availability of CDR technologies is assumed to be low, pushing carbon prices higher than in Net Zero 2050. As a result, emissions exceed the carbon budget temporarily and decline more rapidly than in well-below-2°C after 2030, to ensure a 67% chance of limiting global warming to below 2°C. This leads to both higher transition and physical risks than Net Zero 2050 and below 2°C scenarios.
Nationally Determined Contributions (2021)	NGFS	~2.5°C	Hot house world	Low reliance	Nationally Determined Contributions (NDCs) includes all pledged policies even if not yet implemented. This scenario assumes that the moderate and heterogeneous climate ambition reflected in the NDCs at the beginning of 2021 continues over the course of the 21st century (low transition risks). Emissions decline but lead nonetheless to about 2.5°C of warming associated with moderate to severe physical risks. Transition risks are relatively low.
Current Policies (2021)	NGFS	+3.0°C	Hot house world	Low reliance	Current Policies assumes that only currently implemented policies are preserved, leading to high physical risks. Emissions grow until 2080, leading to about 3°C of warming and severe physical risks. This includes irreversible changes, such as higher sea levels. This scenario can help central banks and supervisors consider the long-term physical risks to the economy and financial system if we continue on our current path to a “hot house world.”
Early Action	BoE - CBES 2021 ²	1.8°C	Orderly	Moderate reliance	The transition to a net-zero economy starts in 2021, so carbon taxes and other policies intensify relatively gradually over the scenario horizon. Global CO ₂ emissions are reduced to net zero by around 2050. Some sectors are more adversely affected by the transition than others, but the overall impact on GDP growth is muted, particularly in the latter half of the scenario once a significant portion of the required transition has occurred and the productivity benefits of green technology investments begin to be realized.
Late Action	BoE - CBES 2021 ²	1.8°C	Disorderly	Low reliance	The implementation of policy to drive the transition is delayed until 2031 and is then more sudden and disorderly. The more compressed nature of the reduction in emissions results in material short-term macroeconomic disruption. This affects the whole economy but is particularly concentrated in carbon-intensive sectors. Output contracts sharply in the UK and international economies. The rapid sectoral adjustment associated with the sharp fall in GDP reduces employment and leads to some businesses and households not being able to make full use of their assets, with knock-on consequences for demand and spending. Risk premia rise across multiple financial markets.

Scenario name	Developed by	Temperature alignment	Type ³	Carbon Dioxide Removal (CDR) ⁴	Description (as provided by the developing organization)
No Additional Action	BoE - CBES 2021 ²	3.3°C	Hot house world	Low reliance	Primarily explores physical risks from climate change. Here, there are no new climate policies introduced beyond those already implemented. A growing concentration of greenhouse gas emissions in the atmosphere and global temperature levels lead to chronic changes in precipitation, ecosystems and sea level. There is also a rise in the frequency and severity of extreme weather events such as heatwaves, droughts, wildfires, tropical cyclones and flooding. There are permanent impacts on living and working conditions, buildings and infrastructure, realized through GDP. Changes in physical hazards are unevenly distributed with tropical and sub-tropical regions affected more severely. Many of the impacts from physical risks are expected to become more severe later in the 21st century and some will become irreversible.
Representative Concentration Pathways (RCP) 6	IPCC / scientific community	3-4°C	Hot house world	Low reliance	The RCP 6.0 scenario uses a high greenhouse gas emission rate and is a stabilization scenario where total radiative forcing is stabilized after 2100 by employment of a range of technologies and strategies for reducing greenhouse gas emissions. Emissions peak around 2080, then decline.
Sustainable Development Scenario (2021)	IEA	1.65°C	Orderly	Moderate reliance	A “well-below-2°C” pathway, this scenario is a gateway to the outcomes targeted by the Paris Agreement. It is based on a surge in clean-energy policies and investment that puts the energy system on track for key SDGs. In this scenario, all current net-zero pledges are achieved in full and there are extensive efforts to realize near-term emissions reductions; advanced economies reach net-zero emissions by 2050, China around 2060, and all other countries by 2070 at the latest.
The Net-Zero Emissions by 2050 Scenario (2021)	IEA	1.5°C	Orderly	Moderate reliance	This is a normative IEA scenario that shows a narrow but achievable pathway for the global energy sector to achieve net-zero CO ₂ emissions by 2050, with advanced economies reaching net-zero emissions in advance of others. This scenario assumes stable and affordable energy supplies, providing universal energy access, and enabling robust economic growth, while minimizing costs.
Stated Policies Scenario (2021)	IEA	2.6°C	Hot house world	Low reliance	This scenario provides a more conservative benchmark for the future because it does not take for granted that governments will reach all the announced goals. Instead, it takes a more granular, sector-by-sector look at what has actually been put in place to reach these and other energy-related objectives, taking into account not only existing policies and measures but also those that are under development. The policies assessed in the Stated Policies Scenario cover a broad spectrum. These include NDCs under the Paris Agreement, and many others.

¹ Network for Greening the Financial System. ² Bank of England / Climate Biennial Exploratory Scenario 2021. The BoE built upon the reference scenarios published by the NGFS; UBS performed additional in-house expansion of BoE scenarios, to undertake the analysis across multiple regions and sectors. ³ Orderly: low transition risk and low physical risks; disorderly: higher transition risks and low physical risks; hot house world: low transition risks and high physical risks. ⁴ Carbon Dioxide Removal (CDR): indicates reliance on CDR policies and technologies, such as carbon capture and storage (CCS).

Regulatory scenario analysis and stress test exercises

In 2021, UBS began participating in regulatory scenario analysis and stress test exercises, namely the Bank of England (BoE) 2021 Climate Biennial Exploratory Scenario (CBES): Financial risks from climate change as well as the European Central Bank (ECB) climate stress test. In 2021, we also participated in a top-down climate risk assessment performed jointly by FINMA and the SNB in Switzerland.

For the 2021 CBES exercise, the BoE is using exploratory scenarios to investigate a range of climate risks stemming from climate change. While UBS was not formally required to participate, as we are not a UK-headquartered bank, we opted in to the exercise in order to learn from the effort and given our footprint in the UK.

UBS Europe SE is participating in the ECB supervisory climate risk stress test, which assesses how prepared banks are for dealing with financial and economic shocks stemming from climate risk. The exercise will be conducted in the first half of 2022, after which the ECB will publish aggregate results.

Throughout 2021, we have engaged with a range of regulatory surveys and other requests for information from supervisors around the globe. We contributed to the NGFS's work exploring the potential for risk differentials among assets due to climate change. We also participated in industry efforts to evaluate regulatory exercises to date. This included the IIF report "Navigating Climate Headwinds," which examined learnings from 20 global institutions on regulatory climate scenario analysis and stress test exercises. We will continue to leverage these learnings as it further enhances testing methodologies.

Scenario analysis informed by industry collaboration

In 2018, UBS began a multi-year collaboration with a broad peer group of banks, the UNEP FI, the IAMC and risk consultancy firms Oliver Wyman and Acclimatise. Now entering its fourth year, our objective is to develop analytical tools to help banks define and disclose climate-related risks and opportunities, as recommended by the TCFD. This includes developing and standardizing how we quantify climate-related risks, addressing data gaps in the process, including Paris-aligned scenarios, and further refining scenario-based stress-testing methodologies. These advancements aim for banks to more robustly identify and disclose exposure to climate-related risks and opportunities.

In addition to the UNEP FI TCFD working group for banks, between 2019 and 2020, UBS was one of the pilot banks testing the PACTA methodology. In the context of the PACTA for lending pilot, we studied the alignment of select climate-sensitive sectors in our corporate credit portfolio with Paris Agreement benchmarks. The methodology provides an assessment of a bank's credit-financed activities in relation to the global shift to a low-carbon economy. We also participated in the PACTA 2020 climate alignment test, which focused on assessing listed investments, mortgage and direct real estate portfolios. On this occasion, the PACTA methodology was applied to listed investments portfolios and our results were compared with the aggregated results of all participating banks' portfolios.

In-house scenario assessments

Our initial top-down approach in 2014 consisted of a scenario-based stress test to assess UBS's balance sheet vulnerability across the firm. Leveraging our existing firm-wide, top-down stress-testing methodology, we developed a climate-change scenario. It assumed that severe weather events will result in governments worldwide agreeing to implement carbon-pricing mechanisms to assess the impact on financial assets, operational income and physical assets. The scenario envisioned that these mechanisms would prompt a shift away from coal and other fossil fuels to cleaner alternatives, adversely impacting markets and GDP.

Our subsequent bottom-up analyses in 2015 of loan portfolios involving oil and gas firms, as well as electric utilities, consisted of a forward-looking analysis to assess the impacts of a long-term low fossil fuel price scenario resulting from policies promoting greater use of renewables, enhancing efficiency standards and limiting emissions. We calculated the impact this scenario would have on companies' probability of default and aggregated company-level results at the portfolio level to assess changes to expected loss. We also assessed the vulnerability of loan portfolios secured by real estate in Switzerland and the US to physical risk. We did this by mapping the location of collateral in more than 6,000 postal code areas against Swiss Re's CatNet tool, which aggregates a large dataset of observed natural hazards such as wildfire, river and pluvial flooding, and tropical cyclones.

From both top-down and bottom-up approaches, our internal stress tests suggested no immediate threat to UBS's balance sheet. However, we identified methodological challenges ranging from the suitability of climate scenarios for banking risk modeling to data availability.

Climate risk monitoring and risk appetite

In 2021, we further expanded our suite of climate risk metrics in response to the revised guidance on implementation of the TCFD recommendations. This includes the development of a physical risk heatmap methodology and expansion of the scope of climate-sensitive sectors and carbon-related assets metrics.

We further refined our ability to estimate the firm's vulnerability to climate-related risks by developing a physical risk heatmap in addition to the transition risk heatmap, which was first published in our 2020 report.

› Refer to our transition and physical risk heatmaps under "Climate risk identification and measurement" above

The current inventory of UBS's exposure to climate-sensitive activities (transition and physical risks) at the sector level is summarized in the tables below.

UBS corporate lending to climate-sensitive sectors – transition risks

USD million	As of 31.12.21		As of 31.12.20		As of 31.12.19
	Trend (%) 2019 to 2021	Gross exposure ²	Share of total exposure ²	Share of total exposure ²	Share of total exposure ²
Climate-sensitive sector¹					
Aerospace and defence	↓	831	0.18%	0.21%	0.56%
Automotive	↓	703	0.15%	0.22%	0.20%
Business services					
Chemicals	↓	1,112	0.24%	0.46%	0.30%
Construction and materials	↓	3,637	0.79%	0.86%	0.86%
Consumer products and retail	→	355	0.08%	0.06%	0.08%
Entertainment, leisure and services					
Food and beverage	→	2	0.00%	0.00%	0.00%
Industrial materials	↓	121	0.03%	0.03%	0.07%
Information technology					
Machinery and equipment	↑	1,040	0.23%	0.21%	0.16%
Medical equipment and services					
Mining	↓	2,920	0.64%	0.64%	0.65%
Oil and gas	↓	5,823	1.27%	1.09%	1.42%
Pharmaceuticals / biotechnology	↑	1,400	0.30%	0.34%	0.16%
Plastic and rubber	↓	299	0.07%	0.08%	0.08%
Primary materials	→	13	0.00%	0.00%	0.00%
Real estate management	↓	18,029	3.93%	4.05%	4.02%
Sovereigns and financials					
Transportation and equipment	↓	849	0.18%	0.24%	0.29%
Utilities	↓	375	0.08%	0.08%	0.10%
Total exposure to climate-sensitive sectors³	↓	37,510	8.17%	8.57%	8.96%
Total exposure to all sectors		459,061	100%	437,777	373,239

¹ Climate-sensitive sectors are defined as those business activities that are rated as having high, moderately high or moderate vulnerability to transition risks and physical risks. Methodology developed in collaboration with UNEP FI TCFD working group and disclosed in Phase II "From disclosure to action – a guide to implementing the TCFD framework within financial institutions" report. Climate risk analysis is a novel area of research, and as the methodologies, tools and data availability of data improve, we continue to further develop our risk identification and measurement approaches. ² Includes total loans and advances to customers and guarantees as well as irrevocable loan commitments (within the scope of expected credit loss). Includes loans collateralized by real estate (residential and commercial), across Global Wealth Management, Personal & Corporate Banking, and the Investment Bank. ³ Global Wealth Management corporate lending to customers represents 1.1% of all on- and off-balance sheet loans and advances to customers, and is excluded from the climate-sensitive sectors analysis in 2021.

UBS corporate lending to climate-sensitive sectors – physical risks



USD million	As of 31.12.21		As of 31.12.20		As of 31.12.19
	Trend (%) 2019 to 2021	Gross exposure ²	Share of total exposure ²	Share of total exposure ²	Share of total exposure ²
Climate-sensitive sector¹					
Aerospace and defence	↓	338	0.07%	0.09%	0.48%
Automotive	↓	1,042	0.23%	0.31%	0.26%
Business services	↓	853	0.19%	0.24%	0.25%
Chemicals	↓	991	0.22%	0.44%	0.30%
Construction and materials	↓	302	0.07%	0.07%	0.08%
Consumer products and retail	↑	650	0.14%	0.10%	0.07%
Entertainment, leisure and services	↓	1,308	0.28%	0.29%	0.36%
Food and beverage	↑	1,334	0.29%	0.33%	0.25%
Industrial materials	↓	243	0.05%	0.06%	0.12%
Information technology	↓	274	0.06%	0.06%	0.14%
Machinery and equipment	↑	2,732	0.60%	0.61%	0.54%
Medical equipment and services	↑	408	0.09%	0.16%	0.08%
Mining	↑	1,153	0.25%	0.21%	0.20%
Oil and gas	↓	5,538	1.21%	1.09%	1.38%
Pharmaceuticals / biotechnology	→	814	0.18%	0.13%	0.18%
Plastic and rubber	↓	280	0.06%	0.08%	0.07%
Primary materials	→	320	0.07%	0.07%	0.07%
Real estate management	↑	528	0.12%	0.13%	0.02%
Sovereigns and financials	↓	4,371	0.95%	1.06%	1.46%
Transportation and equipment	↓	419	0.09%	0.17%	0.22%
Utilities	↑	1,579	0.34%	0.29%	0.33%
Total exposure to climate-sensitive sectors³	↓	25,476	5.55%	5.99%	6.87%
Total exposure to all sectors		459,061	100%	437,777	373,239

¹ Climate-sensitive sectors are defined as those business activities that are rated as having high, moderately high or moderate vulnerability to transition risks and physical risks. Climate risk analysis is a novel area of research, and as the methodologies, tools and data availability improve, we continue to further develop our risk identification and measurement approaches. ² Includes total loans and advances to customers and guarantees as well as irrevocable loan commitments (within the scope of expected credit loss). Physical risk number includes USD 4 billion in loans backed by real estate, in regions with elevated climate risks. ³ Global Wealth Management corporate lending to customers represents 1.1% of all on- and off-balance sheet loans and advances to customers, and is excluded from the climate-sensitive sectors analysis in 2021.

Climate risk appetite

UBS has a long-standing SCR policy that defines qualitative risk appetite for climate risk. Details of climate-related standards in the energy and utilities sectors can be found in the graph below.

› Refer to the SCR policy framework in Appendix 6 to the UBS Sustainability Report 2021 for further details about our SCR governance

Climate-related standards in the energy and utilities sectors		
	Coal	
	Coal-fired power plants	Not providing project-level finance to new coal-fired power plants globally. Only supporting financing to transactions of existing coal-fired operators (>20% coal reliance) if they have a transition strategy that aligns with the goals of the Paris Agreement, or if the transaction is related to renewable energy or clean technology.
	Coal mining	Not providing financing where the stated use of proceeds is for greenfield ¹ thermal coal mines. We only provide financing to existing thermal coal-mining companies (>20% of revenues) if they have a transition strategy that aligns with the goals of the Paris Agreement, or if the transaction is related to renewable energy or clean technology.
	Mountaintop removal (MTR)	Not providing financing to coal-mining companies engaged in MTR operations.
	Oil and gas	
	Arctic oil and oil sands	Not providing financing where the stated use of proceeds is for new offshore oil projects in the Arctic or greenfield ¹ oil sands projects. We only provide financing to companies with significant reserves or production in Arctic oil / oil sands (>20% of reserves or production) if they have a transition strategy that aligns with the goals of the Paris Agreement or if the transaction is related to renewable energy or clean technology.
	Liquefied natural gas (LNG) and ultra-deepwater drilling	Transactions directly related to LNG infrastructure assets are subject to enhanced SCR due diligence considering relevant factors such as management of methane leaks, as well as the company's past and present environmental and social performance. Transactions directly related to ultra-deepwater drilling assets are subject to enhanced SCR due diligence considering relevant factors such as environmental impact analysis, spill prevention and response plans, and the company's past and present environmental and social performance.

¹ Greenfield means a new mine / well or an expansion of an existing mine / well that results in a material increase in existing production capacity.

Climate risk management and control

Standard financial and non-financial risk processes ensure that material climate risks are identified, assessed, approved and escalated in a timely manner. Key responsibilities, processes and tools applicable to business divisions and Group Functions are being defined as part of our firm's climate risk program.

Climate risk reporting

As part of our 2020 reporting, we disclosed our firm's first climate risk heatmap in the UBS Sustainability Report and included an SCR section in the Annual Report. In 2021, we automated the climate transition risk heatmap for periodic internal risk reporting and introduced a physical risk heatmap as part of our climate report.

The development of internal and external climate risk disclosures will continue in the coming years in the context of our climate risk program in order to address regulatory expectations and provide leading practice in this space.

Protecting our clients' assets

As a global financial institution, it is our responsibility to help clients navigate through the challenges of the low-carbon transition.

We help our clients assess, manage and protect their assets from climate-related risks by offering innovative products and services in investment, financing and research and by providing transparency on climate risk exposure.

Across UBS Asset Management, carbon emissions data is available to portfolio managers and analysts, enabling them to leverage carbon and carbon intensity data for more than 10,000 companies, and allowing them to examine the carbon footprint of their portfolios. This complements the work of portfolio managers and analysts using our proprietary ESG Risk Dashboard which aggregates multiple ESG data sources to help identify companies with material ESG risks. Asset Management also uses its own risk system to aggregate ESG risks at a portfolio level.

Asset Management has developed a suite of products, named *Climate Aware*, to help investors align their portfolios toward a low-carbon future. The first *Climate Aware* passive equity strategy was developed in conjunction with a large UK pension fund and launched in 2017. In 2020, Asset Management launched a

broader *Climate Aware* suite of investment strategies based on the original *Climate Aware* methodology, including active and passive, equity, and fixed income. The *Climate Aware* strategy enables investors to reduce a portfolio's carbon footprint, invest in new technologies, and align portfolios to a low-carbon climate "glidepath," such as the 1.5°C scenario, envisioned by the Paris Agreement. Today, the *Climate Aware* strategies have grown to USD 23.4 billion in investments. They are supported by Asset Management's climate engagement program.

Asset Management has applied an exclusion of companies that generate more than 20% of their revenues from thermal coal mining or oil sands extraction across all equity and fixed income strategies. We also apply an exclusion of companies with more than 20% of their revenues from thermal coal-based power generation across our sustainability focus and impact investing strategies. We believe that these companies will face the most significant climate-related financial risks in light of the low-carbon transition.

UBS is a founding member of the Net Zero Asset Managers initiative. This commitment recognizes the urgent need to accelerate the transition toward global net-zero emissions and for asset managers to play their part in helping deliver the goals of the Paris Agreement and ensuring a just transition.

› Refer to the "Key climate-related memberships and commitments" table above

Our Investment Bank supports clients on their transition journey, in terms of addressing climate risk and executing on their sustainability strategies. This includes the provision of advisory services, capital raising and access to capital markets. We are also looking at ways to facilitate access to carbon markets to meet clients' needs. Within Global Wealth Management, we identify the most material ESG issues to the sectors within the framework of our sustainable investing scoring assessment, of which one of the six focus topics is climate change. We have also an established shelf of long-term investment themes, the majority of which have a strong link to sustainability. A significant number explicitly focus on climate change-related themes such as renewable energy and green technology. At the portfolio level, companies with more than 5% revenue exposure to thermal coal are excluded from sustainable investing single security portfolios managed by Global Wealth Management on a discretionary basis. Looking ahead, we are working to build more detailed carbon footprint data into our research and reporting toolkits.

Engagement

Within our Asset Management division, engagement is a key constituent in the investment process across both passive and active strategies. Its stewardship policy provides an overview of the way in which engagement cases are prioritized.

Engagements are driven by investment professionals across all functions, including analysts, portfolio managers and the SI team. The sharing of ESG information and investment research in a centralized manner via our internal platforms ensures a consistent and aligned voice from the firm. Engagement insights are used to

inform voting decision making and are also fed back into in-house ESG risk assessments, enabling a forward-looking view on ESG risks and opportunities.

Asset Management undertakes multi-year thematic engagements focused on specific themes considered material as identified by available internal and external research and aligned with the overall sustainability and sustainable investment strategy of the firm. Our climate thematic engagement focuses on companies' response to mitigating their climate transition-related risks. Asset Management also actively votes on shareholder resolutions to improve transparency and disclosure around climate-related reporting. The climate engagement program began with the most significant underweighted oil and gas companies and utilities companies in the *Climate Aware* strategy.

In 2021, Asset Management reviewed the progress of companies in its three-year climate engagement program. More than half of these engagements were assessed as having made good or excellent progress, but we also identified five companies where we considered little progress had been made. We excluded those five companies from our SI-focused and *Climate Aware* strategies, which demonstrates that we take action when companies are not meeting their transition plans or are not willing to engage.

During 2021, Asset Management revised the list of companies that we engage with, extending the focus sectors to include those with a significant contribution to GHG emissions. This means that future engagements will include companies from the following sectors: oil and gas, electric and other utilities, metals and mining, construction materials, automotive, and chemicals.

We retain a strong commitment to the Climate Action 100+ collaboration, wherein investors engage with high carbon intensity companies. We are members of 26 coalitions and lead six of them.

Climate Action 100+ was launched in December 2017 to help drive the clean-energy transition and achieve the goals of the Paris Agreement. It has the support of 615 investors, representing more than USD 60 trillion of assets under management (AuM) (as of 31 December 2021). Whether Asset Management is a lead or participating investor, it is an active member of these coalitions, providing feedback on the climate change performance of companies, the discussion agenda, engagement goals and the progress of these dialogues.

› Refer to UBS Asset Management's annual stewardship report, available at ubs.com/gri, for more details

Expanding climate-related opportunities

Climate-related opportunities identified

Although there is a natural, and critical, focus on climate-related risks, mitigating the impacts of climate change also opens new opportunities. Banks are exploring opportunities in a variety of areas, including:

- new products and services, for example, in the area of real estate financing;
- sustainable financing to fund green projects. For instance, renewable energy projects, or financing in areas such as clean technology;
- integration of sustainability aspects in corporate financing, including innovative structures such as green equity-linked instruments;
- partnerships with companies to deliver climate solutions, for example, working with manufacturers to provide financing options for electric vehicles;
- developing new technologies, such as digital solutions that help customers measure and offset their carbon footprint;
- supporting investors in directing capital, for example, educating and guiding on sustainable investment and finance opportunities.

Assessing the issues

An important first step in developing solutions and strategies for a low-carbon economy is to understand the issues driving them.

As part of our net-zero commitment, we have conducted a baseline and target-setting exercise for financed emissions, initially in three sectors: fossil fuels, power generation and real estate (commercial and residential).

We already only conduct business in the areas of fossil fuels and power generation under stringent criteria. We will continue to engage with power generation and extraction companies (among others) on their climate transition plans, and raise our voice with stragglers. Work is also underway on the remaining sectors, in line with NZBA requirements.

Capturing the opportunities and developing sustainable solutions

We are continually developing and refining sustainable solutions and approaches that help reduce the risks of climate change. When developing new products and services, we aim to address material risks and opportunities, allowing clients to invest in sustainable solutions that can deliver returns comparable to traditional investments, and which align with their values.

For this reason, sustainable investments now represent our preferred solution to private clients investing globally.

In our Global Wealth Management and Personal & Corporate Banking business divisions, private clients can access discretionary mandates based on our *sustainable investing strategic asset allocation* (SI SAA) methodology. This is grounded in our innovative SI SAA approach to building diversified portfolios across asset classes.

This approach allocates assets to strategies that directly help mitigate climate change, such as green and multi-lateral development bank bonds, and thematic investments. It also contributes to strategies that address climate change adaptation or indirectly help mitigate climate change, for example, by investing in companies that manage ESG issues better than their peers or show continuous improvement. In 2020, we launched a customized portfolio advisory solution that enables private clients to tilt portfolios toward climate change considerations, one of six sustainability topics of preference. In 2021, this was extended to additional client segments. Our 2021 investor sentiment survey showed climate to be one of the top sustainable investment areas of focus among private clients, demonstrating our clients' appetite for the direction we are taking.

› Refer to the summary of the UBS investor sentiment survey in the "What" section of the UBS Sustainability Report 2021

Global Wealth Management integrates sustainability assessments into the standard due diligence processes for all new fund solutions offered via its platform. These assessments focus on fund managers' sustainability commitments and capabilities, as well as the degree to which sustainability is incorporated into the investment process. Clients, regulators and the marketplace more broadly are increasing their scrutiny of environmental considerations, notably climate risk. Therefore, we continue to enhance our processes further still to focus both on risk mitigation and investment opportunities for our clients in this space.

By the end of 2021, we had mobilized USD 11.6 billion of private client money into impact investments related to the SDGs, of which climate considerations form a part.

Global Wealth Management's fund offering includes climate-focused investment strategies, for example, investments in clean alternative energy and smart mobility. Our Global Wealth Management and Asset Management business divisions also address ESG factors across their investment disciplines. Asset Management's Real Estate and Private Markets teams apply a *sustainable investment strategy*. This strategy aims to enhance the performance of mandates for direct and indirect real estate and infrastructure investments. In Switzerland, our *UBS Clean Energy Infrastructure Switzerland* strategy offers institutional investors access to a diversified portfolio of infrastructure investments in growth areas of sustainable energy production, energy efficiency and supply infrastructure with a focus on Switzerland.

Climate Aware – a framework for investors

We have already highlighted the *Climate Aware* strategy approach developed by Asset Management. The strategy is based on a framework, which covers three main areas.

(i) Portfolio mitigation (lowering investment exposures to carbon risk)

In our experience, balancing required returns and minimizing climate risks works best when investors integrate climate considerations into a diversified portfolio. This approach also helps focus minds on the risks of climate change.

As the TCFD has highlighted, these risks can be regulatory, market-driven, technological and physical. How the risks manifest within markets, industry sectors and for individual issuers depends on an interplay of the following factors. Accounting for these factors shines a spotlight on the most material issues relating to carbon-intensive sectors needing to reduce their emissions. It also leads to a deeper investment-related understanding of the physical risks: regulations; commercial considerations; and the impact of technology on business models, revenue costs and capital requirements.

(ii) Portfolio adaptation (increasing exposure to climate innovations and solutions)

Supporting a low-carbon future involves investing in and funding new technologies and solutions. The key investment areas relate to reducing emissions, energy transition (moving global energy systems to sustainable models) and energy efficiency. They include companies that manufacture and deploy technologies, and those that provide the infrastructure and services required to make those technologies widely available. To reduce their climate impact, companies may develop their business structure, asset ownership, supply chains and delivery models in various ways.

Different kinds of investors also have different risk appetites and requirements for types of investments. For example, venture capital, private equity, real estate, public equity and public fixed-income investments come with different exposures to technology risk.

(iii) Portfolio transition (aligning portfolios to investors' chosen climate journeys)

It is important for investors to understand the difference between their current situation and the opportunities of moving to a low-carbon future. Scenario analysis helps prompt longer-term thinking about the risks and opportunities of climate change. We advocate for and engage with stakeholders on climate-related principles, including proxy voting. These approaches also help investors understand different investment and climate approaches in different sectors and countries.

Supporting companies to mitigate and adapt to climate change

Our Investment Bank is actively engaged in building up our offering of products that address the broad range of themes falling under the wider topic of sustainability. We provide

sustainable finance and advisory services to companies that help mitigate and adapt to climate change, and those in transition to a more sustainable and circular economy. These include, for example, businesses in the solar, wind, hydro, energy efficiency, transport, waste and biofuels sectors.

Our products and solutions include green and sustainable, sustainability-linked bonds issued in accordance with market principles and / or taxonomies.² UBS's share of financing of such transactions amounted to USD 13.2 billion (with the full deal value of these transactions being USD 63.3 billion).

We aim to be the preferred strategic partner for financing transactions and advisory related to Switzerland's Energy Strategy 2050. In this context, we help energy utilities raise capital on international capital markets to transition to renewable energy.

Green Funding Framework

In 2021, UBS launched the Green Funding Framework. This Group-wide framework sets out how UBS intends to connect our sustainability objectives with access to financial markets through a variety of funding products.

The framework is based on current established market practice and meets the core pillars set out in the ICMA Green Bond Principles updated in 2021. It has been assessed by Sustainalytics and has received certification from the Climate Bonds Initiative.

In June 2021, UBS AG issued its inaugural Swiss franc- and euro-denominated senior green bonds allocated to refinancing mortgages on Minergie-certified Swiss properties (with a look-back period of up to two years). Forming part of the new enhanced sustainability strategy, with these bonds UBS raised, for the first time, unsecured funding with an ESG feature.

UBS is committed to reporting on the allocation of any proceeds raised under the framework and the estimated environmental impact of the eligible green assets.

› Refer to ubs.com/greenbonds for more details on the Green Funding Framework, external reviews and annual reporting (including the impact and allocation reporting)

Supporting clients with climate-related philanthropic endeavors

UBS Optimus Foundation enables clients to get involved in programs relating to sustainable land use – restoring and conserving land, and supporting climate-resilient agriculture and agroforestry; and to coastal and marine ecosystems – restoring and conserving wetlands, supporting sustainable fisheries, and reducing ocean waste and pollution. To help our clients achieve the best possible results from their philanthropy, UBS and experts conducted an extensive landscape analysis, which led to a systematic approach enabling clients to assess where to invest and how best to contribute to and accelerate climate action.

² Such as, but not limited to, ICMA Green Bond Principles, Sustainability Bond Guidelines, and, Sustainability-linked Bond Principles; LMA / LSTA / APLMA Green Loan Principles, Sustainability-linked Loan Principles.

Metrics and targets

UBS's approach to net zero – from commitment to action

UBS supports the goals of the Paris Agreement, which includes aligning our own operations and business activities with the pathway of a five-step net-zero plan to: (i) measure carbon emissions; (ii) define a roadmap and set targets; (iii) reduce climate impact; (iv) finance climate action and support the transition of our clients; and (v) communicate and engage. We have organized the key content on these steps under three headers in this section: net zero to reduce our direct climate impact, net zero to finance climate action and support the transition of our (financing) clients, and net zero to protect our (investing) clients' assets.

UBS's net-zero approach – from commitment to action

1. Measure carbon emissions

We have measured carbon emissions for scopes 1,2 and parts of scope 3 of our own operations since 2004. Following our net-zero commitment in April 2021, we commenced measuring carbon emissions in our financing (starting with three priority sectors) and investment portfolios.

2. Define roadmap and set targets

We have defined 2025, 2030 and 2035 targets in the run-up to net zero by 2050.

3. Reduce climate impact

We have consistently reduced the carbon footprint of our operations (scopes 1 and 2) since we set our 2004 baseline. In 2021 we have defined pathways to reduce emissions in our financing and investment portfolios.

4. Support clients' transition and finance climate action

We engage with our investing clients. We offer solutions to mobilize capital for a low-carbon world, e.g., with the issuance of green bonds and our *Climate Aware* strategy. For self-occupied real estate, we offer the *UBS Renovation Mortgage*.

5. Communicate and engage

We have reported on our climate strategy since 2014. Starting from reporting year 2021 we have expanded this disclosure to include our net-zero plans. We are engaging with our clients, peers and other stakeholders to further develop methodologies and be an active supporter of a net-zero economy.

Net zero to reduce our direct climate impact

Scopes 1 and 2

We aim to achieve net-zero direct (scope 1) and energy indirect (scope 2) emissions by 2025. Our primary focus is on decarbonizing our footprint by reducing consumption and removing fossil fuel heating installations in our owned buildings when we undertake renovations, as well as divesting from older, non-strategic buildings. For any residual scope 1 and 2 emissions that cannot be mitigated through retrofits, we will invest in credible carbon removal projects (including negative emissions technology) to abate the remainder and to support innovation in these areas.

As part of our commitment to net zero we will also work to compensate our historic emissions back to the year 2000. This represents 4.2 million metric tons of CO₂, primarily resulting from electricity and other energy consumption from UBS buildings during those years. To address these emissions, we are in the process of sourcing a portfolio of transparent carbon offsets from the voluntary carbon market across a range of project types and geographies. Our portfolio is primarily focused on renewable energy / energy efficiency projects reflecting the main origin of the emissions in our buildings, but also includes a number of nature-based offsets including reforestation, afforestation and conservation. We are committed to supporting the development of internationally agreed quality standards in the voluntary carbon market in order to reinforce the market's role in the transition to a low-carbon economy.

Scope 3 – upstream

To reduce emissions related to our supply chain, our responsible supply chain management framework continues to drive our sustainable procurement as it has done since 2008. All of our high-impact vendors go through our responsible supply chain management (RSCM) assessments.

We are now engaging with key vendors on targeting net zero by 2035.

Offsetting to balance residual scope 1, 2 or 3 emissions

According to the guidelines established by the NZBA, offsets can play a role to supplement decarbonization in line with climate science. The reliance on carbon offsetting for achieving end-state net zero should be restricted to carbon removals to balance residual emissions where there are limited technologically or financially viable alternatives to eliminate emissions.

When it comes to our own operations, over the last few years we have strategically invested into energy efficiency measures and sourcing of 100% renewable electricity, which have materially reduced our net emissions footprint today compared with only a few years ago. We will be further reducing this and aim for net zero in our own operations for scopes 1 and 2 by 2025. By that point we envisage there being less than 10% of remaining gross emissions that cannot be mitigated by other means and where we would need to purchase high-quality carbon removal offsets to compensate. For our key vendors (scope 3) we are targeting net zero by 2035, and we will engage with them on similar measures and assess the options for offsetting residual emissions (as is the case already for our emissions from air travel which have been offset since 2007).

When it comes to client business, we will support our financing and investing clients in their transition to net zero. Where our clients see a need to resort to offsets to achieve their goals, we will aim to help with access to suitable offsetting facilities and instruments. The accounting of offsets when reporting financed emissions is an area under development. We are closely monitoring the efforts on this topic by standard setters such as in the context of the Race to Zero campaign.

Net zero to finance climate action and support the transition of our clients

In April 2021, we committed to set targets that further align our financing portfolio with the objectives of the Paris Agreement. As per the guidelines of the NZBA, we have prioritized sectors that have the most material climate impact in this first iteration of our net-zero ambitions.

In addition to the contribution to global emissions, we also considered the materiality of our financial exposure and the availability of data and applicable methodologies to estimate baselines and develop pathways toward the goal of net zero. We have selected three priority sectors that include a sizable share of our credit portfolio and our financed emissions: fossil fuels, power generation and real estate (commercial and residential).

Our three priority sectors account for approximately 43% of our loans and advances to clients.³

Our emission baselines and trajectories are based on the full lending commitment made to our clients. This includes our outstanding loans, as well as undrawn amounts which we would be obliged to provide if so requested by a counterparty. In our view, this is the most relevant approach to measure and steer our credit portfolio toward our ambitions.

As a new member of the Partnership for Carbon Accounting Financials (PCAF), we aim to disclose emissions in future reporting across our loan book based on the outstanding loan amount (in addition to emissions based on credit facilities).

Our net-zero measures focus on lending activities. We recognize that capital markets facilitation also plays an important role in the financing of our clients. These transactions are therefore also subject to our SCR policy but are currently not part of our net-zero baselines. Capital markets are relatively new to the field of emissions accounting, with no accepted industry-wide standard. We will engage standard setters on emerging approaches in order to consider those activities in our future ambitions.

For each of our priority sectors, we have selected the most suitable metric to track our progress toward net zero (i.e., physical emissions intensity or absolute emissions). Generally, we believe that most sectors will be best steered by using physical emissions intensity. This encourages the transition of our clients toward emissions-efficient technologies and makes sustainable growth possible. In addition, emissions intensity measures tend to be less volatile. A metric based on absolute emissions is more appropriate for sectors with less potential for emissions-efficiency gains.

To estimate our emissions baselines, we relied on data disclosed by our clients in their own disclosures, data from specialized third-party providers and internal data. Current limitations on the availability of emissions data required us to include approximations in the calculations; for example, by applying appropriate proxy values where specific data is not (yet) available. We expect the availability and quality of emissions data to improve in the next few years. Improved data may be used to strengthen the robustness of the reporting, which may result in restatements of our baselines and pathways over time.

The goals of the Paris Agreement can be translated into socioeconomic models with transition pathways for various economic activities. These models, also known as benchmark scenarios, represent the trajectory, a portfolio should follow in order to be consistent with a transition pathway to reach the temperature objectives outlined by the Paris Agreement. The benchmark scenario used to support our net-zero ambition is derived from the International Energy Agency (IEA) 2021 Net Zero by 2050 data, which is available on the IEA's website. This scenario was selected as one of the most recent, broadly accepted 1.5°C models available.

As a general note, it is important to understand that while UBS will engage in significant efforts to achieve its net-zero ambition, the reduction objectives for financed emissions shown are based in part on anticipated regulatory action to support emissions reductions by the governments of the jurisdictions in which we operate.

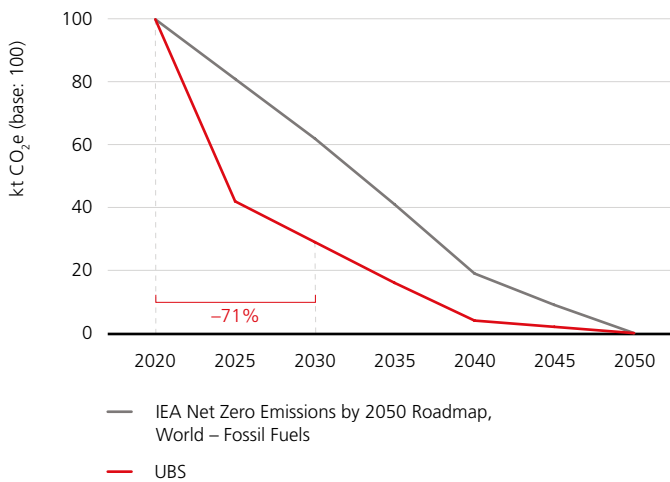
As the world drives toward a low-carbon future, we will adjust our ambition where warranted by new projections or methodological developments.

³ Combined share of the three priority sectors of UBS's total loans and advances to customers, including guarantees and irrevocable commitments.

Fossil fuels

UBS is committed to reducing the absolute financed emissions (measured in metric tons of CO₂e) associated with loans to oil and gas companies by **71% by 2030** (compared with 2020 levels).

Fossil fuel financing



Baseline and proposed reduction of absolute emissions for fossil-fuel financing. Underlying data of UBS pathway and IEA Net Zero by 2050 is based on CO₂e, indexed here to 100 for comparability.

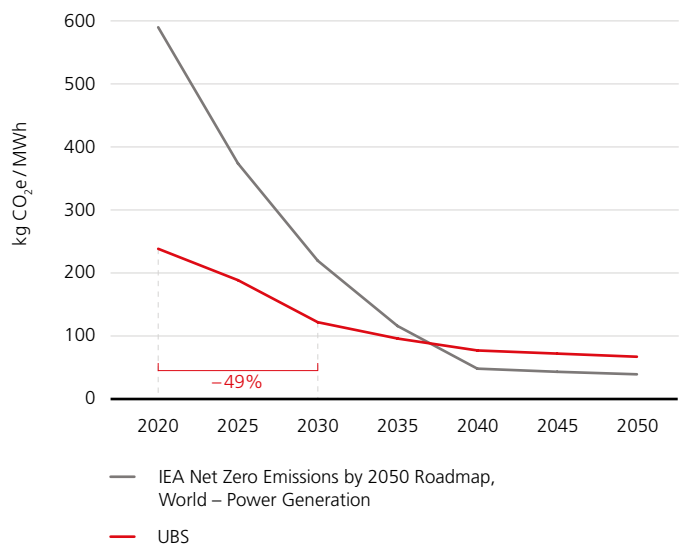
This proposed reduction is in line with the IEA Net Zero by 2050 scenario and includes scope 1, 2 and 3 emissions. Scope 3 emissions are associated with the combustion of fossil fuels and contribute the majority of emissions within this sector. Our assessment of the fossil fuel sector includes exploration, production and refinery activities, as well as integrated companies operating across the value chain.

For these disclosures we have excluded activities, such as transportation, retailing and trading. Scope 3 emissions measurement methods are yet to be developed for these activities, including in the context of commodity trade finance (CTF). We closely follow the development of emissions measurement standards for this area and will adopt where applicable and as agreed. As it is important for us to ensure progress on emissions reductions in these areas, we have established internal targets. As a result, our CTF business will, for example, be increasingly involved in less carbon-intensive or circular economy commodities, such as in the biofuels or metal recycling sectors.

Power generation

We are also committed to reducing the emissions intensity (measured in kilograms of CO₂e per MWh) associated with lending to power generation companies by **49% by 2030** (compared with 2020 levels), taking into account scope 1, 2 and 3 emissions.

Power generation financing



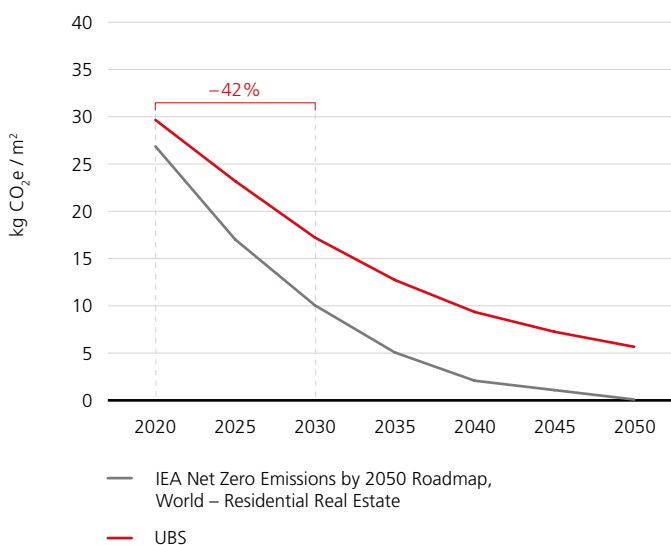
Baseline and proposed reduction path for power generation financing by UBS, as emissions intensity in kilograms of CO₂e/MWh. Note: IEA data shown is adjusted to represent scope 1, 2 and 3 emissions.

Scope 1 emissions are responsible for the majority of emissions by the power generation sector. This intensity metric monitors emissions related to the production of electricity and promotes change toward an increasing share of renewable energy sources. We have decided to consider all life cycle stages of energy systems (scope 1, 2 and 3 emissions), so our baseline and pathway includes CO₂e emissions resulting from upstream, operational and downstream processes. Aside from addressing a future NZBA requirement, this improves the comparability of the emissions from different energy technologies. At this point in time, our emissions intensity is below the IEA benchmark, thanks to high exposure to renewables, particularly in our home market of Switzerland. To maintain this trajectory, we will support the transition of our clients and exit exposure in the absence of credible progress.

Residential real estate

UBS is committed to reducing the emissions intensity (measured in kilograms of CO₂e per m²) for our residential real estate portfolio **by 42% by 2030** (compared with 2020 levels).

Residential real estate lending



Baseline and proposed reduction path for residential real estate financed by UBS, as emissions intensity in kilograms CO₂e per m².

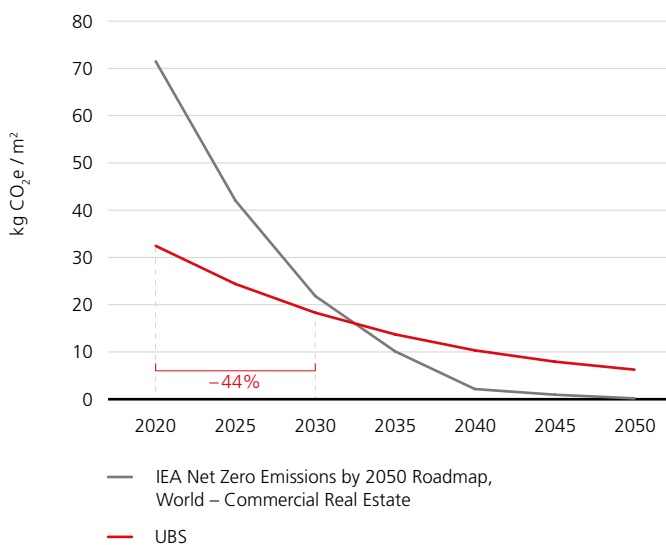
Our residential real estate portfolio includes mortgages for owner-occupied properties and properties rented out on a non-commercial scale. This commitment covers mortgages in three countries representing 98% of UBS's residential mortgage volume, with the largest share being in Switzerland. Scope 1 and 2 emissions (for example, direct emissions from buildings and indirect emissions of purchased energy) are included, but other emissions in the value chain, such as those related to original construction, are not. To achieve our emission reduction ambitions, we plan to extend our mortgage offering with new products and services for homeowners seeking to retrofit their properties and making them more energy efficient. However, we will only achieve our proposed targets if, at the same time, governments support the decarbonization of real estate, for example by incentivizing improved property efficiency and use of non-fossil fuel heating systems.

Furthermore, government action to establish standardized emissions ratings for properties in their jurisdictions (where not already available) is an important enabler for financial institutions to differentiate their mortgage offerings on the basis of a property's energy efficiency. It is partly because of the dependency on the speed of governmental action on these matters that the emissions trajectory remains above zero by 2050. UBS will consider readjusting the reduction pathways in alignment with new methodological developments and where new data availability allows.

Commercial real estate

UBS is also committed to reducing the emissions intensity (measured in kilograms of CO₂e per m²) for our commercial real estate portfolio **by 44% by 2030** (compared with 2020 levels).

Commercial real estate lending



Baseline and proposed reduction path for commercial real estate financed by UBS, as emissions intensity in kilograms CO₂e per m².

The commercial real estate book includes loans financing rented-out properties in multi-family homes, or any other income-producing real estate. As for residential real estate, the measures consider scope 1 and 2 emissions, and the reduction pathway results from future innovations in the UBS offering (related to green buildings and renovations), as well as actions by governmental bodies. In general, UBS expects somewhat higher potential for emissions reduction for commercial real estate than on the residential side.

Baselines and proposed reduction pathways for lending in initial priority sectors¹

	Lending volume 2020	Lending volume 2021	Emissions baseline 2020	Emissions target 2030 versus baseline 2020	Notes
Fossil fuels	USD 1.2 billion	USD 0.7 billion	3,781 kt CO ₂ e	(71%)	Reduction of absolute emissions (scopes 1, 2 and 3)
Power generation	USD 0.9 billion	USD 1.2 billion	238 kg CO ₂ e/MWh	(49%)	Reduction of emissions intensity (scopes 1, 2 and 3)
Residential real estate	USD 151.1 billion	USD 155.9 billion	30 kg CO ₂ e/m ²	(42%)	Reduction of emissions intensity (scopes 1 and 2)
Commercial real estate	USD 43.7 billion	USD 44.7 billion	32 kg CO ₂ e/m ²	(44%)	Reduction of emissions intensity (scopes 1 and 2)

¹ Calculations based on maximum lending facility extended to clients (conservative).

Net zero to protect our clients' assets

Asset Management

In November 2021, our Asset Management division communicated its net-zero interim target, committing to align USD 235 billion of AuM (equivalent to 35% of eligible assets and 20% of total AuM) to achieve a 50% carbon emission reduction by 2030.

Our initial net-zero target is one of the largest commitments in absolute terms of the targets currently disclosed through the NZAMi. It represents a significant step, given that our Asset Management division is a globally diversified business with a high proportion of indexed capabilities, as well as assets for which no net-zero alignment methodology currently exists, such as multi-asset funds, hedge funds, money markets and sovereign and municipal issuers. In December 2021, 5% of AuM were in a position where portfolio carbon emissions were 50% below their respective benchmark.

This commitment covers the scope 1 and 2 emissions of our strategies and funds. We have set a 2019 baseline covering the weighted average carbon intensity of the respective benchmark for each strategy and fund included in our target. We aim to reduce the weighted average carbon intensity of individual strategies and funds to 50% of the level of their respective baseline carbon intensity by 2030. We are exploring how to best make use of scope 3 metrics, given the current range of data availability and quality. In addition to managing the carbon intensity of our selected strategies and funds, we will continue to use our climate engagement program to ensure real economy transition of the companies we invest in.

Interim target on net-zero-aligned assets



- 20% Interim 2030 target
- 37% Net-zero approaches exist but significant implementation challenges
- 43% Net-zero methodology does not yet exist

UBS's commitment is derived from its active equities, active fixed income, index equities and real estate investment assets. We currently estimate that approximately 35% of these assets are capable of net-zero alignment by 2030. A large proportion of the assets that cannot be easily managed in net-zero alignment by 2030 are in our substantial indexing business, where bringing market capitalization-weighted assets into net-zero alignment requires clients to agree to track alternate, low-carbon benchmarks.

Alignment of Asset Management AuM to net zero

To achieve our emissions reduction target we are working collaboratively with our clients to ensure they have access to best practices, robust approaches, standardized methodologies and improved data. We also continue to work on developing methodologies, including participating in industry working groups and other forms of collaboration, to address assets for which there is currently no methodology for net-zero alignment.

As well as being one of the first asset managers to sign the NZAMi, our Asset Management division continues to take the lead in other aspects of climate change investing. Our *Climate Aware* investment strategies reached USD 23.4 billion in assets, with our active *Climate Aware* Equities strategy having been granted the Austrian ecolabel. We also received Belgium FabelFin labels for our exchange-traded funds.

In terms of research, our Asset Management business division has published a paper titled "Value of a Green Transition" that outlines a proprietary climate transition methodology and assesses optimal levels of investment in green technologies for highly carbon-intensive sectors.

► Refer to the paper on "*Value of a Green Transition*"

Wealth management

Global Wealth Management has become a partner of choice for leading private markets managers for their impact investing solutions, including those that invest in climate-related solutions and technologies. We will continue our efforts to mainstream sustainable and impact investments broadly for private clients, given our view that material sustainability issues matter for financial performance and our clients' interest in many of these topics. With regard to climate, our Chief Investment Office (CIO) is convinced that the net-zero transition will prove to be one of the most consequential investment trends over the coming decades. We offer advice and solutions that help guide and implement this view to the maximum extent possible and aim to employ our knowledge and partnerships to develop additional products and offerings in line with net-zero objectives.

Next steps

As for the transition of our financing clients, efforts are underway to reliably assess the emissions baseline for further climate-sensitive sectors and define medium- and long-term emissions reduction pathways as outlined by the NZBA.

We will work to continually refine and improve the accuracy of the emissions baselines as data and industry best practices develop.

UBS will also continue to employ knowledge gained to further develop products and offerings in line with the net-zero objectives. Future reporting will make transparent the progress toward our ambition. Reduction pathways will be adjusted if appropriate when relevant new information becomes available.

Evolving our climate-related metrics

For many years, we have been developing methodologies that enable us to disclose climate-related metrics more robustly and transparently. Most recently, regulators and standard setters have provided more guidance on climate metrics. We firmly aim to keep pace with these new developments and requirements and further evolve our climate-related metrics. This commitment remains, as does our determination to continue leading the way in efforts to mitigate climate change.

As part of these efforts, we are assessing the best approach for disclosing metrics relating to our sustainable investments. For example, not all sustainable investments relate to the climate and, as such, climate-related metrics do not apply.

The carbon-related assets metric has been updated to cover the four non-financial groups as defined by the TCFD, i.e., energy, transportation, materials and buildings, and agriculture, food, and forest products. We have recalculated all previous years' exposure figures using the enhanced approach. We now also disclose climate-sensitive sectors exposure related to both transition and physical risks. In addition, we have added legal entity-specific climate risk metrics for UBS AG and UBS Switzerland AG. In 2021, we again reduced our lending exposure to carbon-related assets (as defined by the TCFD) to 9.9% (USD 45.6 billion). This is down from 10.4% at the end of 2020 and 10.7% at the end of 2019.

Similarly, in 2021, our exposure to climate-sensitive sectors (physical risks) decreased to 5.6% (USD 25.5 billion) from 6% at the end of 2020 and 6.9% at the end of 2019. Our exposure to climate-sensitive sectors (transition risks) reduced to 8.2% (USD 37.5 billion) from 8.6% at the end of 2020 and 9% at the end of 2019. For example, we are lending less to high-risk sectors and more to low-risk sectors. For our CTF business we analyze underlying commodities in order to capture the climate-relevant exposures for these metrics. The weighted carbon intensity of our *Climate Aware* strategies decreased to 65.5 metric tons carbon dioxide equivalent (CO₂e) per million US dollars of revenue (down from 68.2 metric tons in 2020). This is 49.4% less than the weighted carbon intensity of the composite benchmark.

With additions and revisions to our metrics we continue our efforts to ensure we are prepared for increased regulatory requirements on climate risk and ensure further alignment of our disclosures with the TCFD recommendations.

› Refer to our climate-related metrics table below

Climate-related metrics 2021

	For the year ended			% change from
	31.12.21	31.12.20	31.12.19	31.12.20
Risk management				
Carbon-related assets (USD billion) ^{1,2}	45.6	45.4	40.1	0.4
<i>of which: UBS AG (standalone)^{2,3}</i>	7.0	7.6	7.5	(8.7)
<i>of which: UBS Switzerland AG (standalone)^{2,3}</i>	37.9	37.1	31.9	2.4
<i>Proportion of total customer lending exposure, gross (%)</i>	9.9	10.4	10.7	
Total exposure to climate-sensitive sectors, transition risk (USD billion) ^{2,4}	37.5	37.5	33.4	0.0
<i>of which: UBS AG (standalone)^{2,3}</i>	4.6	5.4	5.8	(15.9)
<i>of which: UBS Switzerland AG (standalone)^{2,3}</i>	32.8	31.7	27.3	3.4
<i>Proportion of total customer lending exposure, gross (%)</i>	8.2	8.6	9.0	
Total exposure to climate-sensitive sectors, physical risk (USD billion) ^{2,4}	25.5	26.2	25.6	(2.8)
<i>of which: UBS AG (standalone)^{2,3}</i>	10.8	11.5	13.1	(6.1)
<i>of which: UBS Switzerland AG (standalone)^{2,3}</i>	13.6	13.5	11.7	1.4
<i>Proportion of total customer lending exposure, gross (%)</i>	5.6	6.0	6.9	
Identified significant climate-related financial risk on balance sheet ⁵	None	None	None	
Opportunities				
Number of green, sustainability, and sustainability-linked bond deals ⁶	98	29	26	237.9
Total deal value of green, sustainability, and sustainability-linked bond deals (USD billion) ⁶	63.3	19.3	15.6	
<i>UBS apportioned deal value of above (USD billion)</i>	13.2	5.7	3.4	
Portfolio emissions⁷				
Weighted average carbon intensity – Climate Aware strategies (tonnes CO ₂ e per USD million of revenue) ⁷	65.5	68.2	74.5	(3.9)
<i>Compared to weighted carbon intensity of composite benchmark (%)⁸</i>	(49.4)	(51.0)	(54.0)	
Weighted average carbon intensity – low carbon indexes and rules based (tonnes CO ₂ e per USD million of revenue)	72.0			
<i>% AuM weighted average carbon intensity below benchmark (low carbon indexes and rules based)</i>	100.0			
Weighted average carbon intensity – active equity assets (in tonnes CO ₂ e per USD million of revenue)	109.8			
<i>% AuM weighted average carbon intensity below benchmark (active equity)</i>	62.4			
Weighted average carbon intensity – active fixed income assets (tonnes CO ₂ e per USD million of revenue)	198.0			
<i>% AuM weighted average carbon intensity below benchmark (active fixed income)</i>	76.3			
Weighted average carbon intensity – other equity indexed assets (tonnes CO ₂ e per USD million of revenue)	144.0			
<i>% AuM weighted average carbon intensity below benchmark (other equity indexed)</i>	n/a			
Stewardship – Voting				
Number of climate-related resolutions voted upon ¹⁰	89	50	44	78.0
<i>Proportion of supported climate-related resolutions (%)</i>	78.6	88.0	81.8	
Own operations (reporting period: July to June)				
Net GHG footprint (1,000 metric tons CO ₂ e) ¹¹	30	75	104	(60.0)
<i>Change from baseline 2004 (%)</i>	(92.0)	(79.0)	(71.2)	
Share of renewable electricity (%)	100	85	72	

¹ The carbon-related assets metric has been updated to cover the four non-financial groups as defined by the TCFD, i.e., energy, transportation, materials and buildings, and agriculture, food and forest products. Recognizing that the term "carbon-related assets" is not well defined, the TCFD encourages banks to use a consistent definition to support comparability. ² Includes total loans and advances to customers and guarantees, as well as irrevocable loan commitments (within the scope of expected credit loss). ³ Based on standalone IFRS numbers. ⁴ Climate-sensitive sectors are defined as those business activities that are rated as having high, moderately high or moderate vulnerability to transition risks and physical risks. For more details, refer to the "UBS lending to climate-sensitive sectors" table and the "Climate scenario analysis" in this report. Physical risk number includes USD 4 billion of loans backed by real estate in regions with elevated physical climate risks. Global Wealth Management corporate lending to customers represents 1.1% of all on- and off-balance sheet loans and advances to customers, and is excluded from the climate-sensitive sectors analysis in 2021. ⁵ Methodologies for assessing climate-related financial risk are emerging and may change over time, as described earlier under "Scenario analysis." ⁶ Such as, but not limited to, ICMA Green Bond Principles, Sustainability Bond Principles, and Sustainability-linked Bond Principles. ⁷ The numbers on portfolio emissions only apply to our Asset Management business. Carbon intensity is based on data for scope 1 and 2 CO₂ emissions of investee companies provided by a third data provider. Asset class carbon intensity metrics are an aggregate of individual portfolios weighted by portfolio size. Time series calculation of carbon intensity and portfolio holdings data commenced in 2021, except for Climate Aware strategies where we already have reported in previous years. ⁸ Year-on-year decrease of carbon intensity is mainly driven by higher carbon targets of the investment strategy. Carbon intensity is based on scope 1 and 2 CO₂ emissions of investee companies, which often rely on third-party estimates. Metric has been expanded in 2020 to include all equity and fixed income funds with a proprietary Climate Aware strategy (active and rules-based). Metric is the assets under management (AuM)-weighted average of the weighted average carbon intensities of the portfolios. ⁹ The metric is the AuM-weighted average of the weighted average carbon intensities of the respective benchmark. ¹⁰ This excludes proposals related to Japanese companies that included changes to the companies' articles of association. 2021 numbers include shareholder and management proposals, 2020 and 2019 numbers shareholder proposals only. This reflects the increasingly common market practice of climate-related proposals being presented by management. ¹¹ Net greenhouse gas (GHG) footprint equals gross GHG emissions minus GHG reductions from renewable electricity and CO₂e offsets (gross GHG emissions include: direct GHG emissions by UBS; indirect GHG emissions associated with the generation of imported / purchased electricity (grid average emission factor), heat or steam; and other indirect GHG emissions associated with business travel, paper consumption and waste disposal). A breakdown of our GHG emissions (scope 1, 2, 3) is provided in Appendix 4 to the UBS Sustainability Report 2021.

Limitations on data and methodologies

The proposed net-zero pathways shown in this report are based on assumptions where necessary. They help indicate how we want to achieve our net-zero ambition. We use them as our best estimates and will consciously work to further improve the accuracy of the underlying data and methodologies. Meeting the Paris Agreement ambition of a 1.5°C limit in global warming will require regulatory frameworks that support the transition to a low-carbon economy.

While UBS will engage in significant efforts to achieve its net-zero ambition, the reduction commitments for financed emissions are based in part on anticipated regulatory and policy developments to support emissions reductions by the governments of the jurisdictions in which we operate.

As we progress along our net-zero pathway, we will adjust our ambition where warranted as new projections or methodological developments occur.

Extract I This Climate Report is extracted from the UBS Sustainability Report 2021 (pages 36 to 71) helping stakeholders interested in our action on climate to find the information in one dedicated report. If there are any differences in the content, the Sustainability Report 2021 takes precedence, as it is considered the official document.

Cautionary Statement I This report may contain statements that constitute "forward-looking statements". Refer to the Cautionary Statement Regarding Forward-Looking Statements in UBS's Annual Report 2021, available at ubs.com/investors, for further details.

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Rounding I Numbers presented throughout this report may not add up precisely to the totals provided in the tables and text. Percentages and percent changes are calculated on the basis of unrounded figures. Information about absolute changes between reporting periods, which is provided in text and which can be derived from figures displayed in the tables, is calculated on a rounded basis.

Tables I Within tables, blank fields generally indicate that the field is not applicable or not meaningful, or that information is not available as of the relevant date or for the relevant period. Zero values generally indicate that the respective figure is zero on an actual or rounded basis. Percentage changes are presented as a mathematical calculation of the change between periods.

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