Our climate strategy

Taking action towards a low-carbon future

Climate action – a snapshot

Nearly five years have passed since the adoption of the Paris Agreement on Climate Change (the Paris Agreement). Collective progress towards achieving the goals of the Paris Agreement will be assessed in a global stocktake in 2023, acknowledging the 2 °C benchmark and the more recent 1.5 °C limit in global warming urged by the Intergovernmental Panel on Climate Change (IPCC) in its 2018 special report. Achieving the Paris Agreement goals demands unprecedented levels of investment. In terms of the current state of climate action, there is a recognized climate finance gap as well as a Sustainable Development Goals (SDGs) investment gap – to meet the low-carbon transition targets. At the same time, we see a clear investor appetite for directing capital toward a low-carbon future. To support in scaling up collective action, UBS assists private and institutional clients in their desire to invest in accordance with their social and environmental objectives, thus helping to close the gap.

We aspire to drive positive change in society and the environment for future generations. Our climate strategy underlines our commitment to the SDGs on climate action and on affordable and clean energy as well as the Paris Agreement. These key UBS commitments are embedded in the United Nations (UN)-backed Principles for Responsible Banking (PRB). This global framework specifies the role of banks in supporting a sustainable future and scaling up their contribution to the achievement of both the SDGs and the Paris Agreement. UBS became a founding signatory of the PRB in September 2019.

We regularly report on the implementation of our climate strategy and follow the recommendations provided by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). The recommendations call on companies to disclose the impacts of climate change on their businesses. This will allow investors and financial institutions to make better investment decisions with a common set of data to assess the climate-related risks and opportunities of specific companies. We are committed to aligning our climate disclosure within the five-year pathway outlined by the TCFD (until end of 2022) and to collaborating within the industry to close gaps.

We publicly support international, collaborative action against climate change. Our Chairman is a signatory to the European Financial Services Round Table's statement in support of a strong, ambitious response to climate change. Our Group CEO is a member of the Alliance of CEO Climate Leaders, an informal network of CEOs convened by the World Economic Forum and committed to climate action. Our Head Sustainable Equity Team within UBS Asset Management (AM) is a member of the TCFD.

Our climate-related achievements have been recognized by external experts. For the fifth year running, UBS has been named the best performer in the Diversified Financial Services and Capital Markets Industry of the Dow Jones Sustainability Indices (DJSI), the most widely recognized corporate sustainability rating. CDP, which runs a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts, has awarded UBS with Leadership status and a A- rating on climate change. In 2019, ShareAction, an international organization focused on advancing responsible investment, awarded UBS as the best performing asset manager in climate proxy voting in its report, "Voting matters – Are asset managers using their proxy votes for climate action?"

Climate-related highlights

- Our climate strategy underlines our commitment to the SDGs on climate action and on affordable and clean energy and supports an orderly transition to a low-carbon economy, as defined by the Paris Agreement.
- Our exposure to carbon-related assets on our banking balance sheet is low, at 0.8% or USD 1.9 billion as of 31 December 2019, decreasing further from 1.6% at the end of 2018 and 2.8% at the end of 2017.
- Our climate-related sustainable investments increased to USD 108 billion in 2019 from USD 87.5 billion in 2018.
- We actively engaged on climate topics with 50 oil & gas and utilities companies, and voted on 44 climate-related shareholder resolutions.
- We reduced our firm's greenhouse gas (GHG) footprint by 71% by 2019 compared with 2004 levels. We were awarded top ratings and rankings by external experts; climate industry group leader (Dow Jones Sustainability Indices); Climate A- rating (CDP) and best performing asset manager in proxy voting (ShareAction, 2019).

Climate governance

As embedded in the Organization Regulations of UBS Group AG, the Board of Directors' (BoD) Corporate Culture and Responsibility Committee (CCRC) oversees our climate strategy. Within the parameters set by the CCRC, the *UBS in society* Steering Committee ensures firm-wide execution of the climate strategy while our firm's climate-related risk appetite is set by the Global Environmental & Social Risk (ESR) Committee. In joint meetings, the CCRC and the BoD's Risk Committee regularly and critically review the assessments and steps taken by these management bodies towards executing our climate strategy. The CCRC approves UBS's annual climate-related objectives and oversees the progressive alignment of our climate disclosure with the TCFD recommendations. These annual plans and objectives are managed as part of our ISO 14001-certified environmental management system (EMS) with defined management accountabilities across the firm. The EMS helps us to systematically reduce environmental risks, seize market opportunities and continuously improve our environmental and climate performance and resource efficiency.

Refer to the "Sustainability governance" graph in the Sustainability Report 2019

Climate strategy

As one of the world's largest managers of private and institutional wealth, we play an active role in shaping a sustainable future. As with the SDGs, we aim to be a leading financial provider in enabling investors to mobilize private and institutional capital to climate change mitigation and adaptation while supporting the transition to a low-carbon economy. At UBS we see a clear investor appetite for directing capital in climate solutions. We address this by continuously developing our offering in sustainable finance and actively engaging with clients. Our climate strategy supports our clients and our firm preparing for success in an increasingly carbon-constrained world.

We support this goal through our innovative financial product offering and advisory, as well as through embedding climate risk in our firm-wide risk management framework and in our own operations. Our climate strategy focuses on four pillars:

- Protecting our own assets: We seek to protect our assets by limiting our risk appetite for carbon-related assets and by estimating our firm's vulnerability to climate-related risks using scenario-based stress testing approaches and other forward-looking portfolio analyses. We have reduced carbon-related assets on our balance sheet to 0.8% or USD 1.9 billion as of 31 December 2019, down from 1.6% at the end of 2018 and 2.8% at the end of 2017.
- Protecting our clients' assets: We support our clients' efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research. We actively engage on climate topics with companies that we invest in; AM has implemented an engagement program with 50 companies from oil and gas and utilities sectors and we voted on 44 climate-related shareholder resolutions during 2019.
- Mobilizing private and institutional capital: We mobilize private and institutional capital towards investments facilitating climate change mitigation and adaptation and in supporting the transition to a low-carbon economy as corporate advisor, and/or with our lending capacity. In 2019, our climate-related sustainable investments rose to USD 108 billion from USD 87.5 billion at the end of 2018, and the deal value in equity and debt capital market services, and in financial advisory services, related to climate change mitigation and adaptation, rose to USD 87.2 billion, from USD 56.5 billion in 2018.
- Reducing our direct climate impact: We continue to reduce our greenhouse gas (GHG) emissions and increase the firm's share in renewable energy. We have committed to using 100% renewable electricity by mid-2020. This will reduce our firm's GHG footprint by 75% compared with 2004 levels. At the end of 2019, we had reduced our GHG emissions by 71% compared to baseline year 2004.

Refer to the "Our focus on ESG" sub-section of the Sustainability Report 2019 for more information on our sustainable investments

Refer to the "In-house environmental management" section of the Sustainability Report 2019 for more information

Climate risk management

The physical and transition risks of climate change contribute to a structural change affecting banks and the financial sector at large. In order to protect our own and our clients' assets from climate-related risks, we continue to drive the integration of climate-related risk into our standard risk management framework. This framework involves procedures and tools for identifying, assessing and monitoring environmental and social risks in our standard risk, compliance and operations processes. These include client onboarding, transaction due diligence, product development and investment decision processes, own operations, supply chain management and portfolio reviews. These processes are geared toward identifying clients, transactions or suppliers potentially in breach of our standards or otherwise subject to significant environmental and human rights controversies, including climate change.

In 2019, we embedded climate risk into our risk taxonomy and operational risk appetite statement, further reduced our exposure to carbon-related assets and, more broadly, to climate-sensitive sectors. We also refined our ability to estimate the firm's vulnerability to climate-related risks using forward-looking scenario-based approaches, and revised our standards in the energy and utilities sectors.

Refer to the "Climate-related standards in the energy and utilities sectors" table below
Refer to "Scenario analysis" further below

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 (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or the transaction is related to renewable energy.
	Coal mining	**New:** Not providing financing where the stated use of proceeds is for greenfield[1] thermal coal mines. Continuing to severely restrict lending and capital raising to the coal mining sector.
	Mountaintop removal (MTR)	Not providing financing to coal mining companies engaged in MTR operations.
Oil and gas	**Arctic oil and oil sands**	**New:** Not providing financing where the stated use of proceeds is for new offshore oil projects in the Arctic or greenfield[1] oil sands projects. **New:** Only provide financing to companies which have significant reserves or production in arctic oil and/or oil sands (>30% of reserves or production) where the stated use of proceeds is related to renewable energy or conventional oil & gas assets.
	Liquefied natural gas (LNG) and ultra-deepwater drilling	**New:** Transactions directly related to LNG infrastructure assets are subject to enhanced Environmental & Social Risk (ESR) due diligence considering relevant factors such as management of methane leaks, and the company's past and present environmental and social performance. **New:** Transactions directly related to ultra-deepwater drilling assets are subject to enhanced ESR 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 which results in a material increase in existing production capacity.

Scenario analysis

We have been using scenario-based approaches since 2014 to assess our exposure to physical and transition risks associated with climate change. We have performed both top-down balance sheet stress testing (across the firm), as well as targeted, bottom-up analysis of specific sector exposures in short, mid-, and long-term horizons. The table below summarizes the UBS scenario assessments performed to date.

Scenario assessments

	Assessment	Year	Scenarios used	Outcomes
In-house scenario analysis	**Top-down**			
	UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.	2014	Climate scenario developed in-house	Moderate financial impact in line with other stress scenarios, such as those that foresee an oil shock.
	Bottom-up			
	Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.	2015	Climate scenario developed in-house	Low financial impact due to insurance coverage and loan maturity profile.
	Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.	2015	Climate scenario developed in-house	Low financial impact due to high quality and maturity profile of portfolio.
Industry collaboration	Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.	2017	Based on historic academic precipitation observations	No significant production impact from drought.
	UNEP FI TCFD pilot project for banks: standardizing climate risk identification and translating climate risks into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.	2018 – 2020	Integrated Assessment Modelling Consortium (IAMC)	No significant credit loss from transition risks in 1.5 and 2 degree scenarios, nor from physical risks in 2 and 4 degree scenarios.
	Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending portfolios with Paris Agreement benchmarks.	2019 – 2020	• IEA[1] • B2DS[2] • SDS[3] • NPS[4] • CPS[5]	Low lending exposure to high-carbon sectors.

1 International Energy Agency (IEA), World Energy Outlook 2 Beyond 2 Degrees Scenario 3 Sustainable Development Scenario
4 New Policies Scenario 5 Current Policies Scenario

Our initial (2014) top-down approach 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 (which assumes that severe weather events result in governments around the world agreeing to implement carbon pricing mechanisms to assess the impact on financial assets, operational income and physical assets). The scenario anticipated that these mechanisms will prompt a shift away from coal and other fossil fuels to cleaner alternatives and adversely impact markets and gross domestic product. Our subsequent (2015) bottom-up analyses of oil and gas utilities as well as electric utilities loan portfolios consisted of a forward-looking analysis to assess 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 company 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 by mapping the location of collateral in over 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 modelling to data availability. To address these challenges, 16 banks, including UBS, the UN Environment Programme Finance Initiative (UNEP FI), the Integrated Assessment Modelling Consortium (IAMC), and risk consultancies Oliver Wyman and Acclimatise began a collaboration of several years in 2018. The objective is to develop analytical tools that help banks define and disclose climate-related risks and opportunities as envisioned by the TCFD. This includes developing and further refining scenario-based stress-testing methodologies. Now in its second phase, the UNEP FI TCFD working group for banks has grown to 35 banks and has expanded the development of these analytical tools to include a range of possible scenarios, further advancement on scenario-based stress testing methodologies, and standardization between institutions on what defines climate-sensitive activities. 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, UBS is one of the pilot banks testing the Paris Agreement Capital Transition Assessment (PACTA). In the context of the PACTA 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. For example, the assessment showed that the fuel mix in UBS' s power utilities credit portfolio, according to the PACTA methodology, is significantly less carbon intensive than the global corporate economy, as of 2019 (see "PACTA methodology for power generation" further below). However, the limitations of the outputs from this assessment are very similar to the other pilots and we will continue to work on improving methodology, data availability and scenario applicability.

Both pilots promote industry learning and provide guidance for disclosing climate-related risks and opportunities in line with TCFD recommendations. Overall, the results of the 2019 climate risk pilots have confirmed findings from our previous pilot stress tests on climate, which started in 2014: we have so far not identified significant climate-related financial risk on our balance sheet. We explain this by UBS's relatively small lending book in climate-sensitive-sectors (see "UBS corporate lending to climate-sensitive sectors 2019" further below) and availability of insurance where we have relevant exposures to such sectors (e.g., Swiss mortgage lending book).

Protecting our clients' assets

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. AM has developed a suite of products allowing clients to identify the carbon intensity of their investments and/or to align them with the Paris Agreement: In 2017, AM together with the New Employment Savings Trust launched a strategy called *Climate Aware* with an aim to do more than manage investments based on carbon foot-printing. In 2018, AM followed its successful UK *Climate Aware* rules-based fund with an Irish-based fund that is available for international investors outside of the UK. The portfolio is oriented towards companies that are better prepared for a low-carbon future while reducing exposure to, rather than excluding, companies with higher carbon risk, in order to pursue strategic engagement with these companies. The strategy involves not only a reduction of the CO_2 footprint of the portfolio but also an innovative approach to aligning the portfolio with the 2 °C carbon reduction scenario.

Finally, AM empowers equity portfolio managers to examine the carbon footprint of their portfolios and compare the relative carbon footprints of their company holdings to that of the benchmark.

Engagement

On behalf of clients, AM engages with companies it invests in to discuss approaches to mitigating climate-related risk. AM also actively votes on shareholder resolutions to improve transparency and disclosure around climate-related reporting. Specifically in the context of its *Climate Aware* fund, AM has implemented an engagement program with 50 oil and gas companies as well as utilities companies underweighted in the fund. Communication with these companies aims at improving their disclosure and performance alignment with the TCFD recommendations. Engagement also makes it possible to share the results of the quantitative and qualitative assessments included in the fund methodology with investee companies. This allows for the verification of company performance with additional information collected before and after meetings. It also means AM can collect feedback, explicitly communicate objectives for change in corporate practices and further enhance the model used to inform the under- / overweights in the strategy.

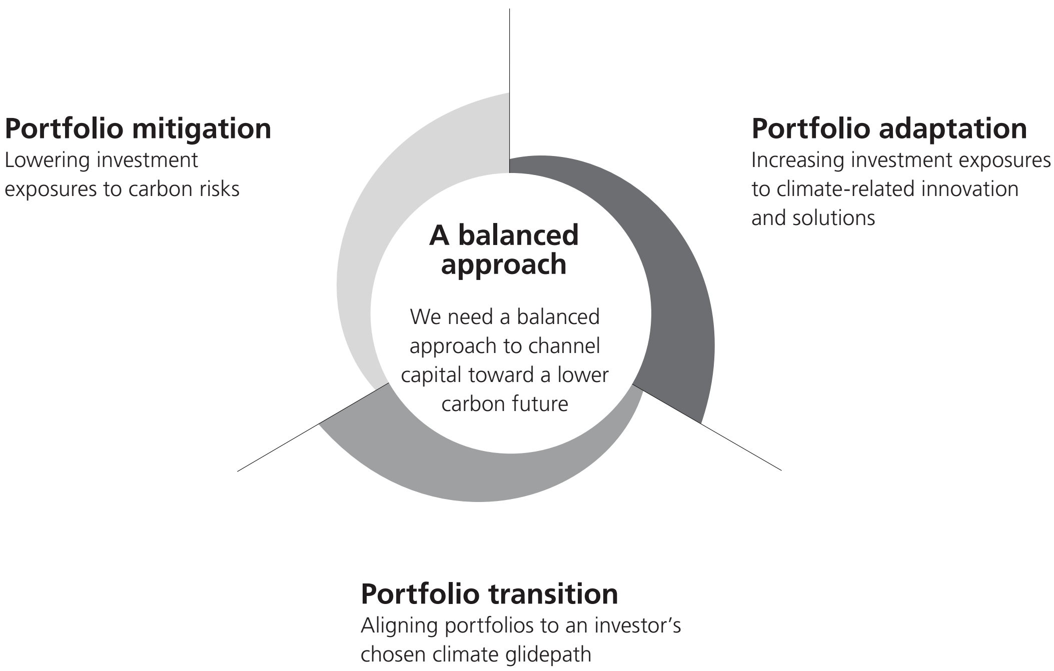
AM is also involved in Climate Action 100+, a collaborative engagement initiative launched in December 2017. Its aim is to engage with high-level greenhouse gas emitters, and other companies across the global economy, that have significant opportunities to drive the clean energy transition and help achieve the goals of the Paris Agreement. It has the support of 320 investors, representing more than USD 33 trillion of assets under management (at end of 2019). AM is directly involved in 30 coalitions of investors (at the end of 2019) within Climate Action 100+ and leads seven of the company dialogues across regions. Whether AM 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.

Opportunities

We mobilize private and institutional capital for investments that facilitate climate change mitigation and adaptation. UBS supports the orderly transition to a low-carbon economy as corporate advisor, and/or with its lending capacity. As we outlined in our 2020 white paper for the World Economic Forum annual meeting, "Becoming climate aware: Mobilizing capital to help meet climate change goals", we have formulated a *Climate Aware* framework which helps investors align their portfolios towards a climate-smart future. The framework is built on the methodology which underlies UBS-AM's *Climate Aware* strategy. The main characteristics of the framework are:

- Portfolio mitigation: Lowering investment exposures to carbon risk
- Portfolio adaptation: Increasing investment exposure to climate-related innovation and solutions
- Portfolio transition: Aligning portfolios to an investor's chosen climate glidepath

A Climate Aware framework for investors



Portfolio mitigation

Based on our experience, maintaining a balance between required investment returns and minimizing climate risks works most effectively when investors integrate climate change considerations into a diversified portfolio. Similar to ESG integration, this is an important element in understanding the specific effects of climate change. As TCFD has highlighted, these can be viewed as regulatory, market, technology and physical risks. How they play out at the level of markets, industry sectors and individual issuers depends on an interplay of:

- regulation;
- commercial considerations;
- impact of technology on business models, revenues, costs and capital requirements.

Integrating these three aspects puts the focus on the most material issues relating to the reduction of emissions generated by the most carbon-intensive sectors. It also leads to a deeper and more investment-relevant understanding of the physical risks.

Portfolio adaptation

Investing for a low-carbon future hinges on the ability to invest in, and fund, new technologies and solutions. The key investing areas relate to GHG emissions reduction, energy transition, and energy efficiency. They include companies that manufacture and deploy these technologies as well as the infrastructure and services that make these achievable at scale. There are variety of developments in business structure, asset ownership, supply chains and delivery models that may be deployed as part of the climate change transition. It is also important to recognize that there are different kinds of investors that are better-placed for certain kinds of investments. Venture capital, private equity, real estate, public equity and public fixed income all have different appetites for technology risk.

Portfolio transition

It is important for investors to understand the difference between where they are now and the possibilities of the climate transition. Scenario analysis is emerging as a response to the uncertainties of climate change. Engagement, meanwhile, provides an opportunity for investors to encourage good corporate practice and, together with voting, keep management accountable for the actions needed to keep pace with the climate transition. It also allows investors to understand the investment dynamics in individual sectors and countries and determine the overall direction of travel. By applying the tools of scenario analysis and engagement, investors are better able to manage the transition to a climate-smart future.

AM is also a member of the Institutional Investors Group on Climate Change (IIGCC) Climate Action 100+ European Advisory Group, which advocates for the world's transition to a low-carbon economy.

Our other business divisions also translate this strategic thinking on climate into concrete products and services.

UBS offers 100% sustainable discretionary mandates and asset allocation funds based on an innovative dedicated Sustainable Investing Strategic Asset Allocation for private clients in Global Wealth Management (GWM) and Personal & Corporate Banking (P&C). These include an explicit allocation to strategies that aim at mitigating climate change, such as green bonds and thematic investments, but also others that contribute indirectly to climate change mitigation such as Multilateral Development Bank bonds, ESG leaders and ESG improvers. GWM developed a new advisory solution that includes an explicit climate change dimension, allowing clients to tilt their portfolios towards the issues they care about. Ultimately our goal in developing new products and services is to ensure that all material risks and opportunities are addressed, and to allow clients to select sustainable investments aligned to their interests while receiving financial returns in line with traditional investment approaches.

GWM integrates sustainability assessments, focusing on the sustainability intentionality of fund managers, into all fund and ETF onboardings. We have set a target of directing USD 5 billion of client assets by the end of 2021 into new impact investments contributing to the SDGs. These investments include a significant climate component. GWM's mutual fund and ETF offering includes climate-focused investment strategies, comprising those focused on clean / alternative energy.

We participated in launching, and have an ongoing partnership with, Align17, an independent, third-party digital marketplace. Align17 stands out in connecting a wider range of public, institutional, and private wealth investors with SDG-related investment opportunities. These opportunities are available to qualifying UBS clients and often serve to finance climate-related projects.

Our AM and GWM businesses have in place a comprehensive approach to address environmental, social and corporate governance factors across investment disciplines. For example, sustainability themes are embedded in GWM's equity research processes, while AM's Real Estate and Private Markets has developed a Responsible Investment Strategy to enhance investment performance of mandates for direct and indirect real estate and infrastructure investments. The 2019 GRESB (formerly Global Real Estate Sustainability Benchmark) awarded 15 out of 20 of AM's submitted real estate and infrastructure funds 5-star ratings with the remaining funds achieving a 4-star rating.

Our Investment Bank provides capital-raising and strategic advisory services globally to companies that make a positive contribution to climate change mitigation and adaptation, including those in the solar, wind, hydro, energy efficiency, waste and biofuels, and transport sectors. In 2019, the deal value in equity or debt capital market services, and of financial advisory services, related to climate change mitigation and adaptation, rose to USD 87.2 billion, from USD 56.5 billion in 2018.

We strive to be the preferred strategic financial partner relating to Switzerland's Energy Strategy 2050. In 2019, P&C supported 12 strategic transactions in support of the strategy. The UBS Clean Energy Infrastructure Switzerland strategy offers institutional investors unprecedented access to a diversified portfolio of Swiss Infrastructure facilities and renewable energy companies. Due to clients' demand, a successor strategy was launched in September 2017. In our P&C business we have also integrated Sustainable Investing Advisory into the strategic dialogue with our institutional clients.

To support philanthropists entering the climate space, UBS Optimus Foundation and the Climate Leadership Initiative (CLI) have developed four principles for effective climate philanthropy. CLI was created by six of the top climate donors this year with the express goal of making it easier for new philanthropists to learn, become connected to peers and experts and join the fight.

The four principles are Understand Climate Solutions and Impact; Collaborate and Take Action Swiftly; Be Prepared to Stick With It; Marshall All Your Resources.

Climate-related metrics

In 2019, we have again significantly reduced the share of our carbon-related assets to 0.8%, down from 1.6% in 2018 (and 2.8% in 2017). More broadly, our share of exposure to climate-sensitive sectors has reduced in 2019 to 15.5% from 19.6% in 2018 (% of total gross banking exposure across IB and P&C).

Climate-related sustainable investments increased to USD 108 billion, up from USD 87.5 billion in the previous year. At the end of 2019, we had reduced our GHG emissions by 71% compared to baseline year 2004.

Climate-related metrics 2019

	For the year ended			% change from
	31.12.19	31.12.18	31.12.17	31.12.18
Risk management				
Identified significant climate-related financial risk on balance sheet[1]	None	None	None	
Carbon-related assets (USD bn)[2]	1.9	3.2	5.8	(41)
Proportion of total banking products exposure, gross (%)	*0.8*	*1.6*	*2.8*	
Total exposure to climate-sensitive sectors (USD bn)[3]	37.6	38.6	42.6	(3)
Proportion of total banking products exposure, gross (%)	*15.5*	*19.6*	*20.5*	
Weighted carbon intensity of the Climate Aware equities strategy (in tons CO_2e per million of USD revenue)[4]	74.8	95.6	117.5	(22)
Compared to benchmark (FTSE Developed World Index) (%)	*(56.0)*	*(55.7)*	*(44.0)*	
Number of climate-related shareholder resolutions voted upon	44	43	34	2
Proportion of supported climate-related shareholder resolutions (%)[5]	*81.8*	*88.0*	*82.0*	
Opportunities				
Climate-related sustainable investments (USD bn)[6]	108.0	87.5	74.0	23
Proportion of UBS clients' total invested assets (%)	*3.0*	*2.8*	*2.3*	
Total deal value in equity or debt capital market services related to climate change mitigation and adaptation (CCMA)[7] (USD bn)	52.7	31.6	44.3	67
Total deal value of financial advisory services related to CCMA (USD bn)	34.5	24.9	5.5	39
Number of strategic transactions in support of Switzerland's Energy Strategy 2050	12	8	4	50
Own operations				
GHG footprint (kilotons CO_2e)[8]	104	132	148	(21)
Percentage change from baseline 2004 (Target: -75% by 2020) (%)	*(71.2)*	*(63.4)*	*(59.0)*	

1 Methodologies for climate-related financial risk are emerging and may change over time, as described earlier under Scenario Analysis. 2 Carbon-related assets exposures are adjusted from previous years' versions to align with IFRS 9: Banking products across Investment Bank and Personal & Corporate Banking. IFRS 9 gross exposure including other financial assets at amortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines and forward starting reverse repurchase and securities borrowing agreements. As recommended by the TCFD, carbon-related assets are defined as assets tied to the energy and utilities sectors (Global Industry Classification Standard). Non-carbon-related assets, such as renewables, water utilities, and nuclear power are excluded. For grid utilities, the national grid mix is applied. 3 Gross banking products across Investment Bank and Personal & Corporate Banking (IFRS 9). Climate-sensitive sectors defined as inventory of activities with higher vulnerability to transition and physical climate risks, for more see in-text description. 4 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 CO_2 emissions of investee companies, which often rely on third-party estimates. 5 On all proposals that we supported, we voted against the recommendation provided by the issuer. 6 Invested assets of products such as sustainably managed properties and infrastructure, and renewable energy. 7 Refer to "Calculating and reporting on climate change-related financing and advisory activities" in the Appendix of this document. 8 GHG footprint equals gross GHG emissions minus GHG reductions from renewable energy and GHG 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 available in the in-house environmental section of the UBS Sustainability Report 2019.

UBS corporate lending to climate-sensitive sectors 2019

UBS is leading an effort, with UNEP FI and peer banks, to define an inventory of climate-sensitive activities based on TCFD, regulators' and rating agencies' climate risk definitions. The current inventory is summarized in the table below at the sector level.

UBS corporate lending to climate-sensitive sectors 2019

banking products across Personal & Corporate Banking and the Investment Bank	As of 31.12.19	
USD million, except where indicated	Gross exposure[2]	Share of total exposure to all sectors (%)
Climate-sensitive sector [1]		
Aerospace and defence [3]	2,115	0.9
Automotive	449	0.2
Chemicals	1,052	0.4
Constructions and materials [4]	3,993	1.6
Food and beverage [5]	2,460	1.0
Industrial Materials [6]	345	0.1
Machinery and equipment [7]	2,576	1.1
Mining [8]	3,000	1.2
Oil and gas [9]	1,415	0.6
Plastic and rubber	356	0.1
Primary materials [10]	332	0.1
Real estate [11]	15,031	6.2
Transportation [12]	3,272	1.3
Utilities [13]	1,186	0.5
Total exposure to climate-sensitive sectors	37,582	15.5
Total exposure to all sectors	242,565	100.0

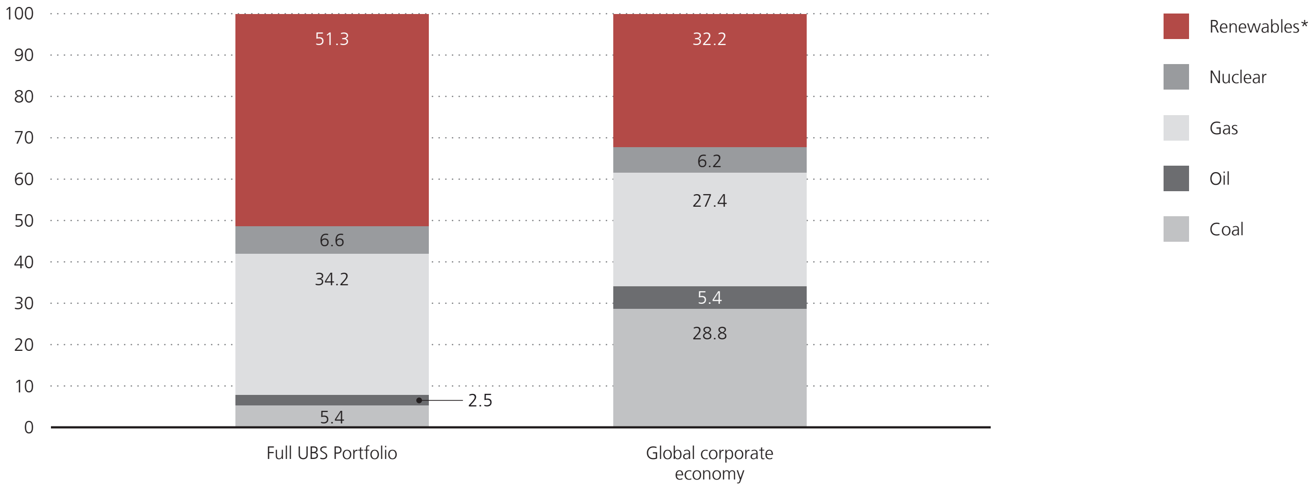
1 Climate-sensitive sectors defined as inventory of activities with higher vulnerability to transition and physical climate risks, for more see in-text description. 2 Banking products across the Investment Bank and Personal and Corporate banking divisions. IFRS 9 gross exposure including other financial assets at amortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines and forward starting reverse repurchase and securities borrowing agreements. 3 Of which air transport: USD 1.9 billion 4 Of which construction: USD 3.2 billion, mfg. concrete / cement: USD 0.4 billion 5 Of which food / grain traders / wholesalers: USD 1.4 billion, mfg. food / bev: USD 1.1 billion 6 Of which mfg. iron / steel: USD 0.2 billion, mfg. pulp / paper: USD 0.06 billion 7 Of which mfg. metal products: USD 0.7 billion 8 Of which metal ore traders USD 2.7 billion, coal mining: USD 0.02 billion 9 Of which upstream extraction: USD 1.1 billion, integrated O&G: USD 0.2 billion 10 Of which agriculture-related: USD 0.2 billion, forestry / wood: USD 0.02 billion 11 Of which development / selling real estate: USD 14 billion, agencies: USD 0.8 billion. In addition UBS has loans and advances to customers backed by residential real estate totaling USD 155 billion across Global Wealth Management and Personal & Corporate Banking 12 Of which shipping: USD 0.5 billion, mfg. trains: USD 0.8 billion, logistics / post: USD 0.5 billion 13 Of which prod. / dist. electricity: USD 0.8 billion (for a closer look at the carbon exposure of UBS's power utilities portfolio, see PACTA graph below), refuse / recycling: USD 0.2 billion, water collection / purification: USD 0.01 billion

PACTA methodology for power generation:
UBS corporate lending portfolio technology mix of production against global corporate economy

In 2019 we further assessed select climate-sensitive sectors using the PACTA methodology. Results on power sector show that the technology mix of UBS' s power sector corporate lending portfolio is significantly less carbon intensive than the global corporate economy, as of 2019[1].

UBS corporate lending portfolio technology mix of production against global corporate economy

Capacity distribution across technologies
In %



* Renewables, including solar, wind, hydro, biofuels and others.

1 Across the Investment Bank and Personal & Corporate Banking, banking products only. As of 30.9.19, includes clients who are classified as power utilities. The methodology is driven by the 2° Investing Initiative's PACTA pilot.