Public

UNEP-FI TCFD Panel

Luxembourg

Liselotte Arni, Head Environmental and Social Risk
UBS

November 29, 2019

A reality check on in-house capacity

Where do we stand? What have we learned? What do we need?

We have a robust Foundation

- We have a comprehensive climate strategy and governance
- We pioneered stress testing methodologies and scenario analysis to assess climate related risks, since 2014
- We embed climate-related risks in our risk management framework
- We align our disclosure with the FSB Task Force on Climate-related Financial Disclosure's five-year pathway

But… we need better Tools

- Better scenarios to understand our exposure to a range of climate outcomes (e.g. disorderly transition)
- Better company data to identify and assess climate risks in our portfolios
- Better methodologies to capture climate risks at different levels (e.g. risk identification, macro stress testing, portfolio analysis) and from a banking lens (e.g. credit, market, and operational risk impacts)

And… we need new climate-aware Skills

- At the Board and senior management levels
- For our risk management and investment specialists
- Across the industry and in collaboration with other stakeholders

UBS Climate Strategy

An orderly transition to a low carbon economy is vital for our business and the wider banking sector.

i

Protect our own assets

- We seek to protect our assets from climate-related risks
- We have a low exposure to carbon-related assets: 1.2% at end of 2018 and have not found any significant climate-related financial risks on our balance sheet

ii

Protect our clients' assets

- We offer innovative products and services in investment, financing, and research
- We increased climate-related sustainable investments by 18% to USD 87.5 bn in 2018.

iii

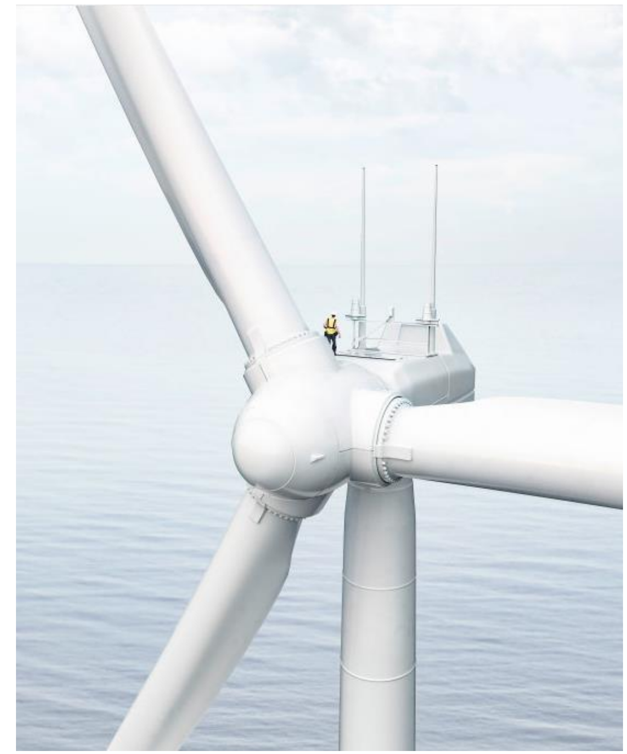
Mobilizing private and institutional capital

- We mobilize towards investments facilitating climate change mitigation and adaptation
- We voted in 43 climate-related shareholder resolutions of which we supported 88% in 2018.

iv

Reducing our direct climate impact

- We continue to reduce our greenhouse gas (GHG) emissions and increase the share in renewable energy
- Our target is to reduce our GHG footprint by 75% by 2020, over 2004 levels



MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM

Industry leader

Index member of DJSI World and DJSI Europe

CDP DISCLOSURE INSIGHT ACTION A LIST 2018 CLIMATE CHANGE

MSCI ESG Research

AA rating in the MSCI ESG Ratings assessment 2019

SUSTAINALYTICS

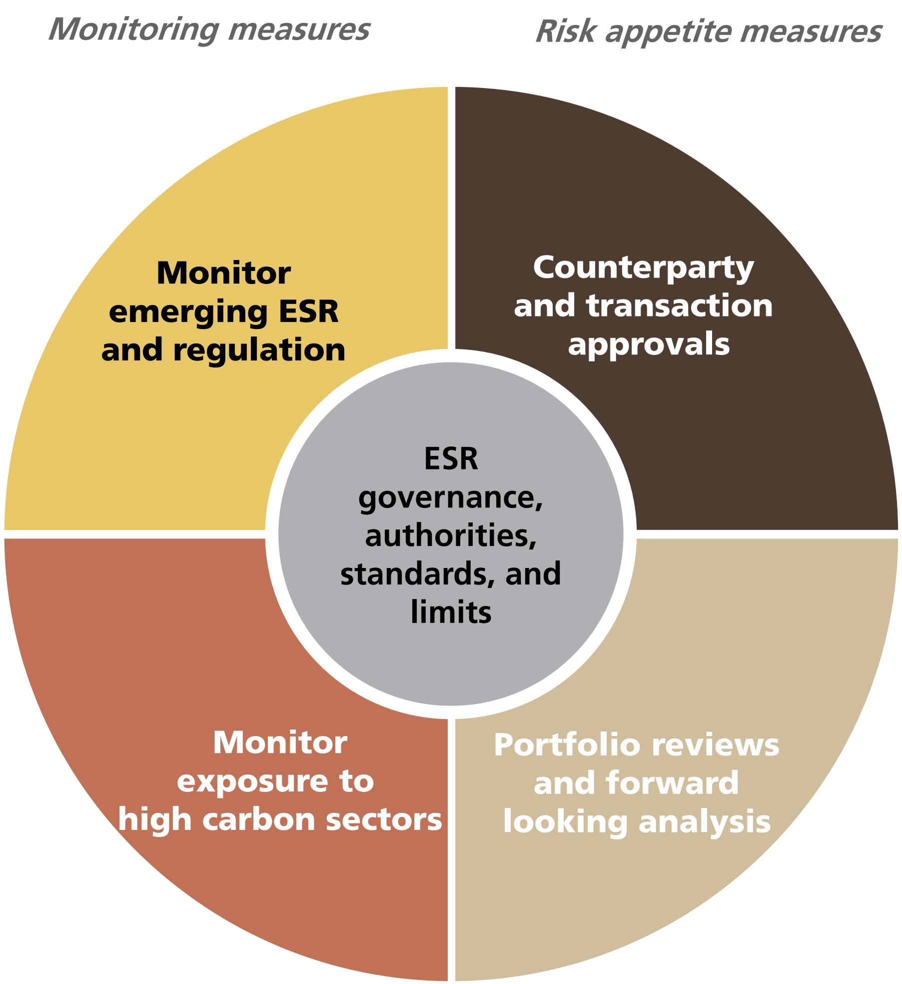
Leader score within our industry

Independent assurance and certification1 for:
- Sustainability reporting based on GRI Standards
- ISO 14001 (Environmental management system)
- ISO 50001 (Energy management systems)

UBS

Incorporation in risk management framework

We embed climate-related risks in our risk management framework



- **We govern group level climate-related risks** through the BoD Corporate Culture and Responsibility Committee and the Global ESR Committee (climate strategy and climate risk appetite).
- **We apply climate risk appetite** in counterparty and transactional due diligence performed by ESR unit (2 LoD).
- **We estimate our firm's vulnerability to climate change risks** using scenario-based stress testing and forward-looking analyses:
  - Scenario based portfolio reviews of climate-sensitive sectors and integration in risk identification process
  - Industry-wide collaborative work to develop methodologies for assessing climate risk and alignment with Paris agreement
  - Capabilities building for PRA climate stress test in 2021
- **We measure and disclose** UBS's lending exposure to high carbon sectors as defined by the TCFD
- **We monitor emerging climate-related risk and regulation** to assess if UBS's ESR framework adequately manages them.

UBS

Climate Change Stress Testing

We pioneer stress testing methodologies and scenario analysis to assess climate related risks

	2014	2015	2015	2016	2017	2018/2019
External developments		**Bank of England** report on climate change and financial stability **FSB** launches Task Force on Climate-Related Disclosure (TFCD)		**Green Finance Study Group** established as part of China's 2016 G20 presidency	**TCFD** recommends stress testing transition (2°C scenario) and physical risks from climate change	Bank of England's **PRA** issues **climate risk supervisory statement** **NGFS** calls for action by **central banks and supervisors**
UBS actions	**Top down scenario based stress test**	**Portfolio specific bottom-up stress tests**			**Industry collaboration**	
	Assess **UBS's balance sheet vulnerability** to climate change → Moderate financial impact in line with other stress scenarios, such as those that foresee an oil shock	Assess exposure of **loan portfolios secured by real estate** to climate-related hazards → Low financial impact due to insurance coverage and loan maturity profile	Assess impacts of low oil and coal prices on **oil & gas and electric utilities credit portfolios** → Low financial impact due to high quality and maturity profile of portfolio	Stress test North American loan portfolios to Oil & Gas and Power Generation sectors to the **impacts of drought** → Low financial impact due to low baseline default rate	**Drought stress test tool**, with Natural Capital Finance Alliance →Low financial impact on borrowers. Shows again gaps in data and methodology	**UNEPFI TCFD** project for banks Further **capacity building** on scenario and stress testing methodologies / collaboration **→Confirmation: no significant financial risk on balance sheet**

UBS

- Download UBS climate change stress test case study in University of Cambridge input paper to G20 Green Finance Study Group
- Download UNEPFI TCFD project reports: Extending or Horizon, Navigating a New Climate

Industry collaboration - methodologies in development

We address methodology gaps in climate risk assessment, promote capacity building and disclosure

- Banks are working individually and collaboratively to develop methodologies to identify, assess and report climate risks and opportunities. Banks and regulators want to better understand the exposure to physical and transition risks of climate change. In addition, banks want to communicate progress on aligning with global initiatives such as TCFD, Sustainable Development Goals (SDGs) and the Paris Agreement.

UBS is engaged in two initiatives:

	UNEP FI TCFD working group*: Phase II scenario analysis	**Paris Agreement Capital Transition Assessment (PACTA) pilot by 2dii**
Objective	• Refining methodologies, scenarios and data sources to **assess climate-related financial risk in loan portfolios.** • Promote **industry learning** and cooperation and provide guidance for disclosing climate-related risks and opportunities in line with the TCFD recommendations.	• Pilot-test and shape development of methodologies to study the **alignment of corporate lending portfolios with the Paris Agreement** benchmarks.
Partners	• UNEP-FI, Oliver Wyman, climate science community (IPCC, CICERO, IEA, IIASA, PIK). • **Banks (35):** ABSA, ABN-AMRO, Access Bank, BMO, Barclays, Bradesco, Caixa Bank, Citibanamex, CIBC, CIMB, Credit Suisse, Danske Bank, Deutsche Bank, DNB, EBRD, ING, Intesa Sanpaolo, Itau, KBC, Lloyds, Mizuho, MUFG, NAB, Nordea, Rabobank, RBS, Santander, Scotia Bank, Shinhan, SMBC, Standard Bank, Standard Chartered, TD, TSKB, UBS	• 2 Degrees Investing Initiative (2dii) is a EU sponsored think tank developing climate metrics in financial markets. The project is also sponsored by the Swiss government. IEA, and others, for scenarios. • **Banks (18):** ABN Amro, Bancolombia, Barclays, BBVA, BNP Paribas, Groupe BPCE, Citi, Credit Suisse, ING, Itaú Unibanco, KBC, Nordea, Santander, Société Générale, Standard Chartered, UBS, Unicredit
Timing	• Phase II started: Q2 2019 to Q2 2020	• Pilot phase started: Q3 2019 to Q1 2020

UBS

* United Nations Environment Program Finance Initiative working group to pilot recommendations from the Task Force on Climate-related Financial Disclosures

Climate-related disclosure 2018 - key messages

We align our disclosure with FSB Task Force on Climate-related Financial Disclosure's five-year pathway

We have a comprehensive climate strategy

- Our climate strategy focuses on risk management, investments, financing, research and our own operations.
- We protect our own, and our clients` assets from climate-related risks and we mobilize private and institutional capital for a low-carbon economy

We have so far not found any significant climate-related financial risk on our balance sheet and reduced exposure to carbon-related assets

- We seek to protect our assets from climate-related risks 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.
- UBS has reduced its carbon-related assets to USD 2.7 billion at end of 2018 (1.2% of our balance sheet), down from USD 6.6 billion in 2017.

We have further reduced risk appetite on coal finance. We are committed to

- not providing project-level finance to new coal-fired power plants globally;
- only supporting financing transactions of existing coal-fired operators (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or the transaction is related to renewable energy;
- severely restricting lending and capital raising to the coal mining sector and not supporting coal mining companies engaged in mountain-top removal (MTR) operations.

We have a robust climate governance

- In 2018, climate-related risks were also for the first time discussed by a joint meeting of the Board of Director's Corporate Culture and Responsibility Committee and Risk Committee.

UBS TCFD Disclosure 2018

	For the year ended	
	31.12.2018	31.12.2017
Protecting our own assets		
Risks		
Identified significant climate-related financial risk on balance sheet[1]	**None**	None
Carbon-related assets (USD bn)[2]	**2.7**	6.6
Proportion of total net credit exposure (%)	***1.2***	*2.8*
Protecting our clients' assets and mobilizing private and institutional capital		
Opportunities / products and services		
Climate-related sustainable investments (USD bn)[3]	**87.5**	74.0
Proportion of UBS clients' total invested assets (%)	***2.8***	*2.3*
Total deal value in equity or debt capital market services related to climate change mitigation and adaptation (CCMA) (USD bn)	**31.6**	44.3
Total deal value of financial advisory services related to CCMA (USD bn)	**24.9**	5.5
Number of strategic transactions in support of Switzerland's Energy Strategy 2050	**8**	4
Number of climate-related shareholder resolutions voted upon	**43**	34
Proportion of supported climate-related shareholder resolutions (%)[4]	***88.0***	*82.0*
Reducing our own climate change impact		
Greenhouse gas emissions		
GHG footprint (kilotons CO_2e)[5]	**132**	148
Percentage change from baseline 2004 (Target: -75% by 2020) (%)	***(63.4)***	*(59.0)*
Weighted carbon intensity of the Climate Aware equities strategy (in tons CO_2e per million of USD revenue)[6]	**95.6**	117.45
Compared to benchmark (FTSE Developed World Index) (%)	***(55.7)***	*(44.0)*

1 Methodologies for climate-related financial risk are emerging and may change over time. In 2018, a group of 16 banks, including UBS, and UNEP FI have partnered to refine methodologies for climate-related risks and opportunities. 2 Total net credit exposure across Personal & Corporate Banking and the Investment Bank, includes traded and banking products. Net of allowances, provisions, and hedges. 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 excluded. For grid utilities, the national grid mix is applied. 2018 Year-on-year drop attributed to planned reductions in Energy and Utilities lending exposure within the Investment Bank. 3 Invested assets of products such as sustainably managed properties and infrastructure, and renewable energy. 4 On all proposals that we supported, we voted against the recommendation provided by the issuer. 5 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 in this document. 6 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.

UBS