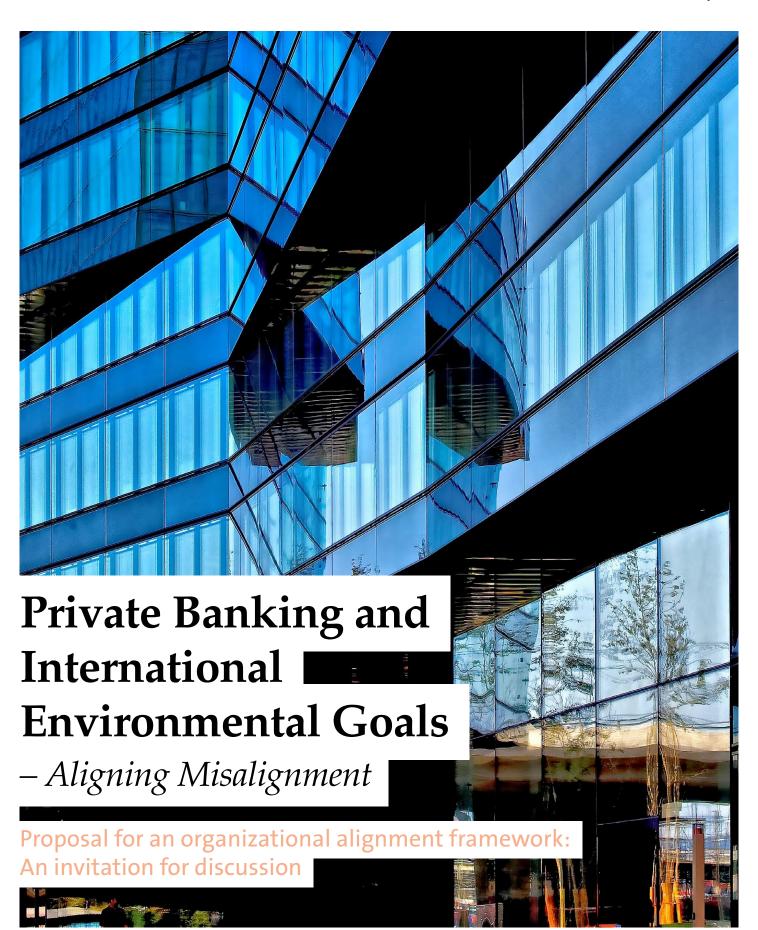


CSP Center for Sustainable Finance & Private Wealth

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# About the Center for Sustainable Finance and Private Wealth (CSP)

The Center for Sustainable Finance and Private Wealth is an academic research and teaching institution at the University of Zurich. CSP works at the intersection of research, wealth owners, and investment professionals to generate knowledge and mobilize capital toward impact.

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### **Executive Summary**

Private wealth is a key but often ignored component of making progress on the global environmental agenda. Little research is done on the private banking sector's contribution towards environmental objectives. Even less is known about what it means for a private bank to align its activities with international environmental goals. This is a knowledge gap this report aims to fill.

## Aligning private banking with environmental goals

This report identifies the key private banking activities and how they can support sustainability and the global environmental agenda. A framework for alignment is developed that places private banks within the context of the global environmental sustainability. The report also provides an evaluation methodology for alignment of private banking activities with the global environmental agenda, including internationally agreed environmental goals (IAEGs) and the Sustainable Development Goals (SDGs). The report was inspired by the series of reports published by the Center for Sustainable Finance and Private Wealth (CSP) on the *Sustainable Investing Capabilities of Private Banks*. The aim of this report is threefold:

- to raise the ambition level of the private banking industry to support rapid progress on the global environmental agenda, in alignment with timelines relevant for mitigating irreversible environmental harm;
- to empower private banking clients in demanding alignment of their bank with the global environmental agenda by providing clients with more transparency, and;
- **3.** to invite academia and NGOs to further develop methodologies for coherent alignment frameworks.

Not only do private banks have an opportunity to ensure the sustainability of natural resources and environmental systems, but they have the obligation to mitigate environment-related financial risk for clients.

Figure 1: EU Taxonomy for Sustainable Activities.

The European Union is in the process of establishing a taxonomy for economic activities to support the transition to a low-carbon, resilient, and resource-efficient economy. The Taxonomy will help establish performance criteria to differentiate sustainable from non-sustainable economic activities. To be considered sustainable, economic activities must:

- · Make substantive contribution to one of the below six environmental objectives
- Do no significant harm to the other five environmental objectives when contributing to one
- Meet minimum safeguards (e.g. OECD Guidelines on Multinational Enterprises and the UN Guiding Principles on Business and Human Rights)



Climate change mitigation



Climate change adaptation



Sustainable and protection of water and marine resources



Transition to a circular economy



Pollution prevention and control



Protection and restoration of biodiversity and ecosystems

# **Key Recommendations for Private Banks**

The report highlights the following recommendations for private banks in order to increase their alignment with the global environmental agenda:

# Integrate material environmental risk and potential adverse environmental impact into decision-making processes

To reflect the evolving understanding of fiduciary duty, private banks can integrate material risk resulting from an environmental event or condition<sup>2</sup> and potential adverse impacts of investment decisions on the environment<sup>3</sup> into their decision-making processes.<sup>4</sup> For investment products in particular, the bank can capture clients' environmental risk and impact preferences in sustainability profiles during client onboarding in

order to then ensure that environmentally sustainable products match a client's sustainability preferences.<sup>5,6</sup> Banks can then support clients' understanding of how investment decision-making criteria were considered if banks are transparent about how they integrate environmental sustainability criteria amongst other criteria (e.g. risk, return, potential adverse effects on environmental sustainability, contribution to environmental sustainability).

# Have a strong scientific basis and set science-based targets for all environmental objectives

By using transparent scientific methodologies and a strong scientific basis in target setting<sup>7</sup>, a private bank can avoid negative and generate positive impacts on the environment by targeting the real economy. There is still a need for target-setting methodologies to be developed for all relevant environmental objectives set out by the EU taxonomy for sustainable activities.<sup>8,9</sup> This calls for the financial industry to

go beyond the existing methodologies for climate change mitigation in order to address additional environmental challenges. More collaboration between stakeholders (banks, academia, civil society, public sector) will help support the development of these methodologies, and collaboration can be used to signal a bank's ambition to move the industry forward.

### Align core business activities with the global environmental goals

The core business activities of a private bank are its biggest lever for environmental impact. The private banking industry's unique client base has the potential to substantially impact environmental sustainability, because the client base of private banks are typically (ultra) high-net worth individuals holding a relatively significant portion of the world's wealth. To enable their clients to impact environmental sustainability, it is essential that banks go beyond being capable of impacting environmental

sustainability to aligning their business models with environmental sustainability. A key part of alignment is ensuring that the bank's internal environmental targets contribute to the broader global environmental targets. Internally for the bank, alignment occurs holistically across activities, internal strategies, processes, and metrics for measuring performance. Taking an alignment approach ensures contribution towards environmental targets that have a strong scientific basis.

### Introduction

Private banks are uniquely positioned to positively impact environmental sustainability by aligning their activities with the global environmental agenda. Their particular client base represents <1% of the population but controls 45% of global assets (over \$160 TN USD). Private banking clients are generally the first to fund innovation and have enormous influence through businesses, societal and political spheres.

Banks' investment and lending decisions can result in financing innovative environmental projects or causing increased environmental destruction. As such, private banks have the power and opportunity to provide their clients with salient opportunities to positively impact the environment, rather than acting as a barrier.

# Why should private banks align their activities with the global environmental agenda?

If private banks align their activities with the global environmental agenda, they have the opportunity to better serve their clients, be good environmental stewards, and to comply with financial and environmental regulation currently under development. There are clients of private banks, especially next generation wealth owners, that are looking to avoid environmental risk and seeking opportunities to have a positive environmental impact with their investments. Providing environmentally sustainable products and services will help the bank serve the interest of these clients. Additionally, the bank is legally obligated in many jurisdictions to consider ESG (environmental, social, and governance) risk in its investment decision making processes.

Current and upcoming sustainable finance regulation is providing the legal backing for private finance to support the transition of business to adopting more sustainable business models. This sentiment is becoming crystallized in regulations and policies, especially in the EU with the rapid developments of the EU Sustainable Finance Action Plan. In this new regulation, contribution to environmental objectives will need to be disclosed, and thus the expectation to substantiate sustainability and environmental impact claims will likely increase.

If the financial industry's activities are not aligned with global environmental goals like those for climate change or biodiversity, then these goals risk being under-funded and will be more challenging to achieve. Industry misalignment can result from a combination of client preferences and bank strategies if there is no consistency in national financial and environmental regulation – a problem that increasingly being addressed with new regulatory developments. Lack of alignment might cause banks to target different environmental objectives at different rates, and ignore crucial environmental objectives that may not be on their radar. A prominent example of this is biodiversity, which has a major gap in projected financing needed to meet global biodiversity conservation goals.11 Therefore, alignment of private banking activities with the global environmental agenda with an integrated, coherent approach is becoming even more important to ensure efforts are streamlined, progressive, and effective.

## What is in the way of alignment for private banks?

Environmental sustainability can be complex in the context of private finance – deficient or weakly enforced financial and environmental regulation, a lack of science-based environmental targets, and conflicting understandings of fiduciary duty all present a challenge to alignment. Environmental sustainability is complicated, especially in a private wealth management context. Environmental topics are intricate in themselves, and even more so when interpreting their connection to financial institutions. This makes it challenging for both the bank and the client to grasp the highly technical knowledge of environmental issues on one hand, as well as financial mechanisms for risk mitigation and impact on the other.

#### Weak regulation

Private banks are generally not obligated to align their activities with international environmental goals, because these goals are made at the state level and national regulation often does not address the bank's business model. Parties to multilateral environmental agreements (containing environmental goals) are states. Environmental agreements are to be translated into national environmental regulation, especially if the agreements have to be ratified by member states. However, this does not always cover corporate law.

From a legal perspective, banks have little incentive to do more than what is regulated, so aligning with international environmental goals is often not the top priority at private banks. Complying with existing and upcoming regulation is a resource-intensive task within itself, so doing anything beyond compliance can sometimes be interpreted as a waste of resources. This results in environmental considerations being stuck in risk and compliance departments, rather than departments that are responsible for developing products and services, or that are client-facing. Instead, banks will more likely respond to relevant environmental legislation that threatens legislative action in case of non-compliance.

#### Lack of science-based targets

There is minimal guidance for private banks connecting international environmental goals to their business activities. This guidance is needed in order for them to positively impact environmental sustainability.

There are currently science-based target-setting methodologies for climate change mitigation, but work is needed to develop methodologies that connect action with environmental impact via the real economy. Additionally, there are still no widely-accepted science-based methodologies for setting targets and measuring performance for the remaining challenges to environmental sustainability. Without these, it is challenging for a private bank to claim with confidence that its business model positively impacts environmental sustainability.

### Conflicting understanding of fiduciary duty

Financial institutions are challenged by the divergent understandings of fiduciary duty, especially in the context of environmental sustainability, as the interpretation has changed over time. The traditional understanding of fiduciary duty was to put shortterm risk-adjusted financial return above all other investment considerations - a view that was backed by legal proceedings.<sup>12</sup> This meant that environmental risk or impact was often not factored in when making an investment decision or giving investment advice. This understanding of fiduciary duty meant that bringing additional considerations into investment decisions that did not have an obvious material impact on the value of the investment was seen as going against the duty of loyalty and care that the fiduciary had towards the investor. This notion is challenging to shift for wealth managers and asset managers that were trained under the traditional - but now outdated - understanding of fiduciary duty.



There is minimal guidance for private banks connecting international environmental goals to their business activities. This guidance is needed in order for them to positively impact environmental sustainability.

Figure 2: Evolution of the understanding of fiduciary duty.

### 2000s The first generation

- Understands the importance of ESG issues
- Investors could incorporate financially material ESG issues as part of their fiduciary duty
- Contributes to the launch of UN PRI

### 2015 The second generation

- Clarifies ESG integration as not optional but an obligation
- Works itself into national legislation (e.g. Brazil, France, EU, Ontario, South Africa, UK)
- Swiss Federal Council issues statement providing the legal foundation to integrate environmental risks, especially climate risks

### Current THE THIRD GENERATION

- Not only considers the impact of sustainability risks on the value of an investment, but also the impacts of an investment decision on sustainability
- Clearer operational understanding under development with UNEP FI in the lead

Source: UNEP FI, UN PRI, and Generation Foundation. 2019.

However, the understanding of fiduciary duty continued to evolve in three phases with the practice of responsible investment. The first generation of responsible investment started with the Freshfields report, which argued that fiduciaries could integrate material ESG risks into investment decisions.13 The next phase crystallized ESG integration into national legislation, making it no longer an option to integrate material ESG risks into investment decision making in some countries, but an obligation.<sup>14</sup> In Switzerland, material climate risks have to be taken into account to a large extent under current law. However, climate impacts resulting from investment and financing decisions are not mentioned in the current legal framework, but can be measured and reported on a voluntary basis. 15 The advancement to the next generation of responsible investing interprets fiduciary duty as the duty to not only consider the impact of (environmental) sustainability risks the value of an investment, but also the impacts of an investment decision on (environmental) sustainability.16 The legal foundations for this understanding are in development under a project led by the UNEP FI, which will likely reduce confusion on fiduciary duty over time.

### The nascent state of the industry – alignment is on hold

It is currently unclear how aligned the private banking sector is with international environmental goals. Until now, there has been no evaluation methodology designed for the alignment of private banking activities with the global environmental agenda.

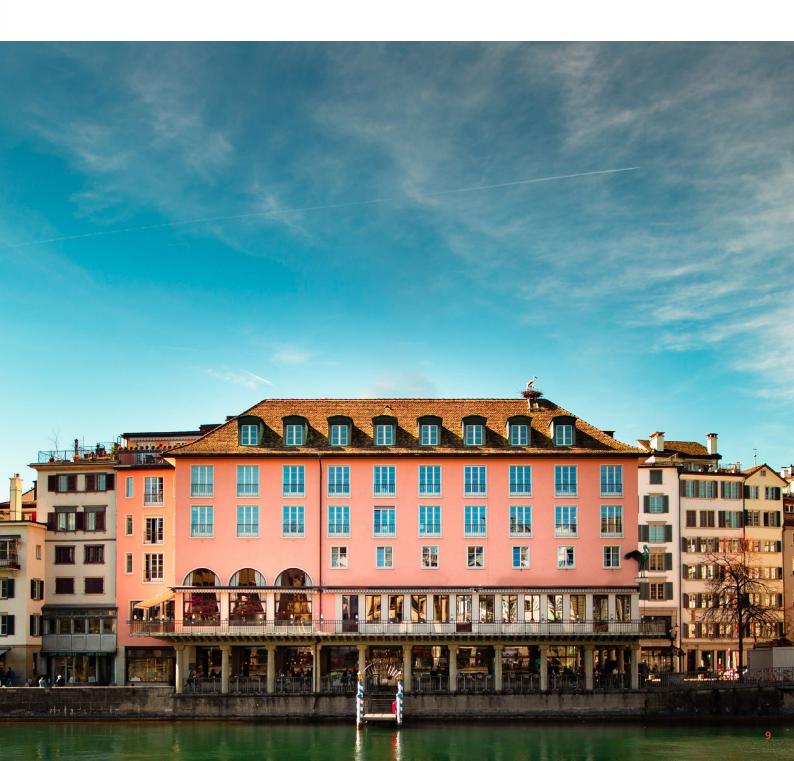
However, there is a mix of products on the market creating actual environmental impact and products with unsubstantiated impact claims,<sup>17</sup> likely resulting from the weak regulatory environment, paired with the recent spike of interest in sustainable finance. Without standard definitions, "impact washing" and "greenwashing" can easily confuse clients who do not know how to differentiate between real and false impact claims. This could change in the next few years, as mis-labeling is being addressed in the EU Sustainable Finance Taxonomy,<sup>18</sup> which is expected to provide more consumer protection against such claims.

Green products often target impact on the Sustainable Development Goals (SDGs) or climate change mitigation as per the Paris Agreement pathway targets, but rarely target other sets of environmental goals. The SDGs are comprehensive across all sustainable development topics (environmental, social, and economic) and can be found in descriptions of financial products, as well as in annual and sustainability reports. The Paris Agreement targets climate change mitigation and adaptation, for which methodologies for target-setting, risk identification, and progress monitoring are in relatively advanced stages of development and testing. However, the remaining environmental sustainability topics, like biodiversity conservation, ecosystem protection, pollution reduction, etc. are only in the early stages of methodology development for financial institutions to assess risk and measure impact.

Industry focus is now shifting from a capability to an alignment approach, meaning looking at action effectiveness on sustainability rather than ability

to take action. In order for alignment of private banking activities with environmental goals to be successful, it is essential for goals and targets to be aligned on the level of industry and individual firms. It is equally important that tools and metrics are developed that help evaluate the effectiveness of sustainable finance activities towards meeting these goals. Further proof remains to be shown that a private bank can be capable of operating according to environmental sustainability principles, and that there is evidence of positive environmental impact. However, work is being done to define impact indicators and provide evidence of environmental impact. The financial industry might not yet be aligned with global environmental goals, but it continues to make progress.

Industry focus is now shifting from a capability to an alignment approach, meaning looking at action effectiveness on sustainability rather than ability to take action.



# Private Banking Activities and their Potential to Contribute to Sustainability and the Environmental Agenda

### What is a private bank?

Defining what private banking activities are most relevant can be difficult because private banks can take different forms. Additionally, private banks can look different from an organizational standpoint. They can either be stand-alone or be part of a larger universal bank. Their target client base can be different, as are their offerings, ranging from very bespoke products and services, to more standardized products and services targeted toward clients that are less interested in tailored products. Finally, all private banks practice wealth management but not all have internal asset managers, and not all do corporate lending. Therefore, the relevance of each of these private banking activities, as well of products and services, varies depending on the bank and where its core business lies.

### An overview of private banking activities

Below is a description of the different private banking activities that exist. Both wealth management and asset management are relevant activities for alignment, as are lending services, philanthropy, and general operations. Additional private banking activities may also be relevant, but the bank's potential to impact environmental sustainability with activities like jet and yacht financing and art advisory are less clear.

#### **Wealth Management**

#### **Asset Management**

Clients	Private high-net worth individuals (HNWIs) and ultra-high net worth individuals (UHNWIs)*	Clients	Banks, institutional investors, some private clients (more sophisticated investors)	
Products and services	Investing services (discretionary or advisory mandates), Lombard loans, mortgages, yacht and jet financing	Products and services	Investing services, fund management	
Responsibility	Fiduciary duty to put client interest before self-interest, paid for advice and/or execution	Responsibility	Required to offer products suitable for client; potential risk of conflict of interest	
Description	Investment advisory and execution in combination with other financial services for wealthy clients. Broader than just asset management.	Description	Individual or institution managing of (pooled) investments on behalf of another individual or institution. Asset managers are under an investment mandate to meet clear targets for a client. They manage funds, usually create their own, and sometimes include 3rd party funds in their own fund portfolio to create funds-of-funds.	

<sup>\*</sup> We define HNW and UHNW clients as wealth owners with at least USD 1 million and USD 30 million of investable assets, respectively.

### Different models of alignment in asset management activities

There are pros and cons of having in-house or 3<sup>rd</sup> party asset managers for a private bank. At this point, regulation requires kick-backs for wealth managers recommending specific funds to be disclosed to the client and this is hardly practiced in the industry anymore. A wealth manager is expected to always select investments that are in the best interest of their clients, and the same applies to sustainable investing. This is why some wealth managers decide not to have an in-house asset manager; they aim to avoid such conflicts of interest altogether.

At the same time, if a bank has a consistent sustainability policy across all divisions, including its in-house asset manager, then the wealth manager can recommend products with peace-of-mind due to familiarity with the sustainability methodology. Some private banks with in-house asset managers might have less capacity to perform due diligence on all 3<sup>rd</sup> party funds in the investment universe and thus, select in-house funds they

are sure of to meet their sustainability criteria. However, not all private banks have an in-house asset manager that is capable of producing sustainable investment products, in which case it works best to select investments offered by external asset managers.

For alignment purposes, both in-house and 3<sup>rd</sup> party asset management could work. From an alignment perspective, there is little need to search for 3<sup>rd</sup> party products if the in-house products being offered can have a verified impact on environmental sustainability, and the bank has a solid environmental policy integrated into its entire product-development process. Then the available products must be suitable for the client's preferences. Likewise, the bank can align its asset management activities with environmental goals if it can source 3<sup>rd</sup> party products using a sourcing process guided by an internal environmental sustainability policy.



Shareholder engagement has been linked to actual investor impact, but not all private banking clients take advantage of this opportunity. Many clients are either not aware of their voting rights or not aware of the potential for environmental impact with this mechanism.

### The importance of active shareholder engagement for environmental impact

Shareholder engagement has been linked to actual investor impact, <sup>19</sup> but not all private banking clients take advantage of this opportunity. Many clients are either not aware of their voting rights or not aware of the potential for environmental impact with this mechanism. For mandates, the voting right belongs to the client, but the client often does not vote because she is unaware or finds it too challenging to vote, either out of technical reasons (e.g. having to vote physically) or lack of relevant knowledge and information. It is recommended that the bank proactively ask the client what she wants the bank to do with the voting rights and offer options to vote on behalf of her or to provide necessary information and recommendation for voting.

In the case of funds, financial institutions have the voting rights, whereas investors have voting preferences on environmental issues. It falls under fiduciary duty to vote according to investor preferences. Clarifying client voting preferences on environmental issues in the suitability assessment will help to understand what is needed to achieve the client's investment objectives. It is important that the engagement policies are publicly disclosed in easy-to-understand language so that clients are aware of what is being done with voting rights. Currently, ESMA (European Securities and Markets Authority) is updating requirements and MiFiD (Markets in Financial Instruments Directive) is being updated to address investor voting preferences in suitability assessments.<sup>20</sup>

### **Investing services**

### **Discretionary mandates**

The client leaves the investment decision to the bank and the bank invests on the client's behalf, based on her preferences.

### **Advisory mandates**

The client retains the investment decision-making power but turns to the bank for advice on her investments.

Although some stakeholders differentiate between what the bank is responsible for when comparing discretionary and advisory mandates, there is still an opportunity in both cases for the bank to align its investing services with environmental goals. Some argue that their hands are tied with advisory mandates, because the client is the one who is making the investment decision and not the bank. However, the case still remains that the bank has influence in its advisory services and onboarding processes. In both advisory and discretionary mandates, a client sustainability profile can be used by the bank to understand a client's environmental sustainability preferences and to match the client with suitable products.

### Lending services

#### **Commercial lending**

Not all private banks cater to a corporate client base. However, the boundaries between types of clients can be transient, as wealthy private banking clients often own businesses as well, and as such may work with the same bank from the perspective of a corporate client as well as a private client – a practice that is common in reality. Hence, it is important that a bank's environmental policy and targets cover commercial lending services if they are offered. Lending is often ignored when considering how a private bank can have an environmentally sustainable impact, but it is also one of the biggest levers for change and is also relevant for private banking clients (as well as retail clients) because it is the cash deposit these banks are using to lend to corporate clients. Lending processes are highly discreet and banks run the risk of losing debtors if they are too strict with their lending policies. However, lending to debtors with weak environmental sustainability criteria can backfire in terms of risks and losses.

### **Lombard lending**

Lombard lending is borrowing with the underlying collateral being mostly liquid assets of a client's portfolio, which is offered at a lower interest rate usually so that the client can pursue another investment opportunity. The bank's environmental policy could also cover its Lombard lending services. One way to do this in practice would be to make the interest rate of a Lombard loan a function of the sustainability aspects of the underlying portfolio that forms the collateral for that loan. Banks could also factor environmental sustainability criteria into the credit interest of the lender, offering preferred terms for lenders with environmentally beneficial projects and credentials.

### **Mortgages**

The bank can offer green mortgages with environmental sustainability-linked interest rates when lending for the purpose of purchasing or building a home. This works especially in the bank's favor, because the homeowners likely stand to profit from the savings on utility bills and will be less likely to default. Either way, it provides an incentive for clients to prefer "green" homes.

### Philanthropy

Philanthropy entails donating to a charity or a foundation as part of the clients' holistic wealth management strategy. It is the traditional way for wealth owners to have an impact, and some wealth owners still prefer it over impact investing. Ideally, both philanthropy and investment approaches are offered to meet the client's overall environmental impact objectives in a strategic way.

### **Operations**

Private banks probably have the most substantial environmental impact through their role in allocating capital, but they can also have a meaningful potential for environmental impact in their company operations. For large banks operating internationally with thousands of employees, operational decisions can have a substantial influence via staff behavior or within the supply chain. For example, making small symbolic changes like switching from single-use to reusable cups or mugs in the bank itself can reduce the bank's environmental footprint easily. Not only does this have a direct

impact, but when presented with the proper marketing campaign, this can cause staff to become more interested in how they can integrate environmental sustainability as well in products and services for clients. Crucially, this can also build the credibility of sustainability-related investment offerings in the eyes of staff, which is thereby more likely to offer them to clients.

### Other products and services

Private banks often offer additional products and services to their clients that are unique to the wealth management sector. The ones listed below have little-to-no material relevance to the environmental sustainability of private banks, or there may be rather minimal potential for impact.

### Yacht and jet financing

One contestable area specific to private banks is yacht and jet financing. At the moment there are few if any avenues to offer this sort of lending in a more sustainable way, aside from offering high interest rates or not offering the service at all. A cultural shift around investing in assets like yachts and jets to more sustainable assets would have to take place in order to make a real difference. This could mean investing instead in assets such as hydrogen-fueled ships and solar-powered planes, or entirely different assets.

### **Retirement planning**

Choosing the right pension fund that rates highly in its environmental sustainability performance, and in particular in terms of investor impact, is the key impact lever for a bank in this regard. If such offerings do not exist to a satisfiable degree, the clients that want to have more impact would need to engage directly with the pension fund. Alternatively, the bank would do so on behalf of clients, to advance the pension fund offering.

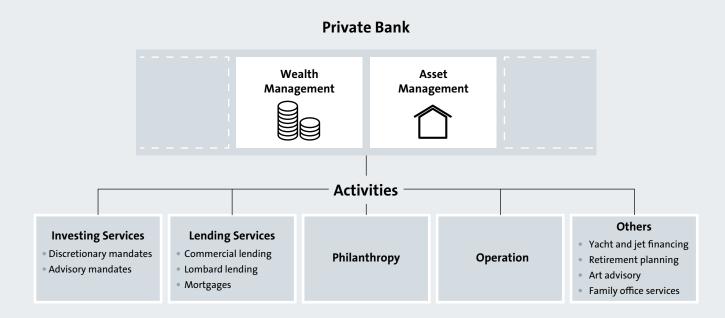
### Art advisory

Sustainable impact in art advisory would be more around social issues rather than environmental sustainability. This activity has a low potential for environmental impact, although there are certain projects that proved to have substantial societal impact.

### **Family office services**

This can refer to a range of services, like structuring trusts, concierge service, or wealth planning etc. Although improving these conditions can have a positive impact on how sustainably the family manages their wealth in the long run, the potential for direct environmental impact is low.

Figure 3. Private banks offer a multitude of services that have implications for sustainability with some being positive and others being negative.



### The evolution of risk considerations and fiduciary duty:

# The addition of material environmental risk and potential adverse environmental impact

A bank has control over its risk assessment process and how that influences what is in the investment universe that is available to a client. Because of this the bank has a responsibility to be transparent about the environmental sustainability risks, as well as the potential long-term financial risks to the client. Ideally, environmental sustainability risks would be discounted in a bank's risk models over the long-term, mid-term, and short-term for the bank's total activities, although that is often not the case. If the bank does identify and risks to an investment, they should be disclosed to the client when making an investment and when creating reports.

However, risks are identified using a bank's risk models and it is particularly difficult from a client's perspective to tell which risk models a bank is using if they are not reported in a transparent and reliable manner. Even if the client can access the bank's risk models, she may not have the background knowledge or means to assess a risk model accordingly. In this situation, a client is left to ask her advisor for a related risk reporting, publication, explanations, etc., to assess if and how the bank takes environmental risks seriously. This is a dissatisfying prospect for the client given the importance of the matter.

Risk consideration is a key component of fiduciary duty, but how risk has been considered under fiduciary duty has changed over time. The traditional understanding of fiduciary duty is that the investment or asset manager should maximize the profits of the client without bringing in any unnecessary considerations into the investment decision-making process that would compromise that goal. Bringing in environmental risk considerations into the process was then ruled out, because there was no evidence that the environmental risk would influence riskadjusted return. However, that view has shifted. If asset managers now ignore financial risk due to environmental risk considerations, or neglect to consider the impact of an investment on the environment – taking into account longterm risk consequences resulting from this decision - then it could be argued that they are violating their fiduciary duty.

This understanding has been crystallized more and more into some national regulatory frameworks, even if often only implicitly. For example, the current laws concerning financial markets in Switzerland states that financial market actors must consider material climate risks in areas where they are already obligated to consider significant risks.<sup>15</sup>

This means that if they identify climate change as a material risk to a potential investment, then they are obligated to consider it amongst other risk factors. Additionally, the new EU Disclosure Regulation EU/2019/2088 requires the disclosure of sustainability risks and adverse impacts of investment decisions on sustainability factors in a range of circumstances. However, the current challenge with climate risk is the relatively long investment time-horizon. Over the long-term, climate risk is identified as material, but financial institutions can often argue that the risk is not material over the short- or mid-term. This enables financial institutions to ignore climate risk in their short- to mid-term investment decisions, which can end in continued investment in climate-unfriendly assets.

The understanding of fiduciary duty is evolving further to include the duty to generate a positive environmental impact. This goes beyond discounting environmental risk and aims rather at mitigating environmental risk by having a positive environmental impact. This is essential, because the notion and understanding of fiduciary duty grounds a fiduciary's duty to her client in a legal framework, providing legitimacy for including considerations like positive environmental impact. The UN Environment Programme's Finance Initiative (UNEP FI) is doing extensive work on this, particularly on defining the 21st Century understanding of fiduciary duty,14 as well as on developing a legal framework for incorporating sustainability impact in investor decisions.<sup>16</sup> This is an aspirational project that will help support the integration of sustainable impact into the understanding of fiduciary duty, alongside the duty to incorporate environmental risks into investment decision making.4

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### **Environmental Target-Setting Framework**

In order to be able to contribute to the global environmental agenda, private banks need to be able to understand their capacity for contribution within their regional and industry context.

The global environmental agenda is a vast network of international agreements targeted at the state level, so more work needs to be done to translate global environmental goals to be practically implemented by private banks. Science-based methodologies and targets for financial institutions, as well as the integration of international environmental policy into national environmental and financial regulation, place the global environmental agenda into the regional and industry context needed in order for private banks to contribute to international environmental goals.

### The global environmental agenda and its relation to private banks

The global environmental agenda sets the direction for the international community in terms of environmental sustainability, resource use and conservation, etc. The global environmental agenda is largely guided by an environmental governance framework developed under the umbrella of the United Nations (UN), primarily for member states to implement into their national regulatory systems. A network of over 500 multilateral environmental agreements (MEAs) containing internationally agreed environmental goals (IAEGs) supports this environmental governance framework,<sup>22</sup> as do the sustainable development goals (SDGs).

#### Internationally agreed environmental goals (IAEGs)

The IAEGs are important for banks insofar as they are international environmental policy instruments. States can be held to account for upholding IAEGs, but private stakeholders generally are not. Additionally, when member states translate IAEGs into national regulation, this is traditionally done via environmental regulation applying to corporates in the real economy, thus only indirectly to financial institutions.<sup>23</sup> Thus, alignment of private banking activities with IAEGs could be seen

as relatively aspirational, because there is additional interpretation needed in order to understand how they are relevant to the industry context.

### Sustainable development goals (SDGs)

The SDGs have similarities to the IAEGs, but are different in that they include environmental, social, and economic development goals. They are interdependent and interlinked, acknowledging that it is challenging to impact one issue (e.g. water scarcity) without impacting another issue (e.g. adequate nutrition). For this reason, even while aiming to positively contribute towards environmentally relevant SDGs,<sup>24</sup> it is essential to consider potential impacts on other SDGs.

Although private banks are not obligated to comply or align with the SDGs, they are encouraged to contribute towards them because of the need to align capital flows with the goals.<sup>25</sup> Also at the state level, the SDGs are not legally-binding, and have no mechanism for enforcement, but have designated a stakeholder process for follow-up and review. The SDGs are unique in that they are accessible to a variety of stakeholders outside of the UN community and provide a high-level of flexibility to be adapted to different regional and institutional contexts.

Private banks can benefit from alignment the SDGs because they are an easy-to-understand tool that can be used to communicate stakeholder commitment to sustainable development. They can also look to the Addis Ababa Action Agenda for guidance on financing the SDGs. "In support of implementation of the sustainable development goals, the Addis Ababa Action Agenda contains more than 100 concrete measures for financing sustainable development. It addresses all sources of finance, and covers cooperation on a range of issues including technology, science, innovation, trade and capacity building." <sup>26</sup>

### **National regulation**

Finally, national environmental and financial regulation is a useful mechanism for policymakers to encourage industry compliance with environmental targets. States have different capabilities and needs in relation to environmental sustainability. Thus, if a private bank is domiciled in a specific location, or if an investment is targeting a specific region, then alignment with environmental goals might be more relevant at the regional level than at the international level. Ensuring the relevance of these policies to private banks can incite alignment of activities with the global environmental agenda via contribution to regional environmental targets. However, relying purely on national regulation will turn alignment into a compliance exercise for private banks, rather than a voluntary one.

# Strengthening science-based methodologies and targets for environmental objectives

Private banks are encouraged to use science-based methodologies for environmental target setting and monitoring. Science-based means not only being aligned with current environmental science, but also being able to distinguish a connection between the bank's actions and environmental impact via the real economy. Without this link, environmental targets and impact claims will be unfounded and will lack industry standardization.

Currently, the main science-based targets in the financial industry are for climate change mitigation.<sup>27</sup> These targets measure portfolio exposure alignment with a

climate pathway rather than investor or bank impact.<sup>28</sup> Portfolio alignment includes all sorts of exogenous influences on change in investee company climate performance, in addition to the bank's influence.

### Methodologies on portfolio alignment

There are several different methodologies for portfolio alignment. Methodologies for financial institutions generally calculate portfolio alignment based on the portfolio exposure to assets in the most relevant economic sectors. One publicly available and thus freeof-charge tool for climate alignment analysis is the Paris Agreement Capital Transition Assessment (PACTA), developed by the 2-Degrees Investing Initiative (2°ii),29 which sets sector-specific targets using a technologyspecific metric.<sup>30</sup> Scenarios are developed based on projected progress of decarbonization technologies, for example energy technologies (coal, gas, renewables, etc.) or automotive technologies (internal combustion engine, electric, hybrid, etc.). Using its methodologies, financial institutions can assess the climate alignment (or misalignment) of their portfolio compared to different decarbonization technology-based scenarios.

The method is scenario-based, forward-looking and quantitative. Currently, it is available for listed equity and corporate bond portfolios, lending portfolios to the most climate-relevant sectors, as well as Swiss real estate and mortgage portfolios. There is PACTA model with an additional qualitative section that is used for the broad climate compatibility tests for all pension funds, insurance companies, banks and asset managers in the participating countries, as well as for climate stress tests through several supervisory authorities.<sup>31</sup>

### The EU Taxonomy for Sustainable Activities

As part of the EU Sustainable Finance Action Plan, a taxonomy was developed to help standardize performance thresholds for economic activities contributing to the six environmental objectives outlined in the plan, which are: climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy, waste prevention and recycling; pollution prevention and control; protection of healthy ecosystems."

This taxonomy will help private banks in determining what counts as alignment and what not, by providing a set of criteria that apply to economic activities. Performance thresholds determine what counts as a significant contribution to environmental objectives, and what

thresholds cannot be crossed in order to do no significant harm to the remaining objectives. Minimum safeguards are set for responsible social and governance practices, which must also must not be transgressed in order to still count as a viable contribution. In the appendix of the recent taxonomy report, xiii two tables can be found that identify if technical screening criteria for different sectors significantly contribute to climate change mitigation and adaptation. They also indicate which economic activities must be screened for "do no significant harm" criteria. This can aid in alignment from an activity perspective when making investment decisions by specifying what sectors might positively contribute and negatively impact environmental objectives.

The Science-Based Target Initiative (SBTi) is a widelyused initiative target-setting initiative for the corporates, including the financial sector, that calculates based on the volume of CO<sup>2</sup> emissions of portfolio companies evaluated against a carbon budget given in a climate scenario. These emissions reduction targets are forwardlooking and quantitative, and can be considered as a type of carbon footprint. They are a way for a company to make a public commitment to reduce greenhouse gas (GHG) emissions. The strength in this understanding is that it links banking activities with the global environmental agenda, namely the Paris Agreement. The weakness for the financial industry is that there is often no evidence for a causal relationship between banking activities and GHG emissions mitigation. Thus, methodologies focusing on carbon footprinting are not complete and are often insufficient for private banks, because it is not clear about if the company activities are actually leading to reduced emissions, or if emissions are being reduced due to another factor.

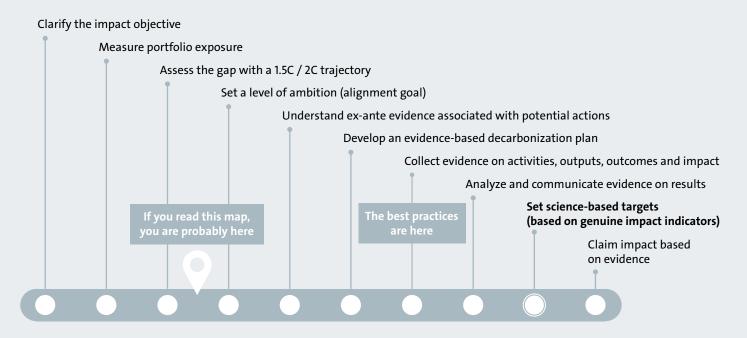
### Methodologies on investor impact

Developing science-based methodologies is a journey and more work is need to measure investor and bank impact on environmental objectives. The 2-Degrees Investing Initiative suggests an approach to impact that entails evidence-building – an ex-post analysis of impact to identify a scientific relationship between investor action and investor impact.<sup>28</sup> The research team in the Center for Sustainable Finance and Private Wealth (CSP) at the University of Zurich recently published a paper and corresponding media articles on the mechanisms for investor impact<sup>19</sup> and is doing further research on the subject. Additionally, the Impact Management Project (IMP) is the de-facto, global sustainable finance industry working group that is engaged in standardizing general impact measurement, management, and reporting. InvECAT is a project with an objective to develop an investor impact assessment methodology that helps mobilize voluntary energy efficiency and sustainable energy investment by companies and financial institutions. Finally, the UN Positive Impact Initiative provides a very comprehensive impact target-setting tool for all sustainable development themes, however private banking is not yet included within the scope of the tool.

Disclosure of target-setting methodologies used by financial institutions is crucial for evaluation of environmental performance. Transparency of methodologies also allows for industry-wide learning and improvement. As well, the legitimacy of

Figure 4: Journey to science-based target setting.

Science-based target-setting initiatives fall upon a spectrum of evidence-basis. As the industry continues to develop these methodologies, it is expected that banks will be able to make impact claims with more empirical evidence.





The development of methodologies for guidance on further environmental themes will be crucial in setting targets aligned with other environmental goals, like biodiversity conservation or land-use change.

environmental impact claims can be better evaluated when the methodologies for impact measurement are transparent. Eventually, developing and implementing industry-wide standards for measurement would help to provide a coherent overview of a financial institution's contribution to environmental objectives.

# Environmental targets Going beyond the Paris Agreement

Currently, science-based methodologies in the industry are used for GHG emissions reduction targets in alignment with the Paris Agreement, with additional ones under development for other important environmental issues (e.g. from WWF, The Earth Commission, and the Science Based Targets Network, Natural Capital Finance Alliance ). Other global environmental goals also lack scenario analyses like

those that exist for climate change. The development of methodologies for guidance on further environmental themes will be crucial in setting targets aligned with other environmental goals, like biodiversity conservation or land-use change. Pre-competitive collaboration in the form of working groups and industry alliances is essential for developing suitable science-based target-setting methodologies.

More research is necessary to define relevant indicators for impact in the real economy for the remaining types of environmental goals, and additional data will then be needed to measure and report on progress. This can be supported by the EU Taxonomy for Sustainable Activities and related tools developed by the Technical Expert Group (TEG) on sustainable finance that define technical screening criteria for activities making a significant contribution to one of the six environmental objectives.

### Implication for private banks

The IAEGs and the SDGs provide a useful framework to understand in what direction the international community is headed with regard to environmental targets. Relevant for private banks is upcoming legislation that will affect their business operations resulting from translation of these environmental goals into national policy. Additionally, if they aim to be more ambitious than just being compliant with regulation, they can seek opportunities to positively contribute towards international goals within their capacities.<sup>24</sup>

### **Implication for policymakers**

The upcoming EU Regulation will have a major impact on the way private banks do business, as well as their alignment with the global environmental agenda. Policymakers would do well to ensure that national policy is relevant to the core business activities of private banks, and that regulations reflect the contemporary science-based international environmental goals.

### Clarifying Alignment

### Linking private banks and the environment

There has never been a more crucial time for private banks to align with the global environmental goals due to the risk implications arising from society's transition to a more sustainable economy. For the finance industry more specifically, these risks include liability risks and risks to physical assets that arise for actors that fail to transition accordingly. We are currently seeing this with the Paris Agreement, the multilateral environmental agreement with the most developed methodologies and indicators to implement and evaluate alignment targets. Several industry initiatives aim to ensure that investments are consistent with a 1.5° C scenario pathway. However, scenario analyses show that many investments are still consistent with 4-6° C or even >6 ° C pathways instead, 32 pathways that would result in catastrophic consequences for society, the environmental, and the economy.

Decarbonization scenario-consistent investments are just part of the story in terms of alignment, private bank activities, and environmental sustainability issues. It is certainly crucial that banks ensure that investments are consistent with global climate goals. However, this fits into a broader picture of what is needed. From a systems perspective, a problem cannot be addressed by focusing on one part of the system. Likewise, climate change is a process in the larger natural system, and investing is one part of the larger business model of a private bank. For both the environment and a private bank's business model, it is important to consider what alignment means from a systems perspective so that the intended impact can be achieved, and unintended impacts can be avoided.

# Capabilities Abilities, not yet actions

In our *Sustainable Investing Capabilities of Private Banks* reports, we focused on capabilities. Capability is defined as "the ability to do something." A bank's sustainable investing capabilities are what they could do based on their particular situation – their strategy, service offering, product offering, internal operations, etc. If a private bank is capable of sustainably investing, it does not mean that they are actually doing it. We acknowledged this in our previous reports by including benchmarking criteria

measuring proportion of assets invested sustainably, and proportion of sustainable versus non-sustainable products.

Capabilities allow for more discretionary scope for stakeholders to interpret or ignore international environmental goals. Because of this flexibility, a capability-focused assessment struggles to actually measure whether and how much a private bank contributes to an environmental goal in reality. Even if a private bank is investing "sustainably", it does not mean that these investments are consistent with what the international community has deemed sustainable. Alignment can help support this measurement, for example, by evaluating an activity's contribution to a target and unintended impacts on the wider system.

# Alignment Matching goals with activities

Alignment, defined as "the organization of activities or systems so that they match or fit well together," provides the link between global environmental goals and the actual activities of private banks. Alignment can then mean matching processes (e.g. client onboarding and product suitability assessments) or products (e.g. green investment products, green lending services), with global environmental goals like those for climate change mitigation or biodiversity conservation. The evaluation of how well systems levels fit together is essential for alignment.

Presently, alignment is used primarily in the context of portfolio alignment with emissions reduction targets and related climate scenario pathways (see: Environmental Target-Setting Framework). However, alignment in a complex system requires that the action taken delivers the intended impact on the system state without causing unintended negative impacts on the system. Said otherwise, organizational alignment goes beyond assessing if an action (e.g. investment) is merely consistent with a target (e.g. low-carbon economy) by evaluating the contribution of the action towards the state of the system (e.g. amount of greenhouse gas emissions reduced as a result of the investment).

# Finding the missing puzzle pieces Aligning goals, activities, and environmental sustainability

A framework that defines how goals and activities fit together can help to understand the connection between a global-level environmental goal and a company-level activity. First of all, alignment from a systems perspective measures success by meeting system conditions for a target state. These system conditions define whether or not an action was successful or not. Broadly, taking sustainability as an example of a generic system state, actions that do not comply with system conditions for sustainability are therefore not aligned. Likewise, if system conditions for sustainability are not met by sustainable actions, then the target system state is not achieved.

The missing puzzle pieces that connect goals to actions can be found in Robèrt et al.'s Meta-Framework for Planning in Complex Systems (Figure 5). To align environmental sustainability goals within a system, the following must be considered:

- The system boundaries;
- the target system state, including system conditions for reaching the target state;
- a strategy and processes for how to reach the target state;
- actions to deliver on the strategy, in compliance with system conditions for the target state;
- tools and metrics to monitor, manage, and assess the effectiveness of actions and their impact on the overall system.

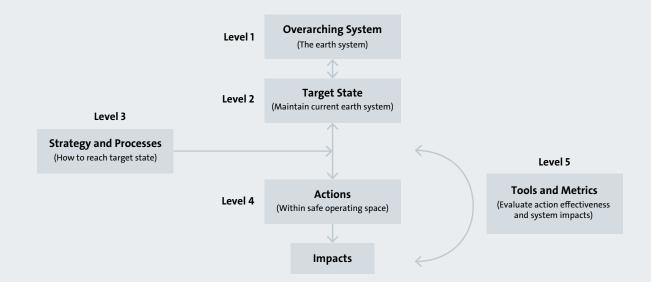
### Targeting environmental sustainability Integrating planetary boundaries and a safe operating space

Systems function in a state of homeostasis when changes to the system do not cause the system to cross defined thresholds needed for stable functioning. If these thresholds are crossed, the system functioning will be altered, potentially creating a new system unrecognizable to the previous. The stable functioning of the earth system as it is today has only been so in the past 10,000 years, a tiny fragment in the earth's history dating back over 4.5 billion years. This has included multiple fluctuations in earth system functioning, many of which would not support life on earth as it is today. Realizing how precious the current earth system state is today is a key motivator to wanting to understand how to preserve this system in its current state.<sup>35</sup>

Due to this, scientists have quantified planetary boundaries for the current system, within which the earth system can still function as it currently does. However, planetary boundaries are not the ultimate boundaries to target. The earth system is incredibly complex and is still uncertain how cycles (e.g. the carbon cycle, the water cycle) interact and respond to changes within the system.

Therefore, researchers recommend to operate within a "safe operating space" of the planetary boundaries rather than using resources all the way to the environmental ceiling.<sup>36</sup> The safe operating space provides parameters for global natural resource consumption to preserve earth system functioning.

Figure 5: Meta-Framework for Planning in Complex Systems. Simplified and adapted from K-H. Robèrt et al. "Strategic sustainable development – selection, design and synergies of applied tools." *Journal of Cleaner* Production 10, 3 (2002): 197-214.



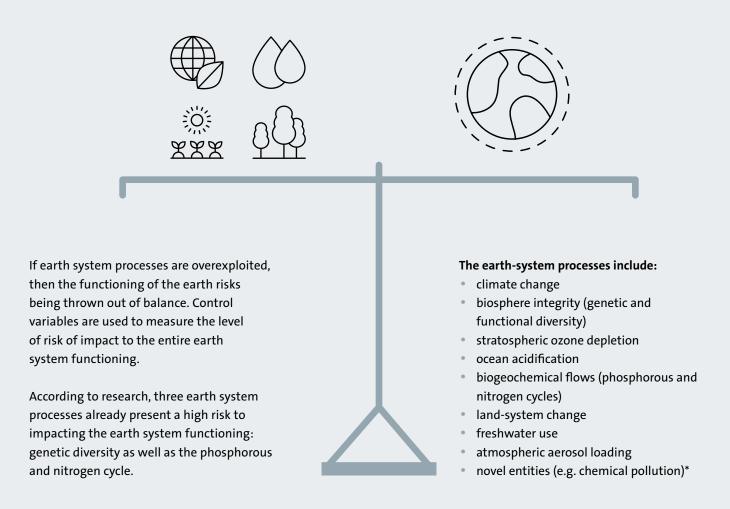
In the alignment model, these can be seen as the system conditions that must be met in order to achieve the target system state. As can be seen in the caption next to Figure 6, three planetary boundaries have already been transgressed. Additionally, three earth system processes are in a zone of uncertainty, meaning outside of the safe operating space.

Based on the understanding of planetary boundaries, there is a strong argument to align business activities with what is needed to stay within the safe operating space. However, the planetary boundaries and the safe operating space concepts do not provide a pathway for regions or industries to follow reach environmental targets.<sup>37</sup> There is still work to be done in order to align economic and policy pathways to achieve these targets over the next decades.<sup>38</sup>



Based on the understanding of planetary boundaries, there is a strong argument to align business activities with what is needed to stay within the safe operating space.

Figure 6: Planetary boundaries are a model that defines the delicate balance of the earth system.



<sup>\*</sup> Further details on planetary boundaries can be found in Steffen et al. 2015

# Fitting the puzzle pieces together Aligning private banking activities with the system conditions necessary for environmental sustainability

A proposed approach applies logic of alignment in a complex system with the planetary boundaries and safe operating space concepts and links them to the private banking context. An example of the proposed approach looks as follows:

### Overarching system

The overarching system in which private banks operate is the earth system. This system has been functioning in a stable state (the Holocene epoch) for over 10,000 years, and is characterized by conditions like stable temperatures, an atmospheric composition that supports life, and a stable freshwater supply.

### **Target state**

In order for the earth system to continue to function in a way that supports society and business (including private banks), control variables for earth system processes cannot be transgressed, e.g. concentration of atmospheric CO<sup>2</sup> as an indicator for climate change, global freshwater use in km<sup>3</sup> yr<sup>1</sup> in relation to the amount of water available in a water basin, <sup>39</sup> etc. <sup>37</sup> The target system state is thus to maintain the functioning of the earth system as it is currently. The system conditions for this are not only avoiding transgression of planetary boundaries, but staying within a safe operating space, well-below these planetary boundaries.

#### Strategy and processes

Strategies exogenous to private banks intended to meet the target system state can be international environmental goals, but can also include national environmental and financial regulation. Private banks can align their internal strategies with global environmental goals, and are obligated to comply with national environmental and financial regulation. Additionally, strategies can be found outside of international policy and national regulation in the form of industry initiatives with a sound science basis tying them to current understanding of planetary boundaries.

#### **Actions**

In the case of private banks, actions are primarily wealth management, asset management, and lending activities, and to a lesser extent, the bank's own operations. These actions must meet system conditions for reaching the target system state, i.e. remaining within the safe operating space for planetary boundaries.

#### **Tools and metrics**

Tools and metrics are the only way to know for sure if the actions taken are successful in contributing to the target state, or if they are negatively impacting the system. It is important that metrics and targets distinguish primary/direct and secondary/indirect market activity impacts. Tools and metrics can specifically be used that show the impact via the real economy on the environment. Current tools and metrics for reviewing alignment of actions include impact assessments, scenario-based climate alignment tests, carbon footprinting, measurement and disclosure on initiatives like UN PRI, UN PRB, TCFD, SBTi, and ISO standards. However, not all can be used to measure impact via the real economy on the environment (see: Strengthening science-based methodologies and targets for environmental objectives).



In order for the earth system to continue to function in a way that supports society and business (including private banks), control variables for earth system processes cannot be transgressed.

### The economics of a safe operating space: Applying the environmental economics

The natural capital accounting approach found in resource economics connects sustainability and intergenerational equity principles with economic models, specifically by applying the concepts of strong and weak sustainability.<sup>40</sup> The capital stock sustainability model<sup>41</sup> with the conditions of strong sustainability assume that there are certain types of critical natural capital that are severely limited and cannot be substituted with other types of either natural capital, economic capital, or social capital.

Natural capital accounting formulas have the condition to maintain or increase natural capital stocks over time. For example, freshwater stocks cannot be depleted and substituted with soil stocks, stronger social networks, or cash, because freshwater stocks are critical for human survival and ecosystem functioning. Under the concept of strong sustainability, private banks would be obligated to conserve all stocks of natural capital, otherwise they risk irreversibly harming the environment and the well-being of current and future generations.

The model of weak sustainability assumes that the aggregate sum of natural, economic, and social capital must be maintained or increased over time, and that natural

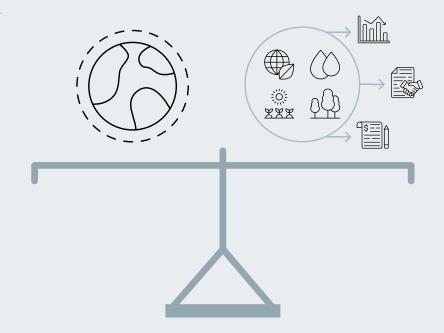
capital is substitutable with other types of capital, including other types of natural capital. This assumes that even if one sort of natural capital integral to today's economy (e.g. fossil fuels), this is interchangeable and can be substituted. However, this applies to all types of natural capital, which can also mean freshwater, the ozone layer, or organic soil matter. However, the planetary boundary concept shows that beyond a certain threshold, these natural capital stocks are not substitutable, as far as we know, without compromising human well-being and ecosystem functioning.

The capital stock model is useful for linking the planetary boundary to economic activity and can be used to inform policies aimed at greening economic activities. It can support for informing optimal use of resources, price paths, and valuation of innovation and externalities. One piece of research suggests that the conditions of weak sustainability can be applied to the safe operating space for each planetary boundary.<sup>42</sup> This turns the safe operating space, rather than the natural resource, into a depletable stock. The approach is similar to the model of "sensible sustainability" or "weak sustainability plus" used in Switzerland, which allows for limited substitution of capital and sets critical limits which cannot be transgressed.<sup>43</sup>

Figure 7: The safe operating space through an economic lens.

Combining natural resource economics with earth system science can help support practical economic solutions. These solutions can then support the delicate balance of keeping the earth system functioning.

A possible approach aims to preserve the safe operating space for each earth system process. This helps to set things like prices for natural resources or taxes on pollution so that earth system processes are maintained. This approach can also help inform economic policy.



**Example:** Setting the safe operating space for biodiversity in the capital stock sustainability model translates earth system science into practical economic solutions, which can in-turn keep the earth system functioning in balance. Because this approach treats each earth system process separately, this means that they are not substitutable with one another. Furthermore, because the safe operating space, rather than the planetary boundary, is the capital stock, the capital stock cannot be depleted to the point that risks impacting the earth system functioning.

## Alignment means putting the puzzle pieces together

Alignment with the global environmental agenda for private banks means making sure these links fit together. If investment activities negatively impact a region's water supply for current and future generations, then the investment is not aligned with system conditions for sustainability (i.e. no alignment of target system state and action). If a private bank invests in a company, for example, that is building a pipeline transporting natural gas across the United States, then that is not aligned with IAEGs found in the Paris Agreement, or SDG 13 (i.e. no alignment of strategy and action). Finally, if a tool or metric is not able to accurately evaluate the efficacy of an action to deliver on a goal or strategy (i.e. no alignment of strategy, action, and tool), then that tool or metric is ineffective and should either be improved or replaced. This alignment framework, thus, provides an opportunity for private banks to connect their activities with the global environmental agenda with the intention of contributing to the target system state of sustainability of the earth system.

If private banks are to generate sustainable outcomes for the environment, then their business models must reflect that. If private bank activities are out of alignment with system conditions for sustainability, then they are counterproductive to progress on international environmental goals. All pieces of the system must fit together in a way that success is achieved based on given principles, via actions following a strategy, measured by appropriate tools and metrics. Alignment of private banking activities with the global environmental agenda is a process. The process of alignment often begins when a private bank responds to the client demand for sustainable investment products. With time, the bank's offering becomes more comprehensive and is supported by the necessary strategies, processes, targets, metrics, and activities needed to make their sustainability approach successful.

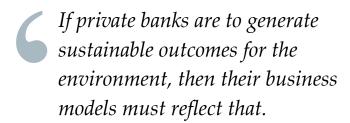


Table 1. Examples of how private banks misaligned with environmental sustainability

Misalignment	Explanation	Example in private banking
Target state-action	The activity of a company goes against the target state of maintaining the current Earth system.	Investing in companies (action) using more freshwater at a rate higher than the water recharge rate (acting against target state)
Strategy-action	The activity of a company goes against the strategy (e.g. IAEGs, SDGs) to reach the target state.	Investing in a company (action) with carbon emissions aligned with a climate scenario pathway higher than 2° (misalignment with Paris Agreement strategy)
Strategy-action-tool	The tool or metric cannot evaluate how an action contributes to the strategy or target state.	Aligning a portfolio (action) with a 1.5° scenario pathway (strategy) without a methodology that can empirically measure the emissions contributions of the underlying assets and impact on the environmental system (tool).
Strategy-tool	The tool or metric does not exist or cannot accurately assess targets incorporated in the strategy.	A bank having a resource-related environmental sustainability target (strategy) without a methodology to assess performance (tool).

### Research Methodology

### Research Methodology

The research was for this report was conducted based on (1) extensive desk research reviewing relevant publications and articles, including existing evaluation methodologies for sustainability in banking, (2) feedback rounds on the evaluation methodology with a range of stakeholders in banking, civil society, academia, and industry (see: Appendix 2: Overview of contributors to the report). Feedback was integrated into further revisions of the report and evaluation methodology.

### Evaluation methodology overview

The evaluation methodology consists of four categories, the first three coming from the existing framework, with one new addition. The categories include:

- Environmental Sustainability Vision
- Environmental Sustainability Offering
- Environmental Sustainability Service
   Pre-Competitive Collaboration on Environmental
   Sustainability Issues

The new category in the methodology, pre-competitive collaboration, refers to stakeholders coming together to tackle shared, complex, systemic challenges.<sup>44</sup> Pre-competitive collaboration is important because it will accelerate progress on environmental sustainability. This can mean contributing to industry initiatives or joining working groups (e.g. using the PACTA climate scenario analysis tool and reporting outcomes, joining the Climate Action 100+), funding academic research, or public supporting national policy aligned with the global environmental agenda. Without it, the rate of progress will unlikely be fast enough to meet international environmental goals.

### Purpose of the evaluation methodology

This evaluation methodology has not yet been used to benchmark private banks in their alignment with environmental goals. It is currently open for private banks to use as a guide to align their activities with the global environmental agenda, and will potentially be used in a future iteration of this report evaluating sustainability alignment performance of private banking activities. Because of its novel focus on alignment, the methodology has the potential to support private banks in orienting themselves to the global environmental agenda beyond the Paris Climate Agreement and SDGs.

Important criteria for evaluation were extracted from a wide body of practitioner and academic literature, as well as from in-person interviews with practitioners and academics. The evaluation criteria presented in the evaluation methodology are not considered to be exhaustive, but are intended to be accessible for private banks focusing on alignment with the global environmental agenda. Criteria excluded were internal governance processes, as well as several management processes. This is because positive outcomes can be achieved using a range of governance and management approaches, for which the academic discussions are also inconclusive on which methods represent best-practice. The criteria remaining are indicative of functioning governance practices that result in positive environmental outcomes.



### **Evaluation Methodology**

The evaluation methodology proposed by this report narrows in on the environmental sustainability vision, offering and services of private banks. Furthermore, the methodology considers pre-competitive collaboration on environmental sustainability topics, because collaborative action between industry stakeholders could move the industry more quickly towards alignment with the global environmental agenda.

### Scoring

Each category has several sub-categories, some derived from the previously existing methodology and some new. Each sub-category has a set of qualitative criteria upon which a bank is evaluated on via a binary scale (yes/no). The bank is ranked on its alignment based on the number of criteria met within a subcategory, which indicates the relative strengths and weaknesses in subcategories. The total score within a category results in the overall category score of "beginner," "competitor," or "leader."

Category ratings	18 total criteria
Beginner	< 8 total criteria met
Competitor	8-12 total criteria met
Leader	> 12 total criteria met

The total score of the private bank gets can be used to differentiate sustainability beginners from leaders for each category (vision, service, offering, and collaboration). However, the total score of all categories does not indicate an aggregated rating for all categories.

Figure 8: Evaluation methodology. The four main categories of the evaluation methodology are divided into 12 sub-categories in order to provide an holistic overview of the activities of the private bank. These sub-categories denote, for example, assets under management in sustainable investments, or collaborations banks have with the civil society.



### **Environmental Sustainability Vision**

### Alignment with global environmental agenda

Is the environmental sustainability vision aligned with the environmental goals? Is the bank transparently seeking ways to further enable alignment for goals that are weakly addressed by the financial industry?

CRIT	ERIA	
	<b>Link to international goals:</b> International environmental goals are explicitly referenced in the bank's environmental targets (e.g. found in strategy documents or vision statements), as well as in relevant products and services.	
	<b>Link to national/industry goals:</b> National environmental goals and/or industry targets are explicitly referenced in the bank's environmental targets, as well as in relevant products and services.	
	<b>Measurable targets:</b> Targets are quantitative and have a timeline aligned with relevant SDGs/ IAEGs and/or national targets. For Switzerland, 50% GHG emissions reduced by 2030 and net 0 emissions by 2050, as compared to 1990 levels.*	
	<b>Policy integration:</b> Risk, legal, and compliance departments understand the national environmental policies in the countries in which they, investee companies, and creditors are operating. These policies are interpreted and integrated when offering relevant products and services and the respective value chains of the underlying assets.	
	<b>Impact indicator development:</b> There are strategies in place to develop standardized indicators for environmental impact, especially for environmental issues with weak indicators (i.e. non-climate related).	
	<b>Impact data:</b> The bank requires environmental impact data from investee companies, creditors, and suppliers.	
espr	TotalBundesamt für Umwelt, BAFU. 2019. 'Totalrevision des CO2-Gesetzes für die Zeit nach 2020 - Stand der parlamentarischen Beratungen, Medienhintergrundg-  äch'. https://www.bafu.admin.ch/dam/bafu/de/dokumente/klima/rechtliche-grundlagen/praesentation-medienhintergrundgespraech.pdf.download.pdf/  f%C3%BCr_Medienhintergrundgespr%C3%A4ch_deutsch.pdf	
Environmental Sustainability Targets  What environmental targets have been set, what methodologies are used, and how transparent are they?		
CRIT	ERIA	
	<b>Business relevance:</b> Targets apply to core business, as is evident on bank's balance sheet (e.g. wealth management, asset management, lending).	
	<b>Science basis:</b> Targets are science-based, using the SBTi or similar initiative, at the company, portfolio, and client levels.	
	<b>Methodological rigor:</b> There are transparent methodologies for how environmental sustainability impacts are measured, evaluated, and monitored.	
	<b>Impact in real economy:</b> Target criteria are linked to real economic units, measuring the positive and negative impact via the real economy on the environment.	
	<b>Target verification:</b> Targets and methodologies are verified by an authoritative 3rd party.	
	<b>Target communication:</b> Targets are communicated in company communications – website, media, investor report.	

### **Environmental Sustainability Realization**

What indicators are there that the bank is fulfilling on its environmental targets? What are they disclosing and how transparent is it? What proportion of products and services target environmental sustainability?

CRIT	CRITERIA			
	<b>Comprehensive disclosure:</b> The bank discloses information on all topics identified in the EU Sustainable Finance Action Plan using the relevant media: sustainable impact, sustainability risk, impact on sustainability factors, products promoting environmental characteristics, remuneration policies			
	<b>Sustainability performance disclosure:</b> The bank discloses environmental sustainability performance semi-annually using a range of channels, including on their website, investor reports, investment outlook, sustainability and/or annual reports.			
	<b>Honest communication:</b> Environmental sustainability claims in communications are not misleading.			
	Standardized indicators: Indicators for main lines of business:			
	• Invested AuM – higher proportion of AuM in environmental sustainability products = better. CAGR of AuM deployed in environmentally sustainable products – over three years; higher = better.			
	• Absolute amount and proportion of lending portfolio in projects that positively negatively impact the environment.	ŧ		
	<b>Environmental footprint:</b> Environmental footprint of bank is disclosed, including scope 1 and 2 emissions.			
	Impact verification: Disclosed environmental impact has been verified by a third-party.			
		Total		

### **Environmental Sustainability Offering**

### Range of Environmental Sustainability Offering

What is the range of products targeting environmental sustainability are available? Investment: What asset classes and regions are covered? What investment approaches are covered? Proportion in bank's funds horizon and rating?

Lending: Which lending activities are covered and which are ignored?

	g.
CRIT	ERIA
	<b>Investments – asset classes:</b> Asset classes covered in proportion recommended – equity; fixed income; alternatives.
	Investments – regional coverage: Regions covered in proportion of total investments.
	<b>Investment horizon:</b> Higher proportion of funds with a long-term investment horizon rated as buy/ outperform or hold = better.
	<b>Lending:</b> Proportion of lending services that incorporate environmental risk criteria into their creditor analysis.
	<b>Materiality analysis:</b> Products and services are developed strategically based on a materiality analysis and identification of where and with which clients the most environmental impact can be achieved.
	<b>Stimulate client demand:</b> Products and services are developed to stimulate demand and interest from clients. E.g. start with thematic products to get mass market interest, then more specialized products with higher impact once client is interested.
	Total
Dep	th of Environmental Sustainability Offering
	is environmental impact measured and how frequently? How are environmentally sustainable products sified? How thoroughly is environmental due diligence conducted?
CRIT	ERIA
	<b>Product creation and fund sourcing:</b> Environmental sustainability criteria are integrated into all steps of the product creation and fund sourcing processes. (e.g. for investment products, macro research, tactical asset allocation, strategic asset allocation, reporting, and auditing.)
	<b>Product impact measurement:</b> Products have clear, transparent, and comparable measurement methodology measuring positive and negative impact, and environmental sustainability claims are verified by 3rd party.
	<b>Impact classification:</b> New products are developed with environmental additionality based on an external classification system. Existing products with environmental additionality classified according to an external classification system.
	according to an external classification system.
	Contribution towards environmental goals: Environmental impact measured is aligned with goals and targets given in the global environmental agenda – e.g. the SDGs and/or the IAEGs.

	Green lending: Lending services include sustainability-linked interest rates.  Stimulate client demand: Products and services are developed to stimulate demand and interest from clients. E.g. start with thematic products to get mass market interest, then more specialized products with higher impact once client is interested.	Total
Man	nagement of Environmental Sustainability Offering	
	w are environmental sustainability products managed? Are products proactively offered to clients? at is the overall driver of offering creation?	
CRIT	TERIA	
	<b>Proactive offering:</b> Relationship managers proactively recommend environmentally sustainable products and services to clients, rather than reactively.	
	Client environmental inquiries: In case a client has a specific environment-related inquiry that the relationship manager cannot answer, he/she proactively refers the client to the person/team responsible for handling such requests.	
	<b>Environmental product development:</b> Environmental policy drives product development and selection rather than product development being solely a reaction to general market trends.	
	<b>Client sustainability profile:</b> There is a sustainability profile made for each client and sustainability criteria are used to match client environmental preferences with appropriate products and services.	
	<b>Proportion of sustainable funds pushed:</b> If the bank provides lists of funds that should be pushed by relationship managers monthly/quarterly, then environmentally sustainable funds make up the majority of the list.	
	<b>Creditor sustainability:</b> Creditors are assessed for environmental sustainability risk, which is integrated into the lending offer process.	
		Total

### **Environmental Sustainability Services**

### **Staff Engagement**

Who is trained in contributing to bank's environmental sustainability objectives? What is the training objective? Remuneration?

CRIT	ΓERIA	
	<b>Staff training objective:</b> The objective of training focuses on how staff can contribute to bank's environmental sustainability targets.	
	<b>Environmental target setting:</b> Staff from different departments are involved in setting the bank's environmental sustainability targets (hinders compartmentalization).	
	<b>Staff inclusion in training:</b> All staff are included in environmental sustainability training, relevant to their specific role.	
	<b>Hiring criteria:</b> Hiring criteria for new hires include environmental sustainability knowledge and experience with relevant products and services.	
	<b>Remuneration policies:</b> Environmental sustainability objectives and environmental sustainability risk management objectives are integrated in remuneration policies for all employees.	
	<b>Tone at the top:</b> Top management and CEOs communicate commitment to environmental sustainability targets internally and externally.	
		Total
Client Engagement		
How are clients educated on environmental sustainability? Are there specialists available to consult on specific topics?		
	v are clients educated on environmental sustainability? Are there specialists available to consult on	ı
spec	v are clients educated on environmental sustainability? Are there specialists available to consult on	I.
spec	v are clients educated on environmental sustainability? Are there specialists available to consult on cific topics?	
spec	v are clients educated on environmental sustainability? Are there specialists available to consult on cific topics?  FERIA  Client education: Client education is proactively offered in an engaging, interactive form reporting	
spec	v are clients educated on environmental sustainability? Are there specialists available to consult on cific topics?  FERIA  Client education: Client education is proactively offered in an engaging, interactive form reporting on the contribution of their investments to positive and negative environmental sustainability.  Environmental specialists: There are specialists available (teams or advisor specialization) to consult on environmental sustainability topics - e.g. specific questions on water scarcity, or advice	
spec	vare clients educated on environmental sustainability? Are there specialists available to consult on cific topics?  FERIA  Client education: Client education is proactively offered in an engaging, interactive form reporting on the contribution of their investments to positive and negative environmental sustainability.  Environmental specialists: There are specialists available (teams or advisor specialization) to consult on environmental sustainability topics - e.g. specific questions on water scarcity, or advice on how to retrofit a building to improve energy efficiency.  Impact reporting: Reports are delivered to clients on negative and positive environmental impacts	
spec	vare clients educated on environmental sustainability? Are there specialists available to consult on cific topics?  TERIA  Client education: Client education is proactively offered in an engaging, interactive form reporting on the contribution of their investments to positive and negative environmental sustainability.  Environmental specialists: There are specialists available (teams or advisor specialization) to consult on environmental sustainability topics - e.g. specific questions on water scarcity, or advice on how to retrofit a building to improve energy efficiency.  Impact reporting: Reports are delivered to clients on negative and positive environmental impacts of their investment portfolios at individual asset level.  Shareholder engagement: Proactively ask clients whether and how they would like to vote on an	

Total \_\_\_\_

How is environmental sustainability taken into account when making investment decisions on behalf of the client? What risk management approach is taken?

CRIT	ERIA	
	<b>Risk communications:</b> The bank has a proactive approach to environmental sustainability by communicating risks in product descriptions, investment reports, and investment horizons.	
	Risk model transparency: The bank makes risk models accessible for clients to understand.	
	<b>TCFD support:</b> The bank is a TCFD supporter and uses the methodology to identify and report on climate-related financial risks.	
	<b>Product promotion transparency:</b> The bank is transparent about what products are being pushed to clients and employees (especially relationship managers) are not incentivized to ignore environmental risks.	
	<b>Integration in risk models:</b> Long-term environmental risks are integrated into risk models where possible. The bank discloses environmental risks that are more challenging to integrate into risk models and has a strategy to improve integration.	
	<b>Investment decision making:</b> For asset managers, client environmental sustainability targets are included in the investment decision-making process alongside risk and return.	
		Total

### **Pre-Competitive Collaboration**

### **Industry Initiatives**

What industry initiatives is the bank a part of that cover environmental topics? What are indicators of the level and frequency of their engagement?

CRIT	CRITERIA			
	<b>Industry initiative participation:</b> The bank is a signatory of principle-based industry initiatives that promote environmental sustainability:			
	• UNGC (very general)			
	• UN PRI, UN PRB (more general)			
	• UNEP FI Principles for Positive Impact Finance (more focused)			
	<b>Industry standard development:</b> The bank implements and contributes to the further development of, industry standards for target-setting, scenario analysis, and impact assessment methodology.			
	• PACTA, SBTi			
	The Impact Management Project (IMP)			
	• InvECAT			
	<b>Industry pledge:</b> The bank participates in an industry-led environmental sustainability pledge to realign their portfolio, e.g. Climate Action 100+, Net-Zero Asset Owner Alliance, UN PRB Subgroup: Collective Commitment to Climate Action			
	<b>Local initiatives:</b> The bank participates in local sustainable finance initiatives to further environmental sustainability, e.g. national SIFs, engagement in blended finance initiatives, participation in policy consultation feedback rounds, engagement to interpret relevant regulation including policy risks.			
	<b>Working group leadership:</b> The bank leads one or more environmental sustainability-focused working groups as part of one of the industry initiatives.			
	<b>Growing industry initiatives:</b> The bank is vocal about its participation in industry initiatives and encourages other industry stakeholders to participate.			
		Total		

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Does the bank actively conduct research on environmental sustainability that is published? Is it consultin
external parties or conducting its own research independently?

CRITERIA			
	<b>Published research:</b> The bank conducts research on environmental sustainability in collaboration with external partners and publishes findings for wider industry use.		
	<b>Collaborative research partners:</b> Research on environmental sustainability is done in collaboration with a range of partners, including academia, NGOs, consulting companies, public actors.		
	<b>Internal data for academic partners:</b> Internal data is made available to academic partners for academic research on environmental topics.		
	<b>Impact case studies:</b> Impact case study research is conducted and published methodically. Methodology and indicators on environmental sustainability impact are transparent and consistent, and findings are standardized.		
	Regularity of publications: Publications are released semi-annually.		
	<b>Due diligence:</b> The bank has either internal staff or a designated 3 <sup>rd</sup> party dedicated to conducting due diligence on investments.		
	Total		
Civil society and public sector collaboration			
Does	the bank proactively collaborate and consult with environmental NGOs?		
CRITERIA			
	<b>Range of collaboration:</b> Involved with environmental NGOs in several capacities. E.g. NGO has a seat on the board, is involved in the stakeholder materiality analysis, provides campaign sponsorship to environmental NGOs for environmental sustainability campaigns relevant to the financial sector.		
	<b>Stakeholder consultation:</b> Environmental NGO representatives are involved in stakeholder consultation processes for development of environmental policies and products with an intended positive environmental impact.		
	<b>Proactive engagement:</b> The bank proactively approaches NGOs to collaborate on environmental sustainability issues, rather than reacting to mitigate reputational risk.		
	<b>Partnership for investee impact:</b> The bank partners with NGOs to influence investee companies to increase environmental sustainability performance.		
	<b>Environmental standard regulation:</b> The bank promotes national policy or regulation supporting the implementation of environmental sustainability standards. E.g. adjusted solvency requirement for green lending.		
	<b>National implementation of multilateral environmental agreements:</b> The bank publicly calls for state to implement and strictly enforce MEAs, like the Paris Agreement, into national policy affecting the industry's core business.		

### Conclusion

It is clear that private banks have strong reasons to align their activities with the global environmental agenda. These reasons include financial performance, mitigating risk (including reputational), being good environmental stewards, and to creating a positive environmental impact. Private banks can now distinguish themselves as leaders in the industry by setting science-based targets and creating methodologies needed to meet global environmental goals. Leaders in the field will do this before regulation forces them to, while followers will do the minimum required by regulation.

In order for alignment to be successful, it must be done along systems levels, aligning actions with strategy, and using tools and metrics to ensure positive environmental impact. For some banks, this likely means adopting a sustainable business model. Sustainable business models proactively target positive material environmental impact, rather than reacting to financial or litigation risk. They aim to stay within the safe operating space with respect to the planetary boundaries. Other private banks have environmental sustainability principles already integrated into their business model, so aligning with international environmental goals will not take much additional work. However, private banks that have activities not in compliance with system conditions for sustainability will have to devote more resources to aligning their activities with IAEGs and SDGs. The following are three recommendations to accelerate alignment with environmental goals:

### Recommendation 1 - Tools and metrics Integrate material environmental risk and potential adverse environmental impact into decision-making processes

The understanding of fiduciary duty is changing for private banks and their clients. Financial risk resulting from environmental risk should already be integrated into long-term risk models, and preferably into mid- and short-term models as well, as long as they are considered to be material. In Switzerland, from a legal perspective, as soon as a bank is aware of a risk it is required to disclose that risk. However, often environmental risks are not seen as financial issues and are subsequently

not seen as material.<sup>45</sup> In many jurisdictions, private banks are implicitly obligated to include climate risks in their risk and financial analysis models. Banks also need to go beyond climate risk to start to integrate other environmental risks, like biodiversity loss, especially as the industry starts to quantify the relevant financial risks from other environmental topics.

Long-term environmental risks can have an impact on the bank's balance sheet, solvency, risk-adjusted return, and default risk for lending services. Banks are obligated to understand these risks, integrate them into their decision-making processes, and communicate them clearly to their clients. Neglecting to do this is neglecting to act in the best interest of the client.

Furthermore, the precedent for a legal framework has been outlined to enable the aim for environmental impact to be included as a criterion for investment decision making under fiduciary duty. This goes beyond discounting risk into financial models and into identifying and mitigating this risk by impacting the real economy. This logic inherently reduces the related risk. The work done by UNEP FI<sup>14</sup> is leading the way for restructuring the conceptual and legal frameworks to support this transition. The current Swiss PACTA Initiative can help support private banks in looking at their current climate compatibility with its climate scenario analysis tool. The tool can be used for quantitative analysis of global listed equity and corporate bond portfolios, as well as for Swiss real estate portfolios. Additionally, it can be used to qualitatively survey the potential impact of actions taken.

Although lending does not fall under fiduciary duty, banks would still benefit from not exposing themselves to environmental risk by lending to creditors with poor environmental sustainability performance. Lending services can also compose a good portion of the bank's balance sheet, so it is essential that lending does not support activities that work against the positive environmental impact from the bank's investing services. Although lending services are relatively more discreet than investing services, it is important for the bank to perform proper environmental due diligence on creditors, and to incentivize environmental sustainability in their lending services. 46

Capturing client preferences on environmental sustainability in client sustainability profiles and suitability product assessments is a useful tool for matching the client with suitable products that fit with their investment objectives. These products and services with environmental impact claims must make their impact measurement methodology transparent and avoid mis-selling and mis-labeling. This includes outlining the actual investor impact, i.e. the change that comes about because of the investor deploying capital in that particular way, beyond merely report the company impact that the underlying firm has, with or without the investor.

## Recommendation 2 - Strategy Have a strong scientific basis and set science-based targets for all environmental objectives

Private banks should aim for environmental targets which are science-based. This means linking targets to genuine impact indicators based on impact in the real economy. Methodologies that aim to distinguish investor impact from company impact are decisive. This is because there are many exogenous factors also influencing the environmental sustainability of an investee company. The most advanced methodologies for environmental target-setting are for emissions mitigation targets, which are still not developed enough to make evidence-based environmental impact claims on the investor level. However, the bank's transparency about what methodologies are being used to set targets, and disclosure of environmental performance based on that methodology are essential.

Engagement in pre-competitive collaboration in developing standards for methodologies and impact indicators would support the financial industry's progress in contributing to the global environmental agenda. Transparency about where methodologies are not developed enough to set targets or measure impact is important so that the needs for new or better such measurement methods can be identified. Private banks can join or start working groups to develop science-based targets for environmental objectives, as well as in collaboration with other industry actors, civil society and public stakeholders. Research publications on case studies and impact of private banking activities on environmental sustainability done in collaboration with academia and NGOs will help support this.

The next set of science-based environmental targets tobe-defined could be related to biodiversity conservation, due to its inherent link to climate change mitigation and adaptation<sup>47</sup>. Banks can support this development by contributing to industry initiatives intending to develop appropriate risk methodologies and impact indicators. In the coming years, they can look to the EU Taxonomy for sustainable activities for guidance, as well as to interested state and civil society stakeholders.

In order to support this transition, more data is needed. Banks can put pressure on investee companies to disclose relevant environmental data. Gathering data on environmental sustainability performance is important across asset classes, and is not restricted to limited investment vehicles. This data should be consistent with the needs of banks to perform the relevant analyses. Similar to target-setting, pre-competitive collaboration is needed in order to create standards and methodologies to interpret this data to follow company and overall industry performance. This will allow an understanding of progress on global environmental goals.

## Recommendation 3 - Actions Align core business activities with the global environmental agenda

Private banks can use their position to align their core business activities with global environmental goals. Core business activities (see: Private Banking Activities and their Potential to Contribute to Sustainability and the Environmental Agenda) will be different for each bank, so the bank is encouraged look at its primary source of income to see what activities to focus on. A materiality analysis can be used by the bank to see where it can have the most impact with its core business.

Pre-competitive collaboration will be crucial in understanding what the global environmental goals mean for the industry, as well as for making industry-wide progress. This means engaging in industry initiatives to set science-based targets (see: Recommendation 2 - Strategy: Have a strong scientific basis and set science-based targets for all environmental objectives), but also to make joint commitments to work towards progressive targets, like the Climate Action 100+. Supporting academic and civil society research working towards connecting the global environmental agenda with the private banking sector will also be fundamental in enabling alignment.

In additional to international goals, it would benefit the bank to consider national and industry environmental goals when creating the company environmental goals, based on where the bank is domiciled. These targets will have to be researched individually by the bank, depending on their jurisdiction. However, because most banks operate internationally, an international approach is still preferred. A bank's resources can be most effectively used where they can have the most material environmental impact. Nonetheless, the bank can increase its alignment with the global environmental agenda by applying environmental goals across the entire balance – i.e. all asset classes and relevant banking activities.

This approach is a top-down environmental governance approach, which most private banks are not used to practicing. It requires the bank to shift its thinking about how environmental risk and impact are considered. In doing so, the bank becomes proactive in its attempt to integrate environmental risks and impact opportunities, rather than being reactive to possible environmentally-relevant megatrends. It is recommended that

environmental target integration span across all departments including, but not limited to, processes (e.g. investment decision-making, credit analysis, suitability assessments, client onboarding), products and services (e.g. discretionary and advisory mandates, mortgages, Lombard loans), and operations (e.g. LEED certification for buildings, emissions reduction targets for employee travel).

Pre-competitive collaboration is also essential for supportive financial policy development, as well as environmental policy enforcement. Policy development is required in multiple areas. For example, banks can advocate for financial policies to be developed that support fiduciaries in including environmental impact in their investment decision-making. They could also advocate for adjusted solvency requirements for green lending. Additionally, advocating for stricter enforcement mechanisms for national environmental and financial regulation aligned with international environmental policy will accelerate the rate of alignment across the industry. This will also level the playing field in case of competitive disadvantages related to being a first-mover.



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# Appendices

#### Overview of the IAEGs and SDGs for Private Banks

The global environmental agenda is composed of a network of overlapping and interlinking goals, agreements, and targets. This can be confusing for anybody trying to get an overview of the most important environmental goals. The Sustainable Development Goals (SDGs) and the Paris Agreement, which contains internationally agreed environmental goals (IAEGs), are the environmental goals most addressed by private banks at the moment. The Paris Agreement is especially relevant, because of goal 2.1.c. which directly addresses the climate friendliness of financial flows.

The global environmental agenda has been developed under the governance of the United Nations primarily for member states to implement into their national regulatory systems. This is relevant to private banks because each agreement has been through a rigorous negotiation process, because there is an absence of comprehensive national environmental and financial regulation governing the activities of financial institutions, and because private banking business reaches beyond national boundaries and thus beyond national goals. However, national regulation should still be considered by private banks where financial vehicles and the bank are domiciled.

## The interrelation between IAEGs and the SDGs

The SDGs have different characteristics than IAEGs, although they are both international environmental initiatives. IAEGs are a compilation of goals by the United Nations Environment Programme (UNEP) covering a range of environmental topics, from ozone protection, to biodiversity conservation, to mitigation of GHG emissions. These are prescriptive goals that are either non-binding or legally-binding in nature, but have only weak mechanisms for enforcement. However, depending on the country, some might be used for legal action, for example by using the Paris Agreement as support for a state to limit global warming in protection of human rights.<sup>48</sup>

In contrast, the SDGs are part of the 2030 Agenda for Sustainable Development and are a set of 17 universally-

agreed environmental, social, and economic development goals with 169 corresponding targets. Environmental goals are prominently represented in the SDGs. The SDGs are an aspirational framework and were developed through a participatory policy-making process and subsequently negotiated by UN member states. They are not legally-binding, and have no mechanism for enforcement, but have designated a stakeholder process for follow-up and review. In this process, member states' voluntary national reviews of their progress are reviewed annually by the High-Level Political Forum (HLPF).

#### Internationally Agreed Environmental Goals (IAEGs) – A network of environmental agreements

There are different types of instruments resulting from international negotiations that are either binding or non-binding. Treaties are the instruments that go through the most rigorous negotiation processes. Treaties are legally binding, which implies an international legal obligation in the event of the breach of an agreement. They can be amended with the agreement of all parties. Other types of instruments are not legally binding. They can be thought of more as a suggestion or option for voluntary compliance.

Environmental treaties that are agreed upon by more than two member states are known as Multilateral Environmental Agreements (MEAs). However, like other Multilateral Agreements, they are made for member states to ratify and implement into national policy. In this case, the MEAs are binding for state signatories but not for private stakeholders, unless they have a direct effect - which can also vary, depending on the country. This means that there is, in principle, no legal obligation for a private bank to comply with or implement MEAs, unless it is integrated into domestic regulation. However, private banks can look to these MEAs as guiding documents, because they are a key component of the global environmental agenda. Specifically, they can find the most relevant IAEGs contained in MEAs49. There are additional IAEGs that can be found in other instruments, but they are not legally binding.

#### Using the Convention on Biological Diversity as an example

To use one MEA as an example, The Convention on Biological Diversity is an international treaty, ratified by a number of states and therefore legally binding for these states. However, the CBD has no sanction mechanism meaning that in case a party does not uphold the relevant IAEGs, there is no mechanism for enforcement. In this respect, the effect of "legally-binding" is considerably weakened.

Therefore, in order for the CBD to have an effect, in addition to legal obligations, review and sanction mechanisms are needed, as well as the translation of international law into national legislation. This would help to ensure that national enforcement can be guaranteed in practice (legal mandate, financing, controlling, reporting, etc.).

#### **Example of a legally-binding IAEG**

One example of a relevant legally-binding MEA is the Convention on Biological Diversity (CBD), an MEA introduced in 1992 with the aim to "conserve biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising out of the utilization of genetic resources..." An example of a binding IAEG from the CBD is to:

Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species. (Art. 8 (h), Convention on Biodiversity, 1992)

Member states that have ratified the CBD are then expected to take IAEGs like this and integrate them into their own regulatory frameworks in a way that is appropriate to their specific circumstance, but that still aligns with the international goal. For the CBD, this entails National Biodiversity Strategy and Action Plans (NBSAPs) which outline and report on implementation measures aligned with the CBD. The enforcement mechanism remains at the reporting level and the strongest consequence in case of a breach of agreement is naming and shaming those who have not complied.

#### **Example of a non-binding IAEG**

Alternatively, IAEGs can also be found in policy instruments like outcomes from UN conventions and summits, conferences, resolutions, and decisions. Decisions made at various Conference of Parties (COPs) contain IAEGs connected

with the relevant MEAs, which can either be binding or non-binding adjustments to the original MEA. Whether or not they are binding is dependent upon rules for amendments included in the original MEA. For example, a two-thirds majority vote is needed for amendments to the Montreal Protocol<sup>51</sup> if member states cannot meet a consensus.<sup>22</sup> However, even if a consensus is reached, the new IAEG may not be binding, for instance, if it is not ratified. The *Conference of the Parties to the Convention on Biological Diversity, decision X/2, annex* is an example of a non-binding decision that supports the CBD, which states:

The Strategic Plan includes 20 headline targets for 2015 or 2020 (the "Aichi Biodiversity Targets"), organized under five strategic goals... Parties are invited to set their own targets within this flexible framework, taking into account national needs and priorities, while also bearing in mind national contributions to the achievement of the global targets. (COP 10 Decision X/2, 2010)<sup>48</sup>

The above decision is related to the CBD via a decision reached at COP10 in 2010, but it is not a legally-binding amendment.

The CBD is an international treaty, ratified by Switzerland and therefore legally binding. However, its enforcement is weakened as the CBD defines no sanction mechanism. Alternatively, the COP 10 Decision X/2 given above is non-binding, in that it expresses a political intention by the parties with no obligation for contracting parties to carry out any sort of strategy aligned with the IAEG. Equally, there will be no consequence to contracting parties that breach the IAEG.

#### The significance of language used in MEAs

The use of language within MEAs indicates the level of commitment. Thus, even within binding MEAs, there are language clauses that can indicate binding or non-binding IAEGs, or binding with weak enforcement. For example, using "endeavor clauses" like to "promote" or "encourage" means that the IAEG is non-binding<sup>52</sup>. An IAEG where a member state commits to cooperate or exchange information is technically binding, but there are challenges to evaluate and enforce cooperation. However, cooperation can be triggered when a state commits to finance an IAEG.

Additionally, within MEAs there are environmental goals and objectives included in the text, as well as text describing the means of implementation for member states. Means of implementation can stipulate what regulation, policies, or financial mechanisms (i.e. subsidies) a member state should use in implementation. However, these are not relevant for private banks.

#### Implications for private banks

There are a number of IAEGs that are relevant for private banks, although it is complicated to understand the entirety of them. A good guide for private banks are the relevant MEAs that have IAEGs for different environmental topics, as well as The UN Strategic Plan for Forests 2017-2030 with 6 Global Forest Goals developed under the United Nations Forum on

Forests (UNFF), which is not included in an MEA. Most MEAs also have updated IAEGs found in other policy instruments that were negotiated since the implementation of the original agreement. However, identifying the relevant MEAs can be a useful first step for banks to understand the components of the global environmental governance framework.

#### **Relevant MEAs for Private Banks**

Aichi Biodiversity Targets

Convention on Biological Diversity (CBD)

Cartagena Protocol on Biosafety to the Convention on Biological Diversity

Convention on the Conservation of Migratory Species and Wild Animals (CMS)

**World Heritage Convention** 

International Treaty on Plant Genetic Resources for Food and Agriculture

Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat

Stockholm Convention on Persistent Organic Pollutants

Rotterdam Convention (on the Prior Informed consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade)

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

United Nations Framework Convention on Climate Change (UNFCCC)

United Nations Convention to Combat Desertification (UNCCD)

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Minamata Convention on Mercury

**Montreal Protocol** 

Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity

Paris Climate Agreement under the United Nations Framework Convention on Climate Change

Vienna Convention for the Protection of the Ozone Layer

**Global Forest Goals** 

## Environmentally-relevant Sustainable Development Goals (SDGs)

The SDGs are interdependent and interlinked, acknowledging that it is challenging to impact one issue (e.g. water scarcity) without impacting another issue (e.g. adequate nutrition). This means that unlike the specific focus that the MEAs have on environmental issues, the SDGs address not only environmental issues, but also economic and social issues. However, for this research, the focus rests on environmentally-relevant SDGs rather than all SDGs. Still, it is important that the aim to positively impact environmentally-relevant SDGs also include the awareness and avoidance of negatively impacting any of the remaining SDGs.

Research shows<sup>53</sup> that there are four SDGs that directly relate to the quality of the physical environment: SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action), SDG 14 (Life Below Water), and SDG 15 (Life on Land). The SDGs can also be analyzed by breaking down their respective targets and assessing what targets are environment-focused, and what targets are environmentrelated<sup>54</sup>. Based on this, one additional SDG is relevant because it has the majority of its targets being environment-focused (SDG 12, Responsible Consumption and Production), and two additional SDGs are relevant because the majority of their targets are environmentrelated (SDG 7, Affordable and Clean Energy; SDG 11, Sustainable Cities and Communities). Lastly, because of the importance of sustainable infrastructure and its impact on the environment<sup>55</sup>, SDG 9 (Industry, Infrastructure, and Innovation) is considered relevant to private banks.

#### **Environmentally-relevant SDGs**

SDG 6: Clean Water and Sanitation				
SDG 7: Affordable and Clean Energy				
SDG 9: Industry, Infrastructure, and Innovation				
SDG 11: Sustainable Cities and Communities				
SDG 12: Responsible Consumption and Production				
SDG 13: Climate Action				
SDG 14: Life Below Water				
SDG 15: Life on Land				

Like the IAEGs, countries adapt the SDGs to their local capacities and national circumstances in the form of national strategies, including reporting via Voluntary National Reviews (VNRs) and attending the annual High-Level Political Forum (HLPF). However, there is no connection to international law and no enforcement mechanism, aside from naming and shaming those who do not comply. This implies that private banks are also not obligated to comply with or even align with the SDGs. However, the goals provide a high-level of flexibility to be adapted to different institutional contexts. Additionally, they provide an easy-tounderstand tool that can be used to communicate commitment to sustainable development. The novel design of the SDGs has likely contributed to their wide uptake by many corporates, despite the fact that they were designed for implementation at the state level.

### Overview of Contributors to the Report

Table 1: Overview of contributors.

Sector	Organization	Position	Name
Banking	Credit Suisse	Head of Sustainable and Impact Products and Services	Guillaume Bonnel
	Globalance Bank	Head Impact Research	Peter Zollinger
	Bank J. Safra Sarasin	Sustainable Investment Analyst	Andrea Weber
	Various Banks	Impact and Sustainable Investing	Anonymous
Civil Society	WWF Switzerland	Head Sustainable Finance	Amandine Favier
		Senior Advisor Sustainable Finance	Marco Tormen
	Swiss Sustainable Finance	Director Projects	Kelly Hess
	2° Investing Initiative	Senior Analyst	Klaus Hagedorn
	World Resources Institute (WRI)	Associate	Ariel Pinchot
	UNEP FI	Investment Programme Lead	Elodie Feller
Academia	Sustainability Research Group, University of Basel	Research Associate	Dr. Basil Bornemann
	Rotterdam School of Management, Erasmus University	Assistant Professor, Senior Fellow (CSP)	Dr. Emilio Marti
	University of Oxford	Postdoctoral Fellow	Dr. David Risi
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Industry	ECOFACT AG	Managing Director	Olivier Jaeggi
		Head of Policy Outlook	Dr. iur. Gabriel Webber Ziero, LL.M.
	VALUEworks	Head of Investment Consulting	Peter Wüthrich CFA FRM
	BSD Consulting	Sustainability Consultant	Cleophea Michelson
	Blue Phoenix Consulting	ESG Strategy, Integration & Rating Consultant, Owner	Amara Goeree

### **Endnotes**

- First report with methodology: Paetzold, Falko, Tiffany Chen, and Taeun Kwon. 2017. 'Sustainable Finance Capabilities of Private Banks Report #1: Introducing the Framework'. Zurich: Universität Zürich, Department of Banking and Finance, Center for Sustainable Finance and Private Wealth (CSP). https://www.zora.uzh.ch/id/eprint/162928/1/2017\_CSP\_-\_Sustainable\_Finance\_Capabilities\_of\_Private\_Banks\_-\_Report\_%25231.pdf.
- Sustainability risk, as defined by the EU Sustainable Finance Action Plan: 'sustainability risk' means an environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of the investment.
- 3 Principal adverse impacts, as defined by the EU Sustainable Finance
  Action Plan: Principal adverse impacts should be understood as those
  impacts of investment decisions and advice that result in negative effects
  on sustainability factors... 'sustainability factors' mean environmental,
  social and employee matters, respect for human rights, anti-corruption and
  anti-bribery matters.
- 4 Council Regulation 2019/2088/EC of 27 November 2019 on sustainabilityrelated disclosures in the financial services sector [2019] OJ L317/1 (https://eur-lex.europa.eu/eli/reg/2019/2088/oj).
- 5 According to upcoming EU regulation, it will be mandatory to ask for client ESG preferences upon client onboarding.
- 6 See: Commission Regulation (Draft) of n.d. amending Delegated Regulation (EU) 2017/565 as regards the integration of Environmental, Social and Governance (ESG) considerations and preferences into the investment advice and portfolio management [2018] (https://ec.europa. eu/finance/docs/level-2-measures/mifid-delegated-act-2018\_en.pdf).
- 7 e.g. based on knowledge from Intergovernmental Panel for Climate Change
- 8 These are: (1) Climate Change Mitigation, 2) Climate Change Adaptation, 3) Sustainable Use and Protection of Marine Resources, 4 Transition to a Circular Economy, 5) Pollution Prevention and Control, and 6) Protection and Restoration of Biodiversity and Ecosystems (see Figure 1).
- 9 For complete definitions, please refer to the EU Taxonomy Regulation:
  'I' Item note 14970/19 ADD 1 of 17 December 2019 on the establishment of a framework to facilitate sustainable investment, and amending Regulation 2019/2088 on sustainability-related disclosures in the financial services sector [2019] OJ C62/2013 (https://data.consilium.europa.eu/doc/document/ST-14970-2019-ADD-1/en/pdf).
- 10 Credit Suisse Group AG. 2019. 'The Global Wealth Report 2019', 64.
- For more on this, please refer to: OECD. 2019. Biodiversity: Finance and the Economic and Business Case for Action. OECD. https://doi.org/10.1787/ a3147942-en.
- 12 Whayman, Derek. n.d. Cowan v Scargill [1985] Ch 270, Chancery Division. Essential Cases: Equity & Trusts. Oxford University Press. Accessed 21 May 2020. https://www.oxfordlawtrove.com/view/10.1093/he/9780191866111.001.0001/he-9780191866111-chapter-14.
- 13 Freshfields Bruckhaus Deringer, and United Nations Environment Programme Finance Initiative. 2005. 'A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment'.
- 14 Sullivan, Rory. 2015. 'Fiduciary Duty in the 21st Century'. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2724866.
- 15 Eggen, Mirjam, and Cornelia Stengel. 2019. 'Rechtliches Gutachten "Berücksichtigung von Klimarisiken Und -Wirkungen Auf Dem Finanzmarkt" (Teil 1: Grundlagen)'. Bern: Bundesamt für Umwelt, BAFU.
- 16 UNEP FI, UN PRI, and generation foundation. 2019. 'A Legal Framework for Impact: A Legal Framework for the Consideration of Sustainability Impact in Investor Decision-Making'.
- 17 See: 2° Investing Initiative. 2020. 'EU Retail Funds' Environmental Impact Claims Do Not Comply with Regulatory Guidance: Analysis of a Sample of 230 Funds Against the Criteria of the EU Multi-Stakeholder Dialogue on Environmental Claims'. https://2degrees-investing.org/wp-content/ uploads/2020/03/EU-Retail-Funds-Environmental-Impact-Claims-Do-Not-Comply-with-Regulatory-Guidance.pdf.

- EU Technical Expert Group on Sustainable Finance. 2020. 'Taxonomy: Final Report of the Technical Expert Group on Sustainable Finance'. Technical Report. (https://ec.europa.eu/info/sites/info/files/business\_economy\_euro/banking\_and\_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy\_en.pdf).
- Kölbel, Julian F, Florian Heeb, Falko Paetzold, and Timo Busch. 2019. 'Can Sustainable Investing Save the World? Reviewing the Impact of Investors on Companies', 26. https://www.csp.uzh.ch/dam/jcr:7d6a05b7-e3c4-4f1c-a125-c4ea63037586/The%20Impact%20of%20SI%20-%20UZH%20 Working%20Paper.pdf.
- 20 See: Cooke, David, and Jakob Thomä. 2020. 'Retail Clients Want to Vote for Paris: Analysis of Retail Clients' Preferences Regarding the Use of Shareholder Rights on Climate Resolutions'. 2° Investing Initiative. (https://2degrees-investing.org/wp-content/uploads/2020/03/Retail-Clients-Want-to-Vote-for-Paris-1.pdf).
- For a full description of when these disclosures are necessary, please refer to: Council Regulation 2019/2088/EC of 27 November 2019 on sustainability-related disclosures in the financial services sector [2019] OJ L317/1 (https://eur-lex.europa.eu/legal-content/EN/TXT/ PDF/?uri=CELEX:32019R2088&from=EN).
- 22 For more on MEAs, please refer to: United Nations Environment Programme. 2007. Guide for Negotiators of Multilateral Environmental Agreements. Nairobi: UNEP. (https://www.cbd.int/doc/guidelines/MEAs-negotiators-guide-en.pdf).
- 23 Nevertheless, in practice, there are many jurisdictions where IAEGs are not yet translated into corporate law.
- 24 The environmentally relevant SDGs and MEAs can be found in Appendix 1. This list can be used by a private bank to get an overview of the global environmental agenda when setting targets.
- Independent Group of Scientists appointed by the Secretary-General. 2019. 'Global Sustainable Development Report: The Future Is Now - Science for Achieving Sustainable Development'. New York: United Nations.
- United Nations. 2015. 'Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)'. https://www.un.org/esa/ffd/wp-content/ uploads/2015/08/AAAA\_Outcome.pdf
  - WWF is developing a broader set of environmental science-based targets covering different nature protection and restoration topics See: https://wwf.panda.org/wwf\_news/press\_releases/?349372/WWF-Science-based-achievable-and-integrated-targets-crucial-for-setting-nature-on-the-path-of-recovery.
- 2° Investing Initiative. 2020. "Science-Based Targets" for Financial Institutions: Position Deck + Consultation'. February. (https://2degrees-investing.org/wp-content/uploads/2020/02/2DII-Targets-Impact.pdf).
- 29 Supported by the UN PRI, financially supported by the European Commission LIFE Action Grant, the ClimateWorks Foundation, and the Swiss Environment Ministry, and builds on research previously funded by the EU H2020 Sustainable Energy Investing Metrics project.
- 30 More on the specific PACTA methodology can be found here: 2° Investing Initiative. 2016. '2°C Portfolio Assessment Documentation'. http://www.transitionmonitor.com/wp-content/uploads/2017/04/2-Degrees-Investing-Initiative-2D-Portfolio-Assessment-Tool-Methodology-Briefing.pdf.
- 31 'PACTA 2020'. 2020. Paris Agreement Capital Transition Assessment. 14 April 2020. https://www.transitionmonitor.com/pacta-2020/.
- For example, see report: Thomä, Jakob, Clare Murray, Michael Hayne, and Klaus Hagedorn. n.d. 'Out of the Fog: Quantifying the Alignment of Swiss Pension Funds and Insurances with the Paris Agreement'. 2° Investing Initiative. https://www.transitionmonitor.com/wp-content/uploads/2017/10/2ii\_Fog\_v0.pdf.
- 33 Definition from Cambridge Dictionary: https://dictionary.cambridge.org/ dictionary/english/capability
- 34 Definition from Macmillon Dictionary: https://www.macmillandictionary. com/dictionary/british/alignment
- For more on earth system science, please refer to: Charlson, Robert J., Michael C. Jacobson, Gordon H. Orians, and Henning Rodhe, eds. 2000. Earth System Science From Biogeochemical Cycles to Global Change. Vol. 72. Elsevier. https://doi.org/10.1016/S0074-6142(00)80104-7.

- 36 Rockström, Johan, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, Eric F. Lambin, Timothy M. Lenton, et al. 2009. 'A Safe Operating Space for Humanity'. Nature 461 (7263): 472–75. https://doi. org/10.1038/461472a.
- 37 Steffen, W., K. Richardson, J. Rockstrom, S. E. Cornell, I. Fetzer, E. M. Bennett, R. Biggs, et al. 2015. 'Planetary Boundaries: Guiding Human Development on a Changing Planet'. Science 347 (6223): 1259855–1259855. https://doi.org/10.1126/science.1259855.
- 38 See: Stoknes, Per Espen. 2019. 'How to Achieve the Sustainable Development Goals within Planetary Boundaries by 2050'. Real-World Economics Review, no. 87: 230–46.
- 39 An example of a water footprint indicator that takes into account the prevailing water scarcity in the production region is the water scarcity indicator AWARE, recommended by the UNEP SETAC Life Cycle Initiative (Boulay et al. 2017). The indicator quantifies the available water quantity per catchment area by subtracting the water requirements of humans and ecosystems from the amount of naturally available water. It was applied in a recent study on environmental hotspots in the supply chain of Swiss companies (Nathani et al. 2019).
- 40 For a thorough description, please refer to: Pelenc, Jérôme, Jérôme Ballet, and Tom Dedeurwaerdere. 2015. 'Weak Sustainability versus Strong Sustainability'. Brief for GSDR United Nations.
- 41 This approach is based on the work done by Nobel Loreate Robert Solow and John Hartwick sustainability model.
- 42 Edward Barbier, and Joanne Burgess. 2017. 'Natural Resource Economics, Planetary Boundaries and Strong Sustainability'. Sustainability 9 (10): 1858. https://doi.org/10.3390/su9101858.
- 43 Stokar, Thomas von, and Myriam Steinmann. 2004. 'Sustainable Development in Switzerland: Methodological Foundations'. Swiss Agency for Development and Cooperation (SDC) and Federal Office for Spatial Development (ARE).
- 44 For a more detailed description of pre-competitive collaboration, see: Quantis. 2018. 'Farther, Faster, Together: The Value of Pre-Competitive Collaboration'. 27 June 2018. https://quantis-intl.com/pre-competitive-collaboration/.
- 45 See: Webber Ziero, Gabriel. "Disclosure of Non-Financial Information." ECO:FACT (2019). https://www.ecofact.com/blog/disclosure-of-non-financial-information/

- 46 Somewhat addressed in EU Taxonomy Reg 1(2)(a). https://data.consilium.europa.eu/doc/document/ST-14970-2019-ADD-1/en/pdf. Also, see: OECD. "Due Diligence for Responsible Corporate Lending and Securities Underwriting." https://mneguidelines.oecd.org/Due-Diligence-for-Responsible-Corporate-Lending-and-Securities-Underwriting.pdf
- 47 PWC & WWF (2020) Nature is too big to fail Biodiversity: the next frontier in financial risk management
- 48 For case details, please refer to *Urgenda Foundation v The State of the Netherlands* [2015].
- 49 The term « MEAs » and « Conventions » are occasionally used interchangeably. MEAs complement national legislation and bilateral and regional agreements, to form the overarching international legal basis to address particular environmental issues.
- 50 Secretariat of the Convention on Biological Diversity. 2015. 'COP 10 Decision X/2'. Convention on Biological Diversity. Secretariat of the Convention on Biological Diversity. 2015. https://www.cbd.int/decision/cop/?id=12268.
- The Montreal Protocol on Substance that Deplete the Ozone Layer was adopted in 1987 and entered into force in 1989. It was an international treaty designed to protect the ozone layer by restricting production of ozone-depleting substances, and was the only UN treaty to be ratified by every UN member states. https://www.unenvironment.org/ozonaction/who-we-are/about-montreal-protocol
- 52 https://www.iisd.org/toolkits/sustainability-toolkit-for-tradenegotiators/3-environmental-provisions/3-1-binding-or-non-bindingcommitments/
- 53 United Nations Environment Programme ed. 2019. Global Environment Outlook – GEO-6: Healthy Planet, Healthy People: 1st ed. Cambridge University Press. https://doi.org/10.1017/9781108627146.
- 54 Environment-focused means that the SDG target is directly addressing an environmental issue. Environment-related means that the SDG target addresses an environmental issue, but not as the main focus. OECD (2016). SDG-Based Results Framework.
- 55 Bielenberg, Aaron, Mike Kerlin, Jeremy Oppenheim, and Melissa Roberts. 2016. 'Financing Change: How to Mobilize Private- Sector Financing for Sustainable Infrastructure'. McKinsey Center for Business and Environment.

## Bibliography

- 2° Investing Initiative. 2016. '2°C Portfolio Assessment Documentation'. http://www.transitionmonitor.com/wp-content/uploads/2017/04/2-Degrees-Investing-Initiative-2D-Portfolio-Assessment-Tool-Methodology-Briefing.pdf.
- → ---. 2017. 'ISO Standard for Investment, Financing and Climate Change (ISO 14097): Working Group Scoping Document'.
- $\rightarrow$  ---. 2019. 'Climate Alignment Assessment 2020: Briefing for Investors'.
- → ---. 2020. 'EU Retail Funds' Environmental Impact Claims Do Not Comply with Regulatory Guidance: Analysis of a Sample of 230 Funds Against the Criteria of the EU Multi-Stakeholder Dialogue on Environmental Claims'. https://2degrees-investing.org/wp-content/ uploads/2020/03/EU-Retail-Funds-Environmental-Impact-Claims-Do-Not-Comply-with-Regulatory-Guidance.pdf.
- $\to$  --- . 2020. "'Science-Based Targets" for Financial Institutions: Position Deck + Consultation'. February.
- → 2° Investing Initiative, and BETTER FINANCE. 2020. 'Sustainable Finance & Consumer Protection Webinar'. Webinar, March 24.
- → '3.1 Binding or Non-Binding Commitments A Sustainability Toolkit for Trade Negotiators'. 2016. IISD. 2016. https://www.iisd.org/toolkits/ sustainability-toolkit-for-trade-negotiators/3-environmentalprovisions/3-1-binding-or-non-binding-commitments/.
- → 'ALIGNMENT (Noun) Definition and Synonyms | Macmillan Dictionary'. n.d. Accessed 20 May 2020. https://www.macmillandictionary.com/dictionary/british/alignment.
- → 'I' Item note 14970/19 ADD 1 of 17 December 2019 on the establishment of a framework to facilitate sustainable investment, and amending Regulation 2019/2088 on sustainability-related disclosures in the financial services sector [2019] OJ C62/2013
- → Alternative Bank Schweiz, and WWF. 2020. 'Every Degree Matters: A Future Vision'. In: Every Degree Matters – Mobilising Finance for People and Planet
- → Bielenberg, Aaron, Mike Kerlin, Jeremy Oppenheim, and Melissa Roberts. 2016. 'Financing Change: How to Mobilize Private- Sector Financing for Sustainable Infrastructure'. McKinsey Center for Business and Environment.
- → Biermann, Frank, Norichika Kanie, and Rakhyun E Kim. 2017. 'Global Governance by Goal-Setting: The Novel Approach of the UN Sustainable Development Goals'. Current Opinion in Environmental Sustainability 26–27 (June): 26–31. https://doi.org/10.1016/j.cosust.2017.01.010.
- → Boulay, Anne-Marie, Jane Bare, Lorenzo Benini, Markus Berger, Michael J. Lathuillière, Alessandro Manzardo, Manuele Margni, et al. 2018. 'The WULCA Consensus Characterization Model for Water Scarcity Footprints: Assessing Impacts of Water Consumption Based on Available Water Remaining (AWARE)'. The International Journal of Life Cycle Assessment 23 (2): 368–78. https://doi.org/10.1007/s11367-017-1333-8.
- → Cambridge Centre for Sustainable Finance. 2016. 'Environmental Risk Analysis by Financial Institutions - a Review of Global Practice: An Input Paper for the G20 Green Finance Study Group'. Cambridge: Cambridge Institute for Sustainability Leadership.
- 'CAPABILITY | Meaning in the Cambridge English Dictionary'. n.d. Accessed 20 May 2020. https://dictionary.cambridge.org/dictionary/english/ capability.
- → Charlson, Robert J., Michael C. Jacobson, Gordon H. Orians, and Henning Rodhe, eds. 2000. Earth System Science From Biogeochemical Cycles to Global Change. Vol. 72. Elsevier. https://doi.org/10.1016/S0074-6142(00)80104-7.
- → Chenet, Hugues, Anuschka Hilke, and Wei Duan. 2017. 'Finance Sector Alignment with International Climate Goals: Reviewing Options and Obstacles'. 2° Investing Initiative.
- → Council Communication of 8 March 2018 on Action Plan: Financing Sustainable Growth [2018] COM (2018) 97 final
- → Council Regulation (Draft) of n.d. amending Delegated Regulation (EU) 2017/565 as regards the integration of Environmental, Social and Governance (ESG) considerations and preferences into the investment advice and portfolio management [2018]

- → Council Regulation 2019/2088/EC of 27 November 2019 on sustainabilityrelated disclosures in the financial services sector [2019] OJ L317/1
- → Cooke, David, and Jakob Thomä. 2020. 'Retail Clients Want to Vote for Paris: Analysis of Retail Clients' Preferences Regarding the Use of Shareholder Rights on Climate Resolutions'. 2° Investing Initiative.
- → Credit Suisse Group AG. 2019. 'The Global Wealth Report 2019', 64.
- → Dao, Hy, Pascal Peduzzi, and Damien Friot. 2018. 'National Environmental Limits and Footprints Based on the Planetary Boundaries Framework: The Case of Switzerland'. Global Environmental Change 52 (September): 49–57. https://doi.org/10.1016/j.gloenvcha.2018.06.005.
- → Dazé, Angie, Anika Terton, and Malte Maass. 2018. 'Alignment to Advance Climate-Resilient Development'. NAP Global Network.
- → D'Errico, Stefano, Tighe Geoghegan, and Ilenia Piergallini. 2020. 'Evaluation to Connect National Priorities with the SDGs'. London: IIED. https://pubs.iied.org/17739IIED/.
- → Dupré, Stanislas, Constanze Bayer, and Thierry Santacruz. 2020. 'A Large Majority of Retail Clients Want to Invest Sustainably: Survey of French and German Retail Investors' Sustainability Objectives'. 2° Investing Initiative.
- → Dupré, Stanislas, and Pablo Felmer Roa. 2019. 'Impact Washing Gets a Free Ride: An Analysis of the Draft EU Ecolabel Criteria for Financial Products'. 2° Investing Initiative.
- Dupré, Stanislas, and Jakob Thomä. 2015. 'Chapter 11: Alignment of Investment Strategies with Climate Scenarios: Perspectives for Financial Institutions'. In *Greening China's Financial System*, 33. IISD. https://www.iisd.org/sites/default/files/publications/greening-chinas-financial-system-chapter-11.pdf.
- Dwane, Neil. n.d. 'The Complex and Changing World of Fiduciary Duty'. Allianz Global Investors.
- → Edward Barbier, and Joanne Burgess. 2017. 'Natural Resource Economics, Planetary Boundaries and Strong Sustainability'. Sustainability 9 (10): 1858. https://doi.org/10.3390/su9101858.
- → Eggen, Mirjam, and Cornelia Stengel. 2019. 'Rechtliches Gutachten "Berücksichtigung von Klimarisiken Und -Wirkungen Auf Dem Finanzmarkt" (Teil 1: Grundlagen)'. Bern: Bundesamt für Umwelt, BAFU.
- → EU Technical Expert Group on Sustainable Finance. 2020. 'Taxonomy: Final Report of the Technical Expert Group on Sustainable Finance'. Technical Report.
- → Freshfields Bruckhaus Deringer, and United Nations Environment Programme Finance Initiative. 2005. 'A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment'.
- → Hauser, Andreas, and Simone Jezler. 2016. 'Grüne Wirtschaft: Indikatoren Zur Messung Der Fortschritte - Indikatoren Zu Aktuellen Schwerpunkten Der Schweiz Sowie OECD Green Growth Indikatoren'. Bundesamt für Umwelt, BAFU.
- → Hierzig, Sonia. 2017. 'Banking on a Low-Carbon Future: A Ranking of the 15 Largest European Banks' Response to Climate Change'. ShareAction and Asset Owners Disclosure Project.
- → Hoff, Holger, and Ivonne Lobos Alva. 2017. 'How the Planetary Boundaries Framework Can Support National Implementation of the 2030 Agenda'. Stockholm: Stockholm Environment Institute.
- → Independent Group of Scientists appointed by the Secretary-General. 2019. 'Global Sustainable Development Report: The Future Is Now -Science for Achieving Sustainable Development'. New York: United Nations
- → Kanie, Norichika. 2018. 'Governance With Multilateral Environmental Agreements: A Healthy or III-Equipped Fragmentation?' In Green Planet Blues, edited by Ken Conca and Geoffery D. Dabelko, 5th ed., 137–53. Routledge. https://doi.org/10.4324/9780429493744-17.
- → Kim, Rakhyun E., and Klaus Bosselmann. 2013. 'International Environmental Law in the Anthropocene: Towards a Purposive System of Multilateral Environmental Agreements'. *Transnational Environmental Law* 2 (2): 285–309. https://doi.org/10.1017/S2047102513000149.

- → Kölbel, Julian F, Florian Heeb, Falko Paetzold, and Timo Busch. 2019. 'Can Sustainable Investing Save the World? Reviewing the Impact of Investors on Companies', 26.
- → KPMG Advisory NV, and WWF Schweiz. 2012. 'Environmental Performance of Swiss Banks: Shifting Gears towards next Generation Banking'.
- Kwon, Taeun, and Falko Paetzold. 2019. 'Sustainable Investing Capabilities of Private Banks'—Report #3: Assessment of 20 European Private Banks'. Universität Zürich, Department of Banking and Finance, Center for Sustainable Finance and Private Wealth (CSP). https://www.csp.uzh.ch/dam/jcr:93ceb032-cd1b-4d66-a11b-12f49d6c6781/2019\_CSP\_Report\_Sustainable%20Investing%20Capabilities%20of%20Private%20Banks\_spreads\_30122019.pdf.
- → Larsen, Gaia, Caitlin Smith, Nisha Krishnan, Sophie Bartosch, and Hanna Fekete. 2018. 'How the Multilateral Development Banks Can Better Support the Paris Agreement'. Washington D.C.: World Resources Institute.
- Lucas-Ledin, Valéry, Stanislas Dupré, Fabien Hassan, and Christopher Weber. 2015. 'Carbon Intensity vs. Carbon Risk Exposure'. Discussion Paper. Grizzly Responsible Investment and 2° Investing Initiative.
- Ministry of Foreign Affairs. 2019. 'Final Statement: Oxfam Novib, Greenpeace Netherlands, BankTrack and Friends of the Earth Netherlands (Milieudefensie) versus ING'. National Contact Point OECD Guidelines for Multinational Enterprises.
- → Najam, Adil, Mihaela Papa, and Nadaa Taiyab. 2006. 'Global Environmental Governance: A Reform Agenda'. IISD & Ministry of Foreign Affairs of Denmark.
- → Nathani, Carsten, Rolf Frischknecht, Pino Hellmüller, Martina Alig, Philippe Stolz, and Laura Tschümperlin. n.d. 'Environmental Hotspots in the Supply Chain of Swiss Companies', 284.
- → Northrop, Eliza, Hana Biru, Sylvia Lima, Mathilde Bouye, and Ranping Song. 2016. 'Examining the Alignment Between the Intended Nationally Determined Contributions and Sustainable Development Goals'. Working Paper. Washington D.C.: World Resources Institute. https://doi.org/10.1163/9789004322714\_cclc\_2016-0020-009.
- → OECD. 2019. Biodiversity: Finance and the Economic and Business Case for Action. OECD. https://doi.org/10.1787/a3147942-en.
- → ---. 2019. 'Due Diligence for Responsible Corporate Lending and Securities Underwriting: Key Considerations for Banks Implementing the OECD Guidelines for Multinational Enterprises'. OECD.
- → 'PACTA 2020'. 2020. Paris Agreement Capital Transition Assessment. 14 April 2020. https://www.transitionmonitor.com/pacta-2020/.
- → Paetzold, Falko, Tiffany Chen, and Taeun Kwon. 2017. 'Sustainable Finance Capabilities of Private Banks Report #1: Introducing the Framework'. Zurich: Universität Zürich, Department of Banking and Finance, Center for Sustainable Finance and Private Wealth (CSP). https://www.zora.uzh.ch/id/eprint/162928/1/2017\_CSP\_-\_Sustainable\_Finance\_Capabilities\_of\_Private\_Banks\_-\_Report\_%25231.pdf.
- Pelenc, Jérôme, Jérôme Ballet, and Tom Dedeurwaerdere. 2015.
   'Weak Sustainability versus Strong Sustainability'. Brief for GSDR United Nations.
- → Rainforest Action Network, BankTrack, Indigenous Environmental Network, Sierra Club, Oil Change International, and Honor the Earth. 2019. 'Banking on Climate Change: Fossil Fuel Finance Report Card 2019'.
- → Richter, Monica, Cynthia Cummis, and Corinne Schoch. 2019. 'SBTs for Financial Institutions'. November.
- → Robèrt, K.-H., B. Schmidt-Bleek, J. Aloisi de Larderel, G. Basile, J.L. Jansen, R. Kuehr, P. Price Thomas, M. Suzuki, P. Hawken, and M. Wackernagel. 2002. 'Strategic Sustainable Development Selection, Design and Synergies of Applied Tools'. *Journal of Cleaner Production* 10 (3): 197–214. https://doi.org/10.1016/S0959-6526(01)00061-0.
- → Rockström, Johan, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, Eric F. Lambin, Timothy M. Lenton, et al. 2009. 'A Safe Operating Space for Humanity'. *Nature* 461 (7263): 472–75. https://doi. org/10.1038/461472a.
- → Schwegler, Regina, and Claude Amstutz. 2017. 'Sustainability in the Swiss Retail Banking Sector: WWF Rating of the Swiss Retail Banking Sector 2016/2017'. Zurich: WWF Switzerland and Inrate.
- → Secretariat of the Convention on Biological Diversity. 2015. 'COP 10 Decision X/2'. Convention on Biological Diversity. Secretariat of the Convention on Biological Diversity. 2015. https://www.cbd.int/decision/cop/?id=12268.

- Shenker, Claude. 2015. 'Practice Guide to International Treaties'. Schweizerische Eidgenossenschaft Federal Department of Foreign Affairs FDFA
- → Steffen, W., K. Richardson, J. Rockstrom, S. E. Cornell, I. Fetzer, E. M. Bennett, R. Biggs, et al. 2015. 'Planetary Boundaries: Guiding Human Development on a Changing Planet'. Science 347 (6223): 1259855–1259855. https://doi.org/10.1126/science.1259855.
- Stokar, Thomas von, and Myriam Steinmann. 2004. 'Sustainable Development in Switzerland: Methodological Foundations'. Swiss Agency for Development and Cooperation (SDC) and Federal Office for Spatial Development (ARE).
- Stoknes, Per Espen. 2019. 'How to Achieve the Sustainable Development Goals within Planetary Boundaries by 2050'. Real-World Economics Review, no. 87: 230–46.
- → Sullivan, Rory. 2015. 'Fiduciary Duty in the 21st Century'. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2724866.
- → Thomä, Jakob, Clare Murray, Michael Hayne, and Klaus Hagedorn. n.d. 'Out of the Fog: Quantifying the Alignment of Swiss Pension Funds and Insurances with the Paris Agreement'. 2° Investing Initiative. https://www. transitionmonitor.com/wp-content/uploads/2017/10/2ii\_Fog\_v0.pdf.
- → Thomas, Arnold. 2019. 'SDGs in a New DG RTD: "Implementing the Agenda 2030 - How Can Research and Innovation Contribute to Achieving the Sustainable Development Goals", July, 56.
- → Tripley, Deborah. 2013. 'Recommendations and Evidence from the Planetary Boundaries Initiative on the SDGs'. Planetary Boundaries Initiative.
- → UN Environment Finance Initiative. 2017. 'The Principles for Positive Impact Finance: A Common Framework to Finance the Sustainable Development Goals'. Geneva. https://www.unepfi.org/wordpress/wp-content/uploads/2017/01/POSITIVE-IMPACT-PRINCIPLES-AW-WEB.pdf.
- → UN Forum on Forests Secretariat. 2017. 'United Nations Strategic Plan for Forests 2030: Briefing Note'. https://www.un.org/esa/forests/wpcontent/uploads/2017/09/UNSPF-Briefing\_Note.pdf.
- → UNEP FI, UN PRI, and generation foundation. 2019. 'A Legal Framework for Impact: A Legal Framework for the Consideration of Sustainability Impact in Investor Decision-Making'.
- → UNEP Finance Initiative. 2019. 'Principles for Responsible Banking: Shaping Our Future'. Consultation Version. Geneva.
- → UNEP Finance Initiative Principles for Responsible Banking. 2012. 'Collective Commitment to Climate Action'.
- → ---. 2019. 'Principles for Responsible Banking: Key Steps to Be Implemented by Signatories'.
- → UNEP Finance Initiative, and UNEP FI's Positive Impact Initiative. 2018. 'Rethinking Impact to Finance the SDGs: A Position Paper and Call to Action Prepared by the Positive Impact Initiative'.
- United Nations. 2015. 'Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)'. https://www.un.org/esa/ffd/wp-content/ uploads/2015/08/AAAA\_Outcome.pdf
- United Nations Department of Economic and Social Affairs. 2015. 'Third International Conference on Financing for Development'. 2015. https://www.un.org/esa/ffd/ffd3/press-release/countries-reach-historic-agreement.html.
- United Nations Development Programme. 2017. 'Aligning Nationally Determined Contributions and Sustainable Development Goals: Lessons Learned and Practical Guidance'. New York.
- → United Nations Environment Programme. n.d. 'Embedding the Environment in Sustainable Development Goals'. UNEP Post-2015 Discussion Paper. Nairobi: United Nations Development Programme.
- ightarrow --- . 2007. Guide for Negotiators of Multilateral Environmental Agreements. Nairobi: UNEP.
- → ---. 2012. 'Compilation of Internationally Agreed Environmental Goals and Objectives'. https://wedocs.unep.org/handle/20.500.11822/8642.
- → ---. 2015. 'Policy Coherence of the Sustainable Development Goals: A Natural Resource Perspective'.
- $\rightarrow$  ---. 2016. 'Guide to Banking and Sustainability'.
- → ---. ed. 2019. Global Environment Outlook GEO-6: Healthy Planet, Healthy People: 1st ed. Cambridge University Press. https://doi.org/10.1017/9781108627146.

- → ---. 2019. 'Measuring Progress: Towards Achieving the Environmental Dimension of the SDGs'. United Nations Environment Programme. https://wedocs.unep.org/bitstream/handle/20.500.11822/27627/ MeaProg2019.pdf?sequence=1&isAllowed=y.
- → University of Joensuu. 2007. 'Multilateral Environmental Agreement -Negotiator's Handbook'.
- Upward, Antony. 2013. 'Towards an Ontology and Canvas for Strongly Sustainable Business Models: A Systemic Design Science Exploration', August. https://yorkspace.library.yorku.ca/xmlui/handle/10315/20777.
- → Upward, Antony, and Peter Jones. 2016. 'An Ontology for Strongly Sustainable Business Models: Defining an Enterprise Framework Compatible With Natural and Social Science'. Organization & Environment 29 (1): 97–123. https://doi.org/10.1177/1086026615592933.
- → Urgenda Foundation v The State of the Netherlands [2015] HAZA C/09/00456689 (https://www.urgenda.nl/wp-content/uploads/ENG-Dutch-Supreme-Court-Urgenda-v-Netherlands-20-12-2019.pdf).
- → Wackernagel, Mathis, Laurel Hanscom, and David Lin. 2017. 'Making the Sustainable Development Goals Consistent with Sustainability'. Frontiers in Energy Research 5 (July): 18. https://doi.org/10.3389/fenrg.2017.00018.
- → Whayman, Derek. n.d. Cowan v Scargill [1985] Ch 270, Chancery Division. Essential Cases: Equity & Trusts. Oxford University Press. Accessed 21 May 2020. https://www.oxfordlawtrove.com/view/10.1093/ he/9780191866111.001.0001/he-9780191866111-chapter-14.
- → Woodbridge, Michael. 2015. 'From MDGs to SDGs: What Are the Sustainable Development Goals?' ICLEI World Secretariat.
- → Yip, Angus W. H., and Nancy M. P. Bocken. 2018. 'Sustainable Business Model Archetypes for the Banking Industry'. *Journal of Cleaner Production* 174 (February): 150–69. https://doi.org/10.1016/j.jclepro.2017.10.190.
- → Zadek, Simon, and Nick Robins. 2018. 'Making Waves: Aligning the Financial System with Sustainable Development'. Geneva: United Nations Environment Program.

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