> Design of a Sustainable Financial System

Swiss Team Input into the UNEP Inquiry

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Authors – The Swiss Team for the UNEP Inquiry (in alphabetical order)
Credit Suisse: John Tobin-de la Puente, Bruno Bischoff
Ecos: Daniel Wiener
Ethos: Dominique Biedermann, Vincent Kaufmann
Federal Finance Administration FFA: Sandra Daguet
Federal Office for the Environment FOEN: Bruno Oberle, Romina Schwarz
Globalance Bank: Reto Ringger, Peter Zollinger
Inrate: Christoph Müller
PUBLICA: Dieter Stohler, Patrick Uelfeti
PwC: Stephan Hirschi
RobecoSAM: Michael Baldinger
SIX Group: Monika Baumgartner
State Secretariat for Economic Affairs SECO:
Liliana de Sá Kirchknopf, Christian Brändli
State Secretariat for International Financial Matters SIF: Stephanie Lorenz
Swiss Bankers Association: Martin Hess, Marc Alesch
Swiss Financial Market Supervisory Authority FINMA: Stefan Gross
Swiss Re: David Bresch, Andreas Spiegel
Swiss Sustainable Finance: Sabine Döbeli
Swisscanto: Gérard Fischer, Marion Swoboda
UBS: Christian Leitz, Yann Kermode
University of Geneva, Geneva Finance Research Institute:
Rajna Gibson, Philipp Krüger
University of Zurich, Institute of Banking and Finance: Marc Chesney
WWF: Katharina Serafimova
Zurich Insurance Group: Manuel Lewin, Johanna Köb

Editing committee
Romina Schwarz, lead (FOEN), Sandra Daguet (FFA), Stephanie Lorenz (SIF),
Stefan Gross (FINMA), Liliana da Sá Kirchknopf, Christian Brändli (SECO),
Martin Hess, Marc Alesch (Swiss Bankers Association), Stephan Hirschi (PwC),
Katharina Serafimova (WWF), Philipp Krüger (University of Geneva)

Project management
Federal Office for the Environment (FOEN): Bruno Oberle, Romina Schwarz

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> Foreword

Fruitful dialogue between the financial sector and sustainability actors

If the world population had the same consumption patterns as Swiss citizens, we would need almost three planets to cover its requirements. There is no question about it: we are living beyond the capacity of our Earth to sustain us. The pressure on natural resources continues to rise due to the growth of the world population and the global economy. A vast improvement in the resource efficiency of production and consumption is urgently required. If we wish to conserve the quality of our environment for present and future generations, our production systems throughout the world must reduce their resource consumption along the entire production chain.

The transformation towards an economy that respects planetary boundaries and natural resources necessitates substantial investment in infrastructure, innovative technologies and smart concepts like the circular economy. A substantial proportion of the finance for these investments is provided by the public sector. Given the scale of investment needed globally and the current strain on public finances, it is crystal clear that private money must be mobilised. Private money must be channelled into investments for a resource-efficient future.

The UNEP Inquiry into the Design of a Sustainable Financial System analyses both the potential that exists for a sustainable financial system and the obstacles that stand in its way, and invites countries to share their best practices. The Federal Office for the Environment supported the UNEP Inquiry from the outset. It actively participated in this promising project by initiating a dialogue with relevant stakeholders from the Swiss financial system. The goal was to identify ways to strengthen the financial system so that it can help to accelerate the transition to a resource-efficient economy. Switzerland is in a very strong position to play an important role here: it not only has a strong financial system, it is also home and host to important pioneers and innovators in the area of sustainable financial products and investment practices.

I am impressed by the enthusiasm of the stakeholders who participated in this dialogue and joined forces to provide insights to the UNEP Inquiry. This report is the tangible product of our fruitful discussions on a financial sector that lies at the heart of a green and inclusive economy. The report provides interesting thoughts on the challenges and opportunities that arise for our financial sector in the context of a green and inclusive economy. It also provides inspiration for action. It is a first step for the relevant decision-makers and stakeholders who can now take action and define a roadmap towards establishing a responsible financial system, a financial system that serves the needs of a resource-efficient real economy.

I would like to thank all of the involved parties sincerely. Their openness to constructive dialogue made this outcome possible. This is an excellent example of the power of proactive and constructive dialogue between stakeholders from business, civil society and government.

Bruno Oberle
Director of the Federal Office
for the Environment

> Management Summary

The UNEP Inquiry into the Design of a Sustainable Financial System identifies financing as one of the greatest challenges in advancing sustainable development. Switzerland is strongly committed to environmental issues. In combination with its advanced financial sector, which includes pioneers in the field of sustainable finance, and its technical expertise, Switzerland is in a unique position to present an opportunity for the transition to a green and inclusive economy. The Swiss team for the UNEP Inquiry gathers representatives of the financial sector, NGOs and academia along with government representatives to reflect on the Inquiry's questions regarding a financial system aligned to sustainable development.

Switzerland is home to some 220 individual firms and organisations which engage in sustainable finance activities. The volume of sustainable investment products in Switzerland had reached CHF 56.7 billion by the end of 2013. The volume of sustainable investments has been growing by an average of about 23 percent each year since 2005. And yet, with a market share of approximately 4 percent, sustainable investments still represent a niche in relation to overall investments. The reasons of why not more funds are invested in sustainable assets are manifold. They extend from market liquidity and the lack of capacity for making effective use of Environmental, Social and Governance (ESG) information in the investment process to a lack of predictability in the regulatory and framework conditions.

We identify three main problems that inhibit the financial system from providing stronger support for a more sustainable economy. These include the failure of prices to reflect true costs, the disconnect between long-term impacts and short-term decisions, and the instability of the financial system. To overcome these problems, the following four pre-conditions should govern the transition towards a sustainable financial system: the establishment of a financial system that serves the needs of the real economy, the valuation of true costs, the application of the precautionary principle of 'doing no harm' when transacting on financial markets, and the adoption of a rule of law involving simple but effective regulation.

While these pre-conditions are generic recipes for a sustainable economy, the following more specific provisions were also highlighted by the Swiss Inquiry participants:

> The economic, legal and political frameworks should provide the incentives for financial intermediaries to exercise their economic function to mobilise the supply of funds to meet the demand of sustainable investments. The rapidly changing regulatory landscape in the wake of the financial crisis has led to greater uncertainty for market participants, and often does not facilitate the promotion of sustainable investments. Taxes, such as the stamp duty, reduce liquidity in primary and secondary markets and, hence, lead to a lack of tradable asset classes. The inclusion of ESG factors in reporting and due diligence processes and the creation of products geared towards sustainability topics could become a key competitive advantage in the competition for investors. sector will have to meet its clients' needs for transparency and their demand for impact investment.

> Different schemes for quantifying both financial markets' impact and external costs are on the horizon, but they are not fit for mainstream use yet. Integrated figures should be disclosed in annual reports to facilitate access to investor information on sustainability. A key concern that financial analysts raise when it comes to integrating sustainability information into their financial analysis is the lack of transparency, financial relevance and comparability of data. A common understanding of the terminology used in the field of sustainable finance is needed to enable transparency and credibility in relation to investment vehicles.

> To ensure applicability, regulation should be simple, clear, limited in size and focused on key problems and their resolution. Unless regulation is based on generally accepted standards and predictable patterns, uncertainty among market participants may discourage them from committing to long-term investments.

> An indispensable and transversal requirement for facilitating the convergence of the financial system is a paradigm shift in business, economics and finance education. Competence centres for sustainable finance research and education are needed to provide knowledge to consumers, investors, financial analysts and students.

These are some of the provisions from the Swiss Team's input, which would be conducive to establishing the long-term incentives needed to replace the current focus on short-term objectives of managers and board members – but also shareholders – with a view to fostering an inclusive and green economy. The ultimate goal is to mainstream sustainability so that the term 'finance' becomes synonymous with 'sustainable finance'.

The recommendations and ideas presented within this report is the outcome of the Swiss Team's thought process, and it has to be acknowledged that more work is needed to validate some of them and formulate plans for action.

1 Introduction

1.1 The transition to a green and inclusive economy and the financial system – the importance of the UNEP Inquiry into the Design of a Sustainable Financial System

Natural resources are essential to the well-being of our society. If resources like water, soil, clean air and biodiversity, and minerals, such as energy raw materials and metals, are no longer available in sufficient quantities and quality, this poses a threat to the economic system and quality of life.[1]

The quantity of natural resources currently consumed globally greatly exceeds the regenerative capacity of these resources and this is leading to phenomena like climate change, biodiversity loss and increasing soil scarcity. The world population already needs the equivalent of one and a half planets to satisfy its consumption requirements. In view of demographic growth and the increasing purchasing power of many population groups, the pressure on the environment will increase. For this reason, it is becoming gradually clearer at both national and international levels that natural resources must be used more efficiently and sustainably and that thorough consideration must be given to environmental and social interlinkages.[2] The global transformation to a green and inclusive economy is a key challenge of our time. The transition to a resource-efficient world economy with sustainable production and consumption patterns is a multi-generational project that will shape both the international community and Switzerland in the decades to come. It is impossible to establish a green and inclusive economy without mobilising sufficient capital for financing the long-term needs of a resource-efficient future. A variety of investments, in areas such as infrastructure, cleantech and natural conservation, are required.

The UNEP Inquiry into the Design of a Sustainable Financial System[3] identifies financing as one of the greatest challenges and opportunities in advancing sustainable development. In the aftermath of the financial crisis, and against the backdrop of the challenge of financing sustainable development, the UNEP Inquiry sees a unique window of opportunity to better align the financial system with the needs of a green and inclusive economy. The Inquiry explores, in particular, how the rules that govern financial systems – standards, metrics, incentives and regulation – can be reshaped to better mobilise capital for a green and inclusive economy. To this end, the Inquiry aims to identify and possibly scale successful policy innovations and best practices – and has hence addressed an open invitation to a wide range of actors to submit relevant experience and insights.[4]

Definitions

In this report we repeatedly use the terms financial system, financial market, financial institution/intermediary and financial sector. A *financial system*, as we define it in this report, consists of the institutional units (e.g., lenders, borrowers, intermediaries) and markets that interact, typically in a complex manner, for the purpose of mobilising funds for investment and providing facilities, including payment systems, for the financing of commercial and public activity. The main purpose of the financial system is to enable lenders and borrowers to exchange funds. In addition to lenders and borrowers, the financial system includes financial intermediaries, such as banks, insurance companies and investment funds, as well as infrastructure, such as payment and securities settlement systems. The legal and supervisory regime defines the framework, within which the financial system functions. A *financial market* refers to a market in which entities can trade financial claims under some established rules of conduct. *Financial institutions* or *intermediaries* are entities that provide financial services such as investment advice or intermediation between borrowers and savers (e.g., banks, insurance companies, mutual funds, pension funds, and other finance companies). Finally, the *financial sector* refers to the industry which is made up of financial institutions.

1.2 Relevance of the UNEP Inquiry for Switzerland

Strong environmental commitment – a global hub for sustainability

Switzerland is embracing the challenge of the transition to a green and inclusive economy accompanied by a successful national and international environmental policy. The fundamental principles for the making and enforcement of environmental law are the precautionary principle, the polluter pays principle, the principle of addressing the root cause, the holistic approach principle and the cooperative principle.[5] Stringent domestic environmental standards – e.g. in the areas of air pollution control, forest and water management, natural hazard prevention and biogenic fuels – and technical expertise testify to the pioneering role played by Switzerland in the area of resource management. At the international level, Switzerland pursues the development of an active and successful international environmental policy. In doing so, it contributes to the global protection and sustainable use of the world's natural resources.[6]

Switzerland is also home to many international institutions active within the field of sustainability, for example the IPCC, ILO, IISD, UNCTAD, UNECE, WEF, WBCSD, WWF, the UNEP's Economic and Trade Branch and the Green Growth Knowledge Platform. Geneva forms a green economy cluster. It is also home to UNEP's core initiatives for examining the role of the finance sector in greening economies, the UNEP Finance Initiative, and, last but not least, the UNEP Inquiry into the Design of a Sustainable Financial System.

Economic strength

In terms of economic development, Switzerland's performance is impressive. Thanks to its strong economy, Switzerland has ranked number one in the World Economic Forum's Global Competitiveness Index for five consecutive years. The reasons for this top ranking are Switzerland's macroeconomic and political environment. At a time when many neighbouring economies continue to struggle in this regard, the Swiss economy is among the most stable in the world. The successful implementation of the 'debt brake' a decade ago – a measure supported by a large proportion of the population – was one of many measures taken towards ensuring a stable macroeconomic environment. With its longstanding democratic tradition, its dynamic economy and strong research infrastructure, Switzerland is one of the most innovative countries in the world. This robust innovative capacity is reflected in its high rate of patenting per capita, for which Switzerland ranks second globally,[7] and is a key precondition for the transition to a resource-efficient economy.

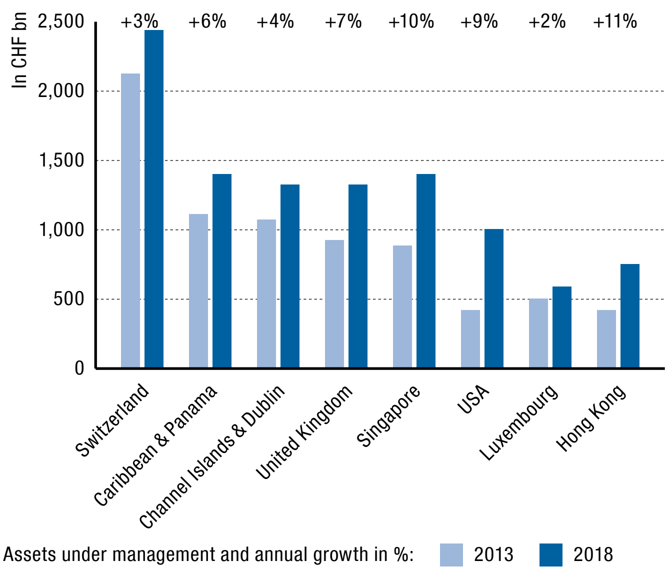

Figure 1 *Projected growth of main private banking locations for cross-border asset management. Source: G. Laplace. ASB, Boston Consulting Group*

Financial centre of global relevance

The financial sector is an important pillar of Switzerland's economy. Switzerland's financial centre makes a significant contribution to gross value added and employment. In 2014, total value added of approximately CHF 66 billion was generated through the provision of financial and insurance services. This equates to a 10.2% share of gross domestic product (GDP), which is similar to the level found in most other major financial centres: 7.2% in the United States, 8% in the United Kingdom, 11.8% in Singapore and 26.9% in Luxembourg.

Relative to the Swiss economy, the financial sector has grown at an above-average rate over the past 20 years: while GDP grew by a factor of 1.6, the added value of the Swiss financial centre almost doubled.[8] Some 210,000 people were working in the Swiss financial sector at the end of 2014, which corresponds to an almost 6.0% share of total employment.[9]

The prominent role played by asset and wealth management is a unique characteristic of Switzerland as a financial centre of global relevance. With its market share of around 26% (figure 1)[10], Switzerland is the number one destination for cross-border asset management.

In addition to banks, insurers, pension funds and independent asset managers also form part of the financial sector. The insurance sector in Switzerland is growing much faster than the banking sector, and its contribution to GDP is almost equal to that of the banking sector.[11] The capital investments of Swiss insurers amounted to some CHF 540 billion at the end of 2013. Half of this sum was invested in fixed-income securities. Likewise, almost 2,200 pension funds and some 2,300 independent asset managers are also important players in the financial sector. At the end of 2013, the assets managed by pension funds amounted to CHF 720 billion, one third of which was invested in bonds and one quarter in equities. In 2012 independent asset managers managed client assets of approximately CHF 560 billion.[12]

Through its intermediary functions, which help to channel the supply of money (loans, insurance services, equity and other financial products), the financial sector has a significant direct and indirect impact on the sustainable development of the economy.

Sustainable finance

Switzerland has a diverse landscape of institutions involved in sustainable finance; some 220 individual Swiss organisations are active in the area of sustainable finance.[13] Switzerland has a strong track record in the development and provision of pioneering sustainable finance products, both green and social.

Switzerland's strong environmental commitment and strong financial sector with its sustainable finance pioneers constitute a favourable position for the transition to a green and inclusive economy, both globally and within Switzerland. Becoming a centre of excellence for sustainable investments should be one of the strategic objectives of the Swiss financial centre. Against this backdrop, the UNEP Inquiry into the Design of a Financial System is a unique opportunity for Switzerland to contribute to and engage in this worldwide collaborative learning experience.

1.3 Swiss Team for the UNEP Inquiry

The Federal Office for the Environment supports the UNEP Inquiry into the Design of a Sustainable Financial System. Switzerland is represented on the high-level advisory council of the UNEP Inquiry by the Director of the Federal Office for the Environment, and launched a country engagement by setting up a "Swiss Team for the UNEP Inquiry". The Swiss team for the UNEP Inquiry includes representatives of the financial sector, NGOs and academia as well as government representatives.

The Swiss Team Input to the UNEP Inquiry's Initial Framing Questions[14] builds on current Swiss knowledge and constitutes our common informed response to the Inquiry's questions. The Swiss Team Input to the UNEP Inquiry questions is intended to contribute to the Inquiry project, which aims to develop its final recommendations by October 2015. The insights provided in this document are intended to contribute to the on-going efforts by the UNEP Inquiry to accelerate and scale up emergent policy innovations that better align the financial system with sustainable development. They also make an important contribution to ongoing discussions at the national level on the opportunity that arises for reshaping the Swiss financial system in a way that it can significantly support the ongoing transition to a green and inclusive economy.

1 Environment Switzerland 2015 (FOEN 2015, page 13)

2 Switzerland's International Environmental Policy (FOEN 2012, foreword)

3 www.unep.org/inquiry/

4 UNEP Inquiry into the Design of a Sustainable Financial System

5 Swiss Environmental Law (FOEN 2013, page 8–9)

6 Switzerland's International Environmental Policy (FOEN 2012, page 19)

7 The Global Competitiveness Report 2013–2014 (WEF 2013, page 13–15) and "Factsheet – the debt brake" (FDF)

8 Report on international financial and tax matters (FDF, 2015, page 23–25)

9 Switzerland as a location for financial services – Figures (SIF, April 2015, page 2)

10 Report on international financial and tax matters (FDF, 2015, page 23–25)

11 Switzerland as a location for financial services – Figures (SIF, April 2015, page 2)

12 Report on international financial and tax matters (FDF, 2015, page 23–25) and www.bfs.admin.ch/bfs/portal/en/index/themen/13/02/03/key/finanzen.html

13 Mapping Sustainable Finance in Switzerland (onValues Ltd. Knoepfel, I., & Imbert, D. 2013)

14 www.unep.org/greeneconomy/financialinquiry/Portals/50215/Inquiry_summary_final%20June%202014.pdf, (page 18)

2 Key Challenges

The key challenges in the context of a sustainable financial system, which we outline in this chapter, have been identified on the basis of the common understanding and meaning of a green and sustainable development. We refer here to the core idea formulated by the Brundtland Commission, according to which sustainable progress – or sustainability – can be described as development that meets the needs of the present without compromising the ability of future generations to meet their needs. To be sustainable, progress must improve economic efficiency, protect and restore ecological systems, and enhance social well-being.

According to this common understanding, a green and inclusive economy covers not only the dimension of environmental protection but also that of social equality. The challenges highlighted here reflect the global perspective and the anticipated impact on the Swiss financial system.

2.1 What are the critical factors that hinder the transition towards a sustainable financial system?

There is strong evidence that economic growth is at risk when the cost of inaction in relation to global environmental and social threats, such as climate change and biodiversity loss, are considered. According to the Stern review,[15] if we fail to act, the global costs of climate change could amount to between 5% and 20% of GDP per year, thereby dwarfing the cost of effective international mitigation, which is estimated at around 2% of GDP per annum in the long term.[16] Similar estimations have been made for the cost of policy inaction on biodiversity: according to The Economics of Ecosystems and Biodiversity (TEEB) review, the cumulative welfare losses could be equivalent to around 7% of global consumption by 2050.[17, 18] In its 2015 survey of global risks the World Economic Forum (WEF) shows that environmental risks, such as the failure of climate-change adaptation or a water crisis as well as social risks, such as unemployment and underemployment, remain among the top ten risks of highest concern.[19] The interrelationship between these risks, in particular the potential for environmental shocks to impact on the financial system through business failure, distortion in trade flows and asset loss/devaluation is quite remarkable. The observed interdependency of these risks was, amongst others, a substantial driver of the launch of the R!SE initiative by the United Nations International Strategy for Disaster Reduction (UNISDR), the aim of which is to define methods for multi-risk assessments for the mitigation of disastrous impacts collaboratively and jointly with the business sector.

Despite an increasingly broad public consensus about the need for action, there appears to be a disconnect between the urgency of the need to finance the transition towards a green and inclusive economy and 'business as usual' on the side of the institutional units making up the financial system (i.e., lenders, borrowers, and intermediaries). At present, both a majority of actors in the financial system as well as relevant sectors of the real economy are not prepared, or unable, to fully measure and manage environmental and social risks. While standards and frameworks such as the Equator Principles[20] and the United Nations-supported Principles for Responsible Investment (PRI)[21] provide some guidance accompanied by good individual best practice examples, in view of the scale of the needs and risks involved, voluntary approaches may not be sufficient when it comes to avoiding negative impacts resulting from social and environmental risks.

The Swiss Team for the UNEP Inquiry has identified three main problems that are hindering the alignment of the financial system with the requirements for a transition towards a more sustainable economy, i.e.:

A. The failure of prices to reflect true costs
B. The disconnect between long-term impacts and short-term decisions
C. The instability of the financial system

To overcome these three main problems, four guiding pre-conditions should govern the transition towards a sustainable financial system:

> A financial system that serves the needs of the real economy
> The valuation of true costs (based on better awareness, transparency and tools)
> The precautionary principle and
> The rule of law

A. The failure of prices to reflect true costs

Many prices, ratings and assessments in the financial system do not take full account of the complete and comprehensive cost or value of their targeted object. As a result, decisions are often taken based on incomplete and insufficient knowledge of the associated impacts and trade-offs. For example, in a study published in Global Environment Change,[22] the annual non-market value of the Earth's ecosystems services were estimated at $125 trillion in 2011 – almost twice global GDP in 2011 of $68.6 trillion.[23] However, as of today, the majority of decision-makers in the financial community, government and business do not deem it necessary or possible to strive for the increased consideration of such environmental or social aspects. Hence, a key reason as to why biodiversity loss and ecosystem destruction are escalating is that the value of these services and the costs of their usage are not priced correctly into assets, products or services.

This failure of a wide range of prices to reflect full costs is partly due to a lack of transparency, reliable data and accepted methodologies or tools by the use of which one could not only measure and value environmental and social impacts correctly, but also demonstrate their interconnectedness with financial outcomes.

Another related root cause that prevents asset prices from reflecting true costs is the lack of a global agreement for internalising negative environmental externalities with a view to respecting planetary boundaries, as reflected, for example, in the politically agreed 2 degrees Celsius global warming target. The current (national) regulation and (international) frameworks that influence directly or indirectly the behaviour of the institutional units that make up the financial system do not sufficiently consider certain environmental and social issues. In the context of the global challenges we face, the voluntary approaches for aligning the decisions of financial market participants with the requirements of a green and inclusive economy, as put forward through initiatives such as the UN PRI for example, have not been sufficiently successful thus far.

B. The disconnect between long-term impacts and short-term decisions

The second problem in aligning the financial system with a green and inclusive economy is a disconnect in timing that exists between long-term environmental and social risks and opportunities on the one hand, and the largely shorter-term decision-making focus that dominates in the context of financial market reality.

To sensitise investors to the long-term environmental and social opportunities and risks, it is necessary to translate them into concepts and language that are relevant to them. The emerging 'stranded asset/carbon bubble' discussion is an example of a potential starting point for the translation of an environmental risk (climate change) into a financial risk.

Furthermore, the terms of transactions do not yet incorporate and account for risks that occur in the distant future and cannot, therefore, be reflected correctly in today's valuations. It may even be impossible to attempt this for many of the sustainability issues, e.g. if climate change risks and opportunities materialise over a long-term perspective while the investment focus is largely shorter-term. The short-term results are still to a large extent the only quantitative information that can readily be translated into a buy-sell decision. Today's incentive schemes and the related quarterly disclosure of performance in the financial sector are not yet linked to the long-term positive (or negative) impact on the real economy, society and the environment. Also, framework conditions for long term investments namely for infrastructure projects are often characterised by a high degree of uncertainty. These factors do not only drive asset managers and banks: even institutional investors like pension funds, which should invest on the basis of long-term goals, are forced to act within a short-term, quarterly paradigm today.

Numerous elements of the investment target's value are commonly based on forward-looking disclosure aspects. Important impacts are not yet sufficiently incorporated into financial valuations when considering the significant environmental and social risks that lie ahead. A major barrier for participants of the financial system in responding to these gaps in information is the question as to when environmental and social issues become priced by the market which makes them financially and, therefore, economically relevant. As long as significant quantifiable, mostly financial, risks resulting from current behaviour or quantifiable financial opportunities cannot be demonstrated on the basis of past events, there will be little change in this regard.

This leaves the protagonists of the financial system poorly prepared and makes it impossible to implement the changes necessary to deal adequately with the compelling scientific evidence, e.g. for climate change and the fact that natural systems have 'tipping points' or biophysical boundaries, beyond which change becomes irreversible.[24]

C. The instability of the financial system

The current century's (short) history has already seen multiple major financial crises. Many financial markets and the financial system as a whole appear to be prone to boom and bust cycles, and recently introduced measures to make the financial system more resilient have not yet been tested. The size and complexity of financial institutions are in fact still increasing, while plans to make it possible to wind down global systemically important financial institutions without disrupting the financial system and without public support are not yet ready or have still to demonstrate their reliability. These aspects exemplify the unstable nature of the financial system. The interdependencies between a stable financial system, its basic purposes, and the need to allocate crucial functions to the financial system in the financing of environmental and social sustainability are not fully incorporated into the progressive efforts of many protagonists of today's financial system.

Accordingly, recent efforts by both regulators and financial institutions have been largely aimed at stabilising and increasing the resilience of the financial system. Measures to increase the resilience to environmental and social threats, which could simultaneously support a move towards a sustainable economy, have not featured prominently on the agendas of most financial regulators.[25] Some notable exceptions include the SEC Guidance on disclosure on climate change risk in the United States and the Green Protocols signed by the regulators and the national finance associations in Brazil and Colombia.[26] Hence, it might be worthwhile exploring, whether governmental action should also encourage financial institutions to conduct systematic risk management with respect to social and environmental issues.

The instability of the financial system is also an obstacle to the transition towards a green and inclusive economy because it may continue to encourage short-term-oriented behaviour. Trust in the long-term functioning of the system is declining with every crisis. In the context of such unstable conditions sustainable and long-term investments are less attractive and appear riskier.

Certain recent developments and product innovations in the financial market have an unclear net contribution to the well-functioning of markets and the overall well-being of the economy.[27] Parts of the financial system also appear increasingly disconnected from the needs of the real economy, which could be a cause of misallocation of capital. Under these conditions, the financial system may not be ready to fully support and finance the necessary transition to a green and inclusive economy.

2.2 What are the guiding pre-conditions that should lead the transition towards a sustainable financial system?

2.2.1 A financial system that serves the needs of the real economy

The core function of the financial system is to serve the needs of the real economy with financial products and services, for example through its money and credit intermediation functions and through the allocation of capital and liquidity to meet the demands of companies and households. The main service provided by financial intermediaries is the balancing of the diverse requirements in relation to amount, maturity and risk appetite that different actors in the financial system might have. While a properly functioning financial market forms the main framework, intermediaries should primarily facilitate the coordination of financial flows between the different participants and reduce the risks inherent in financial market transactions.

2.2.2 The valuation of true costs

This pre-condition should help to put environmental and social challenges on the agendas of financial system participants and related regulators and standard setters. In addition, the valuation of true costs should also allow refocusing attention on important societal matters such as sustainable well-being, quality of life, jobs, prosperity and the health of the environment. The assessment of, and accounting for natural capital and social well-being are pre-conditions for overcoming the prevalent problem of the mispricing of environmental and social consequences. In more practical terms transparency about the environmental and social impacts of financing, investment and insurance decisions are critical pre-conditions for mainstreaming the incorporation of nature and society's value in investment and financing decisions and helping to align the financial system with sustainable development.

Negative environmental externalities, such as damage arising from climate change, pollution, land conversion and the depletion of natural resources, are a consequence of the absence – or at least the mispricing – of natural capital impacts. The inadequate consideration of natural capital impacts fosters the misallocation of capital, including over-investment in unsustainable assets that could be at risk from unexpected downward adjustment in asset values.

In today's economic systems, a wide range of unobserved values, risks and external environmental costs are not adequately reflected in asset prices. Given the lack of comparable transparency and, therefore, adequate markets, they are generally not priced at all. Countries measure their economic strength on the basis of GDP, but overlook social and natural assets. This leads to a situation, in which the clearance of a country's forests or exploitation of its water reserves increases GDP, but reduces the long term natural stock of these resources and thus the long-term growth potential.

Within companies, the focus of management, accounting systems and incentive schemes lies primarily on profitability and less on intangible assets, such as reputation and employee expertise, which are fundamental to sustainable value creation. The pricing of all aspects of a project enables better informed decision-making in terms of the identification of long-term business opportunities and comprehensive risk management.

2.2.3 The precautionary principle

The precautionary principle, which is accepted as the guiding principle of 'doing no harm' by most sectors of the economy and society, is not yet fully embraced by financial system participants. As a principle, it does not aspire to be a solution to negative environmental and social impacts, but should be understood as an ambition that is inherent to all decisions taken. Current practices in the financial system do not yet fully incorporate responsibility, accountability and liability in relation to activities that could be harmful to society or the environment. In the interest of preventing the investment in and financing of activities that cause environmental and social damage, financial intermediaries should consider and report on environmental and social impacts of their financing and investment activities. Accordingly, a precautionary principle would ensure that financial activities shall not enable beneficiaries (people, businesses) to exceed the capacity of the environment and prevent situations in which they cause social injustices. Thus, a precautionary approach that comes with defined responsibilities and accountability is needed to overcome timing barriers in risk and opportunity perception so that financial system participants can act suitably in the face of the environmental and social challenges that lie ahead. It is important that the financial sector support the authorities' actions and efforts to ensure that there is no investment in and financing of activities that result in the violation of international norms. However, to achieve this, practical ways need to be found to implement a precautionary principle. Especially, it must be assured that it does not deter financing activities to the betterment of the economy. It might be worthwhile exploring whether financial regulators should be given a mandate which also considers how financial regulation could be beneficial to the internalisation of environmental and social externalities.

2.2.4 The rule of law

Regulation is needed when market failure arises and industry initiatives and positive incentives are not sufficient enough to attain the social optimum. Regulation should be guided by clarity, applicability, simplicity and the focus should be on key problems and their resolution.

However, current regulatory frameworks such as Basel III and Dodd Frank are highly complex. As a pre-condition for a sustainable financial system, regulation should be designed in such a way that the principle whereby financial institutions that engage in risky activities bear the losses resulting from such behaviour is respected. In other words, regulation should avoid that profits will be privatized and losses caused by financial institutions burdened on the public.

15 Stern N (2007), The Economics of Climate Change ('Stern review')

16 Ibid

17 TEEB (2008), The Cost of Policy Inaction, The case of not meeting the 2010 biodiversity target

18 Note: the numbers relating to climate change and biodiversity cannot be added up.

19 http://reports.weforum.org/global-risks-2015/part-1-global-risks-2015/introduction/

20 www.equator-principles.com

21 www.unpri.org

22 Costanza R, de Groot R and al. (2014), *Changes in the global value of ecosystem services*, Global Environmental Change 26 (2014) 152–158. This study updates the initial famous study from 1997 (Costanza R and al. (1997), *The value of the world's ecosystem services and natural capital*, Nature 387/253–260)

23 Source: International Monetary Fund

24 White JWC et al. (2013), *Abrupt Impacts of Climate Changes: Anticipating Surprises*, National Academies Press

25 Basel III provides a framework for regulators and bank risk management to assess and measure the financial stability risks associated with environmental risks. However, this has not been utilized by most bank regulators in their national supervisory frameworks. (Source: Stability and Sustainability in Banking Reform: Are Environmental Risks Missing in Basel III? (CISL & UNEP FI, 2014, p. 25))

26 US: www.sec.gov/rules/interp/2010/33-9106.pdf;
Brazil: www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Hotsites/Annual_Report_2011/Capitulos/institutional_operations/the_bndes_and_the_green_protocol.html;
and Colombia: www.asobancaria.com/portal/page/portal/Asobancaria/responsabilidad_social/protocolo_verde

27 Stephen G Cecchetti and Enisse Kharroubi, *Why does financial sector growth crowd out real economic growth?*, BIS Working Papers No 490, February 2015, https://www.bis.org/publ/work490.pdf

3 The Swiss Case

This chapter provides an overview of the sustainable finance and investment landscape in Switzerland. It gives an idea of the size and diversity of the market, shows best practice examples and lists aspects that inhibit the more general adoption of sustainable finance practices in Switzerland and globally.

3.1 Sustainable investment in Switzerland

Due to its significance for the economy and as a driver of economic growth, the Swiss financial sector has the potential to act as a protagonist in the transition towards a green and inclusive economy. In offering loans, equity finance, insurance and other financial products, the financial sector can help to allocate assets efficiently and nourish sustainable development. Given the scale of the assets managed by the Swiss financial sector, it can play an important role in achieving sustainability not only within Switzerland, but also globally.

As of today, investor awareness of, and interest in sustainable investments appear to be mixed. While the growth rates of sustainable products are high, they are not high enough yet to lift their portfolio share to significant levels in the short and medium term. The reasons for this are manifold and range from the notably higher fees charged for sustainable products to the inadequate and insufficient use of ESG information in investment advice. Furthermore, the financial industry needs to increase its efforts to offer products and services and actively advise clients on them with a view to channelling more funds to sustainable projects.

Likewise, to enable financial intermediaries to offer a large variety and volume of sustainable financial products at attractive conditions, the real economy needs to set up a sufficient number of sustainable projects for financing. It appears that with respect to growth, rather than a lack of potential investors, the key obstacle is often the scarcity of sustainable projects which offer an attractive risk-adjusted return.

At the end of 2013, the volume of sustainable investment funds, mandates and structured products in Switzerland had reached CHF 56.7 billion. The average annual growth rate of the volume of sustainable investments[28] since 2005 is 23 percent. This is in line with figures from other developed financial centres. As demonstrated by the double digit growth rates in the demand for sustainable financial products, private and large institutional investors are becoming more interested and active in relation to sustainable investments.[29]

However, at approximately 4 percent of professionally managed assets in Switzerland, the overall volume of sustainable investments remains quite low.[30] At present, financial institutions mainly apply ESG criteria to portfolios and products in the sustainable investment niche. In many cases, such investments have not yet become part of mainstream business activities of large financial intermediaries and investors are required to pay a premium for such products. As a result, sustainable investments tend to be more expensive than other products. Further factors that inhibit sustainable investments in Switzerland and globally include:

1. Investment managers fail to commit sufficient resources to sustainable investments as there is a lack of demand for sustainable products from large asset owners, especially institutional investors, such as pension funds.
2. Actors within the financial market, on both the buy and sell sides, often lack the capacity and, above all, necessary skills and knowledge to make effective use of ESG information in their investment decisions.
3. Private investors often have the perception that sustainable investments are more volatile than traditional investments.
4. Investors prefer liquid assets over illiquid assets. Some forms of thematic sustainable investments (e.g. in the field of infrastructure investments) are capital intensive investments with investment horizons of 10 to 20 years. Institutional asset owners are hesitant to invest into such products against the backdrop of tightened regulation (e.g. Solvency II).
5. The process of investing in large sustainable infrastructure projects and new technologies is lengthy, and the predictability of framework conditions is relatively low. The resulting uncertainty becomes a factor that constrains focussed and well-founded investment decision processes.

Compensation schemes and the mandatory requirement for quarterly performance reporting are likely to hamper sustainable long-term investments. Regarding compensation schemes, both regulators and the financial institutions have acted in recent years. There has been a marked increase in the use of deferred bonuses and the transparency of compensation schemes has also increased in Switzerland due to a new regulation. Whether the recent improvements are sufficient to give due account to long term risk/performance factors is yet to be determined.

Nonetheless, Switzerland is well positioned to play a leading role in the world of sustainable finance. In addition to being the host country to many international organisations like the UN, world-class universities and a business-friendly environment that is able to attract well-educated and experienced talents in the areas of finance and sustainability, Switzerland is home to a financial sector in which a diverse set of institutions do business in the field of sustainable finance. Moreover Switzerland's economy is generally perceived as being responsible and competitive: its economic stakeholders are expected to live up to their Corporate Social Responsibility (CSR). The Swiss Government promotes CSR and supports the development and implementation of CSR policies in Switzerland and internationally.[31]

In order to maintain its position as a leading financial centre and a leader in the sustainable finance debate, it is important for Switzerland to build on and combine its two competitive assets: its lengthy experience in wealth management and knowledge about sustainability.

3.2 Swiss organisations

Around 220 individual Swiss firms and organisations from very different backgrounds (asset management, pension funds, banking, financial research, insurance, academia, think-tanks, philanthropy and foundations, governmental organisations) are involved in activities related to sustainable finance. Hence, Switzerland forms a large hub of sustainable finance specialists that creates a beneficial environment for launching innovative sustainable finance products. In addition to the activities of individual institutions in the area of sustainable finance, business associations also play an important role in providing better visibility for sustainable finance within the broader financial sector.

Swiss Sustainable Finance, an association founded in 2014, is strengthening the position of Switzerland for sustainable finance in the global marketplace by informing, educating and catalysing growth. The organisation provides market research, runs various member workgroups for the development of guidelines and tools, and organises events such as information and networking platforms.

The *Geneva Summit on Sustainable Finance* is an internationally recognised research event initiated and organised bi-annually by the University of Geneva since 2013. One of its main objectives is to increase awareness of sustainable finance in the financial sector by providing a platform for national and international experts on sustainable finance. With over 350 participants from 15 different countries at the 2014 event, the conference has attained widespread international visibility. Such activities act as a catalyst for raising awareness about the importance of sustainable finance.

Another prominent example of an organisation involved in sustainable finance in Switzerland is the *Ethos Investment Foundation*, which was established in 1997 and operates as a traditional asset management company. The Foundation is dedicated to institutional investors (mainly pension funds) and incorporates responsibility and sustainability criteria into the investment process. More specifically, its mission is to encourage investors to exercise their voting rights by representing them and engaging in active dialogue with the companies, in which its clients have invested. As of 2014, the members of Ethos represented one million beneficiaries with CHF 190 billion in assets under management; this represents approximately 25% of the total assets of occupational benefit plans in Switzerland.

Most major insurance companies in Switzerland are seeking to integrate responsible investment practices into their investment approaches. Zurich Insurance Group, for instance, is reflecting ESG in all its "mainstream" investment processes and is committed to invest up to USD 2 bn in green bonds, which are used to finance projects that generate positive environmental impact. It has also dedicated a portion of its private equity investments to fund managers who target and measure social and environmental outcomes. To foster a responsible investment culture, Zurich has integrated responsible investment in individual objectives and performance measurement, and is providing responsible investment training to all Investment Management employees. A number of insurers, including Zurich, have also set up processes to integrate ESG into insurance underwriting practices.

Pioneering work in the field of sustainable stock indexes has been also been carried out by a Swiss investment company: *RobecoSAM*, which initiated the first global sustainability benchmark in 1999 in close cooperation with *S&P Dow Jones* Indices. The Dow Jones Sustainability Index (DJSI) family tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria, and serves as benchmark for investors who incorporate sustainability considerations into their portfolios. Only top ranked companies in terms of corporate sustainability within each industry are selected for inclusion in the DJSI family.

The pace of the development of pioneering products in Switzerland has accelerated in recent years. Two years after the government's initial decision to phase out nuclear energy, in 2015 a *UBS* fund enabled institutional investors to access a diversified portfolio of Swiss infrastructure facilities and companies working in the field of renewable energies and energy efficiency. Other examples of product innovations include an Impact Investing Private Equity fund for SMEs in emerging and frontier markets and – partnered with the *Children's Investment Fund Foundation* – the launch of the first Development Impact Bond as a proof of concept in the education sector. The latest in this series of innovations came from *Credit Suisse*, which recently issued a Nature Conservation Note to enable its clients to invest in the conservation and sustainable management of ecosystems.

3.3 Forms of cooperation and focus areas of sustainable investment

3.3.1 Cooperation with specialised partners: Microfinance

Financial institutions often lack the in-house expertise for developing sustainable products. Recognising that different institutions have different strengths, expertise, and stakeholder outreach, they frequently choose to work with specialised partners from areas outside the financial sector. The area of microfinance, in which large banks partner with microfinance institutions to be able to offer such investment solutions to their clients, is an example of this collaboration. The "responsAbility Fair Trade Fund", jointly launched by *Credit Suisse* and *responsAbility*, an independent asset manager specialising in the development-related sectors of emerging economies, is an example of this cooperation. The fund allows retail and institutional clients to invest in fixed income securities issued by agricultural cooperatives in developing countries.

3.3.2 Public Private Partnerships: Infrastructure investments

Collaboration in the form of Public Private Partnerships (PPP) is recognised as an important factor in helping to raise more private capital for large projects in fields like infrastructure investments. In Switzerland, it is common practice for local authorities to frequently engage directly with the financial sector in the financing of their infrastructure. This model of close collaboration has proved to be an efficient channel for raising capital. A success factor of PPPs in Switzerland is the combination of the decentralised structure of the decision making process, whereby investment decisions are taken at local level, with the associated expertise of public servants. Such projects are of benefit to the taxpayer, whose money is invested efficiently, and to the economy, which benefits from the resulting extension of the available pool of finance.

In order to mobilise capital for long-term investments in infrastructure, financing periods need to be well aligned with the specific strengths and mandates of diverse financial market actors. In the context of project finance, commercial banks and private market investment managers may cover the financing needs of infrastructure projects at the risky early stages of a project. Institutional investors will then take over post-construction projects with stable cash flows. This is a good example of the industry finding solutions to meet the needs of investors.

3.3.3 Private Wealth Management: New generation UHNWI

There is a noticeable increase in 'new generation of Ultra High Net Worth Individuals (UHNWI)' who are more sensitised to the theme of global sustainability. The current trend appears to go beyond philanthropy and be moving towards impact investment options. Asset owners are expressing a desire to invest in a targeted way to achieve their own goals and visions. According to the 2014 World Wealth Report by *Capgemini/RBC*, over 60% of the High Net Worth Individuals (HNWI) surveyed believe that it is highly important to drive social impact through thoughtful investments of time, money or expertise. The future of private banking includes catering to HNWI who are taking ESG more seriously and are looking for solutions that match their aim of achieving positive sustainability impacts through their investments. Thus Swiss wealth management providers have a vital interest in integrating sustainability into their product offerings at the institutional and private level, and in preparing for the increased demand by developing products geared towards sustainability issues.

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28 Eurosif defines sustainable investment as "any type of investment process that combines investors' financial objectives with their con¬cerns about Environmental, Social and Governance (ESG) issues". Eurosif, European SRI Study 2014.

29 Eurosif, European Sustainable and Responsible Investment (SRI) Study 2014

30 Dittrich, S., Kunzlmann, J., Tober, C., & Vögele, G. (2014). Marktbericht Nachhaltige Geldanlagen 2014, Deutschland, Österreich, Schweiz. Berlin: Forum Nachhaltige Geldanlagen

31 www.news.admin.ch/message/index.html?lang=de&msg-id=56760

4 Recommendations for action

Chapter four outlines possible actions by public institutions and private actors that could foster the transition towards a green and inclusive financial system. Identified fields of action include areas such as regulation, taxes, incentive schemes, reporting standards and education and research.

4.1 Public actions and framework conditions

Well-functioning markets require appropriate economic, legal and political framework conditions. Typically, the responsibility of providing such conditions falls into the hands of the government. In doing so, national legislators and governments have to ensure that the framework conditions provide for legal and planning certainty while, at the same time, being flexible enough to adapt to new trends and innovations.

To facilitate investments that promote sustainable development (e.g., investments in the preservation of natural capital), investors need to face the appropriate public incentives and framework conditions. An example of an effective tax incentive scheme is given by the *New Market Tax Credits* programme in the US, which is aimed at spurring the revitalisation of impoverished communities by providing tax credits to investors who invest in low-income communities. Applying tax incentive schemes to other sustainable financial instruments, e.g., green bonds could have similar beneficial effects if well designed. In addition, government actions which reduce the potential volatility of sustainable investments make them more attractive to investors and, as a result, have the desired effects on investment behaviour. This refers, above all, to the government's framework conditions for sustainable technologies.

Asking investors to think long-term requires planning certainty in relation to subsidies, taxes and regulations over a long time horizon. The credibility of legislators and the predictability of their actions are crucial. In addition, the timely granting of permission by the authorities for the initiation of green projects is also of particular importance for investors. Given the myriad of profitable alternative investments available, speed is of essence in successfully engaging investors in the financing of green projects.

The rules governing the financial system have been tightened as a result of the financial crisis. Accordingly, they are more onerous for financial institutions. The fast-changing regulatory landscape and some country specific approaches taken by regulators have led to greater uncertainty for market participants. These developments do not facilitate the promotion of sustainable investments.

Some regulatory changes are seen as disruptive factors. Depending on underlying business models, financial institutions may win or lose from the introduction of new rules, regulations or taxes. Proper regulation may only be non-disruptive if generally accepted standards and predictable patterns are applied, e.g., by providing framework conditions for sustainability reporting standards (see also section 4.3).

Economic sustainability in Switzerland is linked, in particular, with the stability of its financial sector. The imminent failure of a systemically important financial institution[32] would prompt the use of taxpayers' money to save it from failing and, hence, avoid negative economic consequences. This so-called 'too big to fail' (TBTF) factor is of utmost importance. In an effort to minimise the exposure of taxpayers and the economy to the risks associated with TBTF, Switzerland reacted swiftly after the financial crisis of 2007-08 and implemented a specific TBTF regulation – thereby taking the lead in this area from a global perspective. The regulation requires systemically important banks to hold more high quality capital than other banks, to comply with stricter liquidity and risk diversification regimes, and to develop credible recovery/resolution plans. Progress has been generally positive by international standards, and it is not necessary to realign the regulatory model. However, additional measures and adjustments are required to boost the resilience of systemically important banks further and to make their restructuring or orderly resolution possible. To this end, additional efforts are also needed at international level.

Infrastructure debt in general meets many institutional investors' needs, such as regular cash flow, attractive risk-adjusted yields and better credit quality compared to similar loan or corporate bond classes. However, a tradable asset class does not exist for institutional investors seeking easy access to low carbon or more generally green infrastructure investments. Public action aimed at promoting sustainable investment could seek to adapt Swiss regulation for pension funds in order to allow them higher investments in (low carbon) infrastructure projects.

Green bonds also appear to offer a promising product for supporting the transition to a green and inclusive economy. However, the issuance of bonds in Switzerland is not attractive due to taxes such as the stamp duty and the withholding tax. Consequently, bond markets in Switzerland are mostly illiquid. In addition, the raising of capital in the primary market in Switzerland is also impaired by the illiquidity in the secondary market. It could be worth exploring whether this obstacle could be eliminated by waiving stamp duty in general, or on green bonds at least. Regarding the withholding tax, the Swiss government has recently launched a reform to strengthen the capital market and to facilitate the raising of capital in Switzerland. Positive incentives with regard to taxes could help green bonds to become established as an attractive and stable funding source, especially for projects that meet defined and quantifiable 'green' criteria. Given that a range of definitions currently exist for qualifying an investment product as 'green', robust, credible and accepted standards need to be developed to ensure that green bonds contribute to a sustainable economy. Current initiatives are the Green Bonds Principles (principle-based) and the Climate Bond Initiative (standards and verification) supported by Swiss banks and the Swiss government. Again, there is scope for legislators to further provide enabling framework conditions.

The example of Switzerland shows that a well-functioning price system and clearly assigned property rights, coupled with voluntary industry initiatives, can go a long way to create good economic, social and environmental outcomes. Notwithstanding, the challenges society faces in the ESG realm may warrant regulator and policy maker intervention to correct for some of the obvious failures. However, any such interventions need to be carefully evaluated and designed so as to minimize costs and unintended consequences. It is acknowledged that more analysis is required to flesh out the recommendations in this report in greater detail.

4.2 Private actions, self-regulation and incentives

The ideas outlined above are levers for the government to support the transition to a sustainable economy. When the private sector is considered, the following actions could be contemplated:

Financial institutions must face the challenges posed by the disruptions arising from changing regulation, the emergence of non-traditional competitors, technological innovation, the emergence of different expectations from society, growing scarcity of resources and increasing environmental degradation and pollution. To enable the realistic assessment of potential risks and opportunities, it is in the best interest of financial institutions to incorporate environmental and social considerations into the decision processes of their business activities. It is important that such an integration is systematic not only vertically, that is at all hierarchical levels of the organization, but also horizontally, i.e., across all business divisions.

ESG requirements are increasingly included in requests for proposals (RFP) and due diligence processes. In the 2013 report of the Global Investor Coalition on Climate Change, over 80% of the asset owners surveyed considered the extent to which managers integrate climate change into their investment process and ownership activities. Switzerland is making significant efforts to position itself as an international hub in sustainable asset management. Furthering ESG integration is likely to strengthen its credibility as a leading centre for sustainable investment.

To facilitate practical implementation and increase acceptance, industry initiatives shall be preferred over legislation. This subsidiarity principle in law making is well established in Switzerland and has proved to be effective. In terms of fostering sustainable financing, industry initiatives can play an important role in encouraging first movers and can thus often be more effective than waiting for regulators to define mandatory processes and procedures. Top-down regulations are often difficult to implement in practice or result in suboptimal solutions; however they may play a valuable role as a last resort if no progress is discernible otherwise.

A large number of incentive schemes currently focus on short-term performance rather than long-term profitability. Providing long-term incentives not only to shareholders, but also to managers, traders and members of boards of directors is of utmost importance. Long term oriented incentive schemes should be aligned with key performance indicators (KPI) that focus on sustainability. In order to capitalize on ESG effects, it is essential that long-term thinking and behaviour predominates. The necessary paradigm shift must be driven by all of the above-mentioned actors. Another way of fostering long-term oriented behaviour on the side of investors is by using loyalty shares. The latter can convince investors to opt for long-term investments. Corporations can reward those shareholders who hold on to their shares longer than a specified period by issuing specially designed warrants.

Benchmarks offer yet another way of incentivising long-term behaviour on the side of investors. Given that benchmarks provide an important reference point for investors, the way benchmarks are constructed and used is of crucial importance in fostering long-term oriented behaviour. Designing benchmarks with long-term investment objectives in mind would provide investors incentives to financing an inclusive and green economy. The scope of benchmarks should also extend from measuring the financial results only to systematically reflecting the sustainability (i.e., non-financial) impact. Prompting asset owners and managers to assess performance against benchmarks which include measurements of social and environmental impacts would prove beneficial to transitioning to a more sustainable economy.

4.3 Valuing true costs

4.3.1 Reporting standards and transparency

Some of the key issues raised by financial analysts when it comes to integrating sustainability information into their financial analyses concern the lack of transparency, financial relevance and comparability of data. In order to systematically integrate sustainability or extra-financial factors into mainstream financial analysis, investors must have access to reliable information that can be used to compare projects and companies. Not only is it important that this information is available and comparable, it must also be presented to investors in a format that they can understand and relate to. In general, the collective aspiration for a green and inclusive economy also requires clarification of the different terms used in the field of sustainable finance. For example, in the area of energy it is unclear which sources the term 'green' refers to. A common understanding of terms and definitions enables transparency and boosts the credibility of sustainable investment vehicles.

The Environmental Profit and Loss Account (EP&L) established by the sports brand *Puma* in 2011 provides an innovative example of natural accounting at the company level. *Puma* developed an EP&L and an associated methodology using recognised ecological and economic measuring techniques. Greenhouse gas emissions, water usage, land use, air pollution and packaging throughout the supply chain were measured and then costed as services that must be paid for. Given that the environmental footprint of financial institutions themselves is expected to be negligible, it may be more relevant to capture ecological risks associated with their financing and investment activities. Initial steps towards capturing and quantifying the risks associated with carbon in assets under management have been taken with the Montreal Pledge, whereby investors commit to measuring and disclosing their associated carbon footprint. As an even more comprehensive disclosure approach, integrated reporting offers advantages for both investors and corporates because it ensures that companies as well as investors are able to present a more complete picture of their positioning to meet future challenges.

In recent years it has been possible to observe a transition towards the standardisation and integration of sustainability information through initiatives like the International Integrated Reporting Council (IIRC), Sustainability Accounting Standards Board (SASB), the Global Reporting Initiative's (GRI) new G4 guidelines and the Carbon Disclosure Project. These initiatives aim to develop reporting frameworks for extra-financial/sustainability information and to make this information available to investors in a transparent, comparable and accessible manner. In the case of standardisation, the emphasis should be on simplicity and understandability rather than perfection.

The quantification of both financial impact and external costs in a valuation scheme should be at the heart of a harmonised framework for valuing natural capital and applying it in business decision-making. A promising approach that pursues this goal is currently being developed with the Natural Capital Protocol (NCP) project, whose aim is not to invent new methods, but rather to build on existing frameworks (e.g. the World Business Council for Sustainable Development's (WBCSD) Guide to Corporate Ecosystems Valuation) to overcome the gaps between fragmented valuation activities and to enable a period of experimentation in the market through different sectors and geographies.[33] Another initiative which is more specifically targeted at the financial sector is the Natural Capital Declaration (NCD)[34]. The aim of this industry-led initiative is to develop a global methodology for understanding, embedding, accounting and reporting on natural capital risks in financial institutions' lending and investment portfolios covering both impacts and dependencies.

Integrated figures should be disclosed in annual reports and assured by internal controls and external audits conforming to ESG factors. Providing sustainability information in combination with mainstream financial information facilitates investors' access to sustainability information. Raising the awareness of management will facilitate the integration of sustainability information into company valuations and increase the attractiveness of projects for financial analysts and investors. The International Accounting Standards Board (IASB) and International Integrated Reporting Council (IIRC) announced an agreement that will see the two organisations deepen their cooperation on the IIRC's work to develop an integrated corporate reporting framework. The Memorandum of Understanding aims at improving the quality and consistency of global corporate reporting to deliver value to investors and the wider economy.[35]

As with the reporting of firms and projects, transparency in relation to the sustainability impact of financial products and investment portfolios represents a key driver for the transition to a green and inclusive economy. Given the lower information cost for investors, it will be easier for them to allow sustainability considerations to guide their decisions.

Today, transparency about the sustainability impact of financial products is moving in a similar direction to the Corporate Social Responsibility (CSR) area, in which voluntary reporting led to initiatives like the GRI and SASB a few years ago. The PRI initiative is an example which illustrates how this voluntary transparency is gaining in significance for asset managers and asset owners. The initiative's aim is to put the six Principles for Responsible Investment into practice. Its goal is to understand the implications of sustainability for investors and support signatories in incorporating these ESG issues into their investment decision-making and ownership practices.[36] Companies that integrate ESG aspects into their financial products and decisions and transparently communicate this to their stakeholders are well positioned to derive the most benefits from the growing demand for sustainable financial products. The implementation of ESG transparency at the financial product level is a necessary step to benchmark teams or business units within banks regarding the sustainability performance of the financial products they sell or invest in.

The aforementioned improvements to reporting standards and transparency will allow financial institutions to better serve the needs of investors with a long-term horizon. Competition for clients between financial institutions can then act as a catalyst for empowering institutional and private asset owners and ensuring that the clients' interests are taken into account and served more effectively. Clients are the crucial driving force of the movement towards sustainable financial products. Just as the organic or fairtrade movement offered consumers the choice of opting for different standards of products, the financial industry today must offer clients a real choice by offering a wide range of truly sustainable investment products.

By way of an example from Switzerland, *Globalance Bank* was the first bank to systematically provide clients with a sustainability footprint at the portfolio level showing not only the financial, but also the non-financial impact of a client's wealth. The impact assessment is based on nine thematic areas including water, biodiversity and land, resources and climate, and other social and economic factors. The analysis of a client's investment needs is still strongly focused on traditional risk capacity and appetite considerations. Informing clients about the sustainability impact early in the investment process would help to promote sustainability products. Hence, the training of relationship managers in the area of sustainable finance is an essential prerequisite. This will allow financial professionals to speak more informatively with clients on the topic and enable them to better interpret client needs in the ESG space. It is desirable that financial institutions adopt such approaches on a more systematic scale.

4.3.2 Education and research

An indispensable and transversal requirement for facilitating the alignment of the financial system with sustainable development is a paradigm shift in business, economics and finance education, ranging from education on sustainable finance at undergraduate and graduate levels to accelerated practitioner-oriented training programmes in sustainable finance. A more direct and educational dialogue with customers about sustainable investment will be required to increase the interest and demand in sustainable investment products. In addition, fundamental research and teaching initiatives aimed at supporting and creating specialists in the field should be promoted, for example, by financing research initiatives centred on topics at the intersection of the green economy, finance and sustainability. The role, size and level of complexity of the financial system are critical elements that should be analysed and assessed in order to facilitate a sustainable economy.

It is also necessary to identify specific aspects of the financial system that are considered dysfunctional and focus on proposing solutions as to how these specific aspects can be modified. For the policy debate, for example, it is useful to focus in particular on how concrete actions taken by financial institutions are leading to less inclusive and unsustainable growth, and on how policy actions can correct the identified sub-optimal outcomes. To enable clear-cut provisions, it is necessary to move away from general statements such as "the financial system is not working" to identifying specific mechanisms of the financial system that are "not conducive to sustainable growth" – as described, for example, in chapter 2.1 above.

In summary, the following actions support the transition to a sustainable financial system:

> Stable political environments with long-term regulatory certainty incentivise investors to commit to long-term investments.

> Provide effective tax incentive schemes for sustainable investments.

> Create incentives for pension funds to invest in green infrastructure and bonds.

> A successful financial market which serves the growing demand for sustainable investments. Client-focused product offerings necessitate the training of relationship managers.

> The reorientation of asset managers' incentive structures by measuring them against sustainability benchmarks, for example.

> Loyalty shares and benchmarks adjusted for increased time horizons.

> A valuation scheme which enables the inclusion of external costs. Integrated reporting will overcome the lack of transparency and comparability and will allow investors and analysts to systematically integrate ESG aspects into investment decisions.

> On the role of education, Switzerland could position itself internationally as a competence centre for sustainable finance research and education to consumers, investors, financial analysts and students.

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32 The Swiss National Bank currently designates four financial institutions as systemically important for Switzerland

33 www.naturalcapitalcoalition.org

34 www.naturalcapitaldeclaration.org

35 www.ifrs.org

36 www.unpri.org

5 Changing Pathways

To address and prepare for the substantial environmental and social challenges that lie ahead, we need a change in the way the financial system functions today. Unfortunately, the numerous examples of good practice in the area of sustainable finance in the Swiss financial market and beyond stand in contrast to how many traditional financial intermediaries manage environmental and social issues today: it is still largely the case that sustainability issues are only slowly integrated into operational and mainstream financial decision-making processes. As such, large financial institutions still regard sustainable finance as a niche activity or as being part of their corporate responsibility, and therefore sustainable finance has not yet attained the level of strategic importance that it deserves. In other words, in a world of predictable challenges, the gradually apparent case for green and sustainable business has not yet evolved to a significant level of maturity. A systemic transformation is needed which enables financial institutions to embrace sustainability in their business models to address the emerging risks and opportunities resulting from future changes in regulatory conditions or consumption patterns. Financial institutions looking to support the transition to a green economy should act now to integrate enhanced policy frameworks, processes and structures related to sustainable finance into their day-to-day decision-making. Financial institutions that take the strategic decision to move beyond the development of certain green niche offerings towards mainstreaming environmental and social considerations into their core business will improve their ability to manage risks, understand the reality of sustainability, be recognised as partners of choice in financing the future and emerge as industry leaders in an environment of fast changing regulatory frameworks and stakeholder expectations.

The most comprehensive approach to developing the green and sustainable finance market can be built on the recognition that substantial growth will always develop the strongest roots if there is a strategic vision behind the integration of green and sustainable development into the business model. This strengthens the preparedness of financial institutions for external risks. While ESG factors would ultimately become a mainstream aspect, the differentiating and competing elements remain. Clients would have the confidence to focus their investment decisions more often on identifying a suitable partner and on the pure financial performance of the investment target or product. The complexity of ESG, which remains apparent, would be largely removed from the investment decision process. This strongly supports the significant goal of simplifying and integrating the key elements considered in the decision-making.

Although in the longer-term many aspects of the transition towards a more sustainable and inclusive financial system are matters of self-interest and part of a strategic business case for financial institutions, there appear to be limits as to how much change individual institutions can achieve by themselves. Hence the transition for aligning the financial system with a green and sustainable economy appears to require a multi-actor approach involving financial institutions as well as regulators, politicians, clients and academia. Ultimately, cooperation is required between all stakeholders who have potential instruments and influence to shape and design a sustainable financial system. Since financial institutions, and specifically banks, are compliance-driven, regulatory schemes play an important role in supporting this transition, especially in addressing the issue of the failure of today's short-term financing and investment decision-making to capture longer-term environmental and social risks.

Regulatory actions can be an effective mechanism for achieving the pricing of social and environmental externalities which are only partially reflected in financial valuations today. Additionally, a level playing field for all actors could be reached and safeguarded by supporting, where necessary, the internalisation of externalities through financial regulation at international level (e.g. global standard setters). Any attempt at addressing the root causes of the instability of today's financial system and the inability of the financial system to completely fulfil its core functions in serving the needs of the real economy on its way towards a green and inclusive one can only be carried out as a concerted effort by different actors at the global level, including politicians, regulators, media, academia and the private sector.

Considering the specifics of the financial sector, significant barriers remain in terms of scepticism about the degree to which ESG aspects may add value and the perceived inability to measure that value. Furthermore, raising awareness among key decision-makers and building competencies aimed at not only fostering understanding of the urgency of this topic but also agreeing on a plan of action needs to be supported by educational measures, in which academia plays an important role. Therefore, academic research and the development of accepted models and standards are urgently required to demonstrate if and how value can be ascribed to the consideration of environmental and social risks and performance in investment decisions. As this evidence converges and is more widely communicated, the scepticism will gradually fade.

When it comes to influencing sustainability practices, information about environmental and social impacts arising from business disclosures is one of the most important tools in the hands of a wide range of stakeholders. One of the causes and justifications for the failure of the investment community to integrate ESG criteria into investment decision-making processes is the lack of reliable, comparable and accurate information. In Switzerland, there is currently no requirement for listed companies to disclose extra-financial KPIs. As a result, fewer than 50% of the Swiss listed companies have an extra-financial reporting framework. Among the companies that have such reporting, comparison is not always possible due to the use of different standards or consolidation methodologies. Schemes like the CDP, IIRC, and the NCD have been promoting environmental and social accounting and reporting, however there is still a need for more concerted efforts to broaden, standardise and mainstream such practices across industries and countries. If this standardisation does not happen voluntarily, there might be scope for financial regulation in accelerating such developments.

Hence, an important area for future reflection is the role that financial regulation should play not only in accelerating the more systematic integration of sustainability aspects into investment decision-making, but also in fostering the more widespread environmental and social information provision by both companies and financial institutions. Regulatory initiatives such as the mandatory carbon reporting requirements for firms listed on the London Stock Exchange and similar developments on other stock exchanges deserve particular attention as there appears to be evidence that such financial-market-oriented regulation can lead to the reflection of full costs in financial valuations.[37]

Improved transparency, in particular, requires financial institutions to better communicate their pricing decisions and the value proposition of products and services. The value should address the customers' expectations and needs. Transparency should not only lead to increasing the actual amount of information provided but should also focus on the elements that enable investors to make better informed decisions: return, risk and enabling price-building based on full-costs. Such efforts may complementarily benefit from a direct dialogue with customers and public discourse to educate consumers about sustainable investment which will also be required to increase interest and demand in sustainable financial services and products.

These elements do not depend solely on improvements in the financial intermediation process. It is equally important to ensure that policies outside the financial system aimed at promoting sustainable projects reduce uncertainties. Only in the presence of a predictable framework will sustainability projects be able to compete with standard projects for the same investment dollar.

There are three main drivers for the investment community to consider environmental and social concerns: enhancing long term investment returns, avoiding investment targets with unethical conduct and mitigating risks. Although many environmental and social issues can be considered as risks, they are not yet fully understood and integrated into the investment processes. Broadening the definition of the fiduciary duty to include such environmental and social considerations would address this shortcoming.

The number of good practice examples and pioneering developments in the area of sustainable finance together with other locational advantages give Switzerland a good starting position to become a leader in sustainable finance. The ongoing transformation of the functioning of the Swiss financial sector due to external and internal pressure and regulatory developments could be used as the basis for a thorough reflection on the interdependencies between the financial system and the transition towards a green and inclusive economy.

While the current competition landscape and framework aspects in the global green and sustainable finance market exert noticeable pressure on the Swiss financial market, a significant opportunity exists that can be utilised if financial institutions switch to a strategic approach in tackling the green economy challenges hidden in the financial sector. Being a forerunner and innovator makes it possible to shape the market and drive approaches forward rather than merely following the leaders. It requires all influential actors – from regulators to investors – to collaborate and move away from an exclusive focus on the management of their own particular interests. Furthermore, it is recommended that the private and public sector join forces to achieve this overarching goal. Switzerland is part of the international competition, therefore all measures need to be considered from the perspective of the international context and decisions should not be made in isolation.

37 See, Krüger (2015), Climate Change and Firm Valuation: Evidence from a Quasi-Natural Experiment available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2565523