Summary

Climate-friendly investment strategies and performance

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Summary

Background and objectives of the study

The **Paris Agreement** of December 2015 states that the international community wants to **align future finance flows with climate-friendly development**.[1] A global temperature increase of no more than 2 degrees Celsius above pre-industrial levels is a critical threshold as a higher temperature increase can lead non-manageable climate impact or even to irreversible tipping points in the climate system. Due to the long retention period of greenhouse gases in the atmosphere emissions are to be stabilised at net zero in the second half of this century.[2]

A 2015 FOEN study on "Carbon risks for the financial centre of Switzerland" showed that the greenhouse-gas intensity of the Swiss equity fund market **is currently incompatible** with this climate-policy goal of 2 degrees Celsius. This can pose a number of **risks** for investors. Consistent mitigation of climate change through increased CO_2 prices and stricter regulations, for example, can lead to value adjustments (transition risks). In addition, damage to production sites or other points in the value chain due to an increasing number of extreme weather events can result in losses in value (physical risks).[3] With the growing awareness of customers, reputational risk also increases that investors frequently mention as motivation to switch to investment strategies that are more climate friendly.

Reliable information about the CO_2 exposure of investments and associated risks are a first step to change investment behaviour. The return on low-carbon investment strategies is central in this regard.

The main **objectives of the study** thus are, first, to **expand knowledge about determining the climate impact** of finance flows, and second, to examine the **performance of investment strategies that are more climate-friendly**.

Insights into the CO_2 intensity of important asset classes

Methods are now available for determining the emission intensity for **all major asset classes**.

- For equities and corporate bonds, this is already very standardized, automated, and possible at a relatively low cost.
- For real estate portfolios, there are consolidated methods for calculating CO_2 emissions. A rough analysis (top-down) is possible at a relatively low cost, but analyses that are more detailed are costlier.
- For government bonds, there are various methodological approaches, but there is still no international consolidation.
- Infrastructure investments require a project-specific approach. Avoided emissions, i.e., emissions that have been saved as compared to the scenario without new infrastructure, also represent an important analysis perspective here.[4]

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[1] Text of Article 2.1.c: "Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development"

[2] The treaty sets a global temperature increase to well below 2 degrees Celsius above pre-industrial levels as a clear goal, and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels (Article 2.1.a).
The proposed stabilization to net zero emissions, according to the text of the Paris Agreement (Article 4.1.): "to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century".

[3] According to representatives of the insurance industry, a world that is 4 degrees Celsius warmer is no longer insurable. See also http://versicherungswirtschaft-heute.de/koepfe/eine-welt-die-sich-um-4-grad-erwarmt-ist-nicht-mehr-versicherbar

[4] One example is energy infrastructure: If a wind turbine is built, emissions are avoided if, instead of the wind power plant, a coal power plant would otherwise have been used for energy production.

The **emission intensity of corporate bonds** has been studied in depth. It has been shown that both, the examined pension fund portfolios (406.5 tCO_2eq / CHF 1 million), and the Global Corporate Bond Index (362.4 tCO_2eq / CHF 1 million), have a significantly higher CO_2 intensity than the low-carbon Low Carbon Bond Index[5] (140.2 tCO_2eq / CHF 1 million). As in last year's study of equity portfolios, there is a CO_2-intensity discrepancy by a factor of 2 to 3 between low-carbon and conventional investment portfolios for corporate bonds. The study thus supports the idea that Swiss investments in foreign corporate bonds that are based on traditional indices favour **a 4-to-6 degrees Celsius development path**.[6]

There are various **investment strategies that allow a considerable reduction in CO_2 intensity**. In the investment portfolios examined, two thirds of the financed CO_2 emissions result from two sectors – the oil and gas and power-supply sectors; if these sectors alone were reduced in a portfolio, significant CO_2 reductions could ensue. Numerous sectors also show further potential for reducing CO_2 emissions. One can invest in companies with lower CO_2 emissions within these sectors, for example, without having to make a fundamental change in the portfolio weighting of said sectors. **Climate-friendly indices** currently are already pursuing corresponding investment strategies (re-balancing the weighting of sectors, reallocation of emissions within a sector).

In an *excursus*, the portfolio of a sustainability oriented pension fund was examined to determine whether it had a lower emission intensity as compared to conventional investment strategies. The analysis confirmed that both, the equity mandate as well as the bond mandate examined, are significantly less CO_2 intensive than a conventional investment strategy.

Climate-friendly investment strategies – return and risk

Many investors, especially pension funds, pursue so-called passive investment strategies, i.e., based on existing indices. An increasing number of incides exist, that take climate change aspects into account. As examples, eleven **different climate-friendly indices**[7] by the relevant market index providers MSCI and STOXX were analysed. A quantitative analysis of these indices shows:

- **Almost all** more climate-friendly indices studied show a **higher return** than their respective conventional benchmark indices (ten of the eleven cases).
- A **slightly higher risk** was observed in seven of the eleven indices studied.
- If, in addition, the return is juxtaposed against the risk involved, then in eight out of the eleven cases, the investor has a **better risk-return ratio** in climate-friendly indices compared to the respective conventional benchmark index.[8]

In most cases, the investor is thus compensated for taking the additional risk by a correspondingly higher return. Depending on the index strategy selected, passive investment strategies with a **comparable risk-return profile** can be used to decrease **emission intensity by 10 to 90 percent.**

An analysis of the emission intensity, however, only allows an initial indication of the climate risks and no comprehensive **risk assessment.** Thus, for example, the technology **diversification** of a portfolio in the climate-related sectors (e.g., energy production) cannot be assessed and it is not possible to assess whether portfolio companies have **a climate strategy** and implement it.

[5] The Solactive Low Carbon Bond Index was examined, among others – see the Annex in that regard
[6] A comparison of the composition of the equity portfolios examined (FOEN 2015) and the corporate portfolios examined this year shows a stronger weighting of CO_2 intensive sectors, in particular in the oil and gas and power-supply industry.
[7] The 11 indices examined can be divided into three climate-friendly index groups: sector exclusion indices; Thematic indices as well as best-in-class and carbon-weighted indices – see Chapter 3.2 in that regard.
[8] Calculations of key figures such as risk (volatility) or risk-return ratio (Sharpe ratio), see Annex II.

There are already several innovative concepts that consider climate risks more holistically. Two such **progessive, climate-friendly investment strategies** were reviewed in the context of the study.

- The **"2° Portfolios"** were designed on the basis of the work of the 2° Investing Initiative, an independent think tank. With their climate-impact model, especially climate-relevant sectors can be examined by using forward-looking data for their compatibility with the 2 degrees Celsius target path.

  The hypothetical historical return over the past decade was examined for the "2° Portfolios". The "2° Portfolios" show **a greatly improved return** at **approximately the same risk** compared to the benchmark index MSCI World, particularly in the last six years.

- **"CLIMPAX portfolios"** were created on the basis of the EU-financed initiative with the same name. CLIMPAX created a rating for investment funds that undertakes, for companies in all sectors, an estimate of their impacts of climate change based on emission intensity and climate goals, among other factors.

  The CLIMPAX portfolios also show an **improved return** as compared to the selected investment benchmark.[9] The risk-return ratio of CLIMPAX portfolios is as well better than its benchmark, despite the higher absolute risk.

Both analysis therefore provide an initial indication that **active investment strategies** which **comprehensively incorporate** the indirect climate effects of financing and investments, returns in line with the market could be achieved in recent years.

Significance for the Swiss financial market

Returns of low greenhouse-gas-emission equity investment strategies in line with the market in recent years show that **relevant climate-friendly alternatives** are available to the Swiss financial market. In addition, there are methods for numerous other asset classes to include climate-related aspects in investment decisions.

However, although there are first steps towards integrating climate-change impacts in investment decisions in the Swiss financial market,[10] **Switzerland** as a whole is **in comparison to other countries a laggard.**[11]

External pressure on players in the Swiss financial market to address the issue of climate change to a greater extent could increase. Drivers for this are, in particular, the increasing sensitivity of consumers and thus an increasing demand for climate-friendly investments. Actors who do not adapt are thus subject to an increasing reputational risk. Relevant developments are also taking place at the international level. In addition to the Paris Agreement already mentioned above, the Council of the European Union has submitted a draft of the new Institutions for Occupational Retirement Provision Directive (IORP II) to the European Parliament, which – where relevant – calls for reporting on climate-change risks. At the same time, the Financial Stability Board (FSB) has established a private industry-led Task Force on Climate-related

[9] The ishares Stoxx Europe 600 UCITS ETF was used as benchmark.
[10] For example, the Zürcher Kantonalbank and AXA Winterthur have signed the Montreal Pledge as part of the AXA group. Other examples are the establishment of the Swiss Association for Swiss Sustainable Finance (SSF) in 2014, the commitment of Zurich Insurance to green bonds or the new regulations of UBS, Credit Suisse and Pensionskasse Publica regarding investments in the coal industry.
[11] The result of the comparison of AODP, http://aodproject.net/; WWF study of pension funds, https://shareaction.org/wp-content/uploads/2016/05/WWFGermanReport.pdf, Report of the Swiss Finance Institute (2016) White Paper on "Sustainable Finance in Switzerland: Where Do We Stand?"; http://sfi.ch/node/5304

Financial Disclosures to develop recommendations for voluntary, climate-related financial risk disclosures.

Recommendations and outlook

The report shows that for **equities and corporate bonds**, in particular, **determining** the climate impact is **relatively easy** (emission-intensity measurement and innovative climate-impact concepts). The **offering** of relevant climate-friendly investment strategies **is increasing** as well and the study proves their **historical returns in line with the market**.

For **investors**, the following recommendations can be derived from this:

- **Establishing the climate impact of portfolios and improving process integration:** determining the investment climate impact is an important first step in being able to determine risk exposure. Climate-related aspects should then be integrated into regular processes, such as the due-diligence reviews of investments. Climate-related aspects should also play an appropriate role in the selection and performance review of external investment advisors.
- **Defining strategies, setting goals and establishing guidelines:** in order to address the risks associated with climate change and recognize opportunities, the overall strategy and responsibilities should be explicitly formulated (particularly for sectors with high climate-change impact).[12] The strategies and objectives should be embedded in the investment strategy and subsequently be incorporated into investment guidelines.
- **Creating transparency:** a proactive, rather than reactive, approach to the topic of climate change means that institutional investors actively communicate their respective objectives and guidelines to all stakeholder groups – the ultimate customers, for example.

Lawmakers and appropriate authorities can support the path of the finance industry towards a climate-friendly orientation of finance flows and the containment of risks associated with climate change. The authors recommend, in particular, closing knowledge gaps and developing internationally agreed benchmarks in order to be able to assess progress towards the climate-related impact of finance flows.

The **outlook** shows that an increasing range of more efficient and more effective offerings for determining the climate impact of investments as well as climate-friendly products become available. A free assessment of investment regarding their climate impacts is possible in the near future or, in part, already possible today: international initiatives such as CLIMPAX, the climate-impact model of the 2° Investing Initiative or providers like yourSRI.com and Fossilfreefunds.org allow investors a quick and detailed orientation for investment funds and individual investment mandates.

[12] If an investor assumes a decarbonisation development path, increasing transition risks can be expected. If the investor assumes a 4-6 degrees Celsius development path, then increasing physical risks such as extreme weather events, for example, should be expected. Reputational risks should also be included in the deliberations.