



# AIMING HIGHER

Measuring progress on the climate goal alignment & climate actions of Swiss financial institutions

# PACTA CLIMATE TEST SWITZERLAND

*November 2022*

## IMPRINT

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**About PACTA:** Building off a vast climate-related financial database, the PACTA tool aggregates global forward-looking asset-based company data (such as the production plans of a manufacturing plant over the next five years), up to the parent company level. The tool then produces a customized, confidential output report, which allows investors to assess the overall alignment of their portfolios with various climate scenarios and with the Paris Agreement.

This report is part of the PACTA Coordinated Projects (PACTA COP): a dedicated program with governments and supervisors to help them apply PACTA to the portfolios of their regulated entities.

**About Wüest Partner:** Wüest Partner is an independent, owner-managed consulting firm. As impartial experts, we have been delivering first-class decision-support tools for professional real estate players since 1985. We offer our clients – both in Switzerland and abroad – a wide range of services encompassing advice, valuations, data, applications, publications and education. Our knowledge creates transparency and helps to break new ground for the continued development of the real estate sector.

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The full report in English is available for download [here](#), the executive summary is available in German and French.

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## SUMMARY– PACTA CLIMATE TEST 2022 SWITZERLAND

*This document provides a summary for of the PACTA Climate Test 2022 Switzerland. The document first provides background information on the Climate Test, followed by information on the level of participation in this year's test and a brief overview of the methodology. The document then shows the key findings of the test for the Swiss financial sector in terms of (i) climate action, (ii) alignment of the listed equities and corporate bond investments, and (iii) alignment of real estate and mortgage portfolios.*

### 1 **ABOUT THE PACTA CLIMATE TESTS**

**In order to monitor the Swiss financial markets' progress towards achieving climate targets, the Federal Office for the Environment (FOEN), in close cooperation with the State Secretariat for International Financial Matters (SIF), regularly conducts voluntary PACTA climate tests.**

By signing the Paris Agreement, Switzerland has committed itself to aligning its financial flows with the goal of limiting global warming to well below 2°C and to continue efforts to limit it to 1.5°C. The Federal Council has also set the goal of achieving net zero by 2050 and that Switzerland should be a leader in sustainable finance. The PACTA (Paris Agreement Capital Transition Assessment) climate tests examine the Swiss financial sector's alignment with the Paris Agreement goals and analyses progress in this regard. PACTA is an independent and open-source method available on the market in unlicensed form.

**The Climate Test 2022 builds on two successful test rounds from 2017 and 2020.<sup>1</sup> In order to take into account more concrete, climate-effective measures taken by financial institutions, the qualitative survey on climate action was further expanded for the test round in 2022, as was the support provided to financial institutions.**

In 2022, all Swiss pension funds, insurance companies, banks and asset managers were again invited to participate voluntarily and free of charge in the PACTA 2022 climate test. The test consists of a (i) quantitative module that measures investments in listed equities and corporate bonds against global climate goals, (ii) a real-estate module that measure investments in Swiss real estate as well as mortgage financing are against the national climate target path for the buildings sector, and (iii) a qualitative survey that aims to capture more broadly the climate actions and strategies Swiss financial institutions are undertaking. The test was further developed for 2022 with the help of valuable feedback from Swiss financial institutions and associations and the support for participants was expanded.

**The PACTA climate tests can support financial institutions to implement the recommendations of the Swiss Federal Council and the associations, as well as to fulfil various reporting obligations. Comparable statements are made possible because the same methodology and data is used for all.**

The participants of the Climate Test 2022 receive individual, interactive reports with the results of their climate goal alignment. For each portfolio, they also receive an executive summary - greatly expanded compared to 2020 - of the most important results in English, German and French. This is only given to the participating financial institutions, but can be published voluntarily. These reports can support the various requirements for financial institutions, such as the recommendations on net-zero target setting when joining such international alliances<sup>2</sup>,

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<sup>1</sup> [Out-of-the-fog.pdf \(2degrees-investing.org\)](#) and [Bridging-the-Gap-Swiss-PACTA-Report.pdf \(2degrees-investing.org\)](#)

<sup>2</sup> [Glasgow Financial Alliance for Net Zero](#)

as well as on reporting obligations and recommendations<sup>3</sup> including transparency on engagement with invested companies. The comparability of the results enables the participating financial institutions to compare their efforts with those of other institutions in the same industry.

**Participants now also receive most of the “Swiss Climate Score” indicators<sup>4</sup> for each portfolio submitted, in addition to the PACTA results with peer comparison.**

In November 2021, the Swiss Federal Council recommended to all financial market actors to create transparency for all financial products and investment portfolios with the help of comparable and meaningful indicators on climate orientation. To support this, a set of climate alignment indicators the so-called "Swiss Climate Scores", was developed. The Federal Council recommends applying these where appropriate, to all investment products and client portfolios. To support this implementation, PACTA 2022 participants receive information on most indicators in addition to their individual PACTA analysis.

**This PACTA Climate Test Switzerland 2022 is part of the international programme called "PACTA Coordinated Projects". It has already reached almost 20 governments and financial regulators worldwide and contributes to standardising the measurement and monitoring of the financial sector's contribution to the Paris climate goals.**

PACTA Coordinated Projects (PACTA COP) builds on the Swiss-Dutch initiative launched in 2019 on the margins of the UN Climate Summit.<sup>5</sup> With applications in South and North America, Europe and Asia, PACTA is developing into an international standard.<sup>6</sup> Lessons learned in the various analyses with countries and regulators are shared and brought into the international debate. These projects are about measuring progress towards climate goal alignment from an overall market perspective as well as about the actual climate goal alignment and contributions of individual financial market actors and groups.

**At the level of the overall market, alignment with the climate goal is urgent (‘alignment’). In order to achieve this, measures are necessary at the level of the individual institutions with which concrete climate goal contributions can be achieved (‘impact’). For a meaningful assessment, the different parts of the analysis should therefore be considered in combination.**

The financial sector can make a decisive contribution to achieving the climate goals. Measures to align financial flows with climate goals should thus complement regulations of real economic sectors, such as adequate CO<sub>2</sub> pricing. However, the question is what actions financial market actors can actually take to contribute impactful to the decarbonisation of the global economy. From a governmental perspective, the overarching goal is to align financial flows with the climate goal of the Paris Agreement. However, for an individual financial portfolio, this alignment alone is an insufficient indicator to assess whether individual measures are climate effective. For example, if a financial institution no longer invests in a coal-fired power plant, this does not necessarily mean that it has ceased operations – the emissions may simply have been transferred to other financial portfolios or even

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<sup>3</sup> [Federal Council initiates consultation on ordinance on climate reporting by large companies; ASIP - ESG Wegleitung; Net-zero alliances: an essential tool for supporting climate goals- SwissBanking; AMAS joins net zero alliance](#)

<sup>4</sup> Media release by the Federal Council [‘Federal Council strives to be international leader in sustainable finance with climate transparency \(admin.ch\)’](#), November 2021; Media release by the Federal Council [Federal Council launches Swiss Climate Scores for climate transparency in financial investments \(admin.ch\)](#), June 2022.

<sup>5</sup> Media release OFEV [Switzerland and the Netherlands present initiative for climate-friendly investments \(admin.ch\)’](#), September 2019.

<sup>6</sup> [PACTA-COP-Stocktake.pdf \(2degrees-investing.org\)](#)

asset classes. In the context of the PACTA Climate Tests, the results from the quantitative analysis on portfolio alignment should therefore be understood in close interaction with the findings from the qualitative data.

## 2 PARTICIPATION

**The PACTA Climate Test 2022 test provides a representative picture of the Swiss financial sector in climate-relevant asset classes and for all four financial industries.**

Institutions of different sizes from the pension funds, insurance companies, banks and asset managers sectors were motivated to participate voluntarily. 133 financial institutions submitted portfolios for analysis in the PACTA Climate Test Switzerland 2022. Most of them submitted global equity and corporate bond portfolios as well as Swiss real estate and mortgage portfolios to the test. Around two thirds also responded to the qualitative survey. The authors assume that those financial institutions that undertake climate-relevant measures in addition to portfolio allocation had an interest in disclosing them by filling out the survey.

*Table 1: The table shows the participation in the individual financial sectors and PACTA modules*

Group	Listed Equity & Corporate Bonds	Real Estate & Mortgages	Qualitative survey	Total
Pension Funds	59	53	38	67
Insurance	18	10	12	20
Banks	30	21	24	31
Asset Managers	13	14	9	13
Other	2	-	2	2
<b>Total</b>	<b>122</b>	<b>98</b>	<b>85</b>	<b>133</b>

**Data quality improved significantly overall in 2022 compared to 2020. In the global asset classes, the highest number of listed equities were submitted for the test.**

For the PACTA test of global asset classes, participants submitted the most assets under management in the asset class equities, followed by corporate bonds and funds. Except for insurances, which submitted significantly more corporate bonds for the test than shares. Other assets such as government bonds could also be submitted, but were not analysed. The PACTA team, the FOEN and the associations recommended submitting the entire assets under management for testing and not just parts of them, in order to obtain the best possible overall picture. For plausibility purposes, a corresponding question was introduced in the survey. However, since the PACTA Climate Test is voluntary and based entirely on self-reported data, and not all participants also completed the survey, the authors have little opportunity to verify the information.

*Table 2: The table shows in detail the value of assets uploaded for listed equity, corporate bonds, funds and other in CHF per sector.*

	Participants	Portfolio Value uploaded (Bn CHF)			
	#	Listed Equity	Corporate Bonds	Funds	Other
Pension Funds	59	101.1	74.0	10.7	39.7
Insurance	18	46.9	210.1	4.7	80.3
Banks	30	765.5	312.5	90.8	197.1



<b>Asset Managers</b>	13	280.0	78.9	2.0	33.6
<b>Other</b>	2	NA	NA	NA	NA
<b>Overall</b>	<b>122</b>	<b>1193.5</b>	<b>675.5</b>	<b>108.2</b>	<b>350.7</b>

**In terms of real estate and mortgages, around half of all buildings held directly by institutional investors were submitted for the climate impact test. Residential buildings dominate with 90 percent of the submitted buildings.**

There were 21,342 directly held buildings submitted for the PACTA 2022 analysis. The largest share, 39 percent of all directly held property portfolios, were submitted by pension funds, followed by asset managers with 32 percent. However, if one looks at the submitted quantities of heated areas, the so-called energy reference area, for the analysis, banks submitted the most real estate areas with 37 percent. Residential use makes up the largest share of all uses in both segments, at 87 and 97 per cent respectively.

**More than half of all residential buildings in Switzerland were analysed via the mortgage portfolios. This good coverage of the real estate portfolio shows the close interconnection of the financial market and the building portfolio. In the area of mortgages, the share of privately owned single-family houses is probably very high.**

In the 2022 climate test, 905,350 mortgages could be examined. Of these, 25 portfolios were submitted by banks, 21 by pension funds, 12 by insurance companies and 5 by asset managers. The sector classification was made according to self-declaration. However, an examination of the heated areas submitted for testing shows that banks account for by far the largest share, 94 percent. The proportion of single-family houses owned by private individuals is likely to be very large in the case of mortgages.

**Overall participation in the voluntary climate test remained at a similar level for banks and asset managers compared to 2020. Insurance companies participated slightly less. The participation of pension funds decreased significantly - except for the asset class of directly held real estate.**

In the case of banks and insurance companies, a similar number of institutions took part in the 2022 climate test as in 2020 (31 banks each, 14 asset managers in 2020, 13 in 2022). However, banks submitted slightly fewer assets under management to the test overall, but more mortgages by area. Insurance companies still had 20 participants compared to 24 in 2020, but submitted even more assets under management in the asset classes equity and corporate bonds than in 2020. In all sectors, some financial institutions participated in 2022 for the first time, most of them in asset management.

With 67 participants compared to 106 in 2020, pension funds are clearly lagging behind, submitting fewer assets under management in the asset classes of equity and corporate bonds overall, but a similar number of directly held properties in terms of area.

**So far, a representative participation has been achieved with this voluntary initiative. The associations<sup>7</sup> play an important role here with their recommendations to the members. That said, representative participation in all sectors is central to meaningful overall monitoring.**

Pension funds and insurance companies could participate in the test for the third time in 2022, banks and asset managers for the second time. It remains unclear whether the decline in pension funds and the slight decline in insurance companies' participation is related to this. In order to keep regular participation in the test attractive not only from the perspective of the market as a whole, but also from the perspective of individual institutions, the independent Think Tank Rocky Mountain Institute RMI and BAFU offer additional innovations in each test round. For example, through close cooperation with the FOEN and SIF 2022, most of the "Swiss Climate Scores"<sup>8</sup> indicators could be newly included.

### **3 METHODOLOGY**

#### **3.1 Listed equities and corporate bonds**

**The quantitative assessment of listed equities and corporate bonds is based on the Paris Agreement Capital Transition Assessment (PACTA) tool, a free, open-source software that calculates the extent to which the capital expenditure and industrial assets of companies in an equity, bond or loan portfolio are consistent with different climate scenarios.**

PACTA enables financial institutions to measure the alignment of their portfolios with climate scenarios across a set of climate critical sectors and technologies. At its core, PACTA compares what needs to happen in sectoral decarbonization pathways with financial actors' exposures to companies in climate relevant sectors. The main feature of PACTA is its ability to allocate macroeconomic climate goals (Paris Agreement goals) to microeconomic agents (corporates). It then assesses the performance of the corporates against the climate goals using forwarding-looking production plans of the companies, which is based on physical asset-level data, and consolidates that information to identify the alignment profile of the companies. Finally, the methodology then assesses the overall alignment of financial portfolios with exposures to these corporates.

PACTA covers eight of the most carbon-intensive sectors in the economy (i.e., the sectors most exposed to transition risks) – oil and gas, coal, power, automotive, cement, aviation, and steel (the "PACTA sectors"). Together, they are responsible for over 75 percent of all CO<sub>2</sub> emissions. In each sector, PACTA focuses on the part of their value chain with the highest contribution in terms of CO<sub>2</sub> emissions. For example, in the oil and gas sector, the focus is on upstream activities related to production, while in the power sector, the focus is on power generation and related sources of energy.

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<sup>7</sup> The following associations actively support the Climate Test 2022: AMAS (Asset Management Association Switzerland), ASIP (Swiss Pension Fund Association), KGAST (Conference of Managing Directors of Investment Foundations), SBVg (SwissBanking), SSF (Swiss Sustainable Finance), SVV (Swiss Insurance Association), SVVK-ASIR (Swiss Association for Responsible Investment) and VSKB (Association of Swiss Cantonal Banks).

<sup>8</sup> [Swiss Climate Scores \(admin.ch\)](https://www.admin.ch): For each portfolio submitted for testing, the following indicators are additionally shown in the individual test report: greenhouse gas footprint; exposure to fossil fuel activities and renewable energies; share of companies in portfolio with verified commitments to net zero and credible interim targets; queried results on credible climate stewardship; global warming potential according to the PACTA method; CO<sub>2</sub>-intensity of real estate and mortgage portfolios.

The methodology measures the alignment per sector or per technology. The reason is that what needs to happen to meet the goals of the Paris Agreement is different per sector. Some sectors need to move faster than others, and some sectors need to reform (power generation) while others need to phase out (fossil fuels).

The climate scenarios used in this report for assessing the climate compatibility of global sectors were published by the international energy agency (IEA), the One Earth Climate Model, and the European Commission Joint Research Centre.

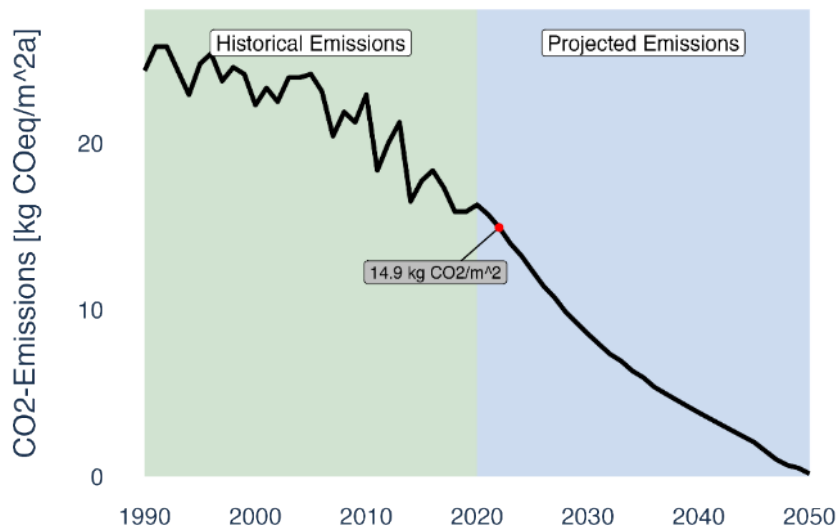
### 3.2 Real estate and mortgages

**The real estate module, including the CO<sub>2</sub> calculator, is developed by Wüest Partner AG on behalf of the FOEN, and is used for the analysis of the real estate and mortgage part.**

It takes into account the location of the building, energy-relevant data such as heating system, heated area, refurbishment details and geographical altitude. Participants could provide the energy-relevant data themselves, if they have it, and thus receive the data quality "good". Otherwise, they are taken from the Federal Register of Buildings and Housing (GWR), which is maintained by the Federal Statistical Office and fed by the cantons and municipalities. The cantons are obliged to keep it up to date, but this has not yet been implemented in the same way in all cantons.

Using SIA standard 380/1 (2016) "Heating demand" and the CO<sub>2</sub> emission factors specified by the FOEN for the energy sources "heating oil" and "natural gas", the annual CO<sub>2</sub> emissions are calculated that are generated in the heat production for heating and hot water of this building.

*Figure 1: The figure shows the development of CO<sub>2</sub> emissions from buildings and reduction path according to the "Long-Term Climate Strategy for Switzerland 2050".*



Renewable energy sources are given a value of zero for CO<sub>2</sub> emissions because, for reasons of data availability, only the Scope 1 emissions of the buildings are considered (without electricity 'Scope 2' and grey emissions in building materials 'Scope 3').



The calculated value for CO<sub>2</sub> emissions provides an indication of the climate compatibility of a building according to the Long-term Climate Strategy of Switzerland<sup>9</sup>.

## **4 KEY FINDINGS**

In the following, you will find the key findings of the survey on (i) climate strategies and actions, (ii) the listed equity and corporate bond module, and (iii) the real estate and mortgage module.

### **4.1 Climate Strategies and Actions**

**Over the last few years, there has been increasing awareness within the financial community that investment strategies should have an impact on the real economy. The PACTA Climate Test 2020 already showed that awareness of sustainable finance in general is high in the Swiss financial sector. Now it is time to *aim higher* and understand how ambitious the climate strategies are and whether they are being sufficiently implemented.**

The PACTA Climate Test 2020 analysis already showed that awareness of climate issues in the Swiss financial sector has risen sharply, which was reflected in the increase in overarching strategies. But less so in concrete actions to contribute to emissions reductions in the real economy. The focus of this round of testing in Switzerland is therefore to examine the extent to which overarching strategies have already been implemented, to investigate how ambitious they are and how the results of these strategies are reflected in the quantitative PACTA results.

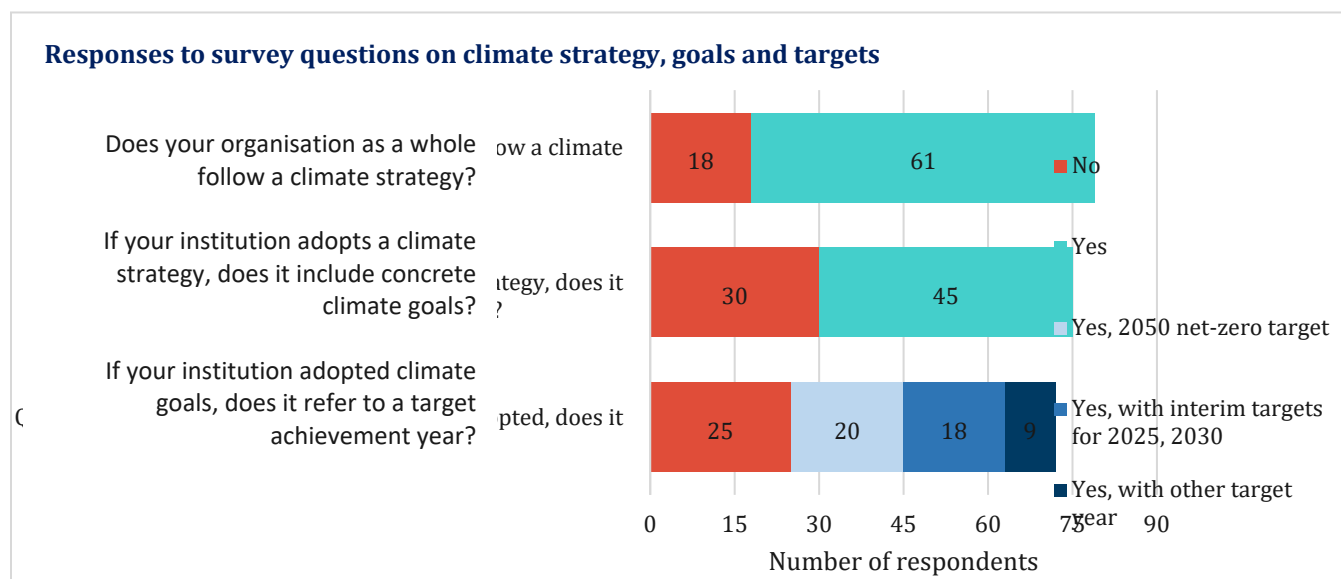
**A climate strategy sets the financial institutions ambition. Almost two third of the participants in 2022 reported they have a climate strategy or were planning one by 2022, a similar number to 2020. The share of financial institutions, with concrete net-zero targets for 2050 or climate interim target in their strategy rose. But there's still scope for more institutions to follow, especially on setting concrete near term targets.**

A total of 79 financial institutions answered the question on a climate strategy. Of these, 61 indicated that their financial institution as a whole has a climate strategy (see figure below). Forty-five participants indicated that they have specific climate targets, which corresponds to about three-quarters of those with a climate strategy for the entire organisation, or one-third of all test participants in 2022 (133). In addition, 38 participants indicated that they have either a net-zero target for 2050 or an intermediate target for 2025 or 2030. 20 of them indicated having a net-zero target for 2050 (light blue) and 18 an intermediate target for 2025 or 2030 (blue). 9 stated that they were pursuing a different target year (dark blue).

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<sup>9</sup> [Long-term climate strategy to 2050 \(admin.ch\)](#)

Figure 2: The figure shows the responses to the survey on climate strategy, climate goals and target years.



In this context, it should be noted that especially short-term targets will decide whether the global economy is on track to sufficient and disruptive change or not. The results therefore suggest that there is scope for more Swiss financial institutions to follow the best practice of having concrete climate goals and on having concrete near term targets.

**In practice, a financial institution can influence the performance of investee companies through mainly two different mechanisms: Financial signals and incentives through non-financial levers.**

Investors can provide financial support for the climate transition of a company or a building. In addition, according to various research findings, stewardship activities in particular can have an impact on the performance of companies in the liquid asset classes. The analysis therefore focuses on how ambitious Swiss financial institutions are in their engagement with invested companies and how they use their voting rights.

#### 4.2 Climate Action with a focus on investor stewardship

**Out of the 45 respondents with concrete climate goals, 39 exercise voting rights in at least one asset class, 34 do engagement in at least one asset class. 16 respondents reported to have a dedicated engagement team, which speaks for a stronger formalized and intensified process for engagement.**

Of those with concrete climate goals, 24 do engagement with companies from at least one climate relevant economic sector. However, more than 10 percent of the financial institutions with concrete climate targets (6 financial institutions) apparently neither exercise voting rights nor are in dialogue with companies. This suggests that there is still potential to use such measures to influence corporate performance and achieve concrete climate targets.

**Individual as well as joint engagement efforts are most concentrated on fossil fuel and power companies. The second most attention is paid to the cement and steel sector.**

The prioritisation of stewardship activities in the fossil fuel and energy sectors could be a sign that Swiss investors are aware of the significant changes needed in these sectors to achieve climate goals. Also, in the *hard-to-abate* sectors such as steel and cement, investor engagement plays an important role according to the NZAOA<sup>10</sup> to achieve broader changes in the regulatory environment and to support technological development.

**What happens after engagement and the use of voting rights is as important as the engagement itself. Out of the 45 institutions with concrete climate goals, only 20 institutions indicated that they exclude if engagements are not successful.**

Escalation strategies underpin the goal of financial institutions to promote real change in the real world. They provide for credible sanctions in case the changes are not achieved. Furthermore, the “Swiss Climate Scores”<sup>11</sup>, for example, define that for “credible climate stewardship”, the exercise of voting rights or other engagement practices should be accompanied by an escalation strategy. Moreover, the demands themselves should be compatible with the goal of achieving net zero by 2050. The PACTA 2022 questionnaire did not ask about the concrete demands of financial institutions on invested companies.

**The literature suggests that besides investee engagement also political engagement can have a positive impact on reaching the climate goals. On the political level, Swiss financial institutions seem to be hesitant to “position” themselves in the political process compared to just “supporting” political issues.**

Only 15 financial institutions indicated positioning themselves in the national decision-making process, but 54 indicate support for the Paris Agreement. While the motivation behind this differentiation between “position” and “support” can be multifaceted, it makes it more difficult to draw a conclusion on the actual share of institutions doing political engagement in Switzerland. But overall, the numbers seem rather low compared to the overall number of participants that filled out the questionnaire (85).

### **4.3 Equity and corporate bonds**

**The economic sectors covered by PACTA<sup>12</sup> that are particularly relevant to climate change account for about 10 percent of the total assets of participating financial institutions in listed equities and corporate bonds.**

All peer groups had an overall exposure to climate-related sectors (PACTA sectors) between 8-15 percent in listed equities and 8-10 percent in corporate bonds, similar to 2020. Oil and gas, coal, electricity and automotive remain the dominant sectors in both investment types. These results are roughly comparable to the 2020 results and also to those of other countries such as Liechtenstein, Austria and Norway.

**Around 1 percent of the submitted listed equity portfolios and 3 percent of the corporate bond portfolios of Swiss financial institutions are invested in fossil fuels. This is significantly less than in 2020 and one of the lowest percentages in an international comparison.**

This percentage contrasts with the 2020 figures, when around 2-4 percent of listed equities and 3-5 percent of corporate bonds were invested in this sector. In an international comparison with Norway, Austria and

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<sup>10</sup> [Net-Zero Asset Owner Alliance NZAOA \(2022\)](#)

<sup>11</sup> [Swiss Climate Scores \(admin.ch\)](#)

<sup>12</sup> PACTA covers eight of the most carbon-intensive sectors of the economy: oil and gas, coal, electricity, automobiles, cement, aviation and steel (the “PACTA sectors”). Together they account for over 75% of all CO<sub>2</sub> emissions.

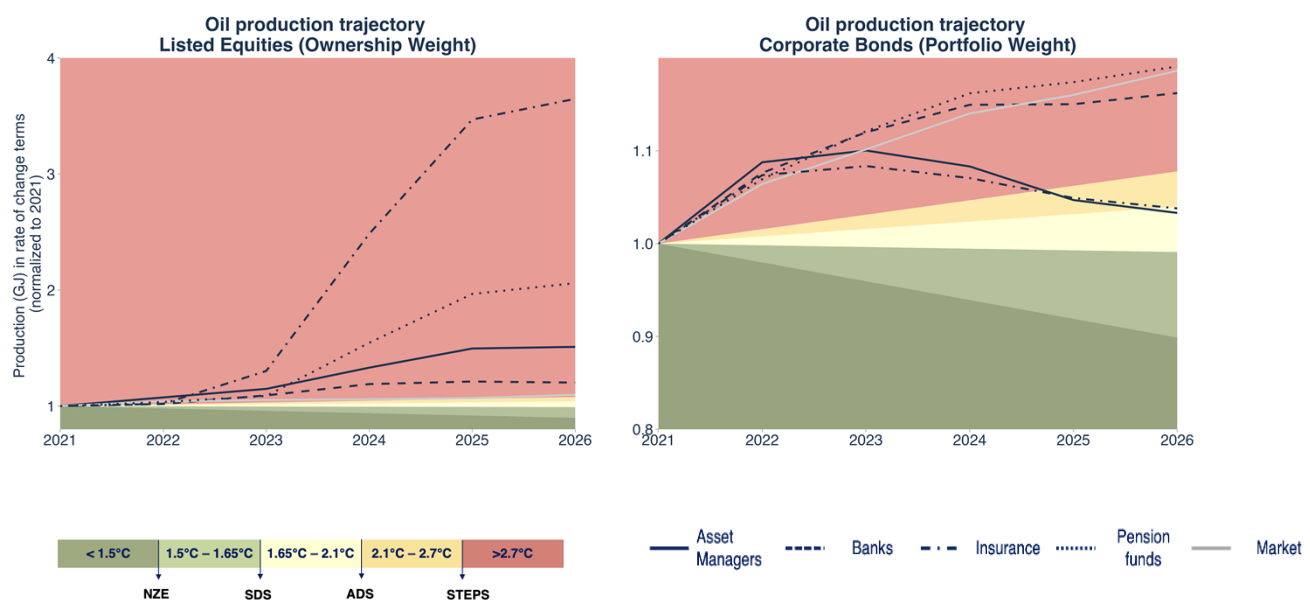
Liechtenstein, this is also the lowest share of exposure to fossil fuels. All financial sectors show a decline, the largest being in the listed equity portfolios of banks and asset managers, which were exposed by about 4 percent and 5 percent, respectively, in 2020.

**Banks in particular significantly reduced their exposure to the oil and gas sector. Whether this was due exclusively to joint efforts remains unclear.**

The largest change came from the banks group, which significantly reduced its exposure to the oil and gas sector, while increasing its exposure to the steel sector compared to the 2020 results. The decrease in investments in the fossil fuel sector relative to the banks' total portfolio invested in climate-relevant sectors may be the result of two different measures: i) a concerted effort to exclude such technologies from the portfolios, or/and ii) only parts of the portfolios were subjected to the analysis - not the entirety of the portfolios - which could lead to a selection bias in the results. As not all participants entered information on the total amount of their assets under management, the PACTA team could not provide a final plausibility check.

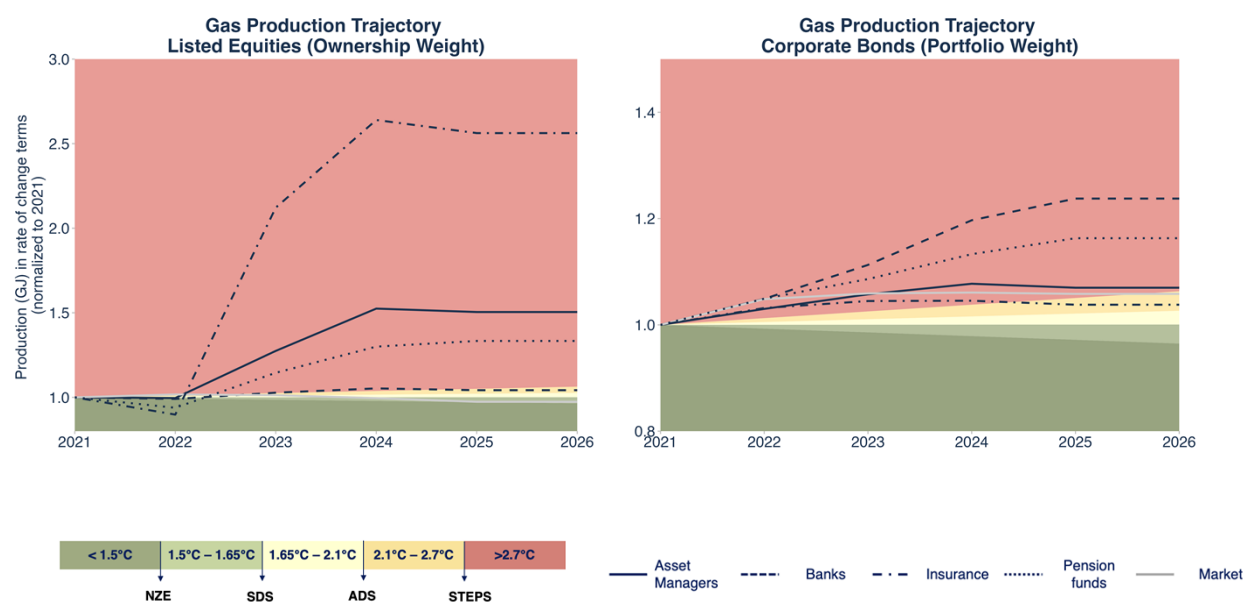
**Overall, however, the production plans of the invested companies in the oil and gas production sector are not yet sufficiently aligned with the climate targets. In the equity sector, the alignment of all groups is worse than that of the market.**

Figure 3: The figure shows that all four financial sectors are invested in companies that are planning further expansion of oil production, accentuated in the equities sector.



A more mixed picture emerges for oil and gas production companies in corporate bonds and coal production - although Swiss financial institutions do not agree with the net-zero scenarios for all technologies and fossil fuel investments examined.

Figure 4: The figure shows the gas production plans in the portfolios of all financial sectors.



In the gas sector, insurance companies invest via shares in companies that plan to increase production by more than 2.5 times compared to 2021. In corporate bond portfolios, the increase in planned gas production by the end of 2026 is about 1.1 to 1.2 times the 2021 level. Coal mining companies held in listed equity portfolios plan only a slight increase in production, but in corporate bonds the trend in planned coal production by 2026 is increasing at a fast pace.

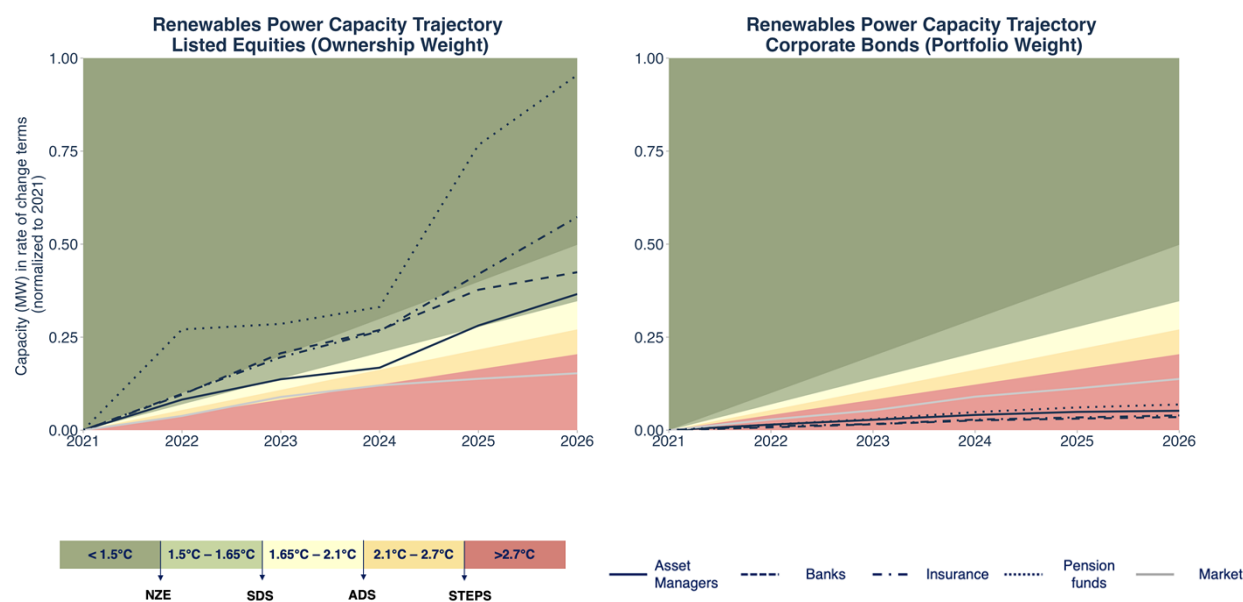
Apart from the Covid 19 pandemic and the current energy crisis, which has affected consumer behaviour, the capacity build-up of renewable energy sources such as wind and solar has been the fastest after a rapid cost decline that has made them more profitable than fossil fuel generation in most regions

**Production financing in the renewable energy sector through listed shares is climate-friendly and outperforming the overall market's expansion plans until 2026. In contrast, the picture is reversed for corporate bonds.**

There is growing evidence that a shift is taking place in the real economy, with electricity generation and consumption having undergone drastic changes over the last five years. Financial institutions' exposure to renewable energy technologies (onshore wind, bioenergy, solar PV, solar CSP, offshore wind, geothermal and tidal) has also increased and their production expansion is being supported. The Swiss financial market is also investing in the expansion of vehicles with electric motors in accordance with the necessary climate-friendly scenarios. In corporate bonds, however, the production expansion of renewable energies is still too low compared to the climate scenarios.



Figure 5: The figure shows the capacity development of renewable energies.



#### 4.4 Real estate and mortgages

The data quality for directly held real estate was significantly improved compared to 2020. The newly introduced machine verification of the input values as well as the increased efforts of the participants in all sectors contributed to this.

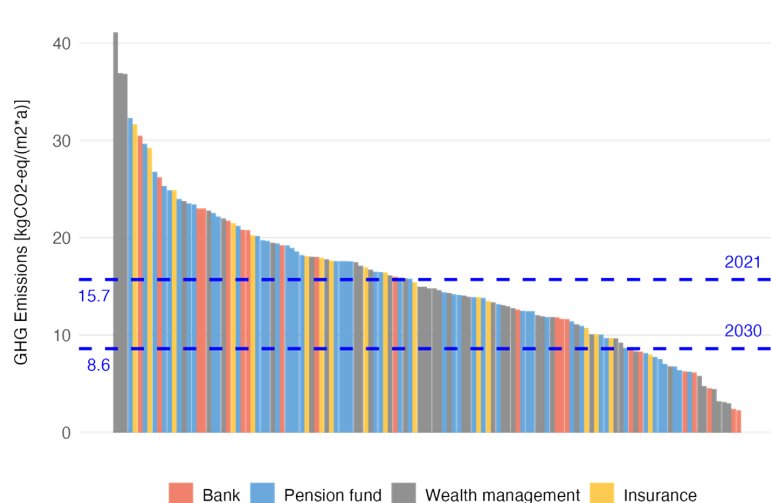
83 percent of the submitted data on owner-occupied properties could be assigned to the highest quality. In 2020, this value was only 55 percent. The reasons for this are probably the increased efforts of the participants to achieve higher data quality in their databases. In addition, the submitted data was subjected to automatic validation for the first time.

**The share of renewable energy sources in directly owned buildings has increased from 25 percent to 30 percent compared to the Climate Test 2020. In all four sectors, however, more than two-thirds of all buildings are still operated with a fossil fuel.**

All four sectors show about one third of the buildings with a renewable heating system. Although more precise information on the type of renewable energy source could have been provided in the 2022 test, too little information was provided for further evaluation. However, compared to the values from PACTA 2020, a decrease in the category "oil" as an energy source can be observed in all sectors. The largest decrease, 14 percentage points, was recorded in the insurance sector. However, not all of the reduction went into the non-fossil category, as the share of "gas" in the insurance sector increased by 7 percentage points.

If the reduction path for the Swiss building stock from Switzerland's long-term climate strategy<sup>13</sup> is deposited (blue lines), the CO<sub>2</sub> emissions per square metre of heated area are slightly below the reduction path today. However, considerable efforts are already required by 2030 for climate-compatible portfolios in all sectors.

Figure 1: The figure shows the CO<sub>2</sub> intensities by sector for "directly held buildings".



The average CO<sub>2</sub> intensity of the building stock in Switzerland in 2021 was 15.7 kg CO<sub>2</sub>/m<sup>2</sup> heated area according to the "Long-term Climate Strategy Switzerland". In PACTA 2022, an average value of 14.8 kg CO<sub>2</sub>/m<sup>2</sup> heated area could be determined for the directly owned buildings. Across the various sectors, the CO<sub>2</sub> values for pension funds, insurance companies and asset managers are slightly below the 'climate compatibility value', and slightly above it for banks. However, the majority of financial institutions are currently far from the 'climate compatibility value' for 2030 of 8.6 kg CO<sub>2</sub>/m<sup>2</sup>

heated area.

**Switzerland still has 30 years to go before it has to reduce greenhouse gas emissions to zero also in the building sector. Pension funds have planned heating replacement for almost a quarter of their building stock and refurbishments for 45percent, while banks have only planned to refurbish a maximum of 2.5percent of submitted properties.**

The participants could enter the heating replacement measures planned up to the year 2050 as well as energy-relevant renovations. With the submitted renovation measures up to 2050, emission reductions of around 3 to 6 kg CO<sub>2</sub>/m<sup>2</sup> can be achieved in the case of pension funds, insurance companies and asset managers; in the banking sector, no CO<sub>2</sub> reduction can be observed. 30 years until complete decarbonisation corresponds roughly to a renovation cycle for real estate. It is therefore important to start planning now.

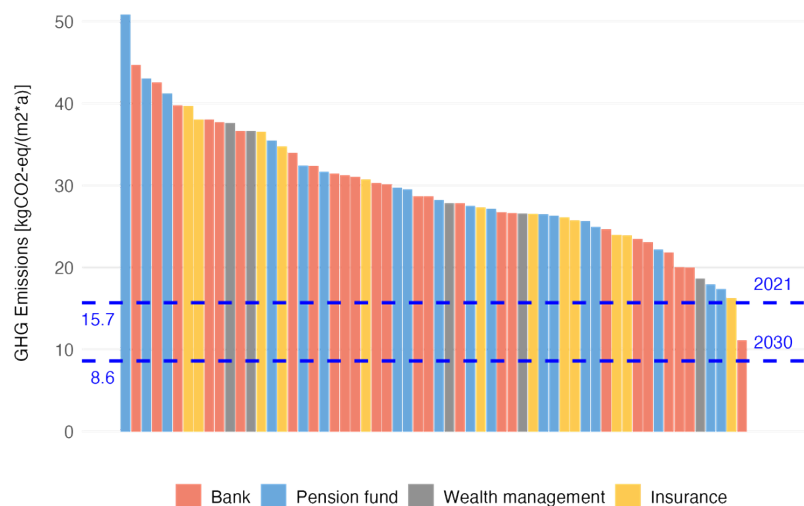
**In the case of mortgages, only about one third of the heated areas analysed are "good" in terms of data quality, and more than half are at least in the "medium" category. In the current environment of the energy crisis, financial institutions should have an interest in improving this. The PACTA Climate Test supports them in this.**

The PACTA Test 2022 also generates meaningful results for mortgages. More than half of all tested energy reference areas are still to be found in the "medium" category. This is mainly due to the fact that the respective buildings behind the mortgages are not owned by the mortgage lender and the corresponding values, such as the type of energy carrier, have not been relevant for financing issues until now. In the current environment of the energy crisis, however, this fact is undergoing a major adjustment and many institutions offering mortgages are making considerable efforts to fill these data gaps.

<sup>13</sup> [Long-term climate strategy to 2050 \(admin.ch\)](#)

The value for CO<sub>2</sub> emissions for mortgages is almost a factor of 2 above the reduction path defining climate compatibility. However, part of this is overestimated because the database is not equally up-to-date in all cantons.

Figure 2: The figure shows the CO<sub>2</sub> intensities of the submitted portfolios by sector for "mortgages".



This markedly higher value for mortgages is to a certain extent due to the poorer data quality. Since most of the participants did not provide information on the heating sources of the buildings with mortgages, this could be taken from the Swiss Register of Buildings and Dwellings (in German GWR). But even in the GWR, information on the energy source - which varies greatly from canton to canton - is only incompletely available. Another reason is the high proportion of single-family houses owned by private individuals. There are still a lot of oil-fired heating systems in the stock.

**Institutional owners can also actively help to improve not only their own but also the Federal Register of Buildings and Dwellings (in German GWR) database.**

The state building and housing register GWR is an important source of data. According to the GWR Ordinance, the cantons are obliged to keep the database up to date. Institutional investors can make an important contribution if they feed in their current data via the building administrations of the relevant communes and keep it up to date. The FOEN also supports the financial institutions in that the estimation of CO<sub>2</sub> emissions for each building using the PACTA real estate module will be displayed on the map of [www.map.geo.admin.ch](http://www.map.geo.admin.ch) in future. This should enable the GWR to be updated more quickly and the GEAK building certificate to be strengthened.

**The share of renewable heating systems in mortgage portfolios was only around 20 percent for pension funds, banks and insurance companies, and only around 10 percent for asset managers. This should increase to 100 percent for all sectors by 2050 - i.e. over the course of the next 30 years.**

Overall, a slight decline in oil as an energy source compared to 2020 can also be observed here, but this is not entirely in favor of the non-fossil category "other", but half of it also goes to the category "gas".

**Financial institutions can use incentives and advice to raise awareness among their customers so that they can make an effective contribution to combating climate change by replacing their heating systems and carrying out energy-efficient renovations.**

In June 2022, the SBA introduced a self-regulation<sup>14</sup> that is binding for its members and obliges advisors to discuss the importance of energy-efficient renovations with their clients. Mortgage providers can link conditions such as preferential interest rates to the sustainability of real estate and thus manage their own loan portfolio risks in this segment. With corresponding interest rate advantages, important incentives for renovation and substitution measures can be set and thus the speed of change towards sustainable buildings can be increased. This is also what the Association of Swiss Cantonal Banks and the association Swiss Sustainable Finance SSF recommend in their publication<sup>15</sup> on sustainability in loan financing.

**In the PACTA Analysis 2022, 43 percent of the participants with Swiss mortgage portfolios stated that they set incentives for mortgage borrowers to improve the carbon footprint of their buildings. Most of these are banks.**

Of the 49 financial institutions that reported being invested in Swiss mortgages, 21 reported that they apply climate-related incentives (43percent). The majority of these apply "conditions based on climate / sustainability performance" (17). 14 of them in the form of a reduction in interest rates depending on certification. Minergie, which sets requirements for individual buildings with very low energy consumption, and the 2000-watt society, which sets low energy requirements for larger building projects, are the most frequently mentioned certificates.

**Measures that focus on mortgage criteria and conditions can be complemented by information offers, advisory services and pre-financing solutions.**

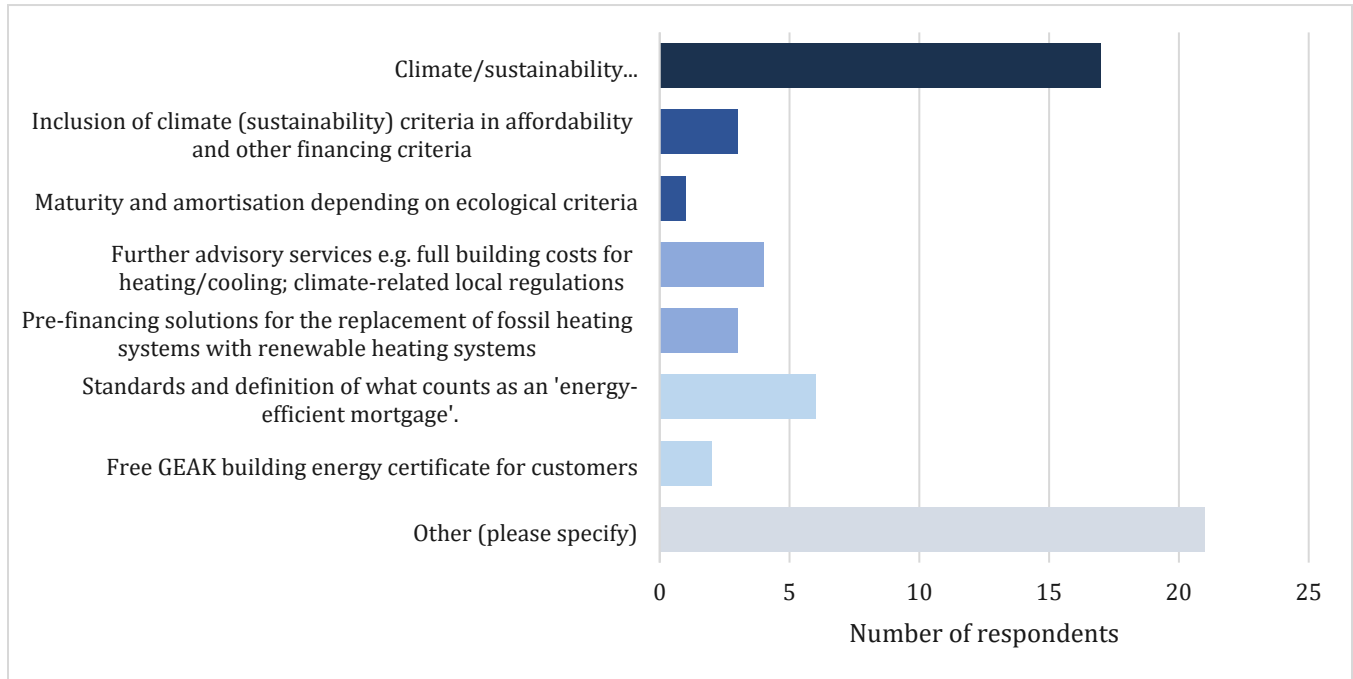
Although these measures are still less used overall, it is evident that various financial institutions are making more efforts in this direction. The most common forms of support provided to clients are "standards and definitions of what constitutes an energy-efficient mortgage" (6) and "other advisory services" (4). Under "other measures", forms of financial support for renovations through bonuses or loans were mentioned most frequently (4). Individual financial institutions offer cheaper advisory services for planning or (partially) cover the costs of issuing an energy certificate (GEAK).

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<sup>14</sup> [SBA Guidelines mortgage providers on the promotion of energy efficiency EN.pdf \(swissbanking.ch\)](#)

<sup>15</sup> [SSF VSKB Sustainability in Lending EN Executive Summary1.pdf \(sustainablefinance.ch\)](#), full report in German [SSF VSKB Nachhaltigkeit in der Kreditfinanzierung DE.pdf \(sustainablefinance.ch\)](#)

Figure 8: Shows answer to question: "If your institution takes climate-related measures to create incentives for mortgage borrowers to renovate their buildings in a climate-friendly way, please select the strategy used?"



**It remains unclear to what extent the specified measures ultimately lead to the replacement of heating systems and energy-efficient renovations. According to the qualitative survey, these actors also have a strong desire for uniform "standards and definitions of what is considered an energy-efficient mortgage".**

Whether the measures are only applied selectively or broadly was not asked. Also, no information was obtained in this round of testing to what extent the measures could lead to climate-friendly implementation measures among the owners. A uniform definition of what counts as an energy-efficient mortgage therefore seems desirable not only from a customer perspective but also from a provider perspective.



## 5 CONCLUSIONS AND OUTLOOK

**Switzerland's experience can contribute to further convergence and coordination in the international sustainable finance community, as it is the first country to initiate a coordinated PACTA project (PACTA COP) for its financial market actors for the third time.** With the integration of real estate and mortgage analysis, Switzerland also offers the most comprehensive climate test. To the best of our knowledge, coordinated PACTA projects are the only analyses worldwide that enable comparable results across different financial sectors because they use uniform methodology

**So far, this voluntary initiative has been able to achieve representative participation for a meaningful monitoring. 133 financial institutions participated in the voluntary Climate Test Switzerland 2022,** from pension funds, insurance companies, banks and asset managers of various sizes. More than two-thirds also completed the qualitative survey, which captures climate-relevant measures. However, the participation of pension funds decreased significantly compared to 2020, which could indicate the limits of voluntary initiatives.

**The regular climate tests ideally support the implementation of recommendations of the Swiss Federal Council.** In order to keep test participation attractive not only from an overall market perspective but also from an individual institution perspective, RMI and FOEN work towards offering additional innovations in each test round. For example, since 2020, data for the mortgage portfolio analysis can be provided, and in 2022, most of the “Swiss Climate Scores” indicators could be shown additionally.

**Good examples of climate-impacting measures have increased in all analysis modules, asset classes and financial sectors. These show that it is very well possible for various financial market actors to actively support and accelerate the climate transition of companies and buildings:**

- Around a third of all participants set concrete climate targets for 2050 and/or shorter-term target years (or around half of all those who filled out the survey). Most of them underpin the targets with potentially climate-impactful stewardship activities such as engagement with companies and exercising voting rights.
- Exposure to fossil fuels (coal, oil, gas) has decreased significantly, most notably among banks. It is now rather low compared internationally.<sup>16</sup>
- The planned expansion of renewable energies and electric cars by Swiss investee companies is mostly in line with the necessary climate scenarios.
- For directly held real estate, the overall share of renewable heating systems has increased from 25 percent to 30 percent. Pension funds in particular are planning additional heating replacement for almost a quarter of their building stock and for 45 percent energy refurbishments by 2050.
- 39 percent of mortgage lenders state that they provide incentives for mortgage borrowers, using a wide range of measures. Many financial institutions are also making considerable efforts to improve the climate-relevant data for mortgage portfolios.

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<sup>16</sup> However, it remains unclear whether the significant decrease in exposure to fossil fuels was solely due to strict exclusion policies or whether not all assets under management were always submitted for testing. A plausibility check is more difficult than in 2020, as only some of the participants indicated in the qualitative questionnaire how many assets they manage in total.

**Nevertheless, there is significant potential for more financial institutions to also implement such actions, and for the actions to become more concrete and more focused on the short term.**

- Around two third of all test participants did neither specify a Net-Zero 2050 target nor short- and medium-term climate targets. It is especially the short-term climate targets and their implementation that will determine whether the global economy is sufficiently supporting the climate transition.
- The oil and gas production companies, which are held in particular in overall equity portfolios, plan to further expand production capacities instead of reducing them as necessary for the climate goal. Targeted, coordinated stewardship activities by more Swiss financial institutions could help to adjust their transition plans.
- Serious climate stewardship activities should be accompanied by an escalation strategy. The analysis shows that such a strategy could be applied by more financial institutions (20 of those with concrete climate targets reported having such a strategy). With a definition of "credible climate stewardship", financial institutions and clients could get more clarity.
- 30 years to fully decarbonise the building stock is roughly equivalent to one renovation cycle. There is considerable potential for heating replacement and energy refurbishment plans in all sectors, especially within banks.
- The various incentives offered by mortgage lenders could be applied more broadly and tested to see how climate-effective they are. A standard definition of what is an energy-efficient mortgage seems desirable not only from a customer's but also from a provider perspective.

**In the authors' view, the overall results of the Swiss Climate Test 2022 show an increasing number of good examples that are already "*aiming higher*" – towards an effective, credible climate impact in the real economy. However, for the entire financial flows to be aligned with the 2050 climate goals, ambitious climate targets and concrete, climate-effective measures would have to be implemented by more financial institutions and more stringently. The next coordinated climate test in Switzerland is scheduled for 2024.**