



# The SNB misleads Switzerland's financial centre on climate change

The SNB's climate risk management  
is totally inadequate

© Artisans de la transition, Fribourg, April 2020  
[www.artisansdelatransition.org](http://www.artisansdelatransition.org)

This report is partly based on a research by ISS-Ethix  
[www.issgovernance.com](http://www.issgovernance.com)

The German version is published in cooperation with  
Klima Allianz  
[www.klima-allianz.ch](http://www.klima-allianz.ch)  
The French version prevails

German and English translation:  
Alliance climatique/Klima Allianz

Graficdesign : [www.ventdouest.ch](http://www.ventdouest.ch)

Photo Credits:

Front page: Felgueiras lighthouse, Portugal  
johnnorth/istock ;  
p.6, Ennio-Leanza/Keystone ;  
p.15, Pascal Städeli/Presse Klima-Demo ;  
p.18, Branco de Lang/Keystone,  
p.20. robh/istock

## Key Messages

1. After a long period of inaction on climate change, the Swiss National Bank (SNB) joined the Network of Central Banks and Supervisors for the Greening of the Financial System in April 2019. In November, the SNB presented its views on the risks posed by climate change.
2. The redundancy of the bank data centres, the insurance safety net, the country's location far from the sea coast and an economy with very little heavy industry lead the SNB to judge moderate the risks associated with climate change for the Swiss economy and financial sector.
3. This deeply flawed assessment misleads the Swiss financial centre and exposes it to very serious consequences. Between 2016 and 2019, Credit Suisse lent USD 75 billion to the global fossil fuel industry, or 1.7 times the bank's own funds. In 2019, UBS increased its annual investment in coal nine-fold. Three quarters of Switzerland's 60 largest pension funds have no climate policy at all. Ambitious climate policies combined with market developments towards less carbon-intensive energy to meet the targets of the Paris climate agreement will lead to a massive depreciation of these assets.
4. The SNB lags far behind central banks in Europe in understanding and taking into account the seriousness of climate risks. Meeting under the aegis of the Basel-based Bank for International Settlements, a group of eminent economists provides a good explanation of the true nature of climate risks: "The accumulation of atmospheric CO<sub>2</sub> above certain thresholds can lead to irreversible impacts, which means that the biophysical causes of the crisis will then be difficult if not impossible to remove", they write. "While in an ordinary crisis it is possible [for central banks] to bail out distressed banks, it will be much more difficult with economies made unsustainable by climate change."
5. Climate risks are subjecting democracies to a choice reminiscent of their face-to-face encounter with the Covid-19 pandemic: should they reorient their economies to stem CO<sub>2</sub> emissions as quickly as possible by agreeing to destroy whole swathes of activities that depend on fossil fuels, or allow their current trajectory to continue and cause physical damage so enormous that they will destroy the economy? If it wants to stand a chance of being able to manage future shocks in order to save the economy, the SNB must join the voices urgently calling for a "flattening of the climate risk curve" to avoid the collapse of economies.

6. Some central banks are moving in that direction. The European Central Bank launched a strategic review in early 2020 to include climate change as a founding element of monetary policy. The Dutch Central Bank is carrying out climate stress tests to see what would happen to banks, insurance companies and pension funds if a robust carbon tax – USD 100/tonne – were introduced. The Banks of France and England have planned to carry out such tests in 2020 and 2021 respectively.
7. The SNB's investment policy is clear evidence of its lack of foresight. The association **ArtisansdelaTransition** has analysed the SNB's investments in the fossil fuel industry in its portfolio of CHF 101 billion as at 31 December 2019. According to calculations by the service provider ISS-Ethix, the SNB is now responsible for 43.3 million tonnes of CO<sub>2eq</sub> emissions per year. This is almost as much as Switzerland's total emissions (47 million tonnes of CO<sub>2eq</sub> in 2017). Only 20% of the SNB's portfolio is invested in companies that have drawn up a plan to adapt to the 2°C objective. This portfolio supports a warming trajectory of 4 to 6°C by 2100, which will make the Earth largely uninhabitable by the turn of the century.
8. This report therefore makes five recommendations to the SNB:
  - Develop a vision and strategy for climate risk management in line with the state of knowledge on global warming and on the role of central banks.
  - Communicate clearly on climate risk management.
  - Properly manage the climate risks of its investment portfolio.
  - Ensure that all financial actors understand climate risks.
  - Study the possibility of participating in a coordination, within the Confederation, of economic and financial players on climate change in order to respect the Paris agreement.

# The SNB misleads Switzerland's financial centre on climate change

## The SNB's climate risk management is totally inadequate

### Abstract

This report analyses the climate risk management policy of the Swiss National Bank (SNB). The findings are clear: the SNB has not adequately assessed the colossal and potentially irreversible systemic risk that climate change poses to the Swiss financial system and the economy as a whole. This clear lack of foresight is reflected in particular in its investment choices.

For the third time, the association **ArtisansdelaTransition** has analysed the investments in the fossil fuel industry in the SNB's portfolio of CHF 101 billion (around 66% of its equity portfolio) as at 31 December 2019. These investments remain broadly unchanged since 2016. The SNB's passive investment strategy leads it to buy a basket of stocks that is representative of the international stock markets. Only the size of its portfolio changes. According to calculations by the provider ISS-Ethix, the SNB is now responsible for 43.3 million tonnes of CO<sub>2eq</sub> emissions per year. This is almost as much as the whole of Switzerland (47 million tonnes of CO<sub>2eq</sub> in 2017) (FOEN, 2019).

While the SNB should be a lighthouse for all Swiss economic and financial players, this is extremely worrying. The signals it sends out contribute to misleading the Swiss financial centre rather than enlightening it about the extreme seriousness and urgency of the climate danger. Drawing on the progress made by European central banks in acknowledging the enormous economic and financial impacts of global warming that have already begun, this report makes recommendations for the SNB to drop its wait-and-see attitude, to break with the passive management of its portfolio and to adopt, as soon as possible and in coordination with politicians, a climate risk management system that is designed to mitigate risks as far as possible. In doing so, it can be the lighthouse that the Swiss economic system in general, and the Swiss financial industry in particular, need to avoid disaster. ●

\* Susana Jourdan  
and Jacques Mirenowicz  
are Codirectors of the Association  
Artisans de la transition  
[www.artisansdelatransition.org](http://www.artisansdelatransition.org)





## A gross misinterpretation of climate change

*The first economic sector that will be affected by climate change is agriculture. By 2018, many alpine wells were dried up. The army had to refuel them by helicopter. Here, on the Oberbaetrans mountain pasture near Schänis in Canton St. Gallen, a mountain farmer observes the lack of water necessary for the survival of his herd.*

### **A risk considered “moderate”.**

Political pressure is growing for the SNB to take greater account of global warming, but the bank says very little about this phenomenon. In November 2019, however, Andrea Maechler, a member of the SNB Governing Board, presented the SNB’s perspective on climate risks at the Money Market Event in Geneva (Maechler and Moser, 2019). A very informative presentation.

Andrea Maechler takes up the analytical framework of the Network of Central Banks and Supervisors for the Greening of the Financial System, which the SNB joined at the same time as the Swiss Financial Market

Supervisory Authority (Finma) in April 2019. Her presentation thus addresses the two main types of risks due to climate change for its core tasks: physical risks and risks associated with the transition to a low-carbon economy.

“Physical risks include the direct material effects of climate change on income and production capacity. For example, severe storms can damage factories and transport infrastructure and disrupt value chains that are essential to international trade,” says Andrea Maechler, who, after outlining a picture of various possible physical risks, offers reassurance: “In Switzerland, however, the prac-

tice of mandatory redundancy (e.g. multiple data centres with different risk profiles) should ensure business continuity even in the event of major natural disasters.”

This leads Andrea Maechler to be very optimistic: “Given our country’s climate risk profile and the fact that the bulk of these risks is insured, a climate-related natural disaster is unlikely to threaten the stability of the entire banking system in Switzerland, even if some individual institutions could be affected.”

Andrea Maechler then explains the risks associated with the transition. “They include the economic costs and benefits of adjusting to the regulations and public policies needed to decarbonize the economy.” And while she details the ways in which these regulations and policies, such as the introduction of a carbon tax, could affect the value of assets in the raw materials sector, the auto industry or heavy industry, she says:

“Each central bank tackles these challenges in its own way, depending on the profile of the economy in question and the institutional framework within which it operates. Countries are affected differently by cli-

mate risks due to their geographic location and economic structure. I am thinking in particular of countries that are partially below sea level (e.g. the Netherlands), those that are highly exposed to extreme weather events (e.g. droughts, storms, floods) and economies in which carbon-intensive industries (e.g. steel and cement) are strongly represented.”

This leads her to state: “According to our assessment, *the overall threat posed by climate risks that are capable of affecting Switzerland’s economic and financial stability appears to be moderate at present.*” [emphasis added].

This analysis and its conclusions reveal a profound misunderstanding of the impacts of climate change on Switzerland: physical and transition-related risks will have major effects on the SNB’s two core tasks of ensuring price stability in the medium term and contributing to the stability of the Swiss financial system as a whole.

### Physical hazards

It is true that Switzerland is not on the front line in the face of rising water levels, like Bangladesh or the

Netherlands. Nevertheless, the fact remains that the country is among the most threatened in the world, as it is warming twice as fast as the average (NCCS, 2018). The climate change scenario for Switzerland published at the end of 2018 presents the main expected effects: more heat, fewer glaciers, less snow, less precipitation. The sector most affected will be agriculture. Then comes tourism.

It is very easy to imagine how these developments could lead to inflation, one of the SNB’s benchmarks: in the event of a dry and hot summer - which will be the norm in 2060 if the world warms above 1.5°C (NCCS, 2018) - agricultural production is expected to fall sharply in Switzerland and neighbouring countries and agricultural prices will rise. Similarly, droughts are expected to cause difficulties for dams, which will push up electricity prices.

There are also many possible scenarios affecting the exchange rate, another variable at the heart of the SNB’s core business. In the event of a natural disaster, for example, a wave of panic in the markets would lead to a sharp appreciation of the Swiss franc.

But we don't need to look into the future to see the effects of climate change on the economy: they are already at work. "The time horizon over which climate change impacts the economy has become shorter, which justifies looking at how monetary policy is [already] affected," says Benoît Cœuré, member of the Executive Board of the European Central Bank (ECB) (Cœuré, 2018).

According to this eminent economist, it is the role of central banks to understand the effects of climate change on the economy and to adapt monetary policy accordingly. For example, the price of oil remained high in Germany while it fell on the world market in the autumn of 2018. "One hypothesis is that the hot summer ... caused water levels in German rivers to drop to levels that allowed barges to carry only half their normal capacity, creating bottlenecks in supply."

Benoît Cœuré cites other examples: in the United States, the temporary drop in first-quarter economic activity observed for several years could be the result of very snowy winters; the slowdown in the German economy in the third quarter of 2018 resulted from the deployment of

emissions tests for new cars that comply with new international standards.

Benoît Cœuré believes that climate change affects the ability of central banks to conduct monetary policy precisely because it is not easy to identify the phenomena that are already affecting it.

### Transition risks

The SNB considers the risks associated with the transition in Switzerland to be low, as the country has no heavy industry. Although there are no mines, coal-fired power plants, smelters or steelworks in Switzerland, these industries are nevertheless an integral part of the Swiss financial system. What will happen to the CHF 7 trillion in assets that the Swiss financial centre manages if the world, in order to implement the Paris Accord, orchestrates a genuine transition to low-carbon economies?

In December 2019, under fire from an intense "name and shame" campaign (LaRevueDurable, 2020b) in a context where there is increasing pressure for all banks, pension funds, insurers and reinsurers to break away from coal, Credit Suisse announced that it would not invest in this fuel. But

between 2016 and 2019 alone, the bank lent USD 6.3 billion to companies that operate coal mines or coal-fired power plants (RAN et al., 2020). As coal shifts to less carbon-intensive energy, what will become of these assets?

Over the past four years, Credit Suisse has lent a total of USD 75 billion to 2,100 companies in the global fossil fuel industry. This amount is equivalent to 1.7 times the bank's equity capital (CHF 44 billion at the end of 2019). Over the same period, UBS has financed the fossil fuel industry to the tune of USD 35 billion.

What will happen to these two banks if these assets are impaired - which is something we must fervently hope for - due to the introduction of new standards, bonus-malus systems, or even simply as a result of expected technological advances? In 2019, despite the US federal government's support for coal, its use in the United States fell by 15% (International Energy Agency, 2020).

The risks of transition weigh on other major sectors, including the automotive industry: several countries will soon ban sales of new combustion engine cars: Norway in 2025, the



United Kingdom probably in 2035, the Netherlands, France, Sweden, Ireland and even China by 2040 at the latest.

### **Communication that guides financial players towards the wrong choices**

“A central banker has to be careful about the signals he sends, because the financial markets and the analysts who observe him draw conclusions from these in taking actions and moving their funds,” observes Christine Lagarde, President of the ECB (France 2, 2020). It can even be argued that a central bank’s public voice is its main tool. In the management of the Covid-19 pandemic, an unfortunate phrase uttered by Lagarde panicked the markets and she had to issue a clarification to calm nerves (Albert, 2020).

On climate change, the SNB’s message is unchanging: nothing to report, everything is fine. Its President Thomas Jordan hardly ever speaks out on the subject. Vice-President Fritz Zurbügg stated at a press conference on 12 December 2019: “According to our current assessment, the likelihood of climate change risks threatening the stability of the banking system as a whole

is low [...] not least because of the guidelines that technical facilities should be distributed to different locations.”

This communication is meant to reassure, but in truth it misleads the Swiss financial centre and directs it towards the wrong choices. The two big Swiss banks, Credit Suisse and UBS, are among the world’s largest providers of funds to the global fossil fuel industry. The former is the largest provider of funds for coal mining after the Chinese banks. In 2019, the latter increased its investments in this sector by a factor of nine compared to its average from 2016 to 2018 (RAN, 2020).

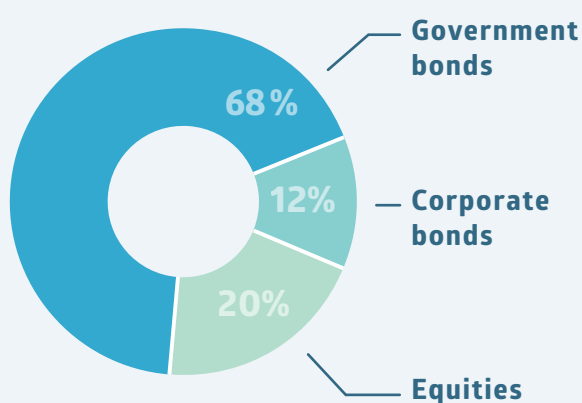
Monitoring of the sixty largest Swiss pension funds shows that 75% of them have no climate policy at all (Klima-Allianz, 2020).

And of course, this misinterpretation of the situation on the climate front misleads the SNB itself, as evidenced by the third valuation of its equity portfolio conducted by **Artisansdela-Transition**. ●

***A central banker has to be careful about the signals he sends***

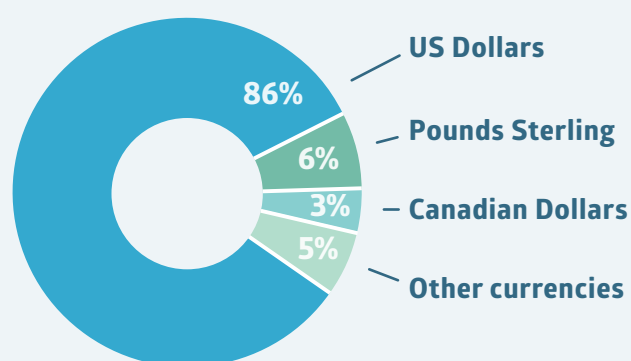
## The SNB equity portfolio is still on a warming trajectory of +4°C to +6°C

At the end of 2019, the SNB's balance sheet total was CHF 861 billion. Its foreign currency investments amounted to CHF 794 bn, or 92% of this huge balance sheet. The SNB had invested these reserves as follows:



The SNB's equity portfolio amounted to CHF 158 billion, invested in shares of 6,700 companies from more than 40 countries, representing 95% of the world's market capitalisation (Maechler and Moser, 2019). However, most of its assets were invested in dollars on the New York Stock Exchange.

As the SNB is very discreet about its investments, ArtisansdelaTransition asked the Amsterdam-based specialist firm Profundo to piece together its equity portfolio. These specialists identified USD 104 billion of investments, or around CHF 101 billion, at the end of December 2019. This portfolio represents about 66% of the SNB's total equity portfolio. The composition of the portfolio provided by Profundo is as follows:



ArtisansdelaTransition then asked the company ISS-Ethix to analyze this portfolio. Its study reveals a 10.5% reduction from 48.4 to 43.3% Mtonnes of CO<sub>2eq</sub> emissions generated by this portfolio compared to the previous report by ArtisansdelaTransition (2018). The main reason for this decrease is a decline in the amount of investments in the fossil fuel industry, whose share of the portfolio under analysis fell from 7.7% to 5.7%.

At first glance, it's a very good record. Is the SNB, despite its poor assessment of climate risks, divesting from the fossil fuel industry? A closer analysis of the data suggests that this is not the case.

### Decline in investments in the fossil fuel industry

The SNB's known investments in companies that extract and sell conventional and non-conventional coal, gas and oil declined by USD 1.4 billion compared to the previous analysis (ArtisansdelaTransition, 2018).

**Climate risks in the SNB's  
known portfolio  
as at 31 December 2019**

	<b>30 September 2017</b>	<b>31 December 2019</b>
<b>Amount of the portfolio in USD billions</b>	<b>95,6</b>	<b>104</b>
<b>Percentage invested in extraction and sale of coal, gas and oil</b>	<b>7,7 %</b>	<b>5,7 %</b>
<b>Amount invested in extraction and sale of coal, gas and oil in USD billions</b>	<b>7,3</b>	<b>5,9</b>
<b>CO<sub>2eq</sub> emissions in millions of tonnes*</b>	<b>48,4</b>	<b>43,3</b>

\* Emissions over the entire life cycle of the good or service that the company provides are considered. These are what specialists call Scopes 1, 2 and 3.

Source : ISS-Ethix for  
Artisans de la transition, 2020.

In particular, the SNB reduced its investments in Exxon by USD 400 million and in Chevron and Shell by USD 100 million. However, these declines appear to be the result of value reallocations imposed by its index management rather than a proactive climate risk management strategy. For example, the SNB has increased its investment in coal. The amounts invested are anecdotal in relation to the size of its portfolio, rising from USD 3.2 million to USD 4.7 million, but they do show the lack of a strategy to mitigate climate risks.

The SNB also probably lost money in an emblematic company. In 2017, it held USD 170 million worth of shares in Pacific Gas & Electric, owner of California's largest power company. It is now the first publicly traded company to go bankrupt because of climate change (Carney, 2019).

In early 2019, it filed for bankruptcy after estimating that it was facing USD 30 billion in damages from victims of fires that ravaged California in 2017 and 2018. The fires were triggered by trees falling on the company's power lines, which caused sparks to fly onto the surrounding grass and ignite. The fires spread rapidly through the forests because of the chronic drought that has plagued California for many years.

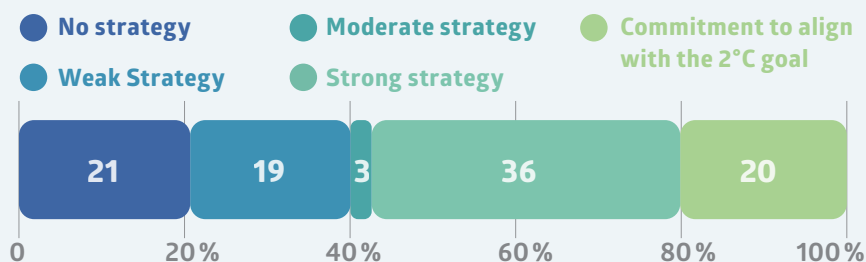
However, to save money, Pacific Gas & Electric did not maintain the forests around its power lines as it should have done. Like too many economic and financial players, this company underestimated the climate risks that weighed its business model down.

ISS-Ethix's analysis shows that only 20% of the portfolio is invested in companies that have a plan to meet the 2°C target (which was the standard until 2018, before the IPCC report on the 1.5°C target was published). This commitment does not guarantee that these companies will meet the target, but those with no strategy or a weak

strategy (40% of the SNB's portfolio value in total) are certain not to do so.

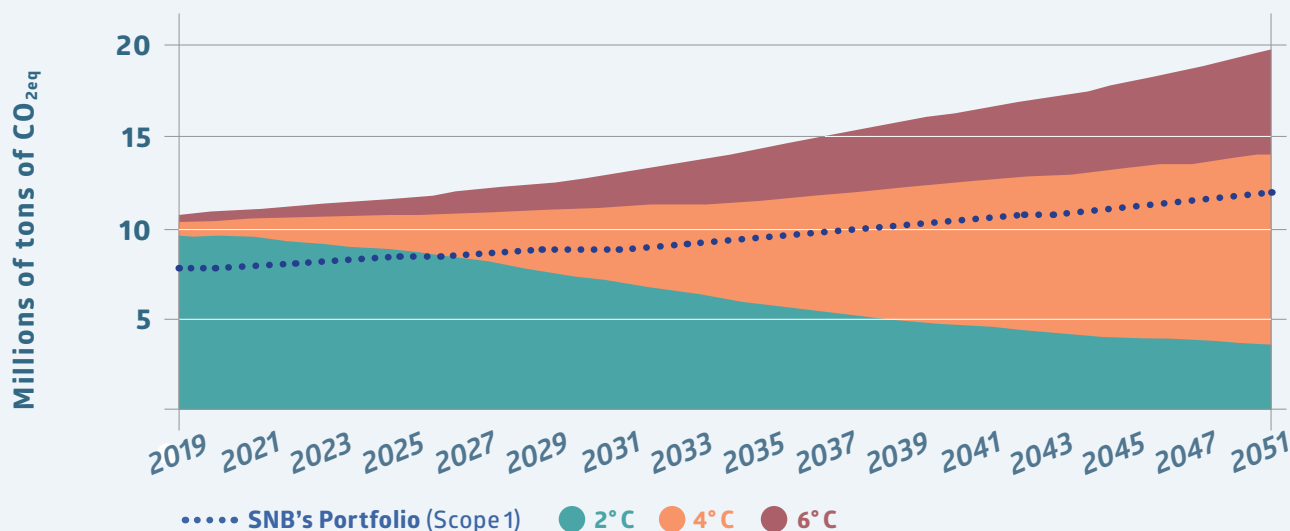
Overall, the SNB portfolio supports a warming trajectory of 4 to 6°C by 2100, which will make the Earth largely uninhabitable by that time.

#### Portfolio shares invested according to companies' climate strategies



Source : ISS-Ethix for Artisans de la transition, 2020.

#### SNB's Portfolio Emission Pathway vs. Climate Scenarios





## A tragic lack of lucidity

### Green Swans

The Covid-19 pandemic offers democracies life and death choices: should the economy be temporarily halted to stop the spread of the virus in order to decongest hospitals even if it severely destabilizes the economy, or should the virus be allowed to spread and cause tens of thousands of deaths?

Similarly, the climate risks associated with greenhouse gas emissions are subjecting democracies to choices of life and death: should they reorient their economies to stem CO<sub>2</sub> emissions as quickly as possible and destroy whole swathes of activities that depend on fossil fuels, or should they continue their current trajectory and cause such enormous physical damage that they will end up destroying the economy in any case?

Except that the virus responsible for Covid-19 spreads and kills within an extremely short time horizon, while it takes decades for the deleterious effects of climate change to unfold. So in Switzerland, despite temperatures rising year after year, it may still seem relatively remote. The choice facing democracies is

therefore much more difficult for the climate than for Covid-19.

And this time horizon for climate risks makes the task of assessing them at their proper level all the more difficult for central banks, since they are structured to scrutinize the smallest details of economic conditions and the short-term outlook for the economy (Carney, 2015).

To help them deal with climate risks in the best possible way despite this intrinsic difficulty, the most in-depth analysis published to date on the specific responsibility of central banks comes from a group of five leading economists brought together under the aegis of the Bank for International Settlements, based in Basel. Their report makes clear the true nature of climate risks (Bolton et al., 2020):

“The accumulation of atmospheric CO<sub>2</sub> beyond certain thresholds can lead to irreversible impacts, which means that the biophysical causes of the crisis will then be difficult if not impossible to remove,” they write. “While in an ordinary crisis it is possible to bail out distressed banks, it will be much more difficult

with economies made unsustainable by climate change.”

An unexpected event with a profound impact on the economy is known, in financial circles, as a black swan. To describe climate risks of unprecedented scale and complexity, these five economists refer to it as the Green Swan: “This new type of systemic risk involves ecological, geopolitical, social and economic dynamics with interactions that are fundamentally impossible to predict and that are irreversibly transformed by the increasing concentration of greenhouse gases in the atmosphere. [...] “The complex chain reactions between degraded ecological conditions and unpredictable social, economic and political responses are compounded by the risk of tipping points: climate change represents a potentially irreversible risk of enormous complexity.”

### Flattening the risk curve

This understanding of climate change in line with the most credible scientific literature (Giec, 2018; Masson-Delmotte and Moufouma-Okia 2019; Ripple, 2019) is crucial for central banks, according

to the five co-authors, who believe that climate change may lead these banks to have to take “a leap into the unknown”. [...]

“If they stand still and wait for other government agencies to act, they are exposing themselves to the real risk of not being able to fulfill their financial and monetary stability mandates. Green Swan events could force them to act as “saviours of last resort” by buying up large amounts of devalued assets in order to save the financial system once again. However, the biophysical foundations of such a crisis and its potentially irreversible impacts would soon reveal the limits of this wait-and-see strategy.”

To return to the analogy with the Covid-19 pandemic, central banks are in a situation similar to that of the health system when some of its representatives sounded the alarm to alert politicians: “We have to flatten the progression curve of the illness or we will be overwhelmed,” they warned. If central banks want to have any chance of managing

future shocks to be able to save the economy, they should call on politicians to urgently take economic measures, in consultation and coordination with the banks, to flatten the curve of climate risks.

But just as a good health care system needs doctors who are clear-sighted, who can see the threat coming at them and who can anticipate and take the most appropriate protective measures in time, a good financial system needs economists and financiers who are clear-sighted about how quickly large-scale climate perils are coming at them. The difference is that doctors are, in principle, competent in health matters, which is not a priori the case with economists on climate matters. There is therefore a particularly great risk that they will prove unable to see the problem, however massive it may be, and to assess it properly, which is clearly the case with the current management of the SNB.

To judge moderately, as it does, the overall climate risks threatening

## **A good financial system needs clear-sighted economists and financiers**



*A growing part of the population is calling for strong and significant measures from politicians to comply with the Paris Agreement. During the demonstration in the Bundesplatz on 28 September 2019, shortly before the federal elections, the number of demonstrators was estimated at 100,000. The SNB appears in the background.*

economic and financial stability in Switzerland illustrates the extreme difficulty economists have in understanding the significance of climate change (LaRevueDurable, 2020a). Instead of contributing to the collective anticipation of future shocks, instead of being a lighthouse that helps the country and the world to avoid an unbearable accumulation of risks, the SNB looks more like a watchman snoring in bed while a potentially devastating storm is brewing on the coast.

Climatologists constantly warn of the extreme severity of the moment, but it is as if there were no receiver or watchtower to take account of it within Switzerland's political and economic institutions. Could the SNB be the institution that is needed at the moment? The following recommendations are intended to provide food for thought. ●

## Recommendations

### 1) Develop a vision and a climate risk management strategy

The SNB should set up an internal climate unit to develop a strategy and propose tools for the serious measurement and management of climate risks for the Swiss economy and its financial sector. In particular, this unit should complement traditional economic models with approaches that better account for the uncertain and non-linear characteristics of climate risks.

In contrast to the SNB, the ECB seems to be taking this route. At the beginning of 2020, it launched an internal strategic review in order to better understand how new considerations such as employment and sustainability can be relevant for the successful continuation of its mandate.

In recent months, its new president has made numerous statements about the place of climate risk management in the ECB's aggiornamento, notably in its Committee on Economic and Monetary Affairs (2019): "[We will] include climate change as a building block in determining where, when, how and to what extent the ECB can take it into

account. [...] At the very least [...] macroeconomic models [that the ECB uses] should incorporate climate risks in their risk assessment.

[...] The ECB must also be able, through reporting and transparency requirements, to determine whether or not banks take climate change into account when assessing risks and when accepting financial products. [...] It would also be perfectly legitimate and desirable for [...] the ECB to look at the way in which it conducts all these operations, paying particular attention to the imperatives of climate change."

That much is clear. However, we have to wait and see what the conclusions of the ECB's strategic review, scheduled for the end of 2020, will recommend.

### 2) Ensuring that all stakeholders understand climate risks

The SNB should ensure that all Swiss financial institutions and asset managers correctly measure climate risks.

In cooperation with Finma, the SNB should contribute to measuring the climate risks of financial players and



make these results public. This proposal is included in the revision of the CO<sub>2</sub> Act and is to be debated by the National Council during the summer session. If the National Council accepts it, both institutions will have to equip themselves with state-of-the-art risk measurement and monitoring tools. In particular, several central banks are using or planning to use stress tests.

### **Climatic stress tests**

In 2018, the Bank of the Netherlands subjected the country's banks, insurance companies and pension funds to climate stress tests. It has defined four possible scenarios that start with a shock: (1) implementation of a global carbon tax of USD 100/tonne, (2) doubling the share of renewable energies in the energy mix, (3) both of those at once, and (4) political uncertainty that leads companies and households to postpone their investments.

These shocks have macroeconomic impacts on growth, inflation, interest rates, etc. The Bank of the Netherlands then estimated the vulnerability of each sector to these variations. The result: losses range up to 3 per cent of bank assets, 10 per cent of pension fund financial assets, and

11 per cent of insurance assets (Vermeulen et al., 2018).

The Banque de France plans to carry out climatic stress tests in 2020 and the Bank of England in 2021.

### **Transparency of information**

To help financial actors take climate risks into account, the European Commission plans to introduce four innovations by 2022 to steer financial flows towards a low-carbon economy.

- (i) A taxonomy of economic activities according to their ecological sustainability.
- (ii) A quality standard for green bonds.
- (iii) Low-carbon benchmarks to help asset managers create and measure the performance of their portfolios.
- (iv) Guidelines to improve the quality and quantity of information that companies should provide on the climate impact of their activities.

The SNB and Finma should make a proposal to introduce these tools in Switzerland and ensure that asset managers are aware of and use them. And while this legislation currently applies only to Euro-

pean companies, the SNB can use it for listed companies wherever it invests. It can employ its financial clout by deciding to systematically support the ever-increasing number of shareholder resolutions calling on companies to publish their climate strategies. In 2015, the SNB decided to exercise its voting rights on aspects of good corporate governance. It can very well extend this positive approach to climate risks.

### **3) Manage the climate risks of its portfolio companies**

The SNB should of course start by putting its own house in order and reviewing its investment choices. However, in order to manage its portfolio of almost CHF 800 billion (CHF 794 billion at 31 December 2019), it has to deal with constraints that, in its view, force it to settle for a passive investment policy.

First of all, its assets must be extremely liquid to enable it to intervene very quickly in the event that the Swiss franc exchange rate is too high. Second, they must be "as neutral as possible": excluding certain securities would be tantamount to pursuing a structural policy in favour of certain sectors



*All over the world, courts are being called upon to make judges see that the legislation is unsatisfactory in the light of the climate threat. On 20 December 2019, the Supreme Court of the Netherlands upheld the decision that the Dutch state has the obligation to rapidly and significantly reduce the country's greenhouse gas emissions.*

rather than others. Moreover, considerations of exchange rate risk prevent them from behaving like ordinary investors (Maechler and Moser, 2019).

While these considerations are of course legitimate, they cannot lead to the SNB ignoring the climate risks in its strategic portfolio (Monin, 2020). However, this analysis highlights the very high exposure of its equity portfolio to these risks: 40% of the portfolio reviewed (see page 10) is invested in companies that have either no climate strategy or a weak strategy.

Stress testing its portfolio, using its voting rights to require the boards of directors of the companies in

which it invests to develop meaningful transition strategies for exiting the fossil fuel industry, requiring these companies to be transparent about their emissions: there are already opportunities for the SNB to be proactive on the climate without encroaching on the constraints of its portfolio management, which would benefit all financial players.

#### **4) Enlighten financial actors**

Ultimately, the SNB must be the lighthouse that enlightens all Swiss financial players on the truth about climate risks. In order to help the Swiss financial centre to see the light on these risks, to grasp their urgency and their full seriousness, it is urgent that the SNB stop claiming, despite

the wealth of evidence to the contrary, that climate risks to the Swiss economic and financial system are moderate. The scientific literature is unambiguous: the situation is alarming and time is running out to provide sufficient answers.

#### **5) Creating coordination on climate and finance**

The Swiss financial centre has the means to contribute to flattening the global climate risk curve: Switzerland is the 70th largest emitter of direct greenhouse gas emissions and the seventh largest emitter of greenhouse gases if we take its financial centre as a benchmark. It is therefore easy to understand: if the billions of assets that it holds were to

be managed with full consideration of climate risks, the Swiss financial centre, by virtue of its size, would become a formidable asset in curbing the global rise of CO<sub>2</sub> emissions.

It is therefore crucial that the SNB quickly catches up in understanding and managing climate risks in order to be that lighthouse that enlightens and guides financial actors in Switzerland and beyond. Better coordination between fiscal, monetary and financial regulatory policies is also essential for Switzerland to achieve an economically optimal ecological transition at the lowest human cost.

In its financial stability report, the SNB expresses concern about a possible real estate bubble in Switzerland. In a country where interest rates are very low or even negative, pension funds are turning to real estate as a means of securing their capital returns. However, the SNB notes that “an increasing proportion of new mortgages in the residential property investment segment are financing real estate in regions with a high vacancy rate” (SNB, 2019).

What a waste to construct unnecessary buildings when the low interest rate environment is ideal for considering the thermal renovation of

pension funds' large housing stock while benefiting from the subsidies of the Federal Buildings Program! This is a good example of an opportunity that could be seized through proper coordination of public, fiscal and monetary policies.

It remains to be seen who should lead the coordination between these policies and financial regulation in Switzerland. Could this be the task of the SNB? Whatever the answer to this question, the SNB must in any case be at the centre of this coordination.

**ArtisansdelaTransition** is well aware that the establishment of such coordination, in which the SNB would become a reliable guide on climate risks, would be an extraordinary scenario, whereas the current position of the SNB reveals the immense difficulty for many economic and political leaders of simply acknowledging the reality of the tremendous perils that climate change entails.

Nevertheless, the world is moving, the pressure is mounting and the thinking within central banks is progressing. The repeated calls from scientists and the voices of young people asking the public and politicians to heed these calls give

hope that such a scenario, however extraordinary, can come about. That is the hope that underlies this report, because the times themselves are extraordinary. ●





*In addition to biodiversity treasures, forest fires destroy huge carbon sinks. Amazonia, Australia, California, Canada, Scandinavia, Portugal, Ukraine and even Siberia: devastating and uncontrollable fires have ravaged huge areas around the world in recent years. Here in Montana, USA.*

## Why a report on the SNB at a time when Switzerland is facing the Covid-19 pandemic?

**ArtisansdelaTransition** decided to publish this long-awaited report in the midst of the Covid-19 pandemic because the SNB will hold its General Meeting as scheduled on 24 April. And because the current acute health crisis should not blind the Swiss public to the continuation of the much more serious chronic crisis that is affecting the climate and will wreak havoc on the living conditions of humans for centuries to come.

The forced temporary halt of an important part of the economy means that recovery plans will soon have to be put in place, and these plans will have to take account of the climate and ecological situation. The SNB will be called upon to help draw up these plans. It will probably not be able to help remove the components of the

economy that are inflating the climate risk curve, which must be flattened. Hence the eminent interest in calling attention, in language accessible to all, to this acute problem at this crucial time.

This report shows the importance of the SNB at the center of the Swiss and global financial industries, its marked delay in understanding climate risks compared to other European central banks, in particular the ECB, the risk this represents for the Swiss economy, and the positive and possibly decisive influence the SNB could have on Swiss economic dynamics if it were to change its view of climate risks. ●



## Conclusion

The fact that the SNB's investments are responsible for considerable emissions is the tree that hides the forest from its deeply flawed appreciation of the financial and monetary risks associated with climate change. By underestimating the threat of climate change to the world in general and to the Swiss economy and financial system in particular, the SNB is strongly contributing to blinding all Swiss economic and financial players to the phenomenon. Instead of remaining passive in the face of the looming storm, it should instead take on the salutary task of keeping a watchful eye and alerting everyone.

This commitment would coincide with the SNB's core mandates of ensuring price stability in the medium term and the stability of the Swiss financial system as a whole, as these actions will be essential to

ensure that these mandates endure in the difficult times ahead. In order for Switzerland to do its part in the objective of flattening the climate risk curve as much and as quickly as possible, a governmental coordination of public, fiscal and monetary policies is necessary, in which the SNB could assume a pivotal role. ●

## Bibliography

Albert E. **La faute professionnelle de Christine Lagarde**, Le Monde, 17 March 2020.

Artisans de la transition. **Les investissements de la BNS dans l'industrie fossile aux Etats-Unis : une catastrophe financière et pour le climat**, 16 décembre 2016.

Artisans de la transition. **Les investissements de la BNS dans l'industrie des énergies fossiles sont contraires aux intérêts de la Suisse**, 24 avril 2018.

Carney M. **Breaking the Tragedy of the Horizon – Climate Change and Financial Stability**. Speech at Lloyd's of London, Londres, 29 septembre 2015.

Carney M. **A New Horizon**. Speech Given at the European Commission Conference: A Global Approach to Sustainable Finance, 21 March 2019.

Committee on Economic and Monetary Affairs. **Monetary dialogue with Christine Lagarde, President of the European Central Bank**, Brussels, 2 December, 2019.

Corner B. **Monetary Policy and Climate Change**. Presentation at the conference «Scaling up Green Finance: The Role of Central Banks, Berlin, 2018.

Federal Office for the Environment (FOEN). **Greenhouse gas emissions covered by the revised CO<sub>2</sub> Act and the Kyoto Protocol**, 2nd commitment period (2013-2020), Bern, 2019.

Intergovernmental Panel on Climate Change (IPCC). **Global Warming of 1.5°C**. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change. Genève, 2018.

International Energy Agency. **Global CO<sub>2</sub> Emissions in 2019**, Paris, 2020.

Klima-Allianz. Klima-Rating. **Klimaverträglichkeit der Anlagepolitik von Pensionskassen**, Bern, März 2020.

Lagarde C. **Interview avec Jean-Paul Chapel**, France 2, 24 January 2020.

LaRevueDurable. **La tempête fait rage, mais les chercheurs en économie ronflent**, LaRevueDurable n° 64, printemps-été 2020a, pp. 14-15.

LaRevueDurable. **A Renens, sur le climat, la justice est sortie du déni**, LaRevueDurable n° 64, printemps-été 2020b, pp. 16-19.

Maechler A, Moser T. **Climate risks and central banks: an SNB perspective**. Geneva, 2019.

Masson-Delmotte V, Moufouma-Okia W. **Climate Risks: Why Each Half-Degree Matters**. Banque de France Financial Stability Review n°23, 17-27, 2019.

Monin P. **Shifting Gears: Integrating Climate Risks in Monetary Policy Operations**. Council on Economic Policies, Zurich, 2020.

National Centre for Climate Services. **CH2018 - climate scenarios for Switzerland**, NCCS, Zurich.

Rainforest Action Network (RAN) and four other NGOs. **Banking on Climate Change**, 2020.

Ripple WJ et al. **World Scientists Warning of a Climate Emergency**. BioScience, 2019.

Swiss National Bank (SNB). **Financial Stability Report**, August 2019.

Vermeulen et al. **An Energy Transition Risk Stress Test for the Financial System of the Netherlands**, De Nederlandsche Bank, Amsterdam, 2018.





Etude 2016 en français, [Download PDF](#)



Report 2018, [Download PDF](#)

Participez par votre don  
ou par votre adhésion !

**ArtisansdelaTransition**  
Rue de Lausanne 23  
1700 Fribourg  
IBAN : CH2300768300140932307  
[www.artisansdelatransition.org](http://www.artisansdelatransition.org)

La Revue  
Durable



[www.climate-alliance.ch](http://www.climate-alliance.ch)