Report of the Expert Group on Banking Stability 2023

1 Sep. 2023

The need for reform after the demise of Credit Suisse

Preface

In the aftermath of the takeover of Credit Suisse by UBS, communicated on 19 March 2023, the Federal Council decided on 29 March 2023 to undertake a thorough review of the events and a comprehensive evaluation of the too-big-to-fail regime.[1] As a result of this decision, on 17 May 2023, the Federal Department of Finance (FDF) established the Expert Group on Banking Stability with a mandate to present the FDF with independent strategic considerations on the role of banks and the framework in which they operate. The aim is to enhance the stability of the Swiss financial centre.[2]

As mandated by the FDF, the expert group focuses on financial market and stability issues (excluding considerations of state and competition law) and selects its own agenda. It is also guided by the audit mandates stipulated by parliament that the Federal Council is required to fulfil, and it takes into account the report by Professor Manuel Ammann dated 19 May 2023,[3] which was also commissioned by the FDF.

The expert group began the work on 23 May 2023, and by 18 July 2023, it had conducted fifteen interviews with institutions and individuals involved in the management of the Credit Suisse crisis (see Annex B). The report was completed on 14 August 2023. The State Secretariat for International Finance (SIF) provided the organisational and logistical secretariat, as well as editorial support for the expert group.

This report presents the findings from these interviews and from the group's internal reflections, deriving recommendations which are to be understood as food for thought and are intended to serve as a contribution to the evaluation and further development of the too-big-to-fail regime, and to support the Parliamentary Investigation Committee.

In line with our forward-looking and broad mandate, the report does not contain extensive analysis of past events or detailed regulatory reform proposals.

We would like to express our gratitude for the trust placed in us and wish you an interesting read.

Yvan Lengwiler
Chairman of the Expert Group
on Banking Stability

1 Federal Council, *Federal Council adopts special dispatch on guarantee credits for Swiss National Bank and UBS*, 29 March 2023.

2 FDF, *Federal Department of Finance convenes group of experts on banking stability*, 17 May 2023 and FDF, *Group of experts on banking stability now under leadership of Yvan Lengwiler*, 5 June 2023.

3 Ammann, Käfer and Wiest, *Need for reform in the regulation of too-big-to-fail banks (in German)*, 19 May 2023.

Executive summary

The state-sponsored acquisition of Credit Suisse by UBS in March 2023 quickly rectified a precarious situation, underlining Switzerland's contribution to financial stability. Nevertheless, it has raised questions on the viability of the too-big-to-fail regime. This report of the Expert Group on Banking Stability discusses lessons and makes recommendations to address gaps in the regime.

On 19 March 2023, Credit Suisse became the first global systemically important bank (G-SIB)[4] to face imminent resolution.[5] This followed years of scandals, flawed strategies, poor profitability, and many changes of management at the bank. The ongoing crisis of a number of specialist and regional banks in the United States in the first months of 2023 accelerated the loss of confidence in Credit Suisse – it ultimately suffered a bank run and was no longer able to recover without assistance.

Against this backdrop, the state-backed takeover of Credit Suisse by UBS was greeted with relief in Switzerland and abroad. The takeover prevented major upheavals and calmed the situation surprisingly quickly and sustainably. In doing so, it made a substantial contribution to global financial stability. The transaction was of considerable significance for the Swiss and global economies, and was widely welcomed by foreign authorities.

The state-backed takeover had advantages compared to resolution because it came with comparatively few execution risks. However, as a result, UBS is now the only internationally active G-SIB headquartered in Switzerland.

Switzerland has a strong international banking centre that requires effective and internationally accepted banking regulation and supervision.

The Swiss economy benefits from the presence of large, internationally active Swiss banks and from the strength of its financial centre. Banks, and in particular large internationally active banks such as UBS, are an important part of the financial centre's ecosystem. They provide the real economy with financing on favourable terms and provide financial expertise that is important in all areas of the economy.

The presence of an international banking centre requires effective and internationally accepted banking regulation and supervision. These are prerequisites for a major bank to operate internationally out of Switzerland.

4 For the definition of G-SIB, see Box 2.

5 Resolution refers to the restructuring or liquidation of a bank in a manner that maintains the continuity of the systemically important functions of the bank and safeguards financial stability, while placing as little burden as possible on taxpayers.

6 The TBTF regime consists of the regulation that was developed after the global financial crisis of 2007/2008.

7 Emergency liquidity assistance.

8 Public liquidity backstop.

The report observes that significant progress has been made within the TBTF regime[6] since the global financial crisis of 2007–08. Stronger capital and liquidity requirements have been beneficial.

It is a fact, however, that the authorities chose not to implement the prepared resolution plan envisaged by the TBTF regime. It is an open question whether this plan could have worked in principle, or whether its implementation was judged to be unrealistic or too risky.

Switzerland should review the TBTF regime and close the identified gaps. In the event of a UBS crisis, the option of a Swiss takeover will no longer be available. This makes it all the more important to strengthen crisis management preparedness.

Should the need for UBS's resolution arise, the option of merging with another large Swiss bank is no longer available. Consequently, resolution must be both feasible and effective. Thus, it becomes imperative to review the TBTF regime for potential gaps and to address them.

The expert report provides insights and actionable suggestions to enhance the current TBTF framework in the following four areas: crisis management, liquidity, supervision, and capital adequacy.

1. Enhancements in crisis management preparedness will be crucial.

The Financial Market Supervisory Authority (FINMA), the Swiss National Bank (SNB) and the Federal Department of Finance (FDF) must share responsibility for successful crisis management. They should jointly monitor, evaluate and communicate the viability of the resolution of (global and domestic) systemically significant banks on a continuous basis. Ways of enhancing cooperation between these authorities in preparing for and managing crises should be explored.

2. Addressing gaps in access to liquidity.

Ensuring access to liquidity even under difficult conditions is indispensable for banks. Digitalisation has further increased the likelihood and speed of bank runs. Measures needed to address gaps in the liquidity mechanisms concern both the provision of emergency liquidity assistance by the SNB (ELA)[7] and the subsidiary provision of liquidity guaranteed by the state to a bank in the event of resolution (PLB).[8]

3. Additional and more effective powers and tools for banking supervision.

FINMA requires additional instruments to enable it to supervise more effectively and intervene at an early stage. FINMA should have the means to use market information more effectively in its supervision.

4. Enhanced transparency in the quality of capital.

FINMA should improve transparency on capital quality. The market for AT1 bonds[9] issued by Swiss banks has suffered damage. Accordingly, measures are needed to revive the Swiss AT1 market.

9 Additional Tier 1 (AT1) bonds, see section 5.3.

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I. Introduction

I.I The state-backed takeover of Credit Suisse by UBS in March 2023

On 19 March 2023, Credit Suisse became the first global systemically important bank (G-SIB) to face imminent resolution.[10] This had been preceded by years of scandals, flawed strategies, poor profitability, and many changes of management at the bank. The share price, the ratings from the leading rating agencies, and the default risk premia (CDS) tracked these developments (see Figures 1 and 2).

The situation at Credit Suisse in 2023 differed considerably from that of UBS when it was bailed out in 2008. At that time, UBS suffered the effects from bad investments in securitised subprime mortgages. It was a classic solvency crisis. Credit Suisse, on the other hand, remained well capitalised until the end (see Table 1). Its demise was caused by customers losing confidence in its management and in the bank's business conduct.

The ongoing crisis of several specialist and regional banks in the United States in the first months of 2023 accelerated the loss of confidence in Credit Suisse even further. Credit Suisse ultimately suffered a bank run and was no longer able to recover without support.

On 19 March 2023, UBS[11] and Credit Suisse[12] communicated the proposed merger. FINMA approved the takeover of Credit Suisse by UBS,[13] and the Swiss government supported it with state measures.[14] Accordingly, no resolution of Credit Suisse occurred.

The state-backed takeover of Credit Suisse by UBS based on emergency law was greeted with relief in Switzerland and abroad. The takeover prevented major market dislocations and calmed the situation quickly and sustainably. In doing so, it made a substantial contribution to global financial stability and was also welcomed by foreign authorities.

The authorities had three options: resolve Credit Suisse according to the prepared plan, public ownership of Credit Suisse, and a merger with UBS. In all three scenarios, the SNB would have had to provide large amounts of liquidity and the federal government would have had to provide the SNB with guarantees for part of this liquidity. This required the use of emergency law.

The SNB provided Credit Suisse and UBS with liquidity assistance credit limits of up to CHF 250 billion. Of this amount, CHF 100 billion were backed by a federal default guarantee. The commitments consisted of short-term loans to bridge Credit Suisse's liquidity problem; they did not involve any injection of capital in the form of equity. The commitments served to safeguard the systemically important functions in the event of a crisis and represented a low financial risk for the federal government and the SNB. Moreover, the loans bear

10 Resolution refers to the restructuring or liquidation of a bank. A resolution plan shows how the bank would be restructured or liquidated. The aim is to maintain the systemically important functions of the bank and ensure financial stability, while placing as little burden as possible on the public budget.

11 UBS, *UBS to acquire Credit Suisse*, 19 March 2023.

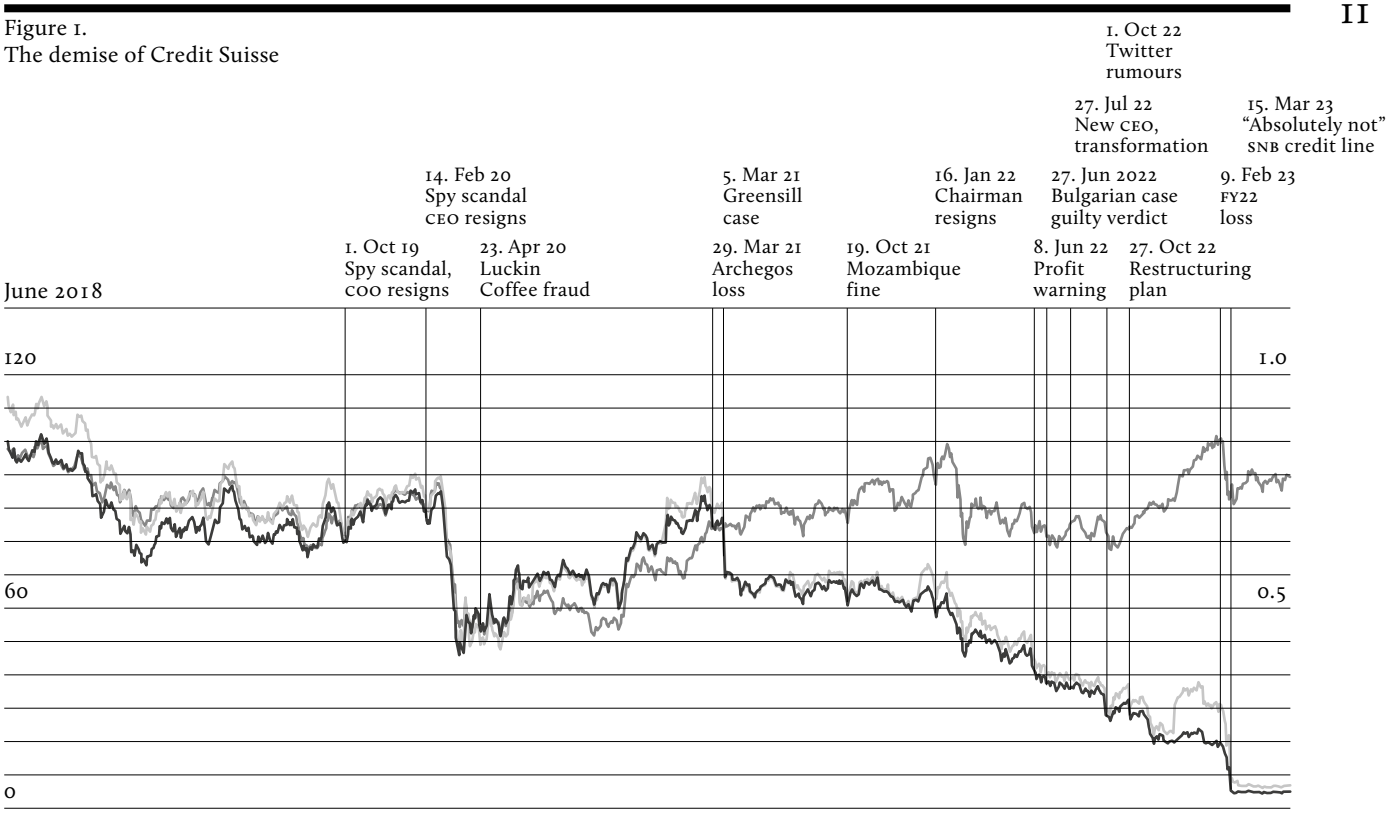
12 Credit Suisse, *Credit Suisse and UBS to Merge*, 19 March 2023.

13 FINMA, *FINMA approves merger of UBS and Credit Suisse*, 19 March 2023.

14 Federal Council, *Safeguarding financial market stability: Federal Council welcomes and supports UBS takeover of Credit Suisse*, 19 March 2023.

15 FINMA, *FINMA approves merger of UBS and Credit Suisse*, 19 March 2023, FINMA, *FINMA provides information about the basis for writing down AT1 capital instruments*, 23 March 2023. See also section 5.3.

Figure 1.
The demise of Credit Suisse



CS share price indexed ●
STOXXEurope 600 banks indexed ●
Price-to-book ratio (right axis) ●

Source: UBS

interest, are amortised, and – for those with a federal guarantee – are remunerated with a commitment premium and a risk premium. Finally, once the merger was complete, UBS was liable for the loans, which contributed to an additional reduction of the risk.

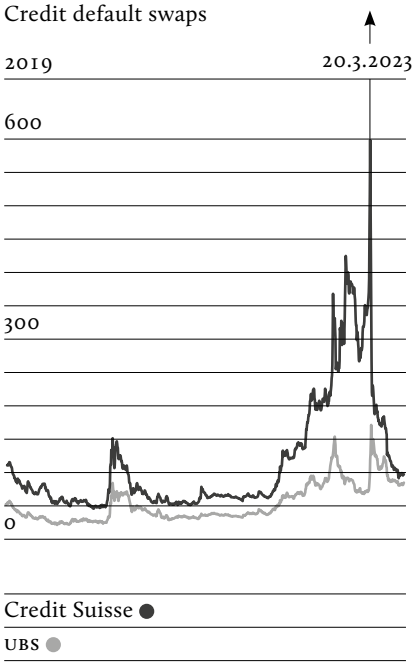
In all cases, Credit Suisse AT1 bonds in the amount of around CHF 16 billion would have been written down.[15]

Resolution would have had the advantage that Credit Suisse would initially had been maintained as a functioning bank. Over time, parts of the bank that do not fit the new strategy could have been sold off. In this scenario, foreign interested parties would have come into consideration as possible buyers in addition to UBS.

The disadvantage of this solution were the risks inherent in the conversion of at least part of the bail-in bonds (see section 2.3).

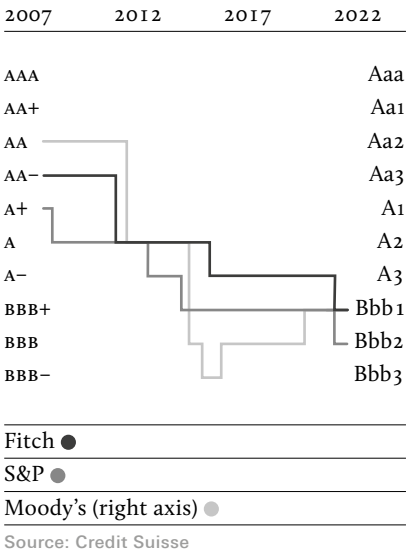
However, the fact that the shareholdings were not written off and the bail-in was not carried out surprised many observers.

Figure 2.
Credit default swaps



Sources: Bloomberg, Pictet Asset Management

Ratings of Credit Suisse



Source: Credit Suisse

Compared to a resolution, the state-supported takeover by UBS had the advantage that it was relatively simple, it restored confidence quickly and avoided the risk of a bail-in. But it also has disadvantages.

First, it exposed the public sector to considerable risk. The federal government assumed a loss guarantee for certain assets of Credit Suisse that are now held by UBS, amounting to a maximum of CHF 9 billion. This guarantee is remunerated and does not trigger any immediate negative financial implications for the federal government. Unlike the liquidity assistance described above, however, there was nevertheless a non-negligible likelihood that it would become an effective loss for the federal government.[16] UBS has terminated this contract in the meantime, and the federal government no longer bears any risk. On the contrary, it has even earned receipts of CHF 200 million on the federal guarantees.[17]

Second, the takeover has resulted in UBS being the only global systemically important bank headquartered in Switzerland. This might pose challenges for Swiss companies as UBS is now in a stronger market position as provider of certain financial services. In addition, the complexity and political weight of UBS have increased, making supervision and regulation of the bank more challenging. The takeover could lead to substantial job cuts at Credit Suisse and UBS worldwide. However, this might also have occurred in the case of a resolution.

I.2 Switzerland as an international banking centre

Benefits for Switzerland

A strong international Swiss financial centre – and in particular large, internationally active banks – provide significant advantages.

First — large, internationally positioned banks provide financial resources and services to the real economy. They ensure high-quality professional support for reliable and cost-effective global payment transactions, short- and long-term lending for domestic and foreign business, currency hedging, capital markets services, export financing, risk management, support for mergers, succession arrangements etc. Their international network is key as most financing sources for syndicated loans, bond origination, and share placements are found abroad. Other than foreign banks, only UBS now has a distribution

16 FDF, *Takeover of Credit Suisse by UBS: financial implications for the Confederation*, online, last updated 09 June 2023.

17 Federal Council, *Credit Suisse/UBS: all federal guarantees terminated*, 11 August 2023.

18 SIF, *Swiss financial centre – key figures April 2023, online, last updated 1 May 2023.*

network sufficient for such financing. Many Swiss companies operate globally, the international business accounts for 60% of their turnover. They need banks to support them. Even medium-sized enterprises may require financing in excess of CHF 100 million and smaller banks can only offer this, if at all, as part of a consortium, which is significantly more complicated.

Foreign banks are not a fully adequate substitute because, firstly, they are more interested in larger clients for cost reasons and, secondly, they tend to reduce their operations in Switzerland when times are difficult.

Second — UBS (and formerly Credit Suisse) as a "bank for banks" also offers essential bank-to-bank services (e.g., securities custody services, international currency settlement etc) to small and medium-sized banks in Switzerland, contributing substantially to the smooth functioning of the Swiss financial centre and its ecosystem. Dependence on foreign banks for such services could be strategically risky.

Third — a vibrant financial centre helps maintain a specialised professional workforce. This expertise is not only necessary for financial institutions in the narrow sense, but is also needed in other areas of the economy. It fosters the competent management of financial risks in the corporate sector (e.g., currency hedging and export financing) as well as in the public sector. Sufficient financial expertise supports innovative product development and manufacturing and it forms a necessary element in the development of new markets. Major banks also play an essential role in training within the banking sector. For instance, about half of cantonal bank CEOs originally came from a G-SIB.

Fourth — the profile and reach of the financial centre are an essential basis for the attractiveness of the Swiss franc and for its status as a safe haven. The importance of the financial centre guarantees global demand for the Swiss franc, which opens up opportunities for monetary policy that would otherwise be precluded.

Fifth — in part thanks to its international importance, the financial centre (financial and insurance services) is a significant employer (2022: 5.2% of total employment) and contributes disproportionately to GDP (2022: 8.9%) and to fiscal revenue (2021: 13.3%).[18]

in CHF billion	Q1 2023		Q4 2022		Q3 2022		Min.
Capital, risk-weighted							
CET1	35.8	14.7%	36.7	14.6%	39.9	14.6%	10.0%
CET1 + AT1*	49.4	20.3%	50.0	19.9%	50.1	18.3%	14.3%
TLAC**	97.9	40.2%	99.1	39.5%	97.4	35.5%	28.6%
RWA***	243.8		251.0		274.1		
Capital, unweighted							
Leverage Ratio CET1	32.8	5.0%	32.7	5.0%	41.7	4.9%	3.5%
LR CET1 + AT1*	49.4	7.6%	50.0	7.7%	50.1	5.9%	5.0%
TLAC**	97.9	15.0%	99.1	15.2%	97.4	11.5%	10.0%
LR denominator	653.0		650.5		836.9		
Total assets	540.3		531.4		700.4		
Liquidity							
LCR		178%		144%		192%	100%
HQLA	118.1		120.0		226.8		

Table 1.
Regulatory key figures for Credit Suisse Group AG

CET1, AT1 and TLAC are different forms of capital and are explained in section 5.3. "LR denominator" denotes the unweighted total assets plus selected off-balance-sheet positions. Size is important in the regulations. "Min." denotes the regulatory minimum, see Figure 5 in section 5.3.

* going concern
** going and gone concern
*** Risk-weighted assets

Source: *Credit Suisse, Pillar 3 regulatory disclosures.*

Implications for the regulatory framework

All of this means that Switzerland has an interest in continuing to be the home to large, globally active banks. Accordingly, the regulatory framework must be designed so that Switzerland can continue to serve as an internationally attractive location for such banks.

This requires strong, internationally recognised banking supervision and regulation. In light of the collapse of Credit Suisse, the question arises as to how the resilience of systemically important banks in Switzerland and the instruments available in the event of a crisis can be further strengthened (see Box 2). The regulatory framework has to ensure the resilience and effective resolution of a systemically important banks should it nevertheless fail Otherwise, Swiss taxpayers and the international financial system would be exposed to the risk of a disorderly bank failure, and Switzerland will cease to be attractive as a location for such institutions in the medium term.

Accordingly, the current regulatory framework must be carefully reviewed in light of the new situation and adjusted as necessary, taking international developments and national policy into account.

International standards should guide the reforms of the Swiss TBTF framework (see Box 3). However, Switzerland also must take its specific situation into account when implementing them. In particular, the importance of the remaining G-SIB for the Swiss economy and the disproportionate size of this bank in relation to the Swiss national economy as compared to other countries must be taken into account (see Figure 3).

How can a bank be sound from a regulatory perspective and yet be in imminent danger of collapse

Ultimately, Credit Suisse failed due to a crisis of confidence. Banking requires trust as its customers are unable to see what the bank is doing with their money. Markets, investors and customers lost confidence in the bank, and withdrew their assets, resulting in a run on the bank.

It is nonetheless remarkable that this crisis escalated despite the fact that both the SNB and FINMA confirmed that the bank met the regulatory liquidity and capital requirements at all times (see Table 1). In principle, there are four possible explanations for this apparent contradiction.

The first possibility — is that this was a "pure bank run", a random event out of the blue that causes a number of bank customers to withdraw their deposits, which in turn encourages even more customers to withdraw deposits. The bank then quickly becomes illiquid, and the bank run becomes a self-fulfilling prophecy. The central bank, as the lender of last resort, then intervenes with sufficient liquidity and prevents this undesirable (because unnecessary) failure of a bank that is actually solvent.

It is not possible to eliminate this explanation completely as the weeks before Credit Suisse's demise saw a crisis in the United States and heightened market jitters. Yet, it would be inappropriate to depict the crisis at Credit Suisse as a crisis of confidence that came out of the blue. After all, the bank's share price had lost 90% of its value between 2021 and 2023, its ratings were declining and CDS spiking (see Figures 1 and 2).

The second possibility — is that the regulatory indicators were not suitable for identifying a crisis of confidence in a timely manner. Regulatory indicators show the extent to which capital and liquidity buffers are available. To some extent they are always backward-looking. However, regulatory indicators provide no information about the credibility of the bank's strategy, its business model and profit outlook, the quality of its management and board of directors, and the bank's resilience to a crisis (see section 4.2).

The third possibility — is that the regulatory indicators provided an incomplete picture of the buffers that were actually available. For example, the indicators may "add up" for the group as a whole, but the liquidity and capital might not be sufficient within individual group entities, as supervisory authorities protect subsidiaries in their jurisdictions and do not allow a foreign parent company to access the funds. Some market participants understand these internal hurdles and therefore question the relevance and transparency of the published indicators. This has given rise to uncertainty and a loss of confidence (see section 3.5).

The fourth possibility — is that the supervisory authority effectively required less capital from the bank than expected under a strict interpretation of the rules in order to give the bank time to correct deficits or adjust to new rules or circumstances. Model-related capital discounts, regulatory leniency in the application of "regulatory filters", or delayed adjustments in valuation methods were all possible. This would have led to differences in the quality of reported CET1 capital, which could lead to uncertainty among market participants (see section 5.2).

Box 2 Systemic importance

A bank is systemically important if it performs functions in the real economy which are essential for many other companies or private individuals. Moreover, the bank must perform functions that cannot be substituted and provided by another provider within a reasonable timeframe. These characteristics make such banks too important for a state to allow their activities to cease and the state will take measures to prevent this from occurring. The SNB (after consulting FINMA) designates systemically important banks (SIBs) and their systemically important functions for the Swiss economy (Art. 8 of the BankA[a]). In Switzerland, these are UBS (and until recently also Credit Suisse), Zürcher Kantonalbank, the Raiffeisen Group, and PostFinance.

Swiss banking regulations apply to globally active (G-SIBs) and domestically active (D-SIB) systemically important banks (Art. 124a of the CAO[b]). The responsibility for winding down a G-SIB does not lie solely with the home authorities in the jurisdiction of the holding company or parent. There must be international coordination with the relevant authorities in the host jurisdiction in which the registered offices of the various group companies are located. Given the international environment, SIBs that are designated as G-SIBs by the Financial Stability Board are regarded as internationally active within the meaning of Swiss Banking regulation (Art. 124a, para. 1 of the CAO). In Switzerland, only UBS is designated as a G-SIB.

The resolution of a SIB is designed to maintain the continuity of its business operations after resolution, or at least continue individual banking services. The aim is not to preserve the bank in its present form, but to maintain particularly important areas of its activity. Thus, the goal is not to save the bank but to safeguard financial stability, ward off a bank liquidation and avoid a bail-out by the state.

[a] Federal Act of 8 November 1934 on Banks and Savings Banks (Banking Act; SR 952.0).

[b] Ordinance of 1 June 2012 on Capital Adequacy and Risk Diversification for Banks and Securities Traders (Capital Adequacy Ordinance; SR 952.03).

1.3 Need for adjustments to the TBTF regime[19]

The global financial crisis of 2007–08 demonstrated that the disorderly failure[20] of a global systemically important bank can lead to major disruptions in the market and have real economic costs. Following the global financial crisis, a worldwide consensus emerged that systemically important banks should not be bailed out by the state, but should, rather, be subject to orderly resolution. The G20 countries undertook reforms of financial market regulation with the aim of solving the too-big-to-fail problem. This TBTF regime has been transposed into national law in most countries, including Switzerland.

The expert group on banking stability concludes that the TBTF regime has achieved important progress compared to the situation before the global financial crisis:

- It has imposed larger capital and liquidity buffers on banks, making them more resilient.
- It has laid the foundation for more effective supervision and enforcement by the financial market supervisory authority, helping to reduce the likelihood of dislocations in the financial system.
- It has provided powers and tools to enable systemically important banks to be resolved without jeopardising their systemically important functions and without placing an excessive burden on the public budget. However, these powers and tools have not yet been applied to a G-SIB in practice.

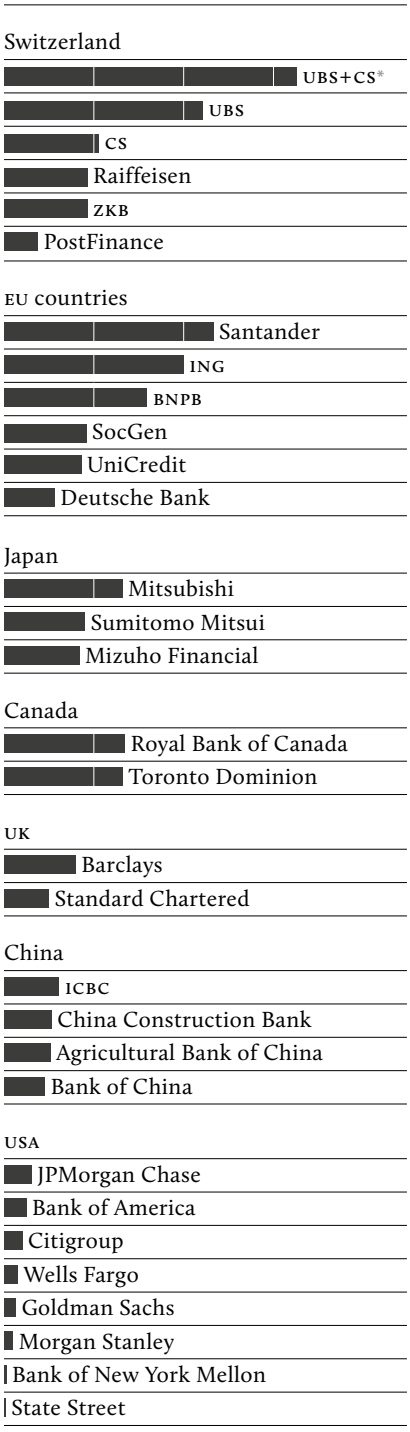
The takeover of Credit Suisse by UBS has raised concerns and uncertainty with respect to the TBTF regime:

- First, the solution that was eventually adopted appears to call into question a decade of preparations and the relevance of part of the TBTF regime. Would the official resolution plan have worked in principle, but was the solution that was adopted a better alternative? Or was the implementation of the resolution plan ultimately not realistic? This question is of particular relevance given that Switzerland is now home to only one G-SIB.
- Second, questions arise concerning the Swiss authorities' supervisory and resolution tools, and organisation. Are the authorities sufficiently well equipped to handle a G-SIB failure? Do they have the right tools at their disposal to intervene at an early stage and respond in a crisis? Is cooperation between the authorities effective?

19 TBTF stands for "too big to fail" and refers to regulation developed after the global financial crisis of 2007–08.

20 "Disorderly bankruptcy" means bankruptcy without accompanying measures, as in the case of Lehman Brothers in 2008.

Figure 3.
Size (leverage ratio exposure) of individual banks compared to national GDP. Dates between 2019 and Q1 2022, depending on the particular bank



*UBS + CS is the simple sum of the sizes in Q1 2022. This does not correspond to the size of the merged bank today

Sources: IMF, disclosure by banks, SNB calculation

On the one hand, the fact that the resolution option was not chosen in the case of Credit Suisse does not mean that resolution planning failed. On the other hand, the resolution of a G-SIB has never been tested in practice. The authorities emphasise that a global resolution would, in principle, have been possible. Within the Crisis Management Group, they had prepared the resolution of Credit Suisse over several months, together with the relevant foreign supervisory authorities. Representatives of foreign authorities involved have confirmed in interviews that the preparation was sufficient and that the execution of a resolution of Credit Suisse would have been supported and recognised by the members of the Crisis Management Group. However, the FDF, FINMA and the SNB also draw attention to risks. A merger ultimately entailed fewer execution risks and was therefore preferred by the Swiss authorities.

UBS is now the only remaining G-SIB in Switzerland, and the question arises as to whether it could be resolved according to its resolution plan in the event of an existential crisis.

The past has shown that reviews and adjustments to banking regulation always take place in the wake of a crisis, and that every crisis is unique. The following recommendations are intended to help strengthen Swiss banking regulation in light of the demise of Credit Suisse in order to further reduce the likelihood of banking and financial crises occurring. It must be clear, however, that no regulation can rule out a crisis with any certainty. The expert group therefore attaches great importance to the measures taken to manage a crisis once it occurs.

The Basel Committee (BCBS) and Basel I, II and III

The Basel Committee on Banking Supervision (BCBS) is the standard-setting body for the international coordination of banking regulation and serves as a forum for cooperation on bank supervisory matters. It is made up of representatives from central banks and supervisory authorities from 27 countries. Switzerland is represented through FINMA and the SNB. The BCBS draws up and issues framework agreements through a collaborative process. While these are not legally binding, there is a reciprocal expectation among members that the framework agreements will be transposed into domestic law with a view to establishing international convergence. Implementation is monitored by means of regular peer reviews.

In 1988, the BCBS issued the Capital Accord, which is now referred to as *Basel I*.[a] It defines a simple risk weighting for various asset classes (cash 0%, sovereign bonds 20%, mortgages 50%, everything else 100%) and requires banks to hold capital amounting to at least 8% of these risk-weighted assets. Basel I identified two classes of capital (Tier 1 and Tier 2). The rules have been continuously adjusted and refined.

Basel II[b] represents a significant refinement of the framework and contains numerous innovations. It introduced three supervisory pillars (see Box 5) and the internal ratings-based model (IRB) for quantifying credit risk.

Basel III[c] brought further innovations. The most important ones are an unweighted "leverage ratio" (in parallel to the risk-weighted capital requirements), rules on minimum liquidity (the Liquidity Coverage Ratio (LCR) and the net stable funding ratio (NSFR)), and rules for a countercyclical capital buffer which makes the requirements for banks dependent on the macroeconomic cycle.

The rules are continuously being refined. The current iteration is known variously as Basel III Final, Basel 3.1, Basel III Endgame or Basel IV. It can be viewed on the Bank for International Settlements (BIS) website.[d]

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[a] BCBS, *International convergence of capital measurement and capital standards*, 1988.

[b] BCBS, *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework*, 2004.

[c] BCBS, *Basel III: A global regulatory framework for more resilient banks and banking systems*, 2010 and *Basel III: International framework for liquidity risk measurement, standards and monitoring*, 2010.

[d] BCBS, *The Basel Framework*.

2. Crisis management

If a systemically important bank has problems and FINMA's supervisory instruments, the bank's recovery plan and FINMA's protective measures are all unable to halt the bank's collapse – authorities must initiate the bank's resolution. The law provides for the liquidation of the systemically important bank or its resolution (see Box 4).

The liquidation of a systemically important bank should be avoided whenever possible. The economic costs would be too great. In particular, a bank liquidation could destabilise global financial markets and result in the bank's systemically important functions not being maintained globally.

Resolution of the bank is therefore preferable. For resolution to succeed, long-term planning by both the authorities and the bank is required; this is referred to as resolution planning. For this purpose, FINMA prepares a resolution plan for systemically important banks in which it outlines how a resolution ordered by FINMA of the systemically important bank can be carried out.

2.1 Strengthening credibility

Background

Credit Suisse was the first global systemically important bank for which an implementation of the resolution plan was imminent. There were no precedents. It is likely that this fact prompted decision-makers to exercise increased caution.

Based on the interviews conducted by the expert group, the global resolution plan was very well recognised, prepared and rehearsed among the main foreign supervisory authorities. The fact that the plan was not implemented caused surprise, or even disappointment.

The decision not to implement the prepared resolution plan has not yet been justified in detail. Reference has been made to "execution risks" and the "danger of a financial crisis". It has also been claimed that the takeover of Credit Suisse by UBS was the better solution and was therefore preferred.[21] But so far, there has been no joint official review by the FDF, SNB and FINMA, and no transparent justification for the path chosen. The FDF has held out the prospect of such a review as part of the Federal Council's TBTF report.

21 See, e.g., *Press conference of the Federal Council*, 19 March 2023.

22 NZZ, *Keller-Sutter zur Credit Suisse-Rettung: «Dass viele eine Wut im Bauch haben, verstehe ich gut»* , online 25 March 2023 (in German, paywall).

23 Financial Times, *Rules for winding up big banks do not work, Swiss finance minister warns*, online 25 March 2023 (paywall).

24 See, e.g., the statements by Dominique Laboureix, Chair of the EU Single Resolution Board, in Risk.net, *SRB head asks for extra tools to restore faith in resolution*, online 20 July 2023 (paywall).

25 *Parliamentary Investigation Committee (PIC) on management by the authorities – emergency merger of Credit Suisse*.

The fact that resolution was not chosen may fuel doubts about the future applicability of the global resolution plan for systemically important banks. In the wake of the merger, an interview with the Swiss Finance Minister in a Swiss newspaper (Neue Zürcher Zeitung) caused a stir.[22] The interview was picked up by the Financial Times (FT) in a significantly abbreviated form.[23] The key message of the FT version is that the Swiss government believes that the global resolution framework does not work. This statement was widely reported and attracted broad attention internationally.[24]

Findings

Several persons interviewed by the expert group expressed the view that certain foreign supervisory authorities have less confidence now than they did before the Credit Suisse crisis that Switzerland would be able and willing to implement the planned resolution of UBS, should this systemically important bank become distressed. In addition, Switzerland's recourse to emergency law is not always understood abroad.

To strengthen FINMA's credibility internationally as a supervisory and resolution authority, a detailed explanation of the options available to the authorities for managing the Credit Suisse crisis should be provided. FINMA should also explain why the takeover of Credit Suisse by UBS which was outside of the scope of the Swiss TBTF legal framework was preferred.

The considerations regarding the opportunities and risks of implementing the prepared global resolution plan should be explained in a clear and comprehensive manner. This should improve understanding of the adopted solution and help deal with future crisis situations.

This explanation should be prepared in addition to the Parliamentary Investigation Committee (PIC) which will investigate the management of the emergency merger of Credit Suisse with UBS by the Federal Council, the Federal Administration and other bodies performing federal responsibilities.[25]

Box 4

Recovery plan — resolution plan — Swiss emergency plan — restructuring plan

Systemically important banks are required to draw up a *recovery plan*, in which they set out the recovery measures they intend to apply in a crisis so as to ensure that they can continue operating without the need for state intervention (Art. 64 para. 1 of the BankO[a]). The recovery plan covers the period prior to a FINMA intervention, i.e., before entry into resolution. It is subject to FINMA approval.

For systemically important banks, FINMA draws up a *resolution plan* showing how a bank would be restructured or partly liquidated in a crisis. The aim is to maintain the bank's systemically important functions, ensure financial stability, and minimise the cost to the state.

FINMA also assesses the *resolvability* of internationally active systemically important banks, i.e., the preparations that the bank must make to ensure its resolvability both at home and abroad (Art. 65a of the BankO).

In addition, systemically important banks must draw up a *Swiss emergency plan* (Art. 60 of the BankO). The plan describes the appropriate measures to be taken by the bank with regard to structure, infrastructure, management and control, as well as intragroup liquidity and capital flows, in order to maintain the bank's systemically important functions in the event of impending insolvency (Art. 9 para. 2 lit. d of the BankA[b]). Unlike the recovery plan or resolution plan, the emergency plan only addresses the maintenance of systemically important functions in Switzerland.

The above plans are all designed to deal with a potential future crisis. If a bank resolution really does become necessary, FINMA generally assigns a restructuring agent to draw up a *restructuring plan*. This describes in detail the way in which the bank should be restructured in resolution, and in particular what form the future capital structure, business model, organisation and bank management should take. It also addresses the type and scope of any impingement on creditors' rights that may be required (Art. 30c of the BankA).

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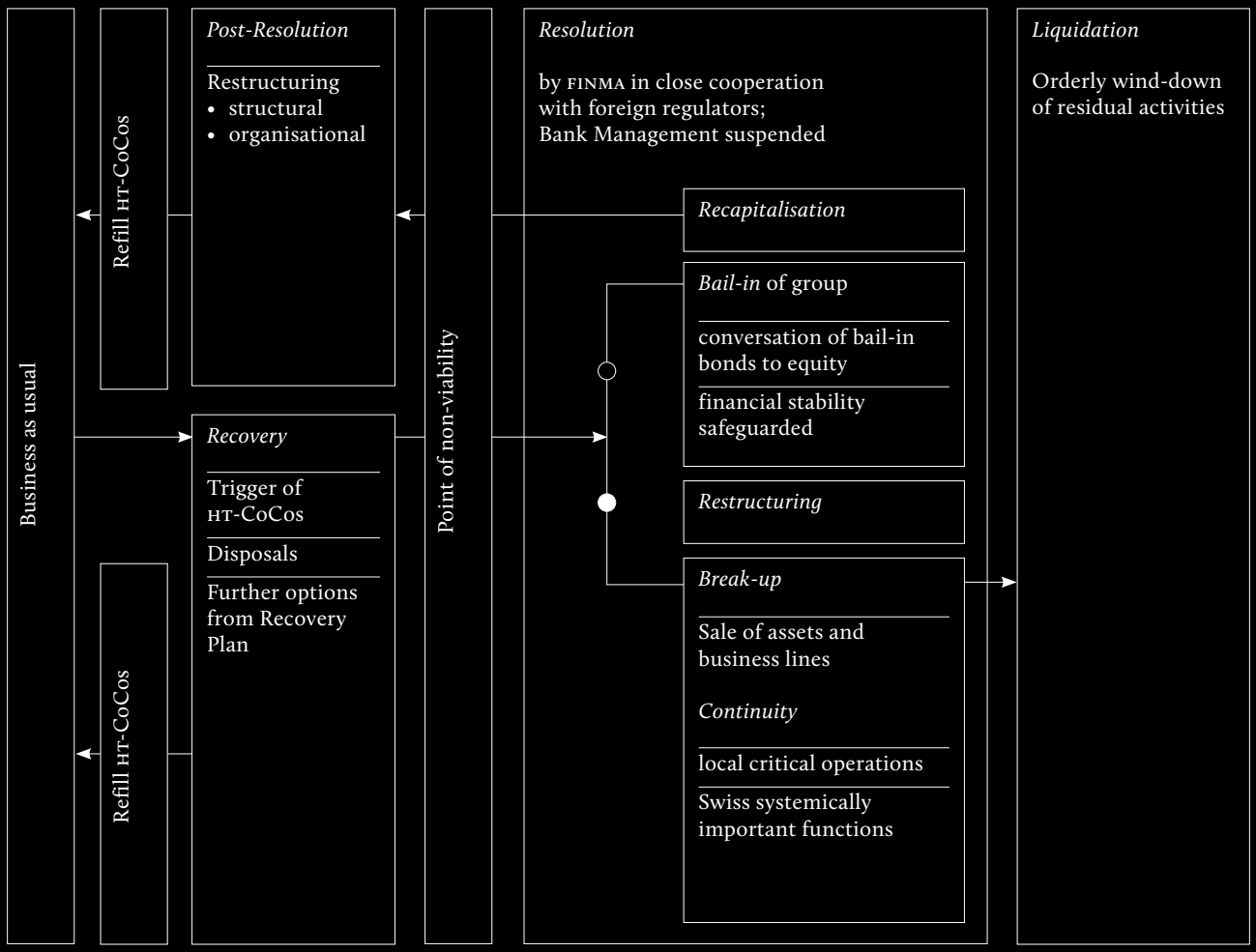
[a] Ordinance of 30 April 2014 on Banks and Savings Banks (Banking Ordinance; SR 952.02).

[b] Federal Act of 8 November 1934 on Banks and Savings Banks (Banking Act; SR 952.0).

Overview of the possible stages of a resolution of a major Swiss Bank



Recapitalisation sources available sufficient ○

Recapitalisation sources available insufficient ●

Source: *FINMA*. "HT CoCos" stands for "high-trigger conditionally convertible bonds", and refers to bonds that can be converted to equity or written down during the resolution phase, in order to provide the bank with more capital (they are assigned to Additional Tier 1, or AT1, capital).

2.2 Cooperation between authorities before and during a crisis

Background

When a systemically important bank enters a serious crisis, FINMA, the SNB and the FDF must work together closely. Their roles are as follows:

- *FINMA* — is responsible for the supervision of banks, the ordering of protective measures, and the initiation and implementation of a resolution, or liquidation of a bank.
- *SNB* — The SNB contributes to the stability of the financial system, in part, by acting as a lender of last resort (LoLR). Large amounts of liquidity are often necessary when a bank is in danger of becoming distressed, as well as during a resolution itself. The SNB is the only source for additional liquidity.
- *FDF* — To prevent and overcome banking crises, the involvement of the FDF is essential as fiscal and economic repercussions cannot be ruled out. Moreover, if emergency law has to be applied in connection with a banking crisis, it is the FDF that submits the proposal to the Federal Council. Irrespective of these implications, the decision on how to deal with a crisis at a systemically important bank inevitably has a political dimension. This is even more the case now that Switzerland is home to only one G-SIB.

To improve trilateral cooperation, the three authorities renewed their memorandum of understanding (MoU) in 2019.[26] This MoU states that the authorities shall cooperate closely with regard to crisis prevention and management in the event of crises with the potential to threaten financial market stability. For this purpose, a joint crisis management organisation was set up to prepare for the application of crisis management tools. They agreed to take due consideration of the impact of their actions on the sphere of responsibility of the other parties, and coordinate their activities.

The memorandum of understanding established the Steering Committee (SC), made up of the Head of the FDF (chair), the Chair of the SNB Governing Board, and the Chair of the FINMA Board of Directors. The SC is responsible for strategic considerations and meets only when necessary. The memorandum also establishes the Committee on Financial Crises (CFC), which is responsible for coordinating crisis management.

26 SIF, *Memorandum of Understanding on trilateral cooperation in the area of financial stability and financial market regulation*, 2 December 2019.

27 SNB, *Memorandum of Understanding in the field of financial stability between the Swiss Financial Market Supervisory Authority FINMA and the Swiss National Bank SNB*, 15 May 2017.

28 Federal Act of 3 October 2003 on the National Bank (National Bank Act; SR 951.11).

A bilateral agreement between FINMA and the SNB [27] defines the principles of cooperation and provides a clear division between the respective roles of the two authorities.

The purpose of these two agreements is to ensure the exchange of information between the authorities. They also make it possible to coordinate procedures and to simulate crises and test crisis management and resolution capabilities "in times of peace".

Findings

Although this structure found a solution to the Credit Suisse crisis its lack of institutionalisation is worrisome. The MoUs define "contingency planning and crisis management" merely as a "common area of interest". They do not, however, oblige the authorities to coordinate their "autonomous" decisions. Accordingly, the MoUs do not affect the decision-making powers of the authorities, and they do not establish joint responsibility.

The following difficulties manifested themselves in the trilateral cooperation during the Credit Suisse crisis:

1. *The decision-making process is not clear* — There has, to date, been no in-depth review of the reasons why the authorities did not implement the prepared resolution plan, who made the decision, who influenced the decision and how.
2. *Formally, FINMA is responsible for initiating and implementing a resolution* — However, due to its monopoly position as the lender of last resort, the SNB has a de facto veto. It has no obligation to provide liquidity before or during resolution, and does not have to justify its decisions in this regard.

The status of the SNB turns out to be a special challenge. Alongside monetary policy (Art. 5 para. 2 lit. a to d of the NBA),[28] the SNB's mandate includes the following: "It shall contribute to the stability of the financial system." (Art. 5 para. 2 lit. e of the NBA). The SNB performs its mandate independently – it is not permitted to seek or accept instructions (Art. 6 of the NBA).

This is a difficult point of departure. Financial stability is a task that does not fall to the SNB alone. According to the law, the SNB contributes to the stability of the financial system, but is not exclusively responsible for it.[29] Due to its independence as guaranteed by statute, however, it fulfils this task independently from other authorities, in particular FINMA. Accordingly, it is de facto not possible to hold the SNB accountable. However, despite this the expert group found that the SNB did not call into question the provision of liquidity during the handling of the Credit Suisse crisis.

The status quo — is that FINMA is solely responsible for initiating a resolution. FINMA's power to place a systemically important bank into resolution gives it significant authority over these banks. The impact of this supervisory power cannot be overstated. Any decision to reassign this power should be considered very carefully.

The three authorities defended the decision to carry out the state-supported merger, arguing that it was the best solution. In the case at hand, it is therefore not possible for outsiders to determine whether FINMA would have been able to initiate the resolution even if the FDF and the SNB had reached a different assessment. Only in this case would the regulatory status quo have come to bear, in which FINMA is solely responsible for the resolution decision.

With respect to possible measures to clarify cooperation, it should first be noted that there is no optimal and universally accepted institutional model for the distribution of powers and cooperation between the financial market supervisor, central bank and ministry of finance. Different countries have developed different models of cooperation, with corresponding advantages and disadvantages. Some countries have adjusted their model several times, typically after a banking crisis.

In the short time available to the expert group, it was not possible to draw up a plan for a major institutional reorganisation with due care and consideration. The following three ideas should be understood as input for an in-depth evaluation.

29 See also p. 6186 in *Dispatch on the revision of the National Bank Act of 26 June 2002* (BBL 2002 6097).

30 In the European Union, the integration of supervision into the ECB would be undertaken to strengthen and immunise it from national authorities. In Switzerland, this rationale would not apply.

Under the first idea — FINMA retains its original initiative to trigger the resolution of a systemically important bank. However, it cannot make this decision on its own, but rather submits its proposal to place a systemically important bank into resolution to the FDF. The FDF then decides whether or not to do so after consulting the SNB.

The powers of the three authorities involved are, like today, clearly delineated and defined. In contrast to the existing organisation in the trilateral model, the division of responsibilities is also clearly set out. FINMA still has a very prominent position, because without its initiative, resolution cannot be triggered. However, the final decision rests with the political authority. Under this organisation, the three authorities involved share responsibility for the resolution decision, albeit to different degrees.

This idea acknowledges that it is not appropriate to leave a decision of such great economic and political significance to the financial market supervisory authority (or the central bank) alone. The political dimension of such a decision is explicitly taken into account.

The second idea — is to strengthen FINMA. FINMA must be able to ensure that the bank receives the necessary liquidity from the SNB. Currently, FINMA issues a confirmation of the bank's solvency to the SNB before the SNB grants emergency liquidity assistance (ELA). An alternative would be for FINMA to receive a binding assurance from the SNB on how much liquidity the SNB will provide to a bank in resolution before the resolution is initiated.

As a further alternative, FINMA could be given the power to order liquidity assistance from the SNB for systemically important banks in resolution. However, this solution would reduce the SNB's independence in the area of financial stability (Art. 5 para. 2 lit. e in conjunction with Art. 6 of the NBA).

The third idea — is the path chosen by the United Kingdom, for example: combining the supervision and resolution of banks, and monetary policy under a common umbrella. For Switzerland, this would mean transferring responsibility for banking supervision (or at least the supervision of systemically important banks) from FINMA to the SNB.[30]

This idea has the advantage that the responsibility and means to steer a bank during recovery, as well as to carry out a resolution, are combined within a single authority.

But this advantage is offset by significant disadvantages:

- The rulings that are necessary for the recovery and resolution of systemically important banks contain the potential for political and legal conflict. This exposes the responsible authority as a whole to risk. It is an open question whether the SNB's substantial independence could be preserved the conduct of monetary policy.
- Expanding the SNB's powers would represent a significant concentration of power in one institution.
- The oversight of the SNB's activities is currently carried out by the Bank Council which is far removed from the Federal Council and parliament. With such a significant expansion of the SNB's powers, this arrangement would have to be adjusted.
- Within the SNB, a clear separation of prudential supervision from the SNB's other activities would be necessary, because conflicts of objectives between supervision and financial stability on the one hand, and the preservation of monetary stability and risks to the SNB's balance sheet on the other hand, cannot be ruled out. For this reason, other central banks that have implemented such integration have established "Chinese walls" between the part responsible for monetary policy and the part responsible for banking supervision. The two branches converge only at the most senior management level. For the SNB, this would entail that Department II would be largely split off as it would be responsible for the supervision and resolution of banks.

The effective design of the distribution of powers and the cooperation between financial market supervisor, central bank and ministry of finance is not a straightforward matter. However, such a design is crucial so that the authorities are able to act in a crisis. It is important to recognise that all three authorities share responsibility and that certain decisions by one authority cannot be taken independently from decisions by another involved authority.

31 FSB, *Bail-in Execution Practices Paper*, 13 December 2021.

32 However, the affected investors essentially only have a right of appeal against FINMA's approval of the plan for the concrete restructuring that is to be implemented in resolution (restructuring plan, see Box 4) and against liquidation actions (Art. 37g^{ter} of the BankA). Even then, if an appeal against the approval of the plan is upheld, the court may only award compensation, but it may not set aside the resolution as such (Art. 37g^{bis} of the BankA). In principle, the resolution must observe the "no creditor worse off" (NCWO) rule: no creditor or shareholder may suffer greater losses as a result of the resolution than they would have suffered if the institution had been liquidated under normal insolvency proceedings (Art. 30c para. 1 lit. b of the BankA). Nevertheless, FINMA may approve the restructuring plan for the resolution of a systemically important bank even if, contrary to the NCWO rule, it places creditors in a worse economic position, provided that they are adequately compensated (Art. 31 para. 3 of the BankA). Moreover, the concrete restructuring plan for systemically important bank in resolution does not require approval by creditors (Art. 31a para. 3 of the BankA) and, as mentioned, creditors cannot have it set aside by way of an appeal, but can only sue for compensation.

2.3 Risks of resolution

Background

Resolution typically involves the replacement of management as a first step or the appointment of a restructuring agent who supersedes management. To absorb losses already incurred and provide a buffer for the expected resolution costs, the shareholders' equity is written off and the gone-concern capital ("bail-in bonds") is drawn down. This constitutes a creditor-financed recapitalisation and is referred to as a bail-in. The process is fraught with implementation risks:

- *Legal and organisational risks* — bail-in is a process envisaged for the resolution of all systemically important banks. It is legally and organisationally demanding.[31] It requires the cooperation of authorities in different jurisdictions and is likely to lead to legal disputes later on. Legal risks are unavoidable during execution. They arise because affected investors (shareholders, AT1 investors, bail-in creditors and other creditors) may oppose certain FINMA rulings.[32] These difficulties are compounded by specific rules in the investors' home countries concerning the write-down or conversion of securities. The handling of these legal and organisational risks in the execution of a resolution is continuously discussed and prepared for in the Crisis Management Group (CMG), even in the absence of a crisis. The most important foreign host authorities are represented in the CMG.
- *Financial market (contagion) risks* — the resolution of a global systemically important bank is accompanied by increased volatility in global financial markets. *First*, the conversion of bail-in bonds created for the event of a resolution affects investors holding such financial instruments. Conversion can put these investors in economic distress. However, these instruments are not intended for retail customers. They are primarily held by institutional investors (pension schemes, insurers, investment funds, sovereign wealth funds etc.). With institutional investors, it is assumed that they will sufficiently diversify their investments and that they understand the instruments. *Second*, a bail-in may also have a negative impact on the valuation of bail-in bonds issued by other large banks, because investors may subsequently no longer want to hold these instruments or may want to reduce their holdings. This creates additional book losses for investors and makes it more difficult for banks to obtain funding, which may lead to contagion at other banks. The problem is especially virulent if the conversion takes place in a fragile environment.

- *Execution risks* — the resolution plan is initially just a plan. It contains an idea of how the bank can be resolved. But it is possible that the implementation of the plan during resolution will not bring about the desired result. It may therefore be necessary to adjust the plan at short notice in ways not envisaged in the plan. This may make the resolution considerably more costly and does not guarantee that implementation will be successful. Either way, there is always a possibility in principle that the resolution will fail and that the bank will have to be declared bankrupt. To manage this risk, G-SIBs are subject to "total loss-absorbing capacity" or TLAC requirements that ensure the availability of adequate loss-absorbing and recapitalisation capacity. The goal of the resolution process is to end up with a bank that is sound and that meets all operating requirements (see Art. 29 of the BankA).[33] This bank will then be released back into the market. However, there is no guarantee that this process will be successful.

Findings

In the case of Credit Suisse, the three risk categories manifested themselves as follows:

- *Legal and organisational risks* — In the resolution planning for Credit Suisse, the US Securities Act and the Securities Exchange Act, as well as the US Securities and Exchange Commission (SEC) responsible for the enforcement of those acts, were identified as a source of risk. Since US investors hold bail-in bonds, these acts would have been applicable to a bail-in at Credit Suisse. Under the US Securities Act, any issuance of a security must either be registered or fall under an exemption. It is not possible to register a bail-in over a weekend as the process takes too long. This means that a bail-in would necessarily have to fall under an exemption to the registration requirement. However, the SEC as a general matter does not provide *ex ante* confirmation that a transaction falls under such an exemption. Moreover, the US Securities Act does not have an exemption clause tailored to bail-in bonds. Given that the Credit Suisse bail-in would have been the first transaction ever by a G-SIB involving such financial instruments, there was uncertainty as to how the SEC and US courts would assess the case. Similar risks exist in Japan and possibly in other jurisdictions.

  These legal risks are not specific to Swiss banks, but would exist equally in the resolution of virtually all G-SIBs. In the case of Credit Suisse, FINMA worked closely with the SEC and gained reasonable confidence that the bail-in would have met the requirements for an exemption from the registration requirement.

33 Federal Act of 8 November 1934 on Banks and Savings Banks (Banking Act; SR 952.0).

34 Thomas Jordan, *Press conference of the Federal Council, 19 March 2023*: "We should not forget that we are in a very fragile market environment at this point. So going into resolution would be anything but helpful under these circumstances." Federal Councillor Karin Keller-Sutter made similar comments: "The failure of a global systemically important bank would have caused serious economic upheavals in Switzerland and also worldwide. Switzerland must also assume its responsibility beyond its own national borders." In the *Frankfurter Allgemeine Zeitung of 23 March 2023*, Thomas Jordan is quoted as follows: "Initiating a resolution during such a phase could have become the trigger for a global financial crisis."

35 Urban Angehrn, *FINMA Media event on 5 April 2023*, p. 2: "The surviving bank would still have been Credit Suisse, but there can be little doubt that the resolution would have further damaged its reputation. While the additional capital would have provided a buffer and the public liquidity backstop would have secured the bank's liquidity position, there would have been doubts about whether confidence can be restored rapidly in a difficult market environment."

This means that it is possible to mitigate the risks described. However, it is not possible to eliminate all legal risks, and a bail-in may still fail even if the preparation of the resolution is carried out in coordination with the relevant foreign authorities.

- *Financial market (contagion) risks* — Impacts on the financial market are unavoidable if a G-SIB collapses. Whether these upheavals have the potential to trigger a global financial crisis cannot be reliably predicted and may therefore be assessed differently by different decision-makers. The SNB and the FDF have emphasised the risk of a financial crisis.[34] Most persons interviewed by the expert group (representatives of foreign authorities and private institutions) consider this risk to be considerably less serious.
- *Risks to success* — There was no guarantee that the resolution plan prepared for Credit Suisse would have resulted in the sustainable recovery of the bank. Nevertheless, Credit Suisse would have had a significant amount of loss-absorbing capacity available after a bail-in: through write-downs and conversion, Credit Suisse Group's equity capital would have been strengthened by approximately CHF 73 billion (approximately CHF 16 billion through the write-off of AT1 bonds and CHF 57 billion through the conversion of bail-in bonds). This would have provided a large buffer to be able to react flexibly during the resolution and also absorb large losses. Nevertheless, FINMA expressed doubts as to whether confidence in the bank could have been restored sufficiently quickly by means of resolution.[35]

The risks of a bail-in are not negligible. Nevertheless, most of the expert group's interview partners consider these risks to be surmountable. In particular, they predominantly considered financial market risks to be not very high in the specific situation of Credit Suisse. However, a more pessimistic assessment also appears to be justifiable.

Looking to the future, it should be noted that, as things stand at present, a full bail-in in the case of a resolution of UBS would be significantly more extensive than it would have been at Credit Suisse. UBS currently has about CHF 100 billion in bail-in capital at its disposal; Credit Suisse had CHF 57 billion.

The more accurately the risks of resolution are identified and addressed during the preparatory phase, the smaller the likelihood that associated problems will arise during or after the bank's resolution. It is therefore necessary that the three authorities involved (FINMA, SNB and FDF) continuously address these risks and present their conclusions transparently. Confidence in the resolvability of a systemically important bank can be established only if all three authorities involved consider the resolution plan to be implementable and are committed to its implementation within their respective areas of responsibility.

2.4 Flexibility in resolution planning

Background

Resolution planning should consider the application of a range of measures to achieve the objective of the orderly resolution of a systemically important bank. These measures are set out in the resolution plan, which is continuously adapted to the changing environment of the bank:

- *Governance* — the resolution plan typically provides for FINMA, in a first step, to replace the bank management or supersede it with a restructuring agent.
- *Bail-in* — because resolution of a bank is generally not possible without capital measures, it is necessary to have access to sufficient financial reserves. For this reason, resolution planning typically provides for the bank's equity to be written down in whole or in part. Often, it will also be necessary to carry out a bail-in, i.e., to have creditors participate in the resolution. Certain debt instruments earmarked for this purpose (bail-in bonds) are either converted into shares or written off completely. This reduces the debt burden of the bank and increases its risk capacity.
- *Open bank bail-in and closed bank bail-in* — the resolution plan may provide for resolution within the framework of the bank's existing group structure (open bank bail-in). In this case, the intervention in the parent bank takes place via a single point of entry (SPE). The parent bank receives capital and liquidity, which is distributed to the subsidiaries that perform systemically important functions. The parts of the bank that do not fit the newly defined business model are subsequently sold off or closed. The resolution plans for most European G-SIBs provide for an open bank bail-in strategy.

By contrast, the resolution plans for US G-SIBs in particular provide for a closed bank bail-in. All US G-SIBs have the same group structure with a non-operating parent (holding company). In a resolution, the operating subsidiaries of that parent company and other holdings are transferred to a bridge bank. The shares of the existing holding company are written down. The bail-in creditors receive shares in the bridge bank. The FDIC temporarily runs the bridge bank and can sell individual subsidiaries, all of the bank's assets, or even the entire bank.

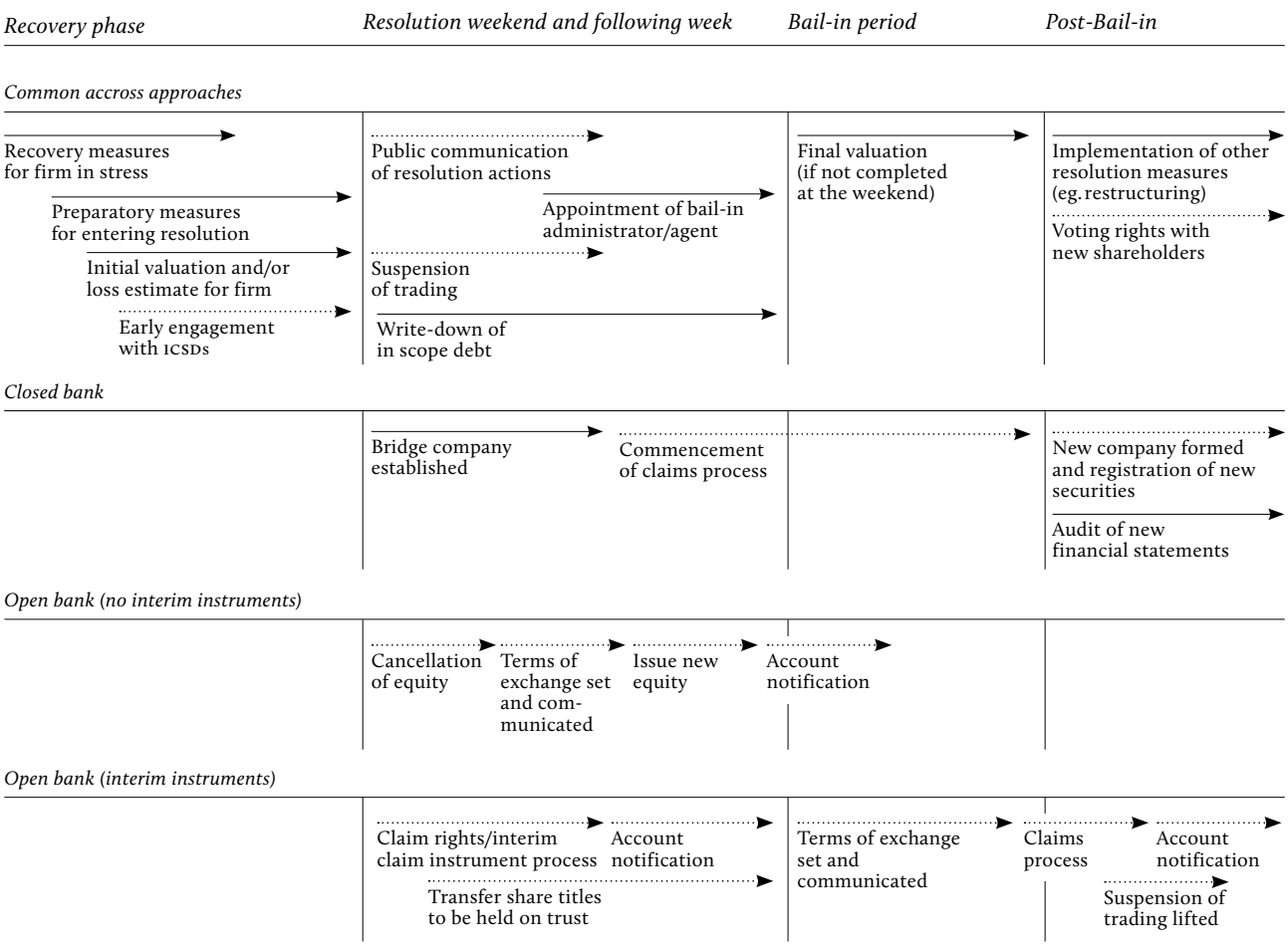
The advantages of a closed bank bail-in are that the takeover of the operating units by the bridge bank established by the authorities creates continuity, and the authorities are not under time pressure to convert the bail-in creditors, unlike in the case of an open bank bail-in (see Figure 4).

Under existing law, FINMA has both of the described options at its disposal when resolving a bank (Art. 30 of the BankA). The current resolution plan for UBS (and previously also for Credit Suisse) is based on the assumption that, in the event of impending insolvency, the entire banking group must be stabilised (open bank bail-in). This must be done through a bail-in at the holding level – and accordingly via an SPE. Implementation of a plan B is envisaged only if group-wide resolution fails or if it does not appear feasible from the outset. In this case, the individual group companies are resolved separately. At the same time, the emergency plan for maintaining Swiss systemically important functions is activated. For this purpose, the dependencies between the Swiss banking units and the rest of the banking group must be kept as small as possible.

Findings

The global resolution plan prepared for Credit Suisse Group had been prepared and tested in detail by FINMA and the key supervisory authorities. One reason that the resolution plan was not implemented may have been its lack of flexibility. FINMA, like the European Single Resolution Board (SRB), had decided to prepare an open bank bail-in strategy. The use of a bridge bank/closed bank bail-in might have given FINMA more time to reduce the legal risks of a bail-in and to consider and implement other options alongside the existing resolution plan, such as a merger of Credit Suisse in resolution or a sale of parts of the bank to third parties.

Figure 4.
Steps in a resolution



Source: FSB, *Bail-in Execution Practices Paper*, 13 December 2021, p. 6.

In any resolution, unforeseen events may arise that require a deviation from the prepared resolution plan. For this reason, it is necessary to provide sufficient flexibility on the basis of well-thought-out scenarios, rather than preparing only a single option.

In the event of a resolution of UBS, the solution of a merger with another large Swiss bank will no longer be available. It is therefore all the more important to carefully prepare how any such resolution would be carried out and what alternative options would be available. In particular, the establishment of a bridge bank and the sale of defined parts of the bank could be envisaged as an option.

2.5 Resolvability

Background

Resolution planning must be carried out on an ongoing basis "in times of peace". A systemically important bank must be resolvable at any time. The resolution plan must be tested regularly with all parties concerned. This applies not only to the individuals involved in the bank, but also to representatives of the authorities and central banks in Switzerland and abroad who would play a role in the resolution.

FINMA assesses recovery and resolution planning on an ongoing basis. However, it has at its disposal only indirect incentives for improving the global resolvability of an internationally active systemically important bank (now only UBS). Until last year, FINMA was able to grant the bank a reduction in the requirements for additional funds (Art. 132 and 133 of the CAO).[36,37] A new system has been in effect since 1 January 2023, under which FINMA can impose increased capital or liquidity requirements if it identifies an impediment to the bank's global resolvability (Art. 65b of the BankO,[38] Art. 133 of the CAO, and Art. 25 para. 1 let. g of the LiqO[39]).

Findings

A major shortcoming in FINMA's resolution powers and tools remains. In contrast to the international standard,[40] FINMA cannot require any organisational changes to enhance a bank's global resolvability. FINMA would have significantly more enforcement power if it could order organisational changes to ensure a bank's resolvability.

36 See pp. 63 f. FINMA, *2022 Annual Report*, 27 March 2023.

37 Ordinance of 1 June 2012 on Capital Adequacy and Risk Diversification for Banks and Securities Firms (Capital Adequacy Ordinance; SR 952.03

38 Ordinance of 30 April 2014 on Banks and Savings Banks (Banking Ordinance; SR 952.02)

39 Ordinance on the Liquidity of Banks and Securities Firms (Liquidity Ordinance; SR 952.16).

40 See KA 10.5. FSB, *Key Attributes of Effective Resolution Regimes for Financial Institutions*, online, last updated 4 January 2022.

2.6 Public ownership and state participation

Background

An important objective of the TBTF regime is to avoid public support. Swiss taxpayers should be exposed to the lowest possible financial risk when a systemically important bank has to be resolved. Because such a bank cannot be declared bankrupt without incurring large national economic costs, instruments such as creditor participation (bail-in) have been developed. Bail-ins are intended to reduce the likelihood that the state will have to step in to stabilise the bank (bail-out). If a bail-in is not sufficient to stabilise the bank to restructure it, the question arises as to whether the state should be able to acquire a stake in the institution.

There is no sufficient basis in current law for such participation by the state. The current legal framework does provide that, as part of resolution, the bank's assets or parts thereof may be transferred to other legal entities or to a bridge bank, including assets, liabilities, and contractual relationships (Art. 30 para. 2 lit. a of the BankA). It is not envisaged, however, that the state would be an owner of the bank.

Findings

The Federal Council communicated that on 19 March 2023, temporary public ownership of the entire Credit Suisse Group was available as an option under emergency law to solve the acute problems at Credit Suisse. But this option was not a preferred option for regulatory and legal reasons and was not pursued in view of the real possibility of a private takeover.[41]

The Ammann report[42] recommends that public ownership of an insolvent systemically important bank without a bail-in (but with the takeover of all shares without compensation and write-down of AT1) be included as an option in the law. UK law likewise recognises this option as a very last resort (Banking Act 2009, Art. 13). The introduction a public ownership solution may have advantages, but it also has serious disadvantages.

The *advantage* is that a bank can initially remain in its existing form without resolution. If the state has sufficiently "deep pockets", this can temporarily eliminate uncertainties.

41 FDF, *UBS takeover of Credit Suisse, Frequently asked questions (FAQ), Alternative scenarios*, online 7 August 2023.

42 See Section 4.6. in Ammann, Käfer and Wiest, *Need for reform in the regulation of too-big-to-fail banks (in German)*, 19 May 2023.

But public ownership also has *disadvantages*:

- Switzerland's last G-SIB, UBS is large compared to the Swiss economy and the federal government's budget. A takeover of the entire bank by the federal government would expose the latter to considerable financial risk. In particular, only shares and AT1 bonds would be written off at this point in time, while the extensive bail-in bonds would not be touched. It can be assumed that the bank's capital situation would not be comfortable in such circumstances.
- The state has no comparative advantage in managing a large bank. It would have to employ a specialised management team and would be able to manage the bank only indirectly. At the same time, the state would be politically responsible if painful measures were to become necessary. This constellation can make it more difficult to re-establish the bank's soundness.
- Public ownership entails a considerable risk that the government will not be able to release the bank back into the market within a reasonable period of time and that the financial risks will accordingly become unpredictable.

The expert group considers the possibility of public ownership of an entire bank, even if only temporary, to be a dangerous step back. Such a solution would contradict the objectives of the TBTF regime and could destabilise public budget in the event of a crisis at UBS.

However, the possibility of limited state participation should be examined under the following circumstances.

First — in a scenario in which resolution of the bank as a whole has failed and the emergency plan therefore comes into play, involving the state as a bearer of risk for the purpose of stabilising the systemically important functions may be unavoidable.

Second — UBS's current resolution plan envisages the resolution of the entire bank and the bail-in of its creditors who will become the owners of the bank. It might accordingly make sense for the state to have the option of participating to a limited extent in this construction by way of risk capital. Even under this approach, however, the bank is in resolution, which gives the state sufficient control over the bank. Such participation would not be intended to strengthen capital, but rather to create confidence in the resolution of the bank: if the state is on board, this can have a reassuring effect.

For both outlined cases of state participation, an exit strategy must be defined from the outset. Otherwise, it might be difficult for the state to exit the bank again. Especially if resolution is sluggish or the macroeconomic environment becomes more difficult, an exit by the state could destabilise the bank again. The value of the state's participation would then be called into question – a situation that is in direct opposition to the objective of the TBTF regime. State participation, to the limited extent described above, may therefore be considered only as a last resort if financial stability cannot be ensured in any other way.

Since the option of state participation in the risk capital constitutes a conditional bail-out, it is appropriate for the bank concerned to remunerate the state.

2.7 Recommendations with regard to crisis management

The three authorities – Financial Market Supervisory Authority (FINMA), the Swiss National Bank (SNB) and the Federal Department of Finance (FDF) – must share responsibility for crisis management. The introduction of the following measures is recommended:

1. In order to enhance trust in the current resolution tools, FDF, SNB and FINMA ought to explain in detail the reasoning behind their decision to endorse the acquisition of Credit Suisse by UBS, instead of executing the prepared resolution plan.[43]
2. The FDF should explore ways to enhance cooperation among FINMA, the SNB, and the FDF in preparing for and managing crises. To ensure the effective management of crises, these authorities should periodically test their preparedness in crisis simulations.
3. FINMA, SNB and the FDF should jointly monitor, evaluate, and communicate the viability of the resolution of (global and domestic) systemically significant banks on a continuous basis. This can strengthen confidence in the Swiss authorities' determination to resolve a systemically important bank in accordance with its resolution plan should this become necessary.

43 This recommendation corresponds to *postulate 23.3446* of the Economic Affairs and Taxation Committee of the House (EATC) and should be addressed in addition to the investigations of the Parliamentary Investigation Committee (PinC) "*Management of the authorities – CS emergency merger*"

Additionally, the following measures are recommended to effectively strengthen resolution preparedness:

4. FINMA should prepare resolution options by considering various scenarios as part of the resolution planning process. A resolution plan based on a bridge bank should be considered as one of the options.
5. FINMA should be given the power to impose organisational changes on systemically important banks at an early stage to enhance their resolvability.
6. The FDF should draw up a legal basis for a temporary and limited intervention by the state in a systemically important bank in resolution. The framework of international resolution standards must be taken into account in this context.

3. Liquidity

Sufficient liquidity is essential for any company, but banks face additional challenges in this respect: their fundamental business model is based on the transformation of short-term sight deposits into long-term non-liquid assets (credits). Thus, banks are always exposed to liquidity risk. Usually, this risk does not materialise because depositors do not act in a coordinated manner. They withdraw, deposit, or transfer money to other depositors on an individual basis. Under normal circumstances, a more or less constant volume of deposits remains in the bank, and thus the funding for longer-term credits is ensured. However, if a large number of depositors want to withdraw their money at the same time, the bank is unable to satisfy all of its customers. This risk of a bank run is inherent in banking business.

To deal with this risk, various lines of defence are provided. The first of these is internal liquidity reserves, which must not fall below defined limits. Together with the preventive effect of deposit insurance, they should prevent a bank from experiencing a liquidity crisis. If this nonetheless occurs, the second line of defence comes into play: emergency liquidity assistance from the central bank. The third line of defence is liquidity assistance during a bank resolution.

3.1 Internal liquidity reserves

Background

Banks must have an appropriate level of liquidity to be able to meet their payment obligations at all times, even in stress situations. The provisions on the Liquidity Coverage Ratio (LCR) go into detail on this requirement: banks must hold sufficient high-quality liquid assets (HQLA) to cover, at any time, the net cash outflow which can be expected under a stress scenario based on inflow and outflow assumptions over a time horizon of thirty calendar days (Art. 12 of the LiqO). There are also requirements in terms of the net stable funding ratio (NSFR) which are designed to ensure a bank's stable funding over a one-year horizon (Art. 17f et seq. of the LiqO).

More stringent requirements apply to systemically important banks. They must be able to absorb liquidity crises over a time horizon of ninety calendar days (Art. 9 para. 2 lit. b of the BankA and Arts. 19 and 20a of the LiqO). FINMA may impose institution-specific additional requirements which take account of a bank's risk exposure, the complexity of its business structure, and its business model.

44 See, for example, NZZ, *Kann man einen Bank-Run verhindern? – Professor Jeffrey Gordon hat eine Idee*, 13 April 2023 (paywall), see also SonntagsZeitung, *Interview mit SNB-Präsident Thomas Jordan*, 11 June 2023 (paywall).

Findings

During the crises involving Silicon Valley Bank, First Republic, and Signature Bank in the United States, as well as the Credit Suisse crisis, it became clear that sight deposits are much more volatile than previously assumed. Digitalisation has meant that the foundations of retail banking are not as stable as they once were. Consequently, this traditional arm of banking must now be regarded as riskier than hitherto.

Moreover, the Credit Suisse episode showed that even the wealth management business can be volatile. The termination of a portfolio management agreement not only leads to a liquidity problem, but also reduces the revenue from commission business, which potentially calls profitability and, ultimately, the sustainability of the business model into question.

Thus, all of the bank's areas of activity are exposed to liquidity risk. The requirement for a system which separates the investment banking arm from the other business areas is therefore insufficient.

Recently, the idea was put forward that a substantial portion of deposits should be held as deposits subject to notice or term deposits, as a way of dealing with the increased speed of deposit outflows.[44] The expert group is sceptical about this proposal. The current heightened volatility is unlikely to stem exclusively from digitalisation. In part at least, it may also be due to the long period of very low or negative interest rates, which brought demand for fixed-term deposits to a standstill. This reveals a significant correlation between monetary policy and financial stability. Positive interest rates could bring a return to normality.

The expert group therefore takes the view that a conservative recalibration of the LCR (e.g., by raising the assumptions with respect to the withdrawal of sight deposits) would be more useful than restrictions on the withdrawal of customer assets. Such an adjustment is also in line with the work of the Basel Committee on Banking Supervision (BCBS). The Swiss regulations should be based on the Basel framework.

3.2 Deposit insurance

Background

Deposit insurance schemes insure customer deposits at banks in the event that a bank fails or FINMA orders specific protective measures for a bank. It is intended to prevent depositors from panicking in response to a rumour and withdrawing their deposits abruptly, which could prompt a run on the bank. Deposit insurance aims to have a preventive effect.

The deposit insurance limit is set at CHF 100,000 per customer and bank, and covers both deposits in the depositors' own name and medium-term notes held on their behalf. Insured deposits are also given preferential treatment in the event of bankruptcy (Art. 37a para. 1 and Art. 37h para. 1 of the BankA). They are in the second creditor class, i.e., immediately behind salary claims and on a par with claims by social security schemes. To ensure the availability of funds with which to pay out privileged deposits, the banks constantly hold domestically covered receivables or other assets held in Switzerland in the amount of 125% of privileged deposits.

If need be, the privileged deposits (except those of social security schemes) will be paid out immediately and wherever possible from the affected bank's disposable assets (Art. 37b of the BankA). If these funds are not sufficient, the deposit insurance scheme steps in. Deposit insurance is provided by the private-law association esisuisse of which all Swiss banks are members. esisuisse obtains the funds needed to fund the pay-out of insured deposits from its member banks. When instructed to do so, it immediately transfers the funds to the FINMA-appointed restructuring agent or liquidator (Art. 37h para. 3 lit. a of the BankA). The banks currently provide esisuisse with a maximum of CHF 8.1 billion (as at end–2022). In addition, the banks must permanently place half of this amount as securities or in cash in an SNB securities account or provide it as a loan to esisuisse. The deposit insurance scheme aims to pay out to customers within seven working days if the need arises. Of the 241 banks (including all systemically important banks), 11 have privileged deposits exceeding CHF 8.1 billion each.

45 Source available *here*. The FSAP is an IMF programme for the regular independent assessment of member countries' financial infrastructure, including the regulatory environment.

46 FDIC, *Options for Deposit Insurance Reform*, 1 May 2023. "In the UK, the Bank is also considering improvements to our approach to depositor pay-outs for smaller banks which do not have Eligible Liabilities. Our work has thus far focused on the speed of pay-outs. Going further and considering increasing deposit protection limits could have cost implications for the banking sector as a whole." (*Speech by Mr Andrew Bailey*, Governor of the Bank of England, at the Institute of International Finance, Washington DC, 12 April 2023).

Findings

Various aspects of the Swiss deposit insurance system diverge significantly from the international standard. As a result, the Financial Stability Assessment Program (FSAP) review by the International Monetary Fund (IMF) for 2018 recommended: "The deposit insurance system should be thoroughly reformed to secure a fully-funded public deposit insurance agency with a government backstop and the authority to use deposit insurance funds for resolution measures, subject to safeguards".[45] The IMF considers it necessary for the deposit insurance scheme to be constituted under public law and that it be able to also fund resolution measures if need be. Moreover, the total amount of banks' mandatory contributions should be significantly increased, and provision should be made for a government backstop to fund deposit insurance in the event of insufficient funds.

The monitoring of compliance with the 125% rule takes place as part of the annual auditing by the audit company, and the annual reporting of privileged/secured deposits to FINMA. According to FINMA, both Credit Suisse (Switzerland) AG and Credit Suisse AG comfortably met the 125% rule as at end-2022. Until now, deposits had always been viewed as a stable form of financing. As the events in the United States have shown, online banking and digitalisation have changed customers' behaviour and made it possible to withdraw deposits more quickly. In light of these developments, deposit insurance reforms are being discussed at national and international levels.[46]

The specific design described above was a conscious decision on the part of the legislator. There are, however, no indications that more robust deposit insurance would have noticeably improved the situation of Credit Suisse or its customers. The bank run occurred in the private banking arm and mainly involved the unsecured deposits and managed assets of very high net worth customers. It is not plausible to assume that a more robust deposit insurance would have led to these customers behaving differently.

Nonetheless, experience with the very swift withdrawals that have been made possible by digitalisation has given rise to new challenges for deposit insurance. In the current environment, the seven-day horizon no longer seems enough and will probably no longer have much preventive effect. In light of the impact on the stability and reputation of the Swiss banking system as a whole, the authorities should consider strengthening the deposit insurance scheme in light of recent experience, taking international developments into account.

3.3 Emergency liquidity assistance

Background

The first line of defence and the preventive effect of deposit insurance are not always enough. If the outflow of deposits is too large and too fast, a bank may become unable to meet its payment obligations, despite still having sufficient capital. In this case, as a second line of defence it can obtain ELA from the central bank against bank collateral. This central bank function is known as lender of last resort. A bank can supply the economy with extensive credit only if it can rely on recourse to this option.

Ideally, a central bank would accept all bank assets as collateral, provided the bank is solvent. Yet, liquidity assistance can be hampered by the fact that the bank has already set aside large portions of its assets for other uses (encumbered collateral), and therefore cannot pledge them as collateral to the central bank. For this reason, it is impossible in practice for all assets to be used as collateral for liquidity assistance.

Therefore, central banks have to establish criteria for acceptable collateral which ensure appropriate financial security for the central bank while significantly expanding access to liquidity for a distressed bank.

According to its own guidelines, in its function as lender of last resort, the SNB can provide emergency liquidity assistance for domestic banks if they are no longer able to refinance their operations on the market.[47] According to the guidelines, the SNB's emergency liquidity assistance is contingent on the following conditions: the bank or banking group seeking credit must be of importance for the stability of the financial system; the bank seeking credit must be solvent;[48] and the liquidity assistance must be fully covered by sufficient collateral at all times. The SNB determines what collateral is sufficient. The SNB establishes the collateral base for liquidity assistance to systemically important banks in a dialogue with them and tests its availability each year. However, the SNB cannot order the provision of collateral, see section 3.5.

47 The SNB's ELA is based on Article 5 paragraph 2 letter e in conjunction with Art. 9 para. 1 lit. e of the NBA. Details of the ELA can be found in section 6 of the SNB's *Guidelines of the Swiss National Bank on monetary policy instruments*, as at 5 May 2023.

48 When assessing the solvency of a bank or banking group, the SNB consults FINMA.

49 The eligible collateral for the Fed's discount window can be viewed here: Federal Reserve Discount Window, *Collateral Information*, viewed on 07.08.2023. It encompasses a wide range of marketable securities, but also some loan classes (mortgages, consumer loans, student loans, credit card receivables). Based on *13(3) of the Federal Reserve Act*, the Federal Reserve can expand the criteria for providing liquidity. It reports regularly on its policy in this area (e.g. here: Federal Reserve, *Periodic Report: Update on Outstanding Lending Facilities*, 7 October 2023.

50 The Bank of England defines various asset classes (Level A to C) that can be used for transactions (Bank of England, *Eligible collateral*, viewed on 7 August 2023).

51 The collateral that is eligible for liquidity operations under normal ECB monetary policy can be consulted online (see ECB, *Marketable assets*, viewed on 07.08.2023 and ECB, *Non-marketable assets*, viewed on 7 August 2023). It includes marketable and non-marketable asset classes. ELA is within the remit of the national central banks in the euro area.

Findings

Based on the discussions held, the expert group concludes that the SNB's practice with regard to emergency liquidity assistance is more restrictive than in other countries, which makes it more difficult for distressed banks to access liquidity:

1. *The SNB's definition of the collateral it will accept for emergency liquidity assistance is conservative.* — The SNB can engage in credit operations with banks and other financial market participants, provided the loans are backed with "sufficient collateral" (Art. 9 para. 1 lit. e of the NBA). This wording leaves significant room for interpretation which the SNB does not make full use of. According to the discussions held, the SNB accepts only Swiss mortgages that are transferable and not otherwise pledged or encumbered, as well as certain liquid securities. However, the bank could securitise such mortgages or certificate the securities and use them as collateral to obtain liquidity on the market (or, in a liquidity crisis, has already done so). This limits the usefulness of the liquidity assistance and hinders it from achieving its aim. The SNB's policy stands in contrast to the practice at the Federal Reserve,[49] the Bank of England (BoE)[50] and the ECB.[51] These central banks accept a broader range of collateral, including a wide range of bonds and hard-to-sell assets (e.g., corporate loans and Lombard loans), and publish the list together with the conditions for using the facility.

2. *Until recently, the SNB was also restrictive with regard to the group of eligible recipients.* — To date, liquidity assistance has been available only to systemically important banks. However, large regional banks or a specialised bank that performs important services for other banks or is important for the image of the financial centre can also acquire a degree of systemic importance. The SNB has recognised this problem and is planning to make emergency liquidity assistance available to all banks against collateral in the form of mortgages. The expert group welcomes this development. The expansion of the recipient group would be even more effective if the list of eligible collateral is expanded at the same time.

3. *The SNB applies large haircuts to the collateral.* — The discussions also revealed that the SNB tends to apply large haircuts, and thus provides liquidity for only part of the value of the collateral. This is confirmed by an SNB announcement to banks on 26 July 2023, confirming the provision of liquidity against collateral in the form of mortgage securities as a general rule. The haircuts are designed to ensure that the credit is still fully covered even in the event of a 35% fall in real estate prices. Such a large haircut seems very conservative and significantly limits the available liquidity.

To expand the access to liquidity for a distressed bank, the requirements in terms of the quality of collateral must be set lower than those for collateral that is accepted by the market (in return, the interest rate on liquidity assistance loans is higher). The SNB should present these requirements transparently.

Ideally, a central bank will accept all bank assets as collateral that cannot be used to obtain liquidity on the market, as the bank is still solvent. The SNB should therefore accept a wide range of collateral to be pledged in advance;[52] in this way, it can ensure swift access to liquidity when needed.

The expert group supports the CEAT-N's postulate 23.3445, which calls for the SNB's emergency liquidity assistance practice to be compared to that in other countries. The review should be performed by a team of independent and international experts.

3.4 The stigma of emergency liquidity assistance

Background

In a stress situation, a bank may need more liquidity than it can obtain on the market. It is one of the core tasks of a central bank to provide such liquidity in these cases as ELA.

Recourse to such liquidity assistance does not bode well for the condition of a bank. Depositors who are unable to reliably assess the soundness of their bank become nervous when they learn that they have entrusted their money to an institution that has had to obtain emergency liquidity assistance from the central bank. If the bank concerned can be identified by depositors and creditors, this may even exacerbate the bank's liquidity problems instead of alleviating them. The facility misses its mark.

Thus, recourse to liquidity assistance is stigmatised and banks that require such assistance will give it a wide berth. This presents a challenge for the SNB and central banks everywhere.[53]

Findings

The SNB describes its emergency liquidity assistance as just that: emergency assistance.[54] A designation with less negative connotations would be preferable. In its announcement to banks dated 26 July 2023, the SNB refers to "liquidity against mortgage collateral", which is a step in this direction.

52 In this regard, see the Bank of England's loan prepositioning programme (see Bank of England, *Loan Collateral: guidance for participants in the Sterling Monetary Framework*, September 2020) or the *Federal Reserve Discount Window – borrower-in-custody arrangements.*

53 The Federal Reserve's discount window also suffers from stigma: Huberto M. Ennis and David A. Price, *Economic Brief: Understanding Discount Window Stigma*, April 2020, and Mark Carlson and Jonathan D. Rose, *FED Notes: Stigma and the discount window*, 19 December 2017. Stigma also played a part in the downfall of Silicon Valley Bank; see Ostrander, *Remarks on the Panel "Bank Crisis Framework: Learning from Experience"*, 17 June 2023.

54 SNB, *Guidelines of the Swiss National Bank on monetary policy instruments,* as at 5 May 2023, see section 6.

55 See SIX, *SIX Listing Rules*, Article 53. However, the bank may defer the announcement, subject to the provisions of Article 54 of the listing rules.

56 Credit against non-marketable collateral is more expensive for the banks, to reflect the risk borne by the Bank of England.

57 An overview of all operations can be found *here.*

58 Bank of England, *Evaluation of the Bank of England's approach to providing sterling liquidity*, January 2018.

59 Bank of England, *Loan Collateral: guidance for participants in the Sterling Monetary Framework*, September 2020.

60 Bank of England, *The Bank of England's approach to assessing resolvability*, 2018; chapter on "Funding in Resolution", page 27 et seq.

The SNB does not publish any information on recourse to liquidity by individual banks. Details on recourse to assistance are only published in aggregate form. This makes it more difficult to identify the bank concerned and could reduce the stigma.

An even more effective strategy might be to combine the normal monetary policy instruments – open market operations to steer the money market interest rate and standing SNB facilities to facilitate settlement in payment operations and to bridge unexpected liquidity shortfalls – with the provision of additional liquidity (formerly "emergency liquidity assistance"), so that how much liquidity is being provided through which instrument and for what purpose cannot be inferred. In addition, it should be ensured that the bank itself is not obliged to publish the fact that it has accessed liquidity assistance, because this information may impact the share price.[55]

In this regard, the approach of the BoE is interesting. The BoE provides additional liquidity on an ongoing basis and tries to make these operations as commonplace as possible. Its "open for business" approach means that a bank need not justify its use of "liquidity assistance". In addition to the normal repo facility for monetary policy operations (short-term repo (STR)), the BoE holds a regular (weekly or monthly) auction (indexed long-term repo (ILTR)), in which banks can obtain liquidity against marketable and non-marketable collateral.[56] It also offers liquidity on a bilateral basis at all times to such banks (discount window facility (DWF)).[57] Until a few years ago, however, there was a stigma attached to DWF, which meant that it was rarely used.[58] To facilitate the use of illiquid collateral (credits granted by the bank to its customers), banks can deposit such collateral at the BoE (pre-positioning), a facility which the banks use frequently.[59] Through the regular use of the facilities provided by the BoE, the banks' need for liquidity appears to be less pronounced. The banks are engaged in a constant exchange with the central bank.

In order to provide a bank in resolution with sufficient liquidity, the BoE also offers a separate facility, the resolution liquidity framework (RLF).[60] This allows liquidity to be obtained during resolution, in close cooperation with the central bank, against a broad range of collateral in various currencies. The use of the RLF is not disclosed in any way by either the BoE or the affected bank, to avoid stigma.

Stigma is a serious problem affecting all central banks. The SNB, like other central banks, must urgently address this problem. The BoE is taking the lead in this area and the question of whether its experience might be useful for Switzerland should be examined.

3.5 Availability of liquidity within the banking group

Background

A bank must be able to provide enough transferable and unencumbered collateral to obtain liquidity assistance in sufficient quantity from the SNB. This requires corresponding contractual and operational preparation. However, the preventive provision of unencumbered collateral is costly and constitutes a significant intervention into the bank's operations. It can be ordered by FINMA only as a measure under the emergency plan, with due observance of the proportionality principle, if there would otherwise be a risk that systemically important functions would not be able to continue uninterrupted operations independently of the other bank units in the event of impending insolvency (Art. 60 para. 1 of the BankO).

Yet, even if the level of available liquidity across the corporate group as a whole is appropriate, it is still possible that the liquidity cannot be directed to those parts of the group that need it. Liquidity does not flow smoothly between parent and subsidiaries: there may be country-specific restrictions on liquidity transfers owing to regulatory, legal, tax, accounting or other considerations. An upstream transfer refers to a flow of liquidity from a subsidiary to the parent (this is a loan from the subsidiary to the parent) and a downstream transfer is a transaction in the opposite direction. Upstream transactions, in particular, may be restricted by company law or statutory requirements. It should also be noted that, as a systemically important bank, the Swiss subsidiary is not permitted to transfer unlimited liquidity to the parent bank under the emergency plan rules. It must itself hold sufficient loss-absorbing capital and liquidity to ensure that, under the emergency plan, it can continue to operate the functions that are systemically important for Switzerland independently of its parent, in the event that the rest of the group becomes insolvent. Thus, the maximum amount of upstream transfers is limited.

[61] ELA+ was made possible by the *Ordinance on Additional Liquidity Assistance Loans and the Granting of Federal Default Guarantees for Liquidity Assistance Loans from the Swiss National Bank to Systemically Important Banks* of 16 March 2023.

Findings

The discussions of the expert group have shown that Credit Suisse's preparations for posting collateral to obtain enough emergency liquidity assistance were inadequate, especially at the level of the parent.

The bulk of the liquidity provided through the emergency liquidity assistance facility was made available to the Swiss subsidiary. The SNB always provides the liquidity assistance to the group unit that has posted the collateral. However, the Credit Suisse parent bank, to which the foreign-based units also belong organisationally, held very little collateral that was eligible for the SNB. Yet the liquidity was not needed only in Switzerland, but also by Credit Suisse units based abroad.

In order for the liquidity to be made available there, it would have needed to be transferred from the Swiss unit to the parent (upstream), and in turn directed to the group units that required it (downstream). But the Swiss unit allowed only limited upstream transfers to avoid jeopardising a potential activation of the Swiss emergency plan. This meant that the liquidity could not be transferred to the units that needed it.

Ultimately, this problem was solved via the SNB's additional emergency liquidity assistance, or ELA+.[61] The additional emergency liquidity assistance was provided directly to the parent bank and did not involve the posting of collateral by Credit Suisse (secured only by preferential rights in bankruptcy proceedings for the SNB). The SNB's financial risk with ELA+ was already substantial because it did not receive any collateral from the bank. Furthermore, it had no control over the use of the liquidity provided. Credit Suisse was not in resolution and the existing management was still in post. The risk was nonetheless limited by the preferential rights in bankruptcy and by the fact that Credit Suisse was subsequently taken over by UBS.

As a general rule, ELA+ should not become the norm. The risk to the SNB would be too high. Rather, it should be ensured that the banks hold sufficient collateral in the right area of the group, so that emergency liquidity assistance can be provided either to the parent or directly to the group units that need it.

To solve the availability problem for intragroup liquidity, FINMA or the SNB should be able to order banks to hold sufficient transferable and unencumbered collateral in the right area of the group. Access for all group units to liquidity assistance from the SNB and foreign central banks should be improved.

3.6 Liquidity assistance during a resolution

Background

A bank resolution often requires a considerable amount of liquidity in the right places within the group. If the bank is no longer able to refinance itself on the market and it does not have sufficient liquid assets (first line of defence) or collateral to obtain enough emergency liquidity assistance from the SNB (ELA, second line of defence) to cover its liquidity needs, the third line of defence comes into play. This liquidity is provided by the central bank without collateral being posted. However, the risk is borne by the state because it provides the central bank with a default guarantee.

This state default guarantee is known as a public liquidity backstop, or PLB. It is not a financial interest of the state in the bank, but a loan that has to be serviced through commitment premiums, risk premia and interest, and must be repaid.

Many countries have introduced a PLB in various forms, including the United Kingdom, the United States, Japan, Canada and the European Union.[62]

The *United Kingdom* has the Resolution Liquidity Framework, which provides for liquidity assistance by the Bank of England for a systemically important bank in resolution. The BoE requires the consent of the UK Treasury and receives a default guarantee.

The *United States* has the Orderly Liquidation Authority for the resolution of systemically important banks. With this solution, the necessary liquidity assistance is provided in the form of a credit from the Orderly Liquidation Fund (OLF), rather than by the central bank. Despite its name, this fund is not pre-financed and is ultimately fed by the US Treasury. The Federal Deposit Insurance Corporation (FDIC, the resolution authority) can draw down a maximum of 10% of the bank's total assets as liquidity assistance during the first 30 days. If the FDIC and Treasury agree a repayment plan, liquidity can be obtained up to a maximum of 90% and for a maximum of five years. If the liquidity is not repaid, certain financial companies can be brought in to arrange repayment, over a five-year period, of the funds obtained through the OLF.

The Bank of *Japan* can provide a bank with ELA only prior to resolution. During resolution, the Deposit Insurance Corporation of Japan (the resolution authority) can obtain a state-guaranteed loan from the Bank of Japan. Under certain conditions and with the consent of the prime minister, this liquidity assistance can be provided even if the bank in resolution is no longer solvent.

The Bank of *Canada* can provide ELA both prior to and during resolution. During resolution, the solvency requirement is replaced by a credible resolution plan. However, liquidity assistance in Canada is only ever provided against collateral.

62 For detailed information, see FDF, *Erläuternder Bericht zur Änderung des Bankengesetzes – Gewährung von Ausfallgarantien des Bundes für Liquiditätshilfe-Darlehen der Schweizerischen Nationalbank an systemrelevante Banken*, 25 May 2023.

In the *European Union*, ELA is provided by the national central banks. The Single Resolution Board is the centralised resolution authority within the Banking Union. Together with the national resolution authorities, it makes up the Single Resolution Mechanism (SRM). As part of the mechanism, a Single Resolution Fund (SRF) provides special liquidity assistance in the event of resolution. The SRF is fed by *ex ante* contributions from banks in member states and can be used to provide liquidity assistance and for recapitalisations. Its size is limited to 1% of the total deposits of all banks in the euro area (around EUR 80 billion). The European Stability Mechanism (ESM) provides the actual PLB. It can provide up to EUR 68 billion if the SRF has been run down. However, use of the ESM is subject to the consent of all member states.

In Switzerland, there is no basis for the PLB in ordinary law. The Federal Council has prepared draft legislation, for which the consultation period ended on 21 June 2023.

Findings

Switzerland currently has no legal basis for providing liquidity to a systemically important bank in resolution that lacks eligible collateral. In the case of Credit Suisse, this option had to be created via emergency law.

The PLB should therefore be transposed into ordinary law. The expert group supports the Federal Council bill mentioned above. The following aspects of the bill are key:

- As a general rule, deployment of the PLB is subsidiary once other options (especially the bank's own liquidity and the SNB's emergency liquidity assistance against collateral) have been exhausted.
- The PLB is limited to systemically important banks.
- Resolution has been initiated or is imminent. The bank is thus under the control of either FINMA or the FINMA-appointed management, and resolution is being carried out to protect both creditors and financial stability. This reduces the state's financial risk.
- Liquidity assistance is provided without collateral but with a federal default guarantee and subject to preferential rights in bankruptcy.
- The bank pays a commitment premium to the Confederation for the default guarantee, plus a risk premium to the Confederation and the SNB as soon as liquidity assistance loans are paid out, and an above-market interest rate to the SNB.

In the event that the proposed PLB legislation is rejected by parliament, the SNB must be able to provide a systemically important bank in resolution (and thus under FINMA control) with liquidity assistance loans without bank collateral and without a state default guarantee. This instrument is referred to here as the central bank liquidity backstop (CBLB). As with the PLB, this liquidity assistance would carry an above-market interest rate. Introducing the CBLB would require an amendment to Article 9 paragraph 1 letter e of the NBA, which currently only authorises the SNB to engage in credit operations with banks and other financial market participants, provided the loans are backed with sufficient collateral.

A distinction should be made between the CBLB and the ELA+ granted to Credit Suisse. ELA+ was provided without Credit Suisse being placed in resolution, and without it having to post collateral of any kind. The risks for the SNB posed by ELA+ would obviously be too high, especially since, in the absence of any orders as part of a resolution process, the existing management would stay in charge and would be able to decide how to use the credit provided, and since the bank would not have to meet any other requirements imposed by the authorities. The expert group is therefore not advocating the permanent introduction of ELA+ into ordinary law. By contrast, uncollateralised credit for a systemically important bank in resolution, which would be possible with the introduction of a CBLB, is considerably less risky because in this case the bank is under the control of FINMA.

From an economic perspective, the difference between a CBLB and PLB is small. Both arrangements constitute uncollateralised SNB loans. Under the PLB, the SNB receives a federal default guarantee, but there is no such guarantee with the CBLB. So the risk is borne by either the Confederation or the SNB. Yet the SNB is also part of the state. In a consolidated perspective, the two options are equivalent. Whereas any loss under the PLB would be felt directly by the Confederation because the default guarantee to the SNB would be invoked, a loss under the CBLB would first be reflected in the SNB's profit and loss account. However, this loss would affect the profit distribution to the Confederation and cantons as a result, and would thus also be borne by the state.

If parliament votes against the proposed PLB legislation and in favour of introducing a CBLB, part of the risk thus passes from the Confederation to the cantons. Moreover, with this solution, the Finance Delegation would not need to be involved. In addition, the effect on the debt brake is different. From a political standpoint, these differences are significant, but economically they are largely irrelevant.

63 The *esisuisse* association is the sponsor of the statutory deposit insurance scheme and insures customer assets held at banks and securities firms in Switzerland.

The resolvability of UBS in its home market of Switzerland would be made more difficult if parliament rejects the PLB and the CBLB for systemically important banks in resolution. In turn, this would damage the prospects of it remaining in Switzerland over the long term.

For this reason, the expert group recommends, as a matter of urgency, that the PLB or the CBLB be introduced into Swiss law. The expert group prefers the PLB proposed by the Federal Council because, unlike the CBLB, the PLB guarantees the budgetary sovereignty of parliament.

3.7 Recommendations with regard to liquidity

Ensuring access to liquidity even under difficult conditions is indispensable for banks. Digitalisation has further increased the likelihood and speed of bank runs. Gaps in liquidity mechanisms in Switzerland should be addressed as follows:

1. The SNB should widen the scope of acceptable collateral for the provision of extraordinary liquidity assistance (ELA). In particular, the SNB should also accept non-marketable and highly illiquid collateral, and limit haircuts.
2. The SNB should tackle stigma with respect to ELA and to this end consider the strategies of the Bank of England and other central banks in this area.
3. The "public liquidity backstop" (PLB), as proposed by the Federal Council, must be introduced expeditiously. Its adoption is critical to guarantee access to funding in the resolution of a systemically significant bank.
4. FINMA should be able to instruct systemically significant banks to deposit sufficient collateral with the SNB and foreign central banks to ensure adequate access to liquidity.
5. The FDF and esisuisse[63] should review the effectiveness and suitability of the deposit insurance scheme in light of digitalisation.

4. Supervisory and protective measures

FINMA carries out its supervision according to Swiss financial market acts and the FINMASA.[64] Within the scope of banking supervision, a distinction can be made between two areas depending on the economic situation of the bank:

1. *The bank is sound* — In this case, the authority conducts ongoing supervision deploying the instruments and powers given in Art. 24 et seq. of FINMASA (see section 4.1). FINMA carries out audits either itself, through mandated auditors or through audit firms appointed by the bank. FINMA ensures that banks comply with financial market regulation and licensing requirements.
2. *The bank is in difficulty* — If FINMA determines that there is a risk of "impending insolvency" (see Box 6, definition of "impending insolvency" and "point of non-viability" (PONV)), FINMA may order far-reaching protective measures (Art. 25 and 26 of the BankA), independently or in conjunction with resolution or liquidation (section 4.2).

4.1 Supervision

Background

Banks are required to obtain a licence from FINMA prior to commencing business activities (Art. 3 para. 1 of the BankA). FINMA has supervisory instruments at its disposal to oversee continuous compliance with the licensing requirements.[65] If it determines that a bank has violated financial market law, it can compel the bank to restore compliance with the law through enforcement proceedings.[66] The authority maintains a discretionary latitude in the use of the supervisory instruments, but in exercising this discretion FINMA must take the principle of proportionality into account.

Capital and liquidity requirements applicable to banks are largely based on the framework accords of the Basel Committee on Banking Supervision (BCBS; see Box 3). Under Basel II, the regulatory requirements for banks in Switzerland are based on three pillars (see Box 5). These pillars have been further expanded by a revised framework (Basel III, see Box 3) drawn up after the financial crisis. FINMA has some discretionary scope and it follows that banks may sometimes try to resist supervisory measures through legal proceedings. This may result in delays and can reduce the effectiveness of supervision. Under the current regulatory framework such proceedings are usually not known to the public.

64 Federal Act of 22 June 2007 on Federal Financial Market Supervision (Financial Market Supervision Act; SR 956.1).

65 This includes audits (Art. 24–28a of the FINMASA) and further supervisory instruments (Art. 29–37 of the FINMASA). The banks and the audit companies that conduct audits of them must also immediately report to FINMA any incident that is of substantial importance to the supervision (Art. 29 para. 2 of the FINMASA). Where there are indications of violations of supervisory provisions and if FINMA opens a proceeding, it notifies the parties of this (Art. 30 of the FINMASA).

66 See the general clause in Art. 31 of the FINMASA. FINMA may also issue prohibitions from practising a profession and from performing an activity (Art. 33 and Art. 33a of the FINMASA) and confiscate profits arising from a violation of supervisory provisions (Art. 35 of the FINMASA). As the strongest measure and last resort, FINMA may revoke the bank's licence (Art. 37 of the FINMASA).

67 FINMA, *Archegos: FINMA concludes proceedings against Credit Suisse*, 24 July 2023.

68 Bank of England, *The PRA imposes record fine of £87m on Credit Suisse for serious risk management and governance failures in connection with Archegos Capital Management exposure*, 24 July 2023.

69 US Federal Reserve Board, *Federal Reserve Board announces a consent order and a $268.5 million fine with UBS Group AG, of Zurich, Switzerland, for misconduct by Credit Suisse, which UBS subsequently acquired in June 2023*, 24 July 2023.

70 See, for example, Financial Stability Institute, *Early intervention regimes for weak banks*, 3 April 2018, and BCBS, *Frameworks for early supervisory intervention*, March 2018. Implementation is not without problems: "the prompt corrective action mandates established by FDICIA have not worked as anticipated to reduce losses to the deposit insurance fund by closing failing banks while they still have positive equity." (Andrew Olem, *Hearing on perspectives on deposit insurance reform after recent bank failures*, 20 July 2023, p. 13).

71 See, e.g., Federal Administrative Court, Judgment of 30 March 2023, *BVGer B-4004/2021*.

Findings

Owing to a series of scandals (see section 1.1, Figure 1), FINMA's supervisory efforts had been concentrated on Credit Suisse. FINMA initiated a total of eleven proceedings against the bank, six of which were made public. The intensified supervisory activities and the various enforcement proceedings were, however, unable to make the bank adjust its behaviour in such a way as to restore the confidence of clients and the markets.

Compared to supervisory authorities in other countries, FINMA has fewer instruments at its disposal to enforce effective supervision. By way of example, this can be seen in FINMA's enforcement proceedings against Credit Suisse (published on 24 July 2023) in the context of the business relationship with the Archegos family office.[67] The UK Prudential Regulation Authority (PRA) imposed a fine of GBP 87 million on Credit Suisse[68] and the US Federal Reserve Board imposed a fine of USD 268.5 million.[69] FINMA was precluded from imposing a monetary penalty as it had no legal basis to do so.

In light of these findings and considering the new situation, characterised by the presence of only one major Swiss bank, it is advisable to bolster FINMA's authority and toolkit.

This can be achieved by expanding its supervisory and punitive instruments, as well as improving the legal enforcement of those instruments. In addition, augmenting human resources can enhance the effectiveness of supervision. The following possible measures are provided as illustrative examples, without delving into specifics. They should serve as a foundation for further deliberations:

- *Prompt corrective action* — the supervisory regime can be designed in such a way that FINMA is obligated to intervene at an early stage. A mechanism of prompt corrective actions can compel the supervisory authority to step in if certain predefined qualitative or quantitative thresholds are not met.[70]
- *Duration of procedures* — practice shows that it can take several years until a FINMA ruling is finally issued by the Federal Supreme Court (cf. PostFinance AG v. FINMA).[71] This is especially problematic in the case of rulings on capital or liquidity requirements for systemically important banks if a rapid decision on the implementation of these requirements is needed to ensure the stability of the bank concerned, or even of the banking system and the economy as a whole. Adjustments to administrative procedural law should be considered. Possibilities may include summary proceedings, shortening deadlines for parties and courts or subsequent speeding up appeal proceedings. Such measures could expedite the decision-making process for specific FINMA rulings.

- *Naming and shaming* — FINMA is generally not permitted to provide public information on enforcement proceedings. Publication is permitted only if there is a particular need to do so from a supervisory point of view (Art. 22 para. 2 of the FINMASA). In the event of a serious violation of supervisory provisions, FINMA may then publish its final supervisory ruling and disclose the relevant personal data (Art. 34 of the FINMASA). Other supervisory authorities publish nearly all of their enforcement proceedings, thereby achieving a disciplinary effect (naming and shaming).[72] In contrast, under the current legal situation in Switzerland it is possible for the public to be unaware of the questionable state of a bank because FINMA is not allowed to make its interventions public.[73] Appropriate adjustments to the law should be considered.
- *Robust legal basis* — FINMA relies solely on a circular for its interventions relating to remuneration.[74] This rests on a less than robust legal basis. Establishing an explicit legal basis for remuneration matters would facilitate enforcement.
- *Senior managers regime* — in principle, FINMA may take action relating to misconduct by specific managers. However, to impose a prohibition on practising a profession, FINMA must prove a causal link between the actions of the responsible party and a serious violation of supervisory law. This often turns out to be difficult. In FINMA's view, a senior managers regime which assigns important areas of responsibility within a company to a specific person would constitute a possible remedy.
- *Power to impose fines* — according to FINMA, a statutory power to levy fines on legal entities could strengthen the supervisory authority. Such monetary incentives might prompt less cooperative management to respond but it requires the fines to be sufficiently high. Currently, FINMA stands alone in the international context as not having the power to impose fines.
- *Dual supervisory regime* — the FINMASA provides for a dual supervisory regime in which audit companies conduct regulatory audits at financial institutions on behalf of FINMA. Supplementing this, FINMA has increasingly been conducting on-site reviews at banks ("supervisory reviews" and "deep dives") over several years. The fact that audit companies are serving as the "long arm of FINMA" may limit FINMA's interaction with institutions. The argument against abolishing this role of audit companies is that FINMA would need a far larger workforce if it could not rely on the audit companies and that finding sufficiently qualified personnel would be a challenge. The extent to which the current model reduces FINMA's enforcement capacity in the supervision of systemically important banks should be evaluated.

72 In the UK, the Financial Conduct Authority (FCA) and the Prudential Regulatory Authority (PRA) publish their final and decision notices. Exceptions exist when publication would be unfair to the person concerned or harmful to the interests of consumers or the financial system. In normal cases, the German Federal Financial Supervisory Authority (BaFin) publishes measures against institutions or business managers (incl. identity of the person concerned, type of violation, legal provision violated). Exceptions are where violations of privacy are suspected, financial market stability or ongoing investigations are jeopardised, or publication would cause disproportionately great damage

73 According to Chair Marlene Amstad, FINMA conducts about 600 enforcement investigations and about 40 enforcement proceedings each year. It publishes an average of five proceedings per year (Marlene Amstad, *Media event* of 5 April 2023)

74 FINMA, *Circular 2010/1 Remuneration schemes; Minimum standards for remuneration schemes of financial institutions*, last updated 4 November 2020

Pillars 1, 2 and 3

Box 5

Under the Basel II standard, the regulation and supervision of banks are based on three pillars.

Pillar 1 — covers provisions on the minimum level of capital and liquidity that banks must meet at all times (Art. 4 para. 1 BankA, Art. 1 para. 1 CAO, and Art. 2 LiqO). It defines eligible capital (Art. 18–40 CAO) and the approaches for determining the minimum capital for credit, market and operational risks (Art. 41-119 CAO). Pillar 1 also defines the capital conservation buffer (Art. 43 CAO), the countercyclical capital buffer (Art. 44 CAO), and the leverage ratio (Art. 46 CAO). The leverage ratio is a non-risk-weighted requirement and is complementary to the aforementioned risk-oriented minimum capital requirements. All requirements in the first pillar are regulated in detail at the level of laws or ordinances.

Pillar 2 — covers additional requirements that the supervisory authority may impose on a bank on an individual basis based on its findings in the supervisory process. For example, the supervisory authority may require additional capital reserves if the bank has a very high risk concentration or if the authority discovers problems in risk management or significant legal risks (Art. 45 CAO).

Pillar 3 — requires transparency for exposures and risks that are not visible on the bank's balance sheet, as well as detailed disclosure of the calculation of regulatory capital requirements. The aim of transparency is to enable financial market participants to exert discipline on banks.

Box 6

Solvency, liquidity, overindebtedness, impending insolvency and point of non-viabiltiy

A firm that holds more liabilities than assets is overindebted. The difference between assets and liabilities is referred to as net assets, capital or equity. Consequently, overindebtedness is equivalent to negative equity. Under the Swiss Code of Obligations, an overindebted company is no longer allowed to operate and must notify the court (Art. 725b para. 3 of the CO).

In economic terminology, "insolvency" refers to a situation of negative equity. This is distinct from illiquidity, which occurs when a firm that is unable to meet payment obligations when due, despite having positive equity.

In Swiss financial market legislation, and specifically in banking regulation, the term "impending insolvency" refers to both potential overindebtedness and potential illiquidity. Section 11 of the Banking Act is devoted to "measures in the event of impending insolvency", and Article 25 of the BankA stipulates: "Should there be a justified concern that a financial institution is overindebted or has serious liquidity problems or if it no longer fulfils the capital provisions after expiry of a deadline set by FINMA", FINMA may order protective measures. At this juncture, the bank has reached the point of non-viability (PONV).

Additionally, taking measures to enhance FINMA's human resources appears advisable to bolster the effectiveness of its supervision. Such measures include:

- *Expansion of resources* — in the case of Credit Suisse, foreign authorities recognise that FINMA was able to prepare high-quality resolution planning, despite having limited resources, especially in the Recovery and Resolution division. Nevertheless, there is a widespread view that FINMA was confronting personnel constraints. Therefore, it appears to be crucial to expand the number of personnel, in particular, in the Recovery and Resolution division and in the supervision of UBS.
- *Leeway in terms of remuneration* — assessing a complex bank like UBS, or even ZKB, requires extensive experience in the financial sector. It would therefore be desirable for FINMA to attract more high-calibre, seasoned professionals from the financial services sector to work in banking supervision. To achieve this, it is imperative that sufficient flexibility is offered in terms of compensation.

4.2 Timing of protective measures and threat of insolvency

Background

If ongoing supervision tools are not sufficient to steer a bank out of a crisis, FINMA may, subject to certain conditions (see Box 6), implement protective measures. However, the existing protective measures constitute a significant intervention in terms of corporate freedom: for example, the authority can issue instructions to a bank's bodies, dismiss bodies, change the auditors and limit a bank's operations (Art. 26 of the BankA). The legislation allows protective measures to be imposed only in the event of a bank's impending insolvency, i.e., when the point of non-viability has been reached (Art. 25 para. 1 of the BankA).

FINMA has a great deal of leeway when determining the PONV. It is sufficient for FINMA to have a "justified concern" about "serious liquidity problems". In addition to these terms that require interpretation, there is also administrative discretion concerning the timeframe within which FINMA should assess the situation. As FINMA expands its scope of action, legal and reputational risks increase. This can lead to FINMA intervening only shortly before the institution's collapse, even if it had been apparent earlier that the bank's business model was not financially sustainable. While this may be acceptable for a non-systemically important bank, delayed intervention with a systemically important bank can pose a macroeconomic problem.

Findings

FINMA observed the scandals, market price collapse, ratings erosion, soaring default risk premia, frequent management changes and unsustainable strategy at Credit Suisse and responded with stricter regulatory requirements (Pillar 2). However, according to discussions held by the expert group, during the bank's final months, its management proved recalcitrant and insisted on an interpretation of the bank's future prospects that was at odds with that of the supervisor. As a result, FINMA had no available options to impose regulatory measures that would allow the bank to manage the crisis with its own resources, apart from determining the PONV.

FINMA's regulatory powers can be strengthened in two ways with respect to a crisis involving a systemically important bank:

1. *Early protective measures* — It should have specific protective measures at its disposal, independently of whether the bank has reached the PONV. If FINMA considers that the bank's business model is no longer financially viable or its risk management is insufficient, it must be able to initiate crisis mitigation at the bank, even against the wishes of management. Suitable early protective measures before an impending insolvency would be, for example, monitoring of the board of directors by the authorities or the convening of a general meeting of the bank to engage a resolution process "under its own steam". The mere fact that the authority has such options at its disposal could have a preventive, disciplinary effect.
2. *Determining the bank's insolvency risk* — The potential reinforcement of the legal framework for FINMA's determination of a bank's PONV should be examined. Specifically, in addition to justified concern about the bank being overindebted or having serious liquidity problems, the definition of the PONV could be supplemented with other indicators of a bank's inability to deal with a crisis on its own. In particular, the question of whether FINMA should base its assessment on ratings or market signals, in addition to other information, is to be clarified.

Both the use of early protective measures and the determination of the PONV should thus be based on a comprehensive review of the quality and prospects of the bank. Besides regulatory indicators, FINMA's assessment should also include market information, ratings, investor expectations, stress test results, and FINMA inspections of business conduct and the quality of risk management at the bank. This information is forward-looking and reflects the expected profit growth, and the credibility of strategies employed, the business model and management etc. Such information is better able to provide a comprehensive view of the bank's prospects than an assessment based solely on regulatory indicators.

75 FSB, *Principles for Reducing Reliance on CRA Ratings*, 27 October 2010.

At Credit Suisse, these aspects were pointing to downside developments long before the actual bank run. While market prices and ratings reflected the hopes and fears of customers and investors all too clearly, the bank's difficulties did not have a decisive impact on the bank's regulatory indicators until it was too late.

The direct mechanical linking of ratings and market signals with a FINMA intervention is nonetheless to be avoided, because this can lead to unstable "feedback effects". It was for precisely this reason that the FSB, in the wake of the global financial crisis, decided to limit the use of ratings in the supervisory process.[75]

As early protective measures or even a wind-down order constitute a major impingement on corporate freedom, this should be confined to systemically important banks.While it is in the public interest to maintain systemically important functions, major intervention in a (still) functioning but non-systemically important bank would be disproportionate.

4.3 Recommendations with regard to supervision

FINMA needs additional and more potent tools to facilitate more effective supervision and it should have the ability to intervene at an earlier stage:

1. The FDF needs to augment FINMA's supervisory tools to allow for a more effective handling of systemically significant banks. Among other suggestions, the experts recommend measures to support the swift enforcement of supervisory actions and a broadening of FINMA's powers to publicly disclose ongoing enforcement measures (known as "naming and shaming").
2. The FDF should also draw up a regulatory framework that enables FINMA to intervene at an earlier stage. This can be achieved by imposing precautionary measures before a bank reaches the point of non-viability. Further, the FDF should consider whether the legal framework for FINMA's assessment of the bank's point of non-viability can be enhanced by allowing FINMA to take market information and other alternative data sources into account.

5. Capital

5.1 Quantitative scope of capital requirements

Background

The collapse of Credit Suisse – like the collapse of three large regional banks in the United States – has reignited the debate on capital requirements and the question of whether they should be made substantially stricter. Capital requirements:

1. Reduce incentives to make excessively risky investments.
2. Serve as a basis for intervention by supervisory authorities.
3. Absorb losses.

A sufficiently high capital base is therefore essential. Capital requirements have been raised significantly since the global financial crisis of 2007–08. The reforms are coordinated at the international level by the Basel Committee on Banking Supervision (Box 3). Minimum standards on capital and liquidity requirements, which member countries are expected to adopt via domestic legislation, have been adjusted many times. This raising of capital requirements has proved beneficial. It has allowed banks to better absorb temporary high volatility in financial markets.

It is important to note that the further development of the Basel III framework ("Basel III Final") and its transposition into domestic legislation will lead to higher capital requirements for G-SIBs.

Since the Basel II reform, banks may apply an internal ratings-based model (IRB) to estimate credit risks using quantitative models specifically for their own portfolio and calculate risk weightings that differ from the standard models. This allows them to reduce the capital requirement. However, this is primarily worthwhile for large banks. As a result, the capital requirement is degressive.

The Basel III rules contain an additional requirement for G-SIBs, the surcharge, which counteracts this. It is notable, that the Swiss regulations contain a stronger progression than the international standard.

Basel III Final is intended to limit banks' ability to minimise their risk-weighted assets through the use of internal models. Market risk is also more strictly regulated. This reform will tighten the capital requirements for large banks. Switzerland has already prepared these amendments and, according to the FDF's timetable, they are due to come into force on 1 January 2025.

Nevertheless, the Swiss parliament is inclined to raise the capital requirements beyond this: Motion 21.3910 calls for a 15% leverage ratio and greater progression. The motion was adopted by the National Council on 3 May 2023. The Ammann report[76] also advocates a quantitative raising of capital provisions, but to a lesser extent.

76 See section 4.5. in Ammann, Käfer and Wiest, *Reformbedarf in der Regulierung von «Too Big to Fail» Banken*, 19 May 2023.

77 "For all banks on aggregate, RWA will rise by 16%. This will predominantly affect the two G-SIBs. The increase for these banks is mainly due to market risk, operational risk and the (general) output floor. If the large banks are excluded, total RWA only rises by just under 2%. The slight total increase in RWA for smaller banks is primarily attributable to a rise in RWA for market risk. However, this is partly offset by a decline in RWA for credit risk. RWA for operational risk will also rise only slightly on aggregate for smaller banks." (SIF, *Regulierungsfolgenabschätzung zur Umsetzung von Basel III Final*, p. 45).

78 According to an estimate by UBS, this reform will result in a cumulative increase in the bank's risk-weighted assets of around 15% between 2019 and 2025. UBS is currently reviewing the calculations to reflect the takeover of Credit Suisse and the modified business plan for the combined bank.

Findings

The crisis at Credit Suisse has its origins in a series of scandals that resulted in the erosion of confidence among the bank's customer base. A comfortable capital buffer would certainly have given the bank more time to carry out a strategic realignment and put itself on a more stable footing. However, the bank's management did not initiate the change of strategy until very late; it is also possible that more capital would only have caused the strategic realignment to be postponed even further.

Even after the merger agreement with UBS was concluded, Credit Suisse still held considerable loss-absorbing capital (TLAC) which would have been available in a resolution. Writing down the AT1 bonds (approximately CHF 16 billion) and converting the bail-in bonds (around CHF 57 billion) would have increased Credit Suisse Group's capital enormously.

In the opinion of the expert group, recent events do not provide a clear argument in favour of a general quantitative tightening of capital requirements in Switzerland. Should the legislator nonetheless still wish to increase capital requirements beyond "Basel III Final", this would have to be done progressively. There is no reason to impose higher requirements on smaller banks. Moreover, any tightening should be based on risk-weighted assets (RWA) in order to reflect the need for risk-appropriate regulation. Raising the unweighted ratio (leverage ratio), as called for in motion 21.3910, reduces banks' incentive to focus on safe assets; instead, it would tend to create an incentive to pursue risky projects.

It is foreseeable that the implementation of the "Basel III Final" reform in Switzerland will require larger banks to hold more capital. The regulatory impact assessment[77] on the corresponding Federal Council bill assumes that the required capital for large and highly exposed banks will increase significantly, while it may be somewhat reduced for small, domestically focused banks.[78]

5.2 Capital quality

Background

The ability of capital to actually absorb losses is referred to as capital quality. This quality may vary for a number of reasons.

Adjustment periods (regulatory phase-in) — the supervisory authority can grant a bank an *adjustment period* in which to adjust to new regulatory conditions. This may be advisable because an immediate switch to changed rules requires a certain operational adjustment time or can result in a significant cliff effect in the capital figures. The bank is thus set a defined timeline in which to adjust to the new rules. Such adjustment timelines are common in capital regulation.

Regulatory filter — with a *regulatory filter*, provisions in accounting standards (e.g., valuations, limitations and capital corrections) which are assessed differently from a regulatory perspective than they are in the financial accounting are corrected for the purposes of regulatory capital calculations. These filters can lead to reduced or tightened capital requirements. They can be temporary or unlimited in duration. Such corrections by regulatory filter are necessary because FINMA cannot intervene directly in the general accounting standards (IFRS, US GAAP, Swiss GAAP etc.).

Regulatory forbearance — the term *regulatory forbearance* generally refers to the reduction of a bank's capital requirements if it gets into distress.[79] The aim is to enable it to recover and overcome its difficulties in the market and business environment. Insisting on the full capital requirements could exacerbate a crisis at a bank and make it impossible to resolve the problem. There is an extensive scientific discussion about the advantages and disadvantages of regulatory forbearance with regard to distressed banks.[80]

Valuation and deferred tax assets — in a banking group, financial relationships exist between the entities. The parent bank has a stake in the subsidiaries comprising more than half of the voting rights or capital, or controls them in some other way. Nonetheless, the individual institutions are separate legal entities which must individually meet the criteria for a banking licence. In the case of an international bank, the subsidiaries are also subject to different capital and valuation rules and are supervised by different supervisory authorities. This gives rise to questions concerning valuations.

79 See Art. 4 para. 3 of the BankA and Art. 43 and Art. 130 of the CAO.

80 Linda Schilling, "Optimal Forbearance of Bank Resolution", Journal of Finance, forthcoming, 2023.

81 Art. 32 lit. d and Art. 39 para. 1 lit. b of the CAO.

82 This was relevant for Credit Suisse in Q3 2022, see *3Q22 Results – Analyst and Investor Call*, 27 October 2022.

The parent's valuation of subsidiaries is performed using the applicable accounting standards. Typically, the lowest value principle is applied, i.e., the cost or market value is applied, whichever is lower. If the market value falls below the cost value, the market value can, among other things, be based on the discounted future expected cash flow. A valuation based on the market value can be subject to high fluctuations. This has a significant impact on the parent bank's reported capital.

A special situation arises if a subsidiary has suffered losses in the past. Depending on the jurisdiction, the losses can be offset against subsequent profits, which reduces the tax liability for future profits. This conditional tax relief can be regarded as an asset, and hence as capital to a limited degree (*deferred tax assets* (DTA)). However, this tax relief is not applicable if the parent bank shuts down the subsidiary and closes that line of business without it having returned to profit. For this reason, DTAs are often not recognised as regulatory capital (i.e., the bank must deduct them from its CET1 capital).[81] Yet where DTAs are recognised as regulatory capital, the parent bank "destroys" eligible regulatory capital if it closes the business area concerned. The resolution or closure of business areas in subsidiaries can thus have a number of negative repercussions for regulatory capital. In addition to the valuation losses on financial interests, DTAs also lose value.[82]

Double leverage — another problem area stems from the way in which the parent bank finances its stake in the subsidiary. The parent bank can borrow funds on the market and use them to provide the subsidiary with equity. The subsidiary appears to be well capitalised, which in turn allows it to borrow in its own right. However, from a group-wide perspective, this constitutes debt financing, since the financing involves the parent company taking on debt. This double leverage is financially attractive for the group because debt is cheaper than equity. At the same time, the group is taking on risk. It is financed by debt which has a specific duration and carries an interest charge. This interest is funded from the subsidiary's dividend payments to its parent. Yet dividends depend on business performance, on the decisions of the subsidiaries' managements and on the local supervisory authorities in the jurisdiction of the subsidiary. Thus, a dividend payment by the subsidiary to the parent is by no means guaranteed.

The amount of double leverage is expressed as the ratio of the parent bank's investment in the subsidiary's capital to the (CET1) capital of the parent bank itself. A ratio of 100% or less means that there is no double leverage. Rating agencies consider ratios above 115% or 120% to be problematic. Although double leverage is subtracted from a group-wide perspective, this can nonetheless become a problem if the practice described above is pursued to excess and the associated risks are not adequately monitored and mitigated.

Ring-fencing within the group structure — one consequence of the TBTF regulations was that global systemically important banks had to adjust their legal structure. In order to facilitate a bail-in strategy with a single point of entry, operations in major markets had to be bundled within independent entities. This ensured that the local competent supervisory authorities have access to the relevant funds. The local requirements for subsidiaries mean that the parent bank has to transfer considerable amounts of capital and liquidity (down-streaming) and that these are largely tied up at the subsidiary. The United States, in particular, sets high capital requirements for the subsidiaries of foreign banks. For example, Credit Suisse was required to hold a substantial amount of assets in the United States. In the last US stress test, it reported RWA of 27.6% (14.7% after stress) and a leverage ratio of 15.3% (12.1% after stress).[83] However, the United Kingdom and Switzerland also require subsidiaries to hold capital and liquidity locally. This subsidiarisation results in capital being tied up (ring-fenced) and poses a challenge for capital build-up of the parent bank, such as Credit Suisse AG.

Findings

Market participants had doubts about Credit Suisse's capital quality. Justified concerns were voiced that the bank was less well capitalised than its aggregate figures appeared to show. For example, one analyst report was headlined: "Credit Suisse Group: Less than meets the eye".[84] The report described a range of special factors at Credit Suisse AG and pointed to substantial double leverage which, it claimed, meant that the four largest Credit Suisse AG subsidiaries held more CET1 capital between them than their parent. The report also posed fundamental questions about Credit Suisse AG's ability to pay dividends. The potentially poor capital quality led to reticence on the part of investors and did not instil confidence.

In fact, FINMA had granted Credit Suisse relief on capital requirements, transition periods, and adjustment paths with regard to new regulations, accounting standards and group structures. These had been required in 2013 under Article 125 of the Swiss Capital Adequacy Ordinance (CAO) which mandated relief at the level of the individual entity. The article was repealed in 2018 but FINMA had already issued ruling in 2017 which implied a tightening of capital requirements for Credit Suisse and UBS.

The Swiss accounting standards were modified with effect from the 2015 financial year,[85] and financial interests in subsidiaries now have to be valued individually rather than on a portfolio basis. UBS was already using individual valuation, but for Credit Suisse this change to the accounting rules would have required a changeover to individual valuation of financial interests. However, this changeover to the regulatory capital calculation was largely neutralised with

83 *Credit Suisse Holdings (USA), Inc.2022 Annual Dodd-Frank Act Stress Test Results*, 23 June 2022.

84 *Autonomous Research*, 13 July 2021, subscription.

85 Art. 959c para. 2 No. 3 of the CO, in force since 1 January 2013 with a two-year transition period, implemented in Art. 27 of the BankO with effect from 1 January 2017 with a transition period of three years (Art. 69 para. 2 of the BankO).

86 Art. 73 and Annex 4 of the CAO.

a *regulatory filter*. The value of the filter varied over time, but was substantial. In Q3 2022, the net impact of the filter amounted to CHF 11.9 billion, more than one third of the reported CET1 capital. There was no time-limit on the relief, but the valuations of the financial interests in the individual subsidiaries were checked annually by FINMA or external agencies on its behalf.

Furthermore, both G-SIBs availed themselves of a ten-year *transition period* regarding the raising of risk weights for financial interests (regulated in a FINMA ruling). The revised Capital Adequacy Ordinance requires the parent bank to apply risk weights to financial interests in subsidiaries.[86] The ten-year transition period began in 2018 and increases the risk weights from 200% to 250% (+5% per annum) in 2028 for financial interests in Swiss subsidiaries, and from 200% to 400% (+20% per annum) for financial interests in foreign subsidiaries.

Filters and rebates which are granted to larger banks for their model-based calculation of the CET1/RWA ratio are, in principle, disclosed by the banks in separate documents (see Pillar 3 in Box 5), but they are not widely known and are also hard to reconstruct. In addition, most reporting uses the approved regulatory figures. This feeds rumours, concerns and doubts about capital quality and can contribute to a loss of confidence.

With UBS's takeover of Credit Suisse, UBS was able to make substantial use of transitional rules (including legacy transitional rules for Credit Suisse, premia for progression). For this reason, new ways of keeping stakeholders informed are needed.

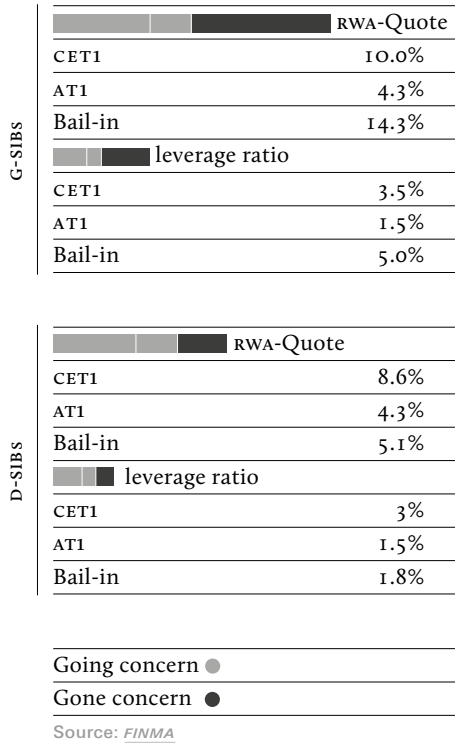
5.3 The AT1 market

Background

TLAC — systemically important banks hold structured capital, which is used in stages to absorb losses. The "going concern" capital consists of Common Equity Tier 1 (CET1) capital and Additional Tier 1 (AT1). This capital absorbs losses during continuing operation (as a going concern), i.e., outside a resolution.

After this comes gone-concern – or Tier 2 – capital, which is additional loss-absorbing capital (Art. 132 et seq. of the CAO). This comprises bail-in bonds that can be converted or written down to refinance the bank in the event of resolution. Together, going-concern and gone-concern capital form the total loss-absorbing capacity (TLAC). Figure 7 shows the capital structure.

Figure 5.
Capital requirements for systemically important banks



Source: FINMA

AT1 — Additional Tier 1 capital (AT1, see Arts. 27 to 29 of the CAO) comprises liabilities (usually in the form of bonds) which may either be automatically converted to equity or written down completely if a contractually agreed event, or trigger, occurs (e.g., recourse to state assistance) or, at the latest, if the regulatory capital ratio falls below a given value (Art. 27 para. 3 and Art. 131 of the CAO). For systemically important banks, this is the case if the ratio of capital to RWA falls below 7% (high-trigger CoCos, see Art. 131 of the CAO). Such bonds (which are unlimited in duration, and are therefore referred to as hybrid bonds) have a high coupon because investors are exposed to greater risk. In special circumstances, the bank can cancel the coupon payment.

AT1 bonds can be recognised up to a maximum of 4.3% of RWA or 1.5% of the unweighted leverage ratio. The remaining going concern capital requirements must be met with CET1 capital.

Both the coupon cancellation and the conversion or write-down allow automatic recapitalisation with CET1 capital. They are provided for in the Basel Framework as part of going-concern capital, and should therefore help a bank to avoid being restructured by the authorities.[87]

Based on the logic that AT1 capital is going-concern capital, it is the investors in AT1 bonds, rather than the shareholders, who will lose their capital in the event of a write-down outside a bank resolution, because the share capital cannot be written down until resolution is initiated. Investors in AT1 bonds will thus be worse off than shareholders in this case. This could be avoided by having AT1 bonds that can only be converted or partly written down prior to resolution, but not fully written down.

Significance of the AT1 market — AT1 bonds are an important financing instrument, especially for banks in Europe. In 2020, the total volume of AT1 bonds was around EUR 250 billion. Over 100 banks had issued around 250 bonds of this kind.[88] The AT1 market is also important for Swiss banks. Apart from the systemically important banks, cantonal banks and private banks also use it for refinancing purposes. For various cantonal banks, AT1 bonds are interesting because they are not able to simply issue shares, owing to their legal form. In August 2023, the volume of Swiss banks' AT1 bonds was around CHF 18 billion. The largest issuer was UBS, with some CHF 11 billion, followed by Julius Baer, Zürcher Kantonalbank and Raiffeisen, with approximately CHF 1 billion each (see Figure 6).

87 BCBS, *Basel Framework: Definition of Eligible Capital*. Section 10.11(11) describes the automatic conversion or write-down if the capital ratio falls below a given value. Section 10.11 (16)(a)(ii) explains how a conversion or write-down occurs if an entity requires state assistance in order to avoid the PONV.

88 Lazard, *Focus on the AT1 Market*, 2020.

89 See FINMA's explanation and Credit Suisse's announcement, Q&A Writedown of Credit Suisse Group AG additional tier 1 (AT1) instruments, 27 March 2023.

90 Saxo, *Swiss regulators broke the rules of the game*, 20 March 2023.

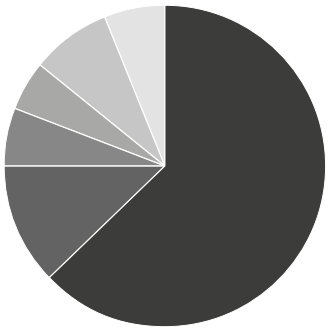
91 Reuters, *Goldman Sachs sees risk of 'permanent destruction' in demand for AT1 bonds*, 21 March 2023.

92 Source: *SRB, EBA and ECB Banking Supervision statement on the announcement on 19 March 2023 by Swiss authorities.*

Figure 6.
AT1 bonds of Swiss banks

UBS	63%
Julius Baer	12%
ZKB	6%
Raiffeisen	5%
Kantonalbanken	8%
Andere	6%

Sources: Bloomberg, Pictet Asset Management



The AT1 market in the Credit Suisse crisis — when FINMA ordered Credit Suisse's AT1 bonds to be written down on 19 March 2023, many observers and investors were surprised that the equity holders were allowed to retain a (heavily) reduced value on their shares, while investors in AT1 bonds lost everything. FINMA based its action on the contractual conditions for the Credit Suisse AT1 bonds.[89]

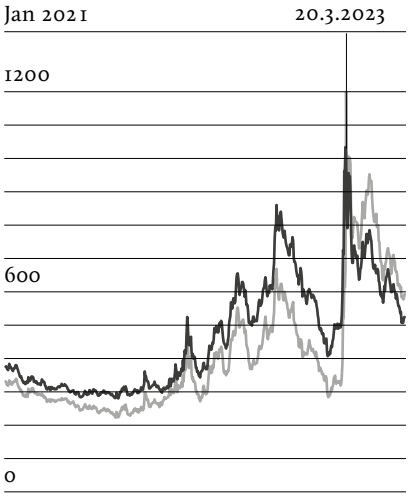
Even so, AT1 markets reacted sharply. Risk premia for AT1 bonds shot up (see Figure 9), and the international financial press and affected investors were outraged.[90] Goldman Sachs, for instance, spoke of the AT1 market being permanently damaged.[91]

The European supervisory authorities were moved to issue a public statement supporting the instrument and making it clear that such a procedure was not to be expected in the European Banking Union. The Single Resolution Board (SRB) and ECB Banking Supervision stated that, in the past, they had written down AT1 bonds only after the common equity had been fully used, and that this order would continue to guide its actions in the future. They added that AT1 would remain an important component of European banks' capital structure.[92]

Like Goldman Sachs, other market participants also feared that the AT1 market might be permanently closed, i.e. that in future banks would pay a high price to issue or roll over AT1 bonds. In particular, the market for AT1 bonds of Swiss banks was regarded as no longer viable.

Yet, price developments on the market as a whole showed a certain easing, probably because of the announcement by the European regulator. At the global level, markets seem to have more or less digested the Credit Suisse shock (BBVA issued an AT1 bond at a level similar to that which would probably have been possible in January). However, some market participants fear that Swiss banks will see a "Swiss spread", i.e. a funding disadvantage compared to foreign competitors (the lower chart in Figure 7 shows that the Swiss banks' traditional advantage in this market has become a disadvantage).

Figure 7.
Spreads for AT1 bonds in USD to index and Swiss banks



iBoxx USD Contingent Convertible Liquid Developed Market AT1 (USDAT1) Annual ●
Spread to worst AT1 CH banks in USD ●

Sources: Bloomberg, Pictet Asset Management

Spread to Swiss banks

iBoxx USD Contingent Convertible Liquid Developed Market minus spread to worst AT1 CH banks

Sources: Bloomberg, Pictet Asset Management

Findings

AT1 bonds have their advantages and disadvantages, many of which have long been known and discussed.[93] Yet the experience with Credit Suisse has reignited the discussion on some of these aspects.

The advantages of AT1 bonds include:

First — AT1 bonds are a buffer that is automatically converted or written down as soon as a given trigger point is reached. They are used for automatic going-concern recapitalisation (like a spare fuel tank) and are recognised as eligible capital owing to their loss-absorbing function.

Second — in good times, when capital levels are above the trigger point, AT1 bonds are cheaper than CET1 capital and are thus an attractive financing option for banks. However, if the capital ratio falls and approaches the trigger point, banks' financing costs rise. They thus have a strong incentive to accumulate additional voluntary buffers, which can have a supplementary stabilising effect.

Third — AT1 bonds are an important source of financing for banks whose legal form prevents them from issuing shares (some cantonal banks, many regional banks and wealth management banks, see Figure 6).

The disadvantages of AT1 bonds include:

The cancellation of the coupon payment is supposed to have a stabilising effect, but a stigma may be attached to it because it reveals the existence of an unsettling situation. This can result in even worse financing conditions for the bank.

Given these characteristics and the experience with Credit Suisse, a discussion of the suitability of AT1 bonds as going-concern buffers is underway. Given the size of the outstanding bonds, swift change will not be possible, and the discussion will take time.

To ensure the competitiveness of AT1 bonds issued by Swiss banks in the current environment, it is worth considering whether standardization should be pursued, such that AT1 bonds can only be convertible or partially (pro-rata) written down prior to a resolution. The work taking place at international level should be taken into account.

93 See, for example, Pazarbasioglu et al. (2011), Contingent Capital: Economic Rationale and Design Features, IMF SDN11/01.

5.4 Recommendations with regard to capital quality

The quality of capital should be enhanced and the market for Swiss AT1 instruments should be bolstered:

1. With the implementation of "Basel III final" in Switzerland, major banks will be subject to more stringent capital adequacy requirements. There is no need to increase the Swiss capital adequacy requirements beyond that.
2. FINMA should publicly disclose any relief granted and transitional agreements for capital adequacy demands, as well as the level of "double leverage" employed by banks.
3. The Swiss Federal Department of Finance (FDF), in collaboration with FINMA and the industry, should examine how the Swiss market for AT1 instruments can be rehabilitated. The primary focus should on a clear and internationally comprehensible design of these instruments. Consideration should be given to restricting Swiss AT1 bonds so that they can only be converted or partially (pro-rata) written down before entering into resolution.

Annex A Members of the Expert Group

Hans Gersbach — Professor of Macroeconomics, ETH Zurich, Co-Director of the KOF, member and former chairman of the Scientific Advisory Board of the Federal Ministry for Economic Affairs and Climate Action, Germany.

Eva Hüpkes — Head of Regulatory and Supervisory Policies, Financial Stability Board (to 31 July 2023), Secretary General, International Association of Deposit Insurers (from 1 August 2023), and Lecturer in International Monetary Law, University of Zurich.

Renaud de Planta — Senior Partner and Chairman of the Group Executive Committee, Pictet Group and member of the Board of Directors Committee at SwissBanking.

Mirjam Eggen — Professor of Private Law, University of Bern, Chair of the Swiss Takeover Board.

Eva Jaisli — CEO of PB Swiss Tools AG, Vice President of Swissmem, member of the Board Committee at economiesuisse.

Yvan Lengwiler (Chairman) — Professor of Economics, University of Basel, specialising in financial market regulation and monetary policy.

Beatrice Weder di Mauro — Professor of International Economics, Geneva Graduate Institute (IHEID), Visiting Professor at INSEAD Singapore and President of the Centre for Economic Policy Research (CEPR).

Rudolf Sigg — President of the Board of Directors at esisuisse, former CFO and member of the Executive Board at Zürcher Kantonalbank.

(from left to right)

The expert group held discussions with a variety of people in order to obtain a more complete picture and benefit from their expertise.

Institution	*Name*	*Function*
BaFin	Mark Branson	Director
Bank of England / Prudential Regulation Authority	Sam Woods	Deputy Governor Bank of England and CEO of PRA
	Nathanaël Benjamin	Executive Director for Authorisations, Regulatory Technology and International Supervision
	Talib Idris	Head of Division, Major Overseas Banks, Authorisations, Regulatory Technology and International Supervision
	Christopher Jackson	Head of Resolution Execution
Credit Suisse	Ulrich Körner	Former Group CEO
	Dixit Joshi	Former Group CFO
ECB / SSM	Andrea Enria	Chair, ECB Supervisory Board
FDF	Karin Keller-Sutter	Head of Department
FFA	Sabine D'Amelio-Favez	Director
FDIC	Martin J Gruenberg	Chairman
	Arthur J Murton	Deputy to the Chairman for Financial Stability
	Ryan Tetrick	Deputy Director, Resolution Readiness, Division of Complex Institution Supervision and Resolution
Federal Reserve	Michael S Gibson	Director of Supervision and Regulation
	Jennifer Burns	Deputy Director
FINMA	Marlene Amstad	Chair of the Board of Directors
	Urban Angehrn	Director
	Alain Girard	Head of Recovery and Resolution
PIMCO	Emmanuel Roman	CEO
SEC	Raymond A Lombardo	Assistant Director, Trading and Markets
	Adam Turk	Deputy Chief Counsel, Office of Chief Counsel, Division of Corporate Finance
SNB	Thomas Jordan	Chairman of the Governing Board
	Martin Schlegel	Vice Chairman of the Governing Board
SIF	Daniela Stoffel	State Secretary
Harvard Kennedy School	Sir Paul Tucker	Research Fellow (former Deputy Governor of the Bank of England)
UBS	Sergio Ermotti	Group CEO
	Markus Ronner	Group Chief Compliance and Governance Officer

Annex C Recommendations in four areas

1. Crisis management

The three authorities – Financial Market Supervisory Authority (FINMA), the Swiss National Bank (SNB) and the Federal Department of Finance (FDF) – must share responsibility for crisis management. The introduction of the following measures is recommended:

1. In order to enhance trust in the current resolution tools, FDF, SNB and FINMA ought to explain in detail the reasoning behind their decision to endorse the acquisition of Credit Suisse by UBS, instead of executing the prepared resolution plan.[94]
2. The FDF should explore ways to enhance cooperation among FINMA, the SNB, and the FDF in preparing for and managing crises. To ensure the effective management of crises, these authorities should periodically test their preparedness in crisis simulations.
3. FINMA, SNB and the FDF should jointly monitor, evaluate, and communicate the viability of the resolution of (global and domestic) systemically significant banks on a continuous basis. This can strengthen confidence in the Swiss authorities' determination to resolve a systemically important bank in accordance with its resolution plan should this become necessary.

Additionally, the following measures are recommended to effectively strengthen resolution preparedness:

4. FINMA should prepare resolution options by considering various scenarios as part of the resolution planning process. A resolution plan based on a bridge bank should be considered as one of the options.
5. FINMA should be given the power to impose organisational changes on systemically important banks at an early stage to enhance their resolvability.
6. The FDF should draw up a legal basis for a temporary and limited intervention by the state in a systemically important bank in resolution. The framework of international resolution standards must be taken into account in this context.

94 This recommendation corresponds to *postulate 23.3446* of the Economic Affairs and Taxation Committee of the House (EATC) and should be addressed in addition to the investigations of the Parliamentary Investigation Committee (PinC) "*Management of the authorities – cs emergency merger*"

95 The *esisuisse* association is the sponsor of the statutory deposit insurance scheme and insures customer assets held at banks and securities firms in Switzerland.

2. Liquidity

Ensuring access to liquidity even under difficult conditions is indispensable for banks. Digitalisation has further increased the likelihood and speed of bank runs. Gaps in liquidity mechanisms in Switzerland should be addressed as follows:

1. The SNB should widen the scope of acceptable collateral for the provision of extraordinary liquidity assistance (ELA). In particular, the SNB should also accept non-marketable and highly illiquid collateral, and limit haircuts.
2. The SNB should tackle stigma with respect to ELA and to this end consider the strategies of the Bank of England and other central banks in this area.
3. The "public liquidity backstop" (PLB), as proposed by the Federal Council, must be introduced expeditiously. Its adoption is critical to guarantee access to funding in the resolution of a systemically significant bank.
4. FINMA should be able to instruct systemically significant banks to deposit sufficient collateral with the SNB and foreign central banks to ensure adequate access to liquidity.
5. The FDF and esisuisse[95] should review the effectiveness and suitability of the deposit insurance scheme in light of digitalisation.

3. Supervision

FINMA needs additional and more potent tools to facilitate more effective supervision and it should have the ability to intervene at an earlier stage:

1. The FDF needs to augment FINMA's supervisory tools to allow for a more effective handling of systemically significant banks. Among other suggestions, the experts recommend measures to support the swift enforcement of supervisory actions and a broadening of FINMA's powers to publicly disclose ongoing enforcement measures (known as "naming and shaming").
2. The FDF should also draw up a regulatory framework that enables FINMA to intervene at an earlier stage. This can be achieved by imposing precautionary measures before a bank reaches the point of non-viability. Further, the FDF should consider whether the legal framework for FINMA's assessment of the bank's point of non-viability can be enhanced by allowing FINMA to take market information and other alternative data sources into account.

4. Capital quality

The quality of capital should be enhanced and the market for Swiss AT1 instruments should be bolstered:

1. With the implementation of "Basel III final" in Switzerland, major banks will be subject to more stringent capital adequacy requirements. There is no need to increase the Swiss capital adequacy requirements beyond that.
2. FINMA should publicly disclose any relief granted and transitional agreements for capital adequacy demands, as well as the level of "double leverage" employed by banks.
3. The Swiss Federal Department of Finance (FDF), in collaboration with FINMA and the industry, should examine how the Swiss market for AT1 instruments can be rehabilitated. The primary focus should on a clear and internationally comprehensible design of these instruments. Consideration should be given to restricting Swiss AT1 bonds so that they can only be converted or partially (pro-rata) written down before entering into resolution.

Annex D Parliamentary procedural requests

Our mandate stipulates that the expert group should base its activities on the audit mandates issued by parliament. Below, we list current parliamentary procedural requests with a bearing on the expert group's report.

Postulate 23.3445: SNB monetary policy instruments, ELA

The expert group supports this proposal. It corresponds to one of its recommendations (see section 3.3).

Postulate 23.3446: explanation as to why a planned resolution was not carried out following the run on Credit Suisse

The expert group considers this to be a very important question. It corresponds to one of its recommendations (see section 2.1).

Postulate 23.3443: various aspects

1. *Segregated banks*

The idea of segregated banks is derived from the premise that risks in investment banking should not adversely affect the "non-risky" business of deposit-financed lending. However, this view is not borne out by the facts. There is the potential for large risks to materialise in all of a bank's business lines. In the 1990s, we witnessed a crisis at regional banks, which did not engage in investment banking. The problem at that time was the local mortgage market. Between 2007 and 2009, investment banking was a source of losses for Swiss banks. Between 2009 and 2020, 120 Swiss banks had to pay billions in fines to the United States in connection with their asset management divisions, and some institutions folded as a result. It is worth noting that it was not the investment bank that was Credit Suisse's undoing, but its private banking arm, which is considered to be low risk. It was there that the first large bank run took place in autumn 2022. In this case, having a segregated bank would have been of no use. It is also worth noting that UBS operates a very large private banking and wealth management business. UBS is likewise exposed to these risks, although its investment banking activities are small.

2. *Capital requirements*

   Stricter capital requirements for large banks in particular can be expected from the reform of the Basel III framework (Basel III Final). The amendments to Swiss legislation have already been drawn up and they are due to come into force in 2025. The expert group supports this initiative (see section 5.1).

3. *Stricter rules or a possible ban on own-account trading*

   (no comments)

4. *New rules on remuneration systems, specifically bonuses*

   FINMA already has ways to restrict bonus payments. However, the legal basis for this regulatory measure is weak: it is based solely on a FINMA circular and does not stand up to much scrutiny. It would be desirable to create a robust legal framework for this (see section 4.1).

5. *Offsetting by systemically important banks according to risk for the implicit state guarantee that actually exists*

   Under the TBTF regime, there should no longer be any state guarantee. However, it might make sense not to exclude state participation in the risk capital as part of a resolution at the outset (see section 2.6). Against this background, it could be argued that compensation for this conditional commitment by the state should be offset.

6. *Strengthening the powers and duties of FINMA, including powers to sanction and differentiation according to size and risk*

   FINMA's supervision is already based on risk. This means that entities which pose a greater risk are monitored more closely and treated more strictly. Nonetheless, the expert group has made some suggestions on how supervision by FINMA could be strengthened (see section 4).

7. Stricter rules on liability of responsible parties

FINMA may dismiss responsible parties. However, this is conditional upon the ability to prove a causal link between the responsible party's actions and a serious violation of supervisory law. This is often difficult. Assigning responsibilities (senior management regime) from the outset could alleviate this problem, in FINMA's view (see section 4.1).

8. Possible adjustments to deposit insurance, and the impact thereof

A stronger Swiss deposit insurance scheme would probably not have prevented the failure of Credit Suisse. Nonetheless, we can state that the goal of paying out privileged deposits within seven days is not very ambitious and is hardly likely to have a preventive impact today. This should be reviewed (see section 3.2).

9. International developments and best practice in other major financial centres

Switzerland already participates in the efforts of the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS), and engages in regular bilateral exchanges with the authorities in major foreign financial centres. It has recognised international standards in various areas and follows international best practice.

It would be appropriate for Switzerland to reiterate its recognition of the process – in order to boost the country's credibility – as regards a resolution of UBS according to the prepared plan if this should ever become necessary (see section 2.1).

There is always room for improvement. It would be useful to define the steps for early corrective action by FINMA in more detail (see section 4.2). The Swiss mechanisms for providing liquidity to a bank that is experiencing a liquidity shortfall (ELA, see section 3.3) or to a bank in resolution (PLB, see section 3.6) are currently incomplete. Moreover, there is room for improvement as regards involving the FDF and the SNB in the decision to restructure (section 2.2).

Postulate 23.3441: questions to be clarified (Finance Committee of the Council of States)

a. Binding declaration by the Federal Council that it will submit a bill to parliament aimed at improving the too-big-to-fail regulations to ensure that they are effective in all circumstances, irrespective of the causes of the potential bank failure. The bill should, in particular, contain provisions which can be used to require TBTF banks to sell or wind down their foreign branches and/or the systemically important bank units;

A global systemically important bank is important not just for Switzerland. The proposal foresees the maintenance of systemically important functions only for Switzerland (as is provided for in the Swiss emergency plan). Yet the resolution of a G-SIB provides for all global systemically important functions to be maintained. The Swiss emergency plan comes into play only if this first goal cannot be achieved.

b. Draw up proposed amendments to the Banking Act with the aim of drastically reducing the risks to federal finances and the Swiss economy stemming from G-SIBs. The audit mandate issued to the Federal Council covers the following topics in particular:

- *Increased capital requirements*

(see above)

- *Legal limitations on variable salary components for members of the board of directors, senior management and the control bodies*

(no comments)

- *Impact of digitalisation*

  Digitalisation has made sight deposits and wealth management mandates more volatile. This necessitates a re-evaluation and recalibration of the liquidity regulations and the deposit insurance scheme, as well as the level of risk in wealth management as a sustainable income stream (see sections 3.1 and 3.2).

- *Restricting short sales or making them less attractive*

(no comments)

- *FINMA's power to impose fines*

The power to impose fines on legal entities could strengthen FINMA's enforcement capability, in its view (see section 4.1).

- *Different capital requirements depending on the riskiness of a banking transaction*

Capital requirements have been risk-weighted since Basel II. They are based on risk-weighted assets (RWA). In addition, there are requirements based on non-risk-weighted total assets (the leverage ratio).

c. Introduction of a segregated banking system and its consequences (opportunities and risks) for the Swiss banking sector and for financial stability;

(see above)

d. Competitive position of the new UBS with respect to Switzerland, and Federal Council measures to ensure that competition is maintained despite the bank merger;

Questions about competition between banks in Switzerland and the consequences for Swiss businesses and households are clearly appropriate. However, questions regarding competition are explicitly excluded from the expert group's remit.

e. Prerequisites for continuing to operate Credit Suisse (Schweiz) AG as an independent unit within UBS Group AG;

Credit Suisse was taken over by UBS with state support. It is up to the acquiring bank to decide how it will integrate Credit Suisse into its operations. No stipulations in this regard were made at the time of the takeover.

f. Investigate the conduct, responsibility, liability conditions and remuneration of the governance bodies (board of directors and senior management) and outline how they can be held accountable.

(no comments)

Postulate 23.3442: questions to be clarified (Finance Committee of the National Council)

The Federal Council is instructed to examine the following questions, arranged by topic, and to report back to parliament:

a. Assess the (seriousness, likelihood and duration of) the legal, policy and financial repercussions (damage, risks and opportunities) of integrating Credit Suisse into UBS with the help of federal guarantees;

(no comments)

b. Quantify the hypothetical impact of a purely temporary management of the Credit Suisse crisis by the state;

This is part of the explanation still to be provided as to why the merger with UBS was the preferred solution (see section 2.1). The deliberations should be communicated in detail and comprehensibly.

c. Reduce the risks to federal finances and the Swiss economy stemming from systemically important banks;

That is the aim of the TBTF regime and this report's recommendations on improvements to the regime.

d. Ban variable remuneration for the senior management of the merged banks in those years in which a federal loss-protection guarantee is partly or fully paid out;

(no comments)

e. Legal limitations on variable salary components for members of the board of directors, senior management and the control bodies, as well as other staff categories at systemically important banks;

(no comments)

f. Possibility of liability actions against Credit Suisse bodies;

(no comments)

g. Impose general sustainability goals, like those that the Confederation sets for itself or which it has ratified at international level, in the event of extraordinary state aid for private enterprises;

(no comments)

h. Raise the capital ratio for systemically important banks;

(see above)

i. Introduce a segregated banking system for systemically important banks, involving the split of the investment bank from the commercial bank.

(see above)

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