Eidgenössische Finanzmarktaufsicht FINMA
Autorité fédérale de surveillance des marchés financiers FINMA
Autorità federale di vigilanza sui mercati finanziari FINMA
Swiss Financial Market Supervisory Authority FINMA

FINMA Risk Monitor 2022

Contents

Monitoring risk: central to forward-looking oversight of the financial markets

The Swiss Financial Market Supervisory Authority FINMA is an independent public supervisory authority with the legal mandate to protect investors, creditors and policyholders and ensure the proper functioning of the financial markets. It thereby contributes to enhancing the reputation, competitiveness and future sustainability of the Swiss financial centre.

The main focus of FINMA's work is the supervision of the financial sector. It seeks to ensure that the supervised financial institutions are not destabilised in the future by possible risks they are facing. Assessing the risk position of individual supervised institutions is therefore a critical part of FINMA's supervisory activity.

The Risk Monitor creates additional transparency both for supervised institutions and the wider public about how FINMA fulfils its statutory responsibilities.

The Risk Monitor provides an overview of what FINMA believes are the most important risks currently facing supervised institutions over a time horizon of up to three years. Arrows indicate how these risks have trended since the last Risk Monitor. The Risk Monitor also describes the focus of FINMA's supervisory activity on the basis of prevailing risks. Furthermore, each report highlights one selected trend with the potential to impact on the Swiss financial market over the long term.

The six principal risks already mentioned in last year's Risk Monitor remain the same: interest rate risks, credit risks associated with mortgages, credit risks associated with other loans, risks of cyberattacks, risks in the area of combating money laundering and risks due to increased impediments to cross-border market access. In addition, the widening of credit spreads compared with last year is now viewed as a separate risk driver and listed as a further risk.

Latest developments

Global economic growth has slowed down considerably in recent months due to the war in Ukraine. In view of the high inflationary pressures, central banks have tightened their monetary policy by raising interest rates. A long period of negative rates also came to an end in Switzerland on 22 September 2022.

The uncertain future development of inflation, interest rates and economic growth presents risks. This increases the vulnerability of the financial system to market corrections, for example due to a hike in the base rate or a worsening of economic prospects. On top of this, global corporate and sovereign debt has increased significantly during the coronavirus pandemic. These factors make the financial markets more sensitive and volatile to possible negative shocks.

Note

The risks referred to above and the focal points of FINMA's supervisory activity are not an exhaustive list. Other risks not cited may also be (or become) very significant. This Risk Monitor is expressly not intended as a basis for investment decisions. The occurrence of extreme events ("tail risks") is always possible, including in connection with risks that FINMA has categorised as comparatively modest and therefore not included in the Risk Monitor.

Principal risks

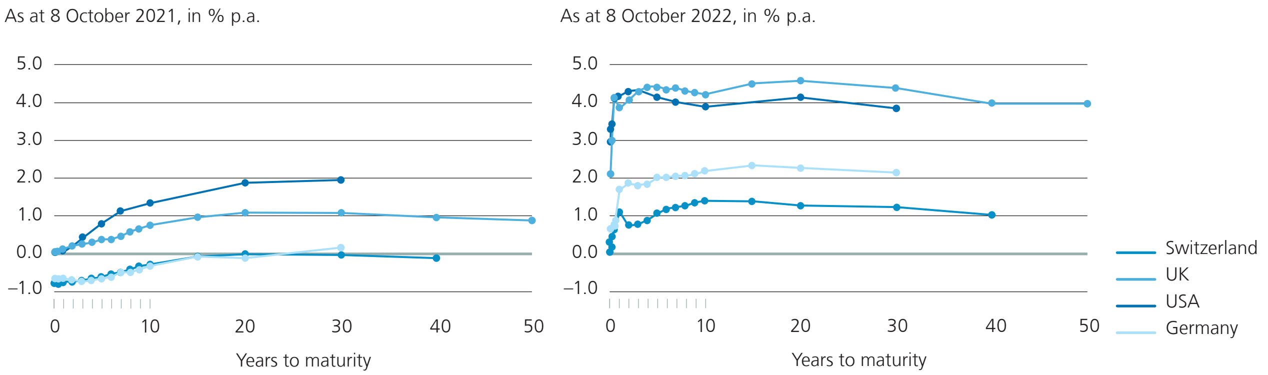
FINMA takes a risk-based approach to supervision. The intensity of its supervision is dictated firstly by the risks that the financial market participants incur and secondly by the primary risks in the current environment. This section discusses the six principal risks identified by FINMA for its supervised institutions and the Swiss financial centre over a time horizon of up to three years. The arrows in the section headings indicate changes compared to last year's FINMA Risk Monitor: the risk increased (↑), stayed the same (→) or decreased (↓).

Interest rate risk (↑)

Sustained inflationary pressure has led to monetary policy tightening and base rate hikes both in Switzerland and abroad. Nevertheless, nominal interest rates and in particular real interest rates remain at a low level after deductions for inflation, which has risen strongly in Switzerland, too. Rising interest rates could lead to a reduction of existing vulnerabilities. However, financial market participants could incur substantial losses in the event of an abrupt upward rate shock. Much will depend on the further development of inflation. FINMA is therefore continuing to pay close attention to the associated risks.

Inflation and rising interest rates have left their mark on the markets for government bonds. As the graphs in the figure labelled "Government bond yield curves" show, the Swiss franc yield curve is entirely in positive territory again in contrast with the previous year. Since the beginning of 2022, yields on ten-year Swiss government bonds have been well into positive territory again for the first time in a long time. Rates for shorter terms (for example, two-year government bonds) have also risen considerably since the Swiss National Bank increased the base rate. An increase in the yield curve thus reflects the increased inflation and interest rate expectations. The graphs in the figure also show that long-term interest rates in Switzerland are lower than in other currency areas. In the USA, yields on ten-year government bonds

Government bond yield curves



Source: Refinitiv Datastream

increased by almost 2.5 percentage points in the year under review.

Rising interest rates have the following consequences for banks:

1. Profitability and business models: As long as interest rates do not remain at or close to zero in the long term, higher interest rates can result in bigger interest margins (particularly for customer deposits). This means that banks' profitability in the interest margin business increases. However, rising interest rates also increase the risk of loan defaults (see the following section on credit risks). In addition, the financing costs for the supervised institutions and their customers increase. This leads to an increase in the use of hedging instruments in order to counter the costs of higher interest rates in good time. A major sudden upward rate shock would initially impact profitability, however, and lead to balance sheet risks materialising.

2. Customer behaviour: Customer behaviour is currently very difficult to predict, as it depends heavily on future financial-economic developments. Bank deposits remain relatively unattractive amid continuing low deposit interest rates in combination with rising inflation. In an environment of high and rising inflation, bond yields will rise (and the prices for outstanding bonds will fall). The stock markets will also suffer, as the likelihood of recession will increase and central banks will withdraw liquidity. The possibility of customers resorting to evasive measures is therefore difficult to predict.

3. Distorted perception of risks: In a low interest rate environment with negative real interest rates, the perception of risk on the part of financial market participants may be distorted. The risk premium for a product may be perceived as relatively low by investors or financial institutions, even though the underlying risk is actually significant in reality. This can result in misplaced incentives in investment behaviour as well as asset price bubbles. An abrupt rise in interest rates could lead to higher volatility and losses, with the corresponding consequences for investors (for example, in the case of money market mortgages) and financial institutions alike. The latter must counteract this risk, primarily through appropriate risk management, sufficient capital and proper client disclosure.

In general, insurance companies are somewhat less affected by rising interest rates than described above, as these also lead to a reduction in liabilities from an economic point of view as well as decreasing bond values.

Nevertheless, in some cases there is a negative overall effect on the SST[1] ratios. This is due to the fact that it is generally not possible to perfectly hedge against interest rate risks. In addition, the current yield curve in the SST for long maturities is not based solely on market values and therefore reacts more slowly to interest rate changes.

[1] The Swiss Solvency Test (SST) is used to assess the capitalisation of an insurance company. At least once a year the insurance companies submit the SST report, which is checked by FINMA.

Credit risk: mortgages (↑)

The credit risk associated with mortgage loans has grown in importance in recent years, as on the one hand affordability risks for newly granted mortgages increased and, on the other, fundamentals point towards an overheating of the real estate market. The marked growth in prices for owner-occupied housing has slowed down slightly in the recently altered macroeconomic environment. Prices for investment property have even recently increased further. Curbed demand due to higher mortgage interest rates, which make financing more expensive, is more than offset by strengthened demand. The likelihood of defaults increases in a changed interest rate environment, which can lead to significant losses for the supervised institutions.

Supervised institutions incur a two-pronged credit risk when they grant a mortgage: Firstly, there is the risk of the customer not being able to meet the interest and repayment obligations, resulting in a credit default for the lending institution. Secondly, there is the risk that the value of the property serving as collateral will fall at the point of default, thereby entailing losses. The better the affordability, the lower the risk of default. The risk of a large loss in the event of default increases if property prices collapse in a crisis. This risk can be minimised if the loan-to-value ratio is not excessively high and borrowers are required to provide sufficient own funds. Guidelines for the loan-to-value ratio are provided in the banking sector's self-regulation. The corresponding rules for the financing of investment property were tightened as of 1 January 2020. There are no binding quantitative rules for affordability.

Affordability risks have increased in the last four years for newly granted mortgages for financing both owner-occupied housing and residential investment properties. On the one hand, this is because less stringent affordability calculations were accepted in both segments. For example, in the context of on-site supervisory reviews or enquiries to the supervised institutions, FINMA observed that looser lending criteria were being applied in some instances. On the other hand, the proportion of variable-rate mortgages has risen significantly due to the sharply increased interest rates for long terms. This, in turn, increases the affordability risks.

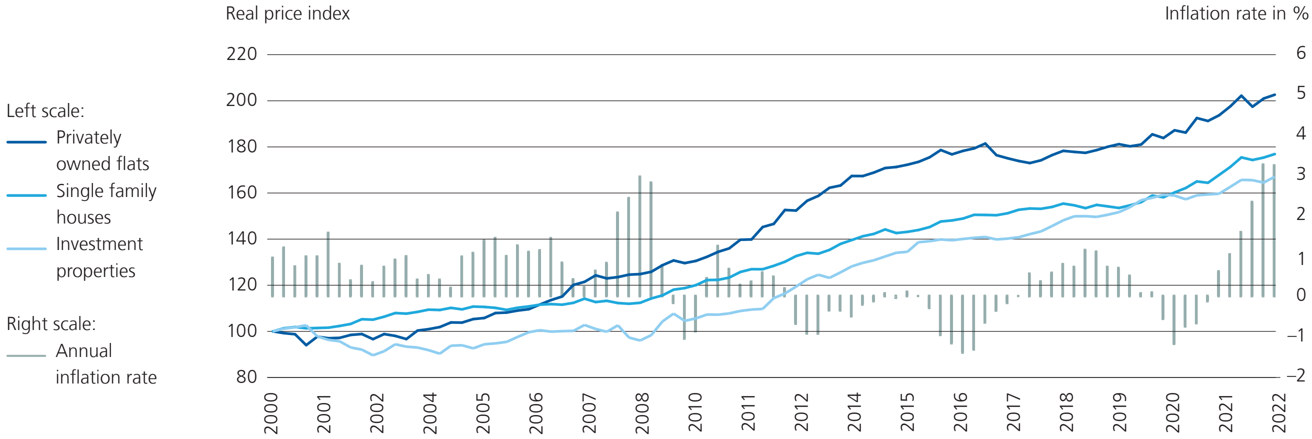
The lending values remained stable for new financing arrangements for owner-occupied housing in recent years. The proportion of residential investment properties with a high collateral value has fallen due to the tightened self-regulation guidelines.

Overall, the volume of mortgage loans has continued to increase, but somewhat more slowly than in the previous year. Due to the recovery of the economy after the pandemic, the relation between mortgage loans and gross domestic product has not increased further for the first time since 2008/09. There has been a continuous fall in the proportion of financing arrangements for buy-to-let properties since the third quarter of 2021, presumably because mortgage interest rates have increased significantly since then, particularly for longer terms.

In the owner-occupied housing segment, growth momentum has recently slowed down somewhat. The sharply increased financing costs ought to have a dampening effect on demand for mortgage loans. However, due to the scant offer of property available to purchase, there is still significant excess demand, meaning that the prices adjusted for inflation have also continued to rise (see figure labelled "Real property prices"). This is an indication of overheating.

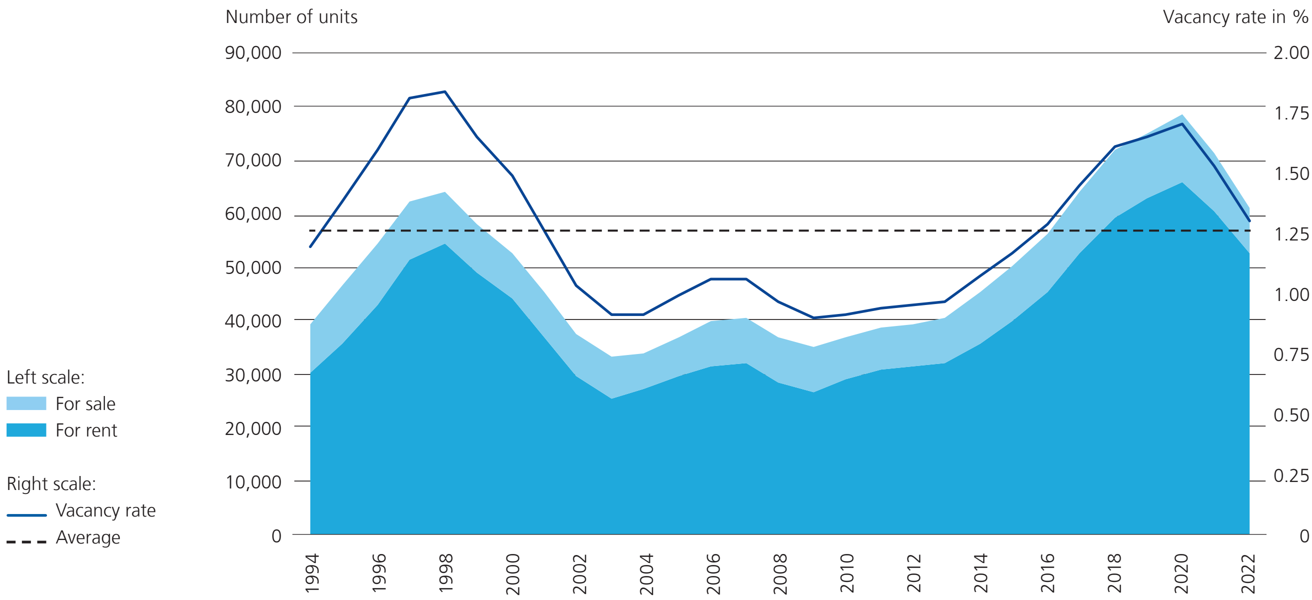
Real property prices (adjusted for inflation)

Indexed to Q1 2000



Source: Wüest Partner, IAZI (property prices), Federal Statistical Office (FSO) (Swiss consumer prices index)

Vacant homes in Switzerland, broken down by "for sale" and "for rent" as well as vacancy rate



Source: FSO

Prices in the residential buy-to-let market have also been rising significantly again following a sideways trend from the beginning of 2021 to mid-2022, which is also confirmed in the prices adjusted for inflation (see figure labelled "Real property prices", top left). Because high immigration levels drive up rental demand and supply is declining, quoted rents have increased again. At the same time, vacancy rates have also dropped once more (see figure labelled "Vacant homes in Switzerland", bottom left). The associated increase in returns from rental income fosters the demand for residential investment properties on the part of investors despite increased mortgage interest rates. The user and investor markets are developing in parallel again for the first time in years and the increased prices can be justified by demand. However, the end of the negative interest rate era opens up new investment alternatives. The surge in building material prices also ought to have a dampening effect on development projects and thus on supply.

The consequences of a real estate crisis would be significant for the Swiss financial centre. If real estate were to be devalued, loans would be covered to a much lesser degree than was assumed when they were granted. This would result in losses for the lending institutions. Stress tests carried out by FINMA show that a real estate crisis involving sharp price corrections could lead to losses in double-digit billion territory. In the event of a severe real estate crisis, some banks would have too little loss-absorbing capital held for the mortgage portfolio to bear the corresponding losses. In view of the high overall volume of mortgage lending, capital held by the banks is of great importance. At the request of the Swiss National Bank and following consultation with FINMA, the countercyclical capital buffer was reactivated at the end of September 2022. This increases the capital buffer of the lending banks.

Insurance companies too would suffer painful losses in their mortgage and real estate portfolios in the event of a real estate crisis. For real estate funds, price corrections would entail valuation losses and the resulting fund outflows, which could in turn trigger liquidity problems.

Credit risk: other loans (↑)

The lending business is strongly influenced by the general economic situation. The consequences of the war in Ukraine intensify the already existing supply bottlenecks and the rise in prices for raw materials and energy. These developments as well as the changing interest rate environment can lead to a need for greater liquidity and deteriorating creditworthiness for companies. This increases the probability of them defaulting on loans. Declines in earnings and falling market valuations can lead to losses on Lombard loans and corporate loans. However, this is dependent on the uncertain macroeconomic situation.

Loan volumes increased significantly in the long period of low interest rates. An environment with high inflation, falling growth and restrictive monetary policy is not a good environment for credit markets and affects supervised institutions as follows:

- Defaults in the international corporate credit business will in all probability increase. Globally active Swiss banks, especially the two large banks, grant loans to corporate clients outside Switzerland that are not (or only partially) sold on to investors. As a result, the risks of impairments to these loans remain on the balance sheets of these banks, at least in part. Internationally active Swiss banks are active in the area of leveraged finance (primary granting of corporate loans for a credit-financed company takeover). They bundle and syndicate loans to sell to investors with relatively high risk appetite, among other things due to low interest rates. Risks can also materialise in other areas of investment banking. Examples of major defaults in the international lending business include the family office Archegos, the financing company Greensill, the Chinese real estate company Evergrande or the difficult placement of the leveraged debt used to finance the buyout of software company Citrix. Some Swiss banks were also affected by these developments.[2]
- The quality of the corporate client credit portfolios of domestic banks could also suffer from the effects of a deterioration in the economic situation or an increase in energy costs as well as bottlenecks or power outages, although the effects vary by sector.
- The Lombard loan portfolio[3] makes up a significant part of of the large international banks' assets. Due to the volatile markets, the securities used as collateral are exposed to large movements, particularly downwards. The haircuts applied by the banks may be too low, meaning that the loans are not secured with sufficient collateral. Customers may not be able to meet margin calls, which can lead to defaults and losses.
- While for banks credit risk materialises in particular through defaults, insurers and asset managers are more affected by credit downgrades or higher default rates among bond issuers as well as by value corrections on shares.

[2] It should be noted that some of the most important defaults involved highly leveraged, complex credit structures and concentrated or less liquid hedges than expected.

[3] Lombard loans are secured loans that are granted primarily to retail clients in the area of asset management. In most cases securities portfolios are pledged as collateral.

Market risk: credit spread risk (→)

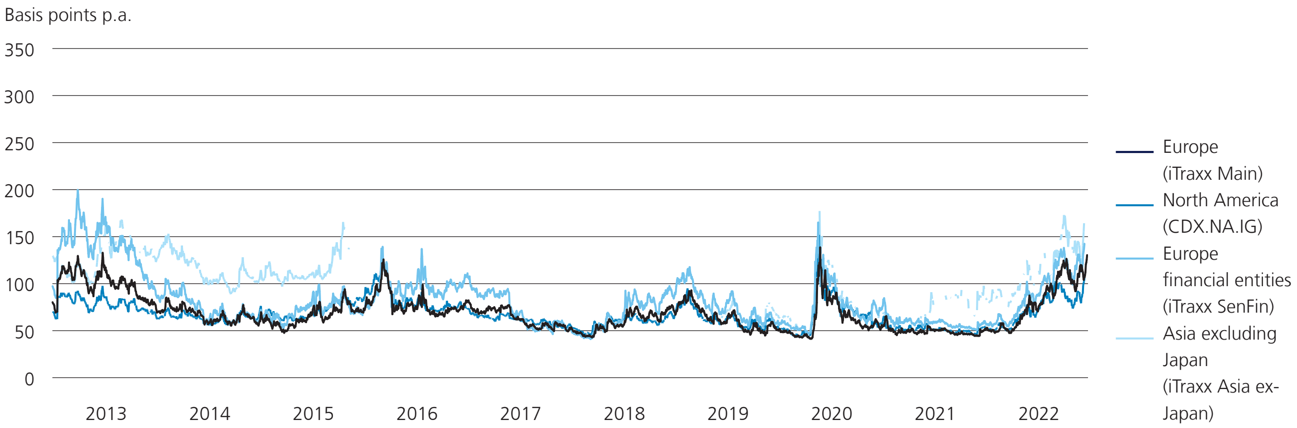
Due to rising inflation worldwide and the weakening economy, credit spreads for corporate bonds have increased again slightly since the beginning of the year. The risk premiums for government bonds in the eurozone have also risen and are higher than before the pandemic. Credit spread risk is the risk of a loss due to changes in credit spreads.

Uncertainty among investors due to the Russian invasion of Ukraine and the impending effects on the global economy can lead to an increase in risk aversion and consequently to higher credit spreads. Since the war broke out, the risk premiums for government bonds have also increased in many countries. In addition, corporate and government debt in relation to gross domestic product has increased substantially since the start of the pandemic and has barely fallen since then. The vulnerabilities of these markets to future shocks have therefore increased further.

Possible increases in credit spreads for corporate or government bonds would affect supervised institutions as follows:

- Banks: In the event of a rapid, substantial widening of credit spreads, banks could on the one hand experience direct falls in the value of their portfolios. This affects a wide range of financial products such as bonds, securitisations or loans to highly indebted counterparties. On the other hand, an increase in credit spreads can lead to material adverse effects on credit valuation adjustments of counterparties in the case of derivative transactions. Banks can also be negatively affected if the costs of continuing to hedge against defaults increase.
- Insurers: On the basis of market-consistent valuation as per the Swiss Solvency Test (SST), substantial spread corrections in corporate bonds would lead to a reduction of both risk-bearing capital and the SST ratio at many insurers.

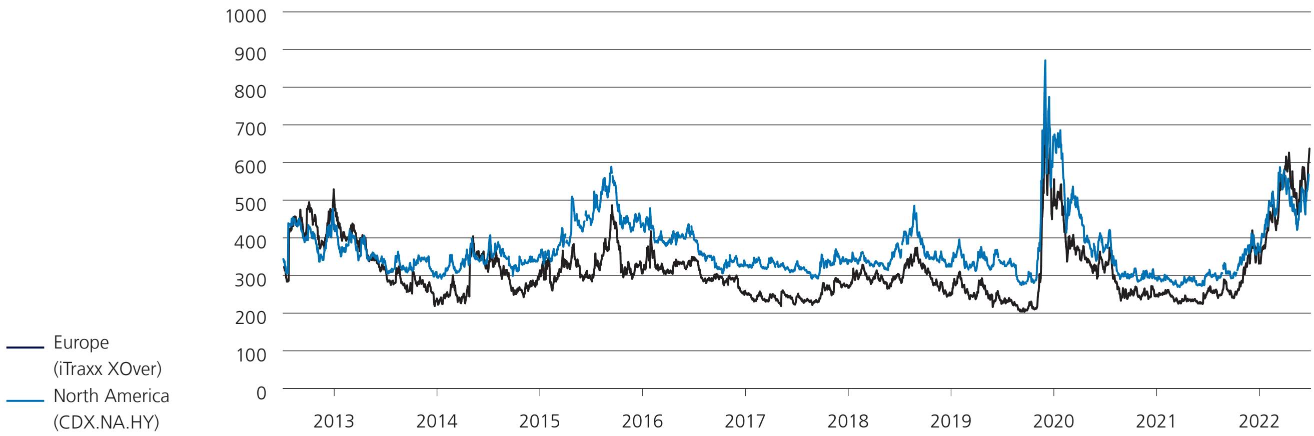
Benchmark credit default swap (CDS) indices investment grade



Source: Bloomberg

Benchmark credit default swap (CDS) indices high yield

Basis points p.a.



Source: Bloomberg

Measured in terms of market value, a third of bonds in the portfolios of Swiss insurance companies are corporate bonds. 17% of those have a rating of AA– or better, while 34% have a rating between A+ and A– and 42% have a rating between BBB+ and BBB. 6% of corporate bonds either do not have a rating or have a sub-investment grade rating. Corporate bonds with a worse rating are usually more susceptible to fluctuations in credit spreads.

Since in tied assets bonds are valued using the amortised cost method, these only react to defaults or deteriorations in creditworthiness, but not to changes in interest rates or credit spreads.

Cyber risks (→)

Increasing professionalisation of criminals and ever shorter times between the announcement and exploitation of critical security vulnerabilities are keeping the financial industry on its toes. A successful attack can lead to outages and interruptions of information and communication technology systems and jeopardise the protective goals of availability, confidentiality and integrity. Specific risk drivers include a lack of awareness of how to deal with cyber risks – be it among employees or due to inadequate governance. In addition, the cyber processes at many institutions are too fragmented to allow them to make a comprehensive assessment of their own cyber risk situation. Risk therefore remains high in this area.

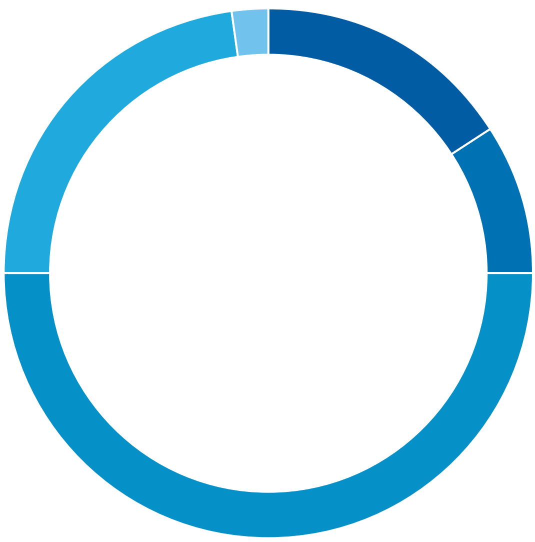
Successful cyberattacks on established companies in Switzerland and elsewhere regularly make the headlines. Cyberattacks are becoming increasingly sophisticated, and attackers are constantly developing new methods. In addition, security gaps are constantly emerging, which companies have to close or mitigate very quickly. A recent example is the "Log4j" vulnerability, a gap in a widely-used logging tool for Java applications, which was discovered at the end of 2021 and could be exploited very easily over the internet. Many of the supervised institutions reacted quickly in order to close the gap promptly. Particularly companies that had prepared instructions and procedures for such scenarios and had tested these during regular business operations were able to deal with the incident effectively and promptly.

Supervised institutions reported a total of 145 cyberattacks to FINMA between September 2020 and September 2022. Since the publication of the last Risk Monitor, 65 attacks have been added. An evaluation of the attacks reported in the last twelve months (see figure below) shows that the focus of

Breakdown of cyber reports received by FINMA in the last twelve months

Type of attack
in %

- DDoS: 16
- Misused identity: 9
- Malware: 50
- Unauthorised access: 23
- Inappropriate use: 2



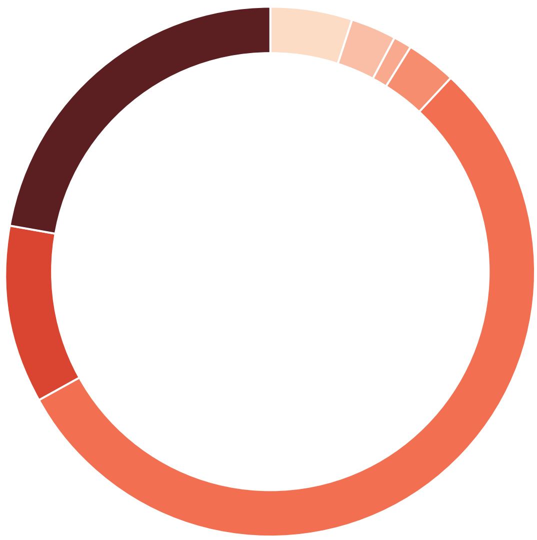
Source: FINMA

Attack vector

in %

- Hardware vulnerability: 5
- Software vulnerability: 3
- Brute force attack: 1
- Email: 3
- External service provider (outsourcing): 55
- Identity theft: 11
- Web-based attack: 22

Source: FINMA



attacks has shifted from the “distributed denial of service” (DDoS) type[4] to malware (particularly via external service providers). The most frequent method of attack was via an external service provider in the course of an outsourcing arrangement.

FINMA currently identifies the following main risk drivers in its supervisory work:

- Some of the supervised institutions have no, or only incomplete, response plans for cyber incidents in place or do not review the effectiveness of these plans.
- Supervised institutions do not explicitly integrate cyber risks into their qualitative management of operational risks. This means that systematic and comprehensive risk management of cyber risks cannot be guaranteed.
- Supervised institutions do not adequately define their cyber risks and their associated risk tolerance or there is no cyber protection concept in existence.
- In some cases, supervised institutions do not set out clear cyber security requirements to service providers or do not regularly review whether these are being met.

[4] This situation occurs when a given infrastructure is blocked by a network of predominantly externally controlled computers.

Money laundering and sanctions (↑)

The Swiss financial centre is a leading global cross-border wealth management hub for private clients. This makes it particularly exposed to money-laundering risks. Breaches of due diligence and reporting obligations can result in legal consequences and reputational damage for financial institutions both in Switzerland and abroad. In the past year, money-laundering risk has remained high. In addition, compulsory sanctions in connection with the war in Ukraine pose reputational and operational risks for the supervised institutions.

A large number of new customers of the Swiss asset management industry are to be found in the emerging markets, where there is a significant threat of corruption. Various global corruption and money-laundering scandals, as well as the numerous violations of money-laundering regulations by financial institutions, show that the risks for financial institutions involved in the cross-border wealth management business remain high. Experience has shown that the financial flows associated with corruption and embezzlement can involve not just affluent private clients who qualify as politically exposed persons, but also state or quasi-state organisations and sovereign wealth funds. Particularly in asset management, the risks are often increased further by the use of complex structures. These include not only individual structures that can lead to a lack of transparency regarding the beneficial owners due to their complex composition, but also webs of business relationships, whereby the economic purpose is not clear due to the use of multiple domiciliary companies and which can be used to conceal the origin of potentially criminal assets.

The Swiss financial centre was not unscathed by various money-laundering scandals in the past. Numerous cases clearly illustrated the following: a bank's compliance framework must keep pace with risk appetite. Among other things, the annual risk analysis plays an important role here. A financial institution not only needs to keep a constant eye on whether the assumed risks actually correspond to its respective business activities, but also to ensure that these are sufficiently mitigated by control mechanisms.

The increase in the number of MROS reports in recent years may indicate a cultural shift as well as better monitoring systems, but also the continued existence of a number of very significant risks. The reports submitted to MROS and the corresponding calculations reveal an increase of around 12% compared with 2020.[5] As in the previous year, transaction monitoring was the source of information that most frequently revealed suspicious conduct on the part of financial intermediaries in 2021 (33%). However, according to information from MROS, the high percentage of reports of suspicious activity that resulted from transaction monitoring are in part due to reports of suspicious activity in connection with the granting of COVID loans. Information from third parties and media reports are in second and third place again and together make up 42.6%, meaning that financial institutions remain heavily reliant on external information.

In addition to the well-established money-laundering risks (especially in connection with cross-border asset management), risks in the crypto area are becoming increasingly apparent, particularly in connection with cryptocurrencies. While new technologies facilitate efficiency improvements in the financial area, the threats of money laundering and the financing of terrorism are also heightened due to the potential for greater anonymity along with the speed and cross-border nature of transactions. In particular, cryptocurrencies are often used in connection with cyberattacks, or as a means of payment for illegal trading on the dark web. Money-laundering risks can be significant for FinTech companies too. Financial institutions active in this area that do not have adequate money-laundering risk defences could seriously damage the reputation of the Swiss financial centre.

[5] Unlike previously, in the new goAML information system financial intermediaries can enter several elements giving rise to suspicious activity in their report.

In view of Russia's invasion of Ukraine, the Federal Council took the decision on 28 February to adopt the packages of sanctions imposed by the European Union (EU). The State Secretariat for Economic Affairs (SECO) is responsible for checking that the sanctions are enforced. FINMA is responsible for monitoring the supervisory organisational rules in financial market law. These rules require that the supervised financial institutions adequately identify, limit and monitor all risks including legal and reputational risks as well as establishing an effective internal control system. This also includes dealing with sanctions. The ordinance on measures connected with the situation in Ukraine encompasses not only the usual financial sanctions against certain listed individuals and businesses, but also bans on providing certain financial services to Russian nationals as well as individuals and businesses residing in the Russian Federation. The correct observance of sanctions is operationally challenging and requires the utmost care. Breaches of sanctions regulations pose high legal and reputational risks for the individual institutions, but also for the Swiss financial centre as a whole.

Market access in Europe (↑)

Changes to and restrictions on access to foreign target markets that are of importance to Swiss financial institutions – particularly in Europe – may have repercussions for the revenue streams of the Swiss financial centre. The risk of restricted market access to the EU has increased in 2022.

The trend towards increasing fragmentation in the regulation of financial markets persists. Regulatory fragmentation can lead to the market access regimes applicable to foreign providers being tightened up. Foreign authorities are frequently imposing more rigorous requirements regarding access to information on the supervision of financial institutions with cross-border business. For example, Swiss financial institutions can be called on to transfer information directly to foreign authorities. In addition, market access is generally tied to reciprocal cooperation duties between supervisory authorities.

The EU has recently discussed tightening the rules on how banks from non-EU states may offer their services to clients in the EU. The proposed rules could further restrict business opportunities in Switzerland in relation to clients from the EU. The situation is aggravated by the fact that, in the absence of an agreement between Switzerland and the EU, there have been no significant improvements in financial market matters.

To improve cross-border market access, Switzerland has been seeking closer collaboration with the United Kingdom in the financial market area. Overall, however, developments in the area of market access for cross-border business remain shrouded in legal uncertainty, which could give rise to additional costs for financial institutions. Restrictions on the provision of cross-border financial services could lead to an outsourcing of jobs abroad and thus cause lasting damage to the Swiss financial centre.

FINMA's supervisory focus

FINMA aligns its supervisory focus with the risks described above. In doing so, it concentrates on the following key areas in particular:

The **interest rate risk** is a key topic in the supervisory dialogue between FINMA and the institutions it supervises. FINMA supervises the implementation of interest rate stress tests at the banks and investigates banks with an increased interest rate risk. In addition, it continues to take capital measures for particularly exposed institutions. A rate shock could also have repercussions for the various insurance sectors. The adequacy of provisions remains a key topic in the ongoing supervision of insurance companies.

The **credit risk associated with mortgages** is another key focus of FINMA's supervisory activities. FINMA conducts on-site supervisory reviews and obtains an overview of lending criteria. In addition, it analyses newly granted mortgages. FINMA continues to conduct stress tests for mortgage risks with certain banks. It selects banks in a risk-based way in order to analyse their resilience in the event of a real estate crisis. In addition, it continues to take capital measures for particularly exposed institutions. For systemically important banks, FINMA also conducts in-depth analyses of potential loss and takes severe price depression on the real estate market into account in the stress scenarios. With regard to the Basel III final reform package, FINMA is advocating appropriate implementation in order to reduce the risks in the mortgage market through greater differentiation. In the area of asset management, FINMA conducts in-depth analysis of Swiss real estate funds. Stress tests are taking place in the insurance area with a view to understanding the influence that real estate held in insurers' portfolios may have on these companies' solvency.

FINMA is increasingly focusing its supervision on the **credit risk associated with other loans.** Following the outbreak of war in Ukraine, FINMA is monitoring selected institutions that are exposed to Russia and Ukraine. Potential defaults at domestic banks resulting from increasing energy prices or serious supply difficulties also deserve increased attention. Leveraged finance positions are under particularly close scrutiny at the large banks.

Higher credit spread risk is another key topic in FINMA's supervisory dialogue. FINMA considers this risk in its regular performance of loss-potential analysis at larger institutions. FINMA conducts a monthly profit and loss analysis at large banks. In the insurance sector, possible losses due to higher credit spreads are taken into account in the SST calculations.

Based on the current threat situation regarding **cyber risks,** focal points of supervision are defined and monitored at the supervised institutions by means of on-site supervisory reviews, supervisory discussions, specific stress scenarios and further measures. By publishing statistics on reported cyberattacks in accordance with FINMA Guidance 05/2020, FINMA informs the public about current risks and potential means and methods of attack. FINMA is conducting a full revision of the "Operational risks – banks" Circular, as part of which the section on cyber risks will be updated. In addition, FINMA is a member of the national body for cyber strategy and protecting critical infrastructures. It is also represented in a working group of the Financial Stability Board (FSB) seeking to achieve global harmonisation of the duty to report cyberattacks.

In its supervision of **money laundering and sanctions,** FINMA prescribes an audit programme that takes account of various business models. The scope and content of the audit depend on the specific risk of money laundering at the financial institution under scrutiny. FINMA continues to focus on risk management at financial institutions that look after politically exposed or quasi-state clients. It performs regular on-site supervisory reviews in this area. An additional focus now lies on the complex structures and activities found in the crypto area. Specific measures have been taken to reduce money-laundering risk in connection with digital assets, which are monitored by means of on-site supervisory reviews. In the context of the sanctions on Russia, FINMA is in close contact with supervised institutions and SECO and is conducting specific on-site supervisory reviews and investigations into sanctions management.

FINMA continues to closely monitor the legal and reputational risks associated with **access to foreign markets** and to raise awareness of this problem at the affected institutions as part of its supervisory dialogue. It also assists the relevant political bodies in Switzerland in their efforts to ensure equivalence at a technical level, including in the context of the current negotiations with the United Kingdom on a Mutual Recognition Agreement in the finance area. Furthermore, like its partner authorities elsewhere in Europe, FINMA recommends the prompt implementation of the Basel III standards as comprehensively as possible. This is conducive not just to resilience in the banking sector but also to market access.

Longer-term trends and risks

As part of its risk monitoring, FINMA identifies key trends and risks that could have an impact on the Swiss financial centre over the longer term. Last year, climate risks and greenwashing were discussed here. Below, FINMA illuminates the trend for so-called decentralised finance applications operating on open-access blockchain infrastructures.

Decentralised finance (DeFi)

Decentralised finance, or DeFi for short, encompasses a wide range of applications based on blockchain infrastructures, which facilitate financial market applications such as trading or credit transactions. One thing DeFi projects have in common is that they use open-access blockchain infrastructures such as Ethereum or Solana to handle financial transactions largely automatically and without the involvement of traditional financial intermediaries. For example, payment or asset tokens can be traded in this way without the involvement of a supervised trading venue. Often, assets need to be deposited as collateral for the use of DeFi applications. Their use is normally open to anyone.

DeFi applications have attracted much attention in recent years. The initiators of such projects take the view that DeFi can structurally and fundamentally change the financial market. Despite the case for decentralisation, however, many DeFi projects are currently often run, materially influenced or controlled by just a few people or companies, which raises questions about adequate supervision. A further problem is the lack of transparency surrounding many projects due to the very limited publicly available information. FINMA assesses DeFi projects based on their economic substance rather than their legal form and applies existing law in accordance with the principle of "same business, same risks, same rules".

Should the vision of penetrating the financial markets with DeFi applications be realised, new challenges would emerge for regulators and supervisory authorities:

- Responsibility could no longer be clearly assigned under current financial market law.
- Existing regulatory concepts could be rendered ineffective due to a lack of identifiable intermediaries. Because DeFi projects would also often have no identifiable presence or substance in a particular country, this would raise questions about territorial jurisdiction.

Use of DeFi applications

The use of DeFi applications presents risks. Regarding the exposure to risk, a distinction must be drawn between the use of DeFi by consumers and by institutions.

If consumers use DeFi applications, in the first instance they risk losing assets, for example due to severe market fluctuations, input errors, bugs in the DeFi applications, hacking or fraud.

For institutional users, the risks are primarily operational as well as legal and reputational in nature. According to an analysis published by the FSB in February 2022, there are at present no systemic risks as the volume is still small. However, if they were to be used on a wide scale, the inherent instability of DeFi ecosystems could spill over into the traditional financial markets and threaten their stability. The risk of money laundering is generally high due to the anonymity of most DeFi applications.

FINMA is closely monitoring the trend towards increased development and use of DeFi applications. This is especially true where FINMA-supervised institutions use or intend to use DeFi applications. It applies the proven principles of "substance over form" and "same risks, same rules" to such matters and always makes its decisions based on the actual economic circumstances.

Abbreviations

CDS Credit default swap
DDoS Distributed denial of service
DeFi Decentralised finance
EU European Union
FSB Financial Stability Board
FSO Federal Statistical Office
goAML Government office anti-money-laundering software (MROS system for receiving and processing suspicious activity reports)
IAZI Informations- und Ausbildungszentrum für Immobilien AG
MROS Money Laundering Reporting Office Switzerland
p.a. per annum
Q Quarter
SECO State Secretariat for Economic Affairs
SST Swiss Solvency Test
UK United Kingdom
USA United States of America

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