Accountability report

On 19 March 2024, the Governing Board of the Swiss National Bank submitted its accountability report for 2023 to the Federal Assembly in accordance with art. 7 para. 2 of the National Bank Act (NBA). The report provides information about how the SNB has fulfilled its mandate pursuant to art. 5 NBA – in particular as regards its conduct of monetary policy and its contribution to the stability of the financial system. It is submitted to the Federal Council and the General Meeting of Shareholders for information purposes.

SUMMARY

Monetary policy

The SNB pursues a monetary policy serving the interests of the country as a whole. It must ensure price stability, while taking due account of economic developments. In its monetary policy strategy, the SNB sets out the manner in which it operationalises its statutory mandate. The strategy consists of three elements. The first element specifies what the SNB understands by price stability. The second element refers to the conditional inflation forecast as the main indicator for monetary policy and as a central instrument of communication. The third element describes how the SNB implements its monetary policy by influencing the interest rate level and the exchange rate.

The Swiss economy is strongly influenced by economic activity abroad. Global economic growth was solid overall in 2023, although developments varied greatly between the individual economic areas. In many advanced economies, and in particular in Europe, economic momentum slowed markedly owing to tighter monetary policy and the loss of purchasing power due to inflation. However, the US economy remained surprisingly robust. China's exit from its zero-COVID policy led to a significant recovery. Inflation abroad declined over the course of 2023, but was still above central banks' targets in most countries at the end of the year. Many central banks initially tightened their monetary policy further, but subsequently left their key rates at the higher levels while at the same time signalling that monetary policy could remain restrictive for some time yet.

Differences in the extent of monetary policy tightening in the various currency areas led to changes in the interest rate differentials and thus shaped developments on the foreign exchange market. The US dollar and the euro moved sideways overall on a trade-weighted basis, while the Japanese yen depreciated significantly.

Swiss economic growth was modest in 2023. According to the initial estimate by the State Secretariat for Economic Affairs (SECO), growth in GDP adjusted for seasonal effects and sporting events was 1.3%. This was significantly slower than the 2.5% recorded the year before, when the economy had continued its recovery from the coronavirus pandemic. Economic activity was dampened by a range of factors. Weak foreign demand, households' loss of purchasing power due to inflation and tighter financing conditions weighed on exports, consumption and investment. Value added in manufacturing decreased owing to the weak global demand, but the services sector showed solid growth despite a decrease in value added in the case of banking. The situation in the labour market remained good overall; employment increased significantly and unemployment stayed very low.

Annual inflation as measured by the Swiss consumer price index (CPI) declined over the course of 2023, and in the second half of the year was back within the range of 0% to 2% that the SNB equates with price stability. Inflation decreased significantly, from 3.2% in the first quarter to 1.6% in the fourth. The average for the year decreased from 2.8% in 2022 to 2.1% in the year under review.

After raising the SNB policy rate from –0.75% to 1.0% in 2022, the SNB increased it in two steps from 1.0% to 1.75% at the monetary policy assessments in March and June 2023 in order to counter inflationary pressure. At its September assessment, the SNB left its policy rate unchanged at 1.75%. However, it pointed out that a further tightening could become necessary to ensure price stability over the medium term. In view of the decline in inflationary pressure towards the end of the year, the SNB left its policy rate unchanged at 1.75% at its assessment in December.

At its quarterly monetary policy assessments, the SNB regularly confirmed its willingness to intervene in the foreign exchange market if necessary in order to ensure appropriate monetary conditions. The March, June and September assessments focused on foreign currency sales. These contributed to the Swiss franc gaining in value despite the overall increase in interest rate differentials with other countries and counteracted the rise in domestic prices.

At the assessment in December, the SNB announced that it was no longer focusing on foreign currency sales in its foreign exchange market activities. Inflation was significantly lower than at the beginning of the year, and the Swiss franc also appreciated in real terms in the second half of the year. The conditional inflation forecast was back within the range of price stability over the entire three-year forecast horizon for the first time in two years. The tightening of monetary policy, supported by the weakening of global inflation drivers, made a decisive contribution to the decline in inflation.

Policy rate adjustments can have an impact on mortgage interest rates and thus lead to an adjustment of the mortgage reference interest rate relevant for rents. This rose in two steps from 1.25% to 1.75% in June and December 2023. A rent increase based on the mortgage reference interest rate is allowed if the reference interest rate specified in the tenancy agreement is lower than the current reference interest rate. As rents have a high weighting in the CPI basket, accounting for around one fifth, this leads to a certain feedback effect between the SNB policy rate and the CPI. Despite this feedback effect, an increase in the SNB policy rate counteracts inflation overall. Furthermore, an increase in the mortgage reference interest rate only has a temporary effect on inflation. Thanks to the tightening of monetary policy through the appreciation of the Swiss franc, the SNB had to raise its policy rate significantly less than other central banks. As a result, the increase in the reference interest rate was limited and the potential for rent increases was lower.

On 1 December, the SNB, together with SIX and six commercial banks, launched a pilot project in which central bank digital currency for financial institutions (wholesale CBDC) in Swiss francs was issued for the first time on the regulated platform of SIX Digital Exchange (SDX) for the settlement of tokenised securities. With the pilot project, the SNB hopes to gain further insights in this area.

Implementation of monetary policy

The Swiss National Bank implements its monetary policy by setting the SNB policy rate. It seeks to keep the short-term Swiss franc money market rates close to the SNB policy rate. The focus in this regard is the interest rate for secured overnight money, SARON (Swiss Average Rate Overnight). To ensure appropriate monetary conditions, the SNB was also active in the foreign exchange market. Over the course of the year, it made net sales of foreign currency equivalent to CHF 132.9 billion.

To implement its monetary policy on the money market, the SNB uses two levers which together ensure that the secured short-term Swiss franc money market rates are close to the SNB policy rate. The first lever is a tiered remuneration of the sight deposits that banks and other financial market participants hold at the SNB. This remuneration enables effective steering of money market rates when the SNB policy rate is positive and there is high excess liquidity. For sight deposits up to a certain threshold, the SNB policy rate is applied. Sight deposits above this threshold are remunerated at the SNB policy rate minus a discount, which is currently set at 0.5 percentage points. Since 1 December 2023, sight deposits which are held to meet minimum reserve requirements have no longer been remunerated. Tiered remuneration of sight deposits creates an incentive to trade sight deposits in the Swiss franc money market. The second lever deployed in the implementation approach is the absorption of reserves by way of open market operations. These operations reduce sight deposits and thereby the liquidity supply in the money market. An active and well-functioning money market is essential for the transmission of monetary policy and is the basis for the robust calculation of SARON.

In March 2023, in its role as lender of last resort, the SNB provided Credit Suisse with liquidity assistance on an unprecedented scale, to the value of CHF 168 billion. The SNB made this assistance available to Credit Suisse in Swiss francs, US dollars and euros, doing so in each case within a very short time after receiving notification of the need for liquidity.

The liquidity assistance provided in Swiss francs led to a rise in sight deposits and in liquidity on the Swiss franc money market. The SNB absorbed part of these additional sight deposits with open market operations. The SNB's flexible approach to implementation thus enabled the effective steering of money market interest rates and ensured that the implementation of monetary policy was not impaired by the provision of liquidity assistance to Credit Suisse.

Cash supply and distribution

Following the SNB policy rate hike in June 2022, cash flows back to the SNB increased. Since cash does not earn interest, if interest rates rise, demand falls for large-denomination banknotes, which are primarily used as a store of value. The value of banknotes in circulation thus decreased to an average of CHF 76.5 billion in 2023, a 12.2% decline year-on-year. The total number of notes in circulation was 3.5% lower than in 2022, averaging 519.0 million.

In June, the SNB published the results of its third survey on payment methods of private individuals. As regards payment method usage, the results show that the shift from cash to cashless payment methods is continuing, albeit at a slower pace than in previous years.

In spring, the SNB conducted its second payment methods survey of companies in Switzerland. Selected results on payment method acceptance and on cash logistics were published in October 2023, the detailed report in February 2024. The analysis shows that customer needs play a key role in determining which payment methods are accepted by companies.

In October, the SNB and the Federal Finance Administration conducted a roundtable on the topic of the supply and distribution of cash in Switzerland for the first time. Together with key stakeholders in the field of cash supply and distribution as well as trade and consumer associations, they discussed how the population's access to cash and its acceptance can continue to be ensured in the future. A broad-based group of experts was established to identify challenges and develop solutions.

Cashless payment transactions

In 2023, a daily average of approximately 3.9 million transactions amounting to CHF 228 billion were settled via the Swiss Interbank Clearing (SIC) payment system. Compared to 2022, the average number of transactions settled per day rose by almost 3.8% and turnover increased by 14.1%. One of the drivers of the higher turnover was the further tightening of monetary policy, as the cash side of the SNB's liquidity-absorbing operations is settled in the SIC system.

Since November 2023, in addition to the real-time gross settlement of payments (RTGS service), the SIC system has been offering so-called instant payments (IP service). The IP service enables the immediate and final transfer of value for cashless retail payments throughout the entire settlement chain – 24 hours a day, 7 days a week. However, retail payments may also continue to be settled via the existing RTGS service. All SIC participants active in retail payment transactions must be able to receive instant payments by the end of 2026. For the largest financial institutions, this requirement will already apply from August 2024.

Asset management

In the year under review, the SNB's balance sheet total contracted for the second consecutive year. At the end of 2023, the SNB's assets amounted to CHF 795 billion, down CHF 87 billion year-on-year. This reduction was mainly due to foreign currency sales. Total currency reserves amounted to CHF 725 billion. The majority of these reserves was held in foreign currency investments, the remainder in gold.

The most important risk factor to which the investments are exposed is currency risk, followed by risks related to share prices, interest rates and the gold price. Currency risk is not hedged against the Swiss franc, as this would influence demand for Swiss francs. Measured in Swiss francs, the return on currency reserves was 0.8% in 2023. Gold increased in value by 3.1% and foreign exchange reserves gained 0.7%. In local currency, the return on the latter was 9.4%, although the return was negatively affected by the significant appreciation of the Swiss franc.

The SNB makes most of its foreign currency investments in government bonds. However, it also invests in shares and corporate bonds in order to take advantage of the positive return contribution of these asset classes and improve the long-term risk/return ratio. When managing such securities of private sector issuers, the SNB also takes non-financial aspects into consideration. For instance, owing to its special role vis-à-vis the banking sector, it refrains from investing in shares of systemically important banks worldwide. The SNB also takes account of Switzerland's fundamental standards and values in its investment policy. Consequently, it does not invest in shares and bonds of companies whose products or production processes grossly violate broadly accepted values. The SNB therefore does not purchase securities issued by companies that seriously violate fundamental human rights, systematically cause severe environmental damage or are involved in the production of internationally condemned weapons.

Climate risks and adjustments to climate policy can trigger or amplify market fluctuations and influence the attractiveness of investments. From an investment perspective, such risks are essentially no different from other financial risks. The SNB manages the risks to its investments by means of its diversification strategy.

The SNB aims for a robust balance sheet with sufficient equity capital, to ensure that it can absorb the potentially high losses associated with a large balance sheet. Equity capital is composed of the provisions for currency reserves and the distribution reserve. Annual allocations to the provisions for currency reserves are made to ensure a solid equity base. Despite the reduction in the balance sheet in 2022 and 2023, the ratio of equity capital to balance sheet total remains low on account of the high loss in 2022. Likewise due to this loss, the distribution reserve fell into negative territory for the first time in nine years and stood at CHF –39.5 billion at the end of 2023. The 2023 annual result was once again negative (CHF –3.2 billion). After the allocation of CHF 10.5 billion to the provisions and offsetting with the annual result, the distribution reserve amounts to CHF –53.2 billion. As in the previous year, this precludes the payment of a dividend and a profit distribution to the Confederation and the cantons for 2023.

Financial system stability

The SNB's performance of its tasks in the area of financial stability in 2023 was shaped by the crisis at Credit Suisse. Following the authorities' announcement on 19 March of a package of measures comprising the acquisition by UBS as well as state support, the situation at Credit Suisse stabilised. Within the framework of its statutory task to contribute to the stability of the financial system, the SNB played a key part in finding a solution. In its role as lender of last resort, it initially provided Credit Suisse with emergency liquidity assistance (ELA) against collateral within the framework of its existing facilities. On the basis of an emergency ordinance issued by the Federal Council, the SNB also granted additional emergency liquidity assistance (ELA+), as well as a liquidity assistance loan secured by a federal default guarantee (public liquidity backstop, PLB). Both ELA+ and the PLB would have had preferential rights to repayment over certain creditors in the event of bankruptcy proceedings. These new instruments established under emergency law became necessary because the collateral prepared by Credit Suisse for ELA was not sufficient to cover the high liquidity outflows.

The package of measures was crucial in managing the acute crisis at Credit Suisse and thus in avoiding a financial crisis which would have had serious negative economic consequences for Switzerland and other countries. By providing massive liquidity assistance, the SNB acted within the scope of its role intended by law and made a decisive contribution to the success of the package of measures.

The SNB's role as lender of last resort derives from its statutory task of contributing to the stability of the financial system. As lender of last resort, it provides emergency liquidity assistance against sufficient collateral to banks that are solvent but no longer able to refinance themselves on the market. Under the National Bank Act, the SNB must demand sufficient collateral from a bank when providing liquidity assistance. This principle is consistent with international practice. The SNB accepts a broad range of collateral which is determined in dialogue with the banks. The focus is on non-liquid assets which the banks are unable to use at short notice to generate liquidity in a crisis. The collateral deemed eligible by the SNB and the risk-based haircuts which it applies in its valuation of such securities are comparable to those of other central banks.

A prerequisite for illiquid assets to be used as collateral in obtaining liquidity assistance is that a valid and enforceable security interest in favour of the SNB can be established on these assets. Otherwise, should the loan not be repaid, the SNB would be unable to realise the collateral. A decisive factor for the usability of assets is that the banks have made the necessary preparations.

The SNB works continuously on being able to optimally perform its tasks as lender of last resort. This includes regularly testing the processes with the systemically important banks as well as collaborating with other key central banks that play a crucial role in granting liquidity assistance in foreign currency in the event of a crisis. Thanks to well-established processes and extensive preparation for crisis scenarios, the SNB was able to provide Credit Suisse with a very high volume of liquidity in the required currencies within a very short space of time.

The crisis at Credit Suisse highlighted weaknesses in the regulatory framework. Banks' resilience and their resolvability in a crisis should therefore be strengthened. At the same time, the current 'too big to fail' (TBTF) regulations should be reviewed to ensure that they take adequate account of the systemic importance of individual banks. In particular, the SNB recognises a need for action in the areas of early intervention, capital and liquidity requirements, and resolution planning. It is participating at both national and international level in the ongoing debate about regulatory adjustments.

In 2023, the SNB presented its 'Liquidity against Mortgage Collateral' (LAMC) initiative to the public. Banks of all sizes can find themselves in a situation where they need significant amounts of liquidity quickly despite having precautions in place that comply with regulations. The aim of the LAMC initiative is to ensure that, should the need arise, the SNB will in future be able to provide liquidity against mortgage collateral to all banks in Switzerland that have made the requisite preparations. This possibility was already available to systemically important banks. Preparatory work for this initiative started in 2019.

Against the background of rising capital market and mortgage interest rates in 2022 and 2023, momentum on the mortgage and real estate markets started to weaken gradually in the course of 2023. Despite this slowdown, the vulnerabilities on the mortgage and real estate markets persisted. With regard to credit quality, for instance, there were signs of elevated affordability risks, most notably regarding new mortgage lending to commercial borrowers. Moreover, prices on the residential real estate market continued to be higher than can be explained by fundamental factors. Against this backdrop, the capital buffers in the banking system play a crucial role.

The SNB regularly assesses the need for an adjustment of the sectoral countercyclical capital buffer (CCyB) targeted at mortgage loans financing residential real estate in Switzerland. It has been set at 2.5% since 2022. In 2023, following an in-depth analysis, the SNB decided not to submit a proposal to the Federal Council for an adjustment to the CCyB. Given the existing vulnerabilities on the Swiss mortgage and real estate markets, the current level was still deemed appropriate.

International monetary cooperation

The SNB participates in international monetary cooperation through its involvement in the relevant multilateral institutions and bodies, and its collaboration on a bilateral level with other central banks and authorities. The multilateral institutions and forums include the International Monetary Fund (IMF), the Bank for International Settlements (BIS), the Financial Stability Board (FSB), the G20 Finance Track, the Organisation for Economic Co-operation and Development (OECD), and the Central Banks and Supervisors Network for Greening the Financial System (NGFS).

In 2023, together with the Federal Department of Finance, the SNB advocated an economic policy in the IMF that promotes sustainable growth and a stable international monetary system, focusing particularly on combating inflation, reducing the risks of over-indebtedness in developing countries and emerging economies, and pursuing appropriate structural reforms. In the year under review, IMF governance and financing were also central concerns.

The 16th General Review of Quotas was concluded in December with the IMF member countries agreeing to a 50% quota increase. A decision was also reached to allow the bilateral borrowing agreements to expire at the end of 2024 and to slightly scale back the new arrangements to borrow, so that the IMF's overall lending capacity remains unchanged. The quotas have thus been restored as the IMF's primary source of financing, which was one of the main aims of the 16th Review of Quotas.

In October, the Basel Committee on Banking Supervision (BCBS) published a report on the causes of the turbulence in the US and Swiss banking sectors in March and on its preliminary lessons. The SNB worked closely with the Swiss Financial Market Supervisory Authority (FINMA) on this report, to which it contributed its experience with the crisis at Credit Suisse.

Employees from the BIS and the SNB continued their research activities at the BIS Innovation Hub Swiss Centre. Work focused on technologies for tokenising assets and on the analysis of large volumes of data.

The FSB addressed the risks in the financial system and coordinated the precautions taken to counter such risks. At the centre of its concerns were the banking turbulence in March and the effects of a higher interest rate environment on the global financial system. From the SNB's point of view, the analyses following the crisis at Credit Suisse and the US regional banks were of greatest significance.

At the invitation of the Indian G20 presidency, Switzerland again participated in the Finance Track in 2023. In this forum, the SNB emphasised the importance of pursuing a monetary policy geared towards price stability and contributed its analyses of central bank digital currency and payment systems.

Within the framework of its mandate, the SNB participates actively in discussions in the NGFS aimed at developing global approaches to dealing with climate risks and sharing knowledge and experience. In 2023, the SNB was particularly active in the workstream devoted to monetary policy, with an eye to better evaluating the effects of climate risks on key economic variables. It was also involved in the workstreams on the development of climate scenarios for the financial sector, sustainable investment practices and climate-related reporting.

Banking services for Confederation

In 2023, the Confederation's short-term financing needs increased year-on-year. On behalf of and for the account of the Confederation, the SNB issued, by auction, money market debt register claims amounting to CHF 52.5 billion and Confederation bonds amounting to CHF 8.1 billion.

Statistics

In the year under review, the SNB continued its work on projects in the areas of banking statistics and the balance of payments. The project launched in 2022 together with FINMA to introduce an individual-loan survey of the major lending banks continued. The focus in 2023 was on working out the details of the data to be collected.

The SNB introduced a new current account survey in order to better record the global production of multinational enterprises whose production and trade processes are distributed across various countries in Switzerland's balance of payments statistics.

New international standards for drawing up the balance of payments and international investment position will come into effect in 2029. The SNB has taken this opportunity to begin reviewing its surveys on cross-border capital linkages, to revise them as necessary and close any gaps in data.

1 Monetary policy

1.1 MANDATE AND MONETARY POLICY STRATEGY

Constitutional and statutory mandate

Article 99 of the Federal Constitution entrusts the Swiss National Bank, as an independent central bank, with the conduct of monetary policy in the interests of the country as a whole. The mandate is explained in detail in the National Bank Act (art. 5 para. 1 NBA), which requires the SNB to ensure price stability and, in so doing, to take due account of economic developments.

Significance of price stability

Price stability is an important prerequisite for growth and prosperity. It means that money retains its value over time. By seeking to keep prices stable, the SNB creates an environment in which it is easier for households and companies to plan economic decisions. Inflation (a sustained increase in the price level) and deflation (a sustained decrease in the price level) both impair economic development. They hinder the role of prices in allocating labour and capital to their most efficient use, and result in a redistribution of income and wealth. Because inflation hits low-income households hardest, price stability makes an important contribution to social cohesion.

Monetary policy strategy

In its monetary policy strategy, the SNB sets out the manner in which it operationalises its statutory mandate. The strategy consists of three elements. The first element specifies what the SNB understands by price stability. The second element refers to the conditional inflation forecast as the main indicator for monetary policy and as a central instrument of communication. The third element describes how the SNB implements its monetary policy by influencing the interest rate level and the exchange rate.

Definition of price stability

The SNB equates price stability with a rise in the Swiss consumer price index (CPI) of less than 2% per annum. Deflation, i.e. a sustained decrease in the price level, also breaches the objective of price stability. The SNB does not aim for a specific inflation rate in the range between 0% and 2%. As long as inflation is within this range, the objective of price stability is fulfilled. With its definition of price stability, the SNB takes into account that inflation cannot be steered precisely. It also does not have to react to every movement in inflation as long as price stability is maintained.

The SNB seeks to keep inflation within the range consistent with price stability in the medium term. The reason for this medium-term focus is that the time lags in the transmission of monetary policy to output and prices are sometimes considerable. The SNB usually only reacts to short-term price movements, e.g. due to fluctuations in commodity prices or in the exchange rate, if there is a threat of a sustained inflationary or deflationary development.

Conditional inflation forecast

The inflation forecast published quarterly by the SNB serves as the main indicator for monetary policy decisions and is a key element in its communications. The forecast refers to the next three years, which reflects the medium-term focus of monetary policy. Besides the inflation forecast, the SNB takes into consideration a large number of indicators of domestic and international economic and monetary developments and of financial stability for its monetary policy decisions. The SNB also uses the information from the talks with companies conducted by its delegates for regional economic relations.

The SNB's inflation forecast assumes that the level of the SNB policy rate applicable at the time of its publication will remain constant over the next three years. The inflation forecast published by the SNB is thus a conditional forecast that shows how the SNB expects consumer prices to develop with an unchanged interest rate. In this way, the SNB enables the public to gauge whether there will be a need for monetary policy action in the future. The SNB's inflation forecast differs from the forecasts of banks or research institutions, as these generally factor in the interest rate adjustments they anticipate.

Implementation of monetary policy

To ensure price stability, the SNB maintains appropriate monetary conditions. These are determined by the interest rate level and exchange rates. The SNB sets the level of the SNB policy rate and communicates this in its monetary policy decision. It seeks to keep the secured short-term Swiss franc money market rates close to the SNB policy rate. If necessary, the SNB may also use additional monetary policy measures to influence the exchange rate or the interest rate level. For example, in recent years the SNB has intervened in the foreign exchange market as necessary to ensure appropriate monetary conditions.

Role of interest rate level

The interest rate level in Swiss francs is significantly influenced by the SNB policy rate. An increase in interest rates tightens monetary conditions and dampens demand for goods and services. As a result, the utilisation of production capacity declines, and inflation falls. Conversely, a reduction in interest rates stimulates aggregate demand, which leads to an increase in the utilisation of production capacity and a rise in inflation. Moreover, the interest rate level also influences the exchange rate.

Role of exchange rate

Changes in the exchange rate, like changes in interest rates, have an effect on the economy and inflation. A depreciation of the Swiss franc makes imported goods and services more expensive, thereby increasing inflation. At the same time, Swiss franc depreciation stimulates exports and thus economic activity, which over time also leads to higher inflation. Conversely, an appreciation of the Swiss franc has a dampening effect on economic activity and inflation.

Foreign exchange market interventions

An independent monetary policy that is geared towards the objective of price stability fundamentally requires flexible exchange rates. Nevertheless, the SNB intervenes in the foreign exchange market as necessary to ensure appropriate monetary conditions. In doing so, it does not focus on individual currency pairs, but rather takes the overall currency situation into account. A need for foreign currency purchases arises in particular when the scope for interest rate cuts is small and the appreciation of the Swiss franc threatens to result in a deflationary development. Conversely, foreign currency can also be sold to ensure appropriate monetary conditions.

Quarterly assessment

The SNB conducts an in-depth monetary policy assessment in March, June, September and December and makes its monetary policy decision. Following the assessment, the SNB explains its monetary policy decision in detail both in a press release and at a news conference. The economic background to the decision is set out and published in the quarterly report. If circumstances require, the SNB can also take monetary policy decisions at any time between the quarterly monetary policy assessments.

Further development of digital communication channels

The SNB's communications play a key role in conveying monetary policy. The SNB's website is one of its most important communication platforms. Since its launch in 1998, it has been revised twice (in 2007 and 2018). In October 2023, the SNB website was relaunched in an overhauled format. Besides additional technological options for publishing content, it also offers a modern visual appearance and improved user navigation.

The new online presence focuses on the needs of various target audiences, enabling specialists, the media and the general public to find the information they need more quickly and easily. To this end, the website's main navigation has been reduced to three areas: organisation and tasks of the SNB, news and publications, as well as services and events. With its simplified structure, clearly colour-coded interactive concept and greater use of visual material, the new website provides improved user navigation.

Over the past three years, the SNB's presence on the social media channels X (formerly Twitter) and LinkedIn has also been continuously expanded with posts on the monetary policy assessments and other relevant SNB news. The number of users has increased significantly as a result. The SNB will continue to develop its digital presence on the basis of feedback from target groups.

Relevance of climate change for monetary policy

The effects of climate change and climate policy can also have far-reaching consequences for the economy and financial markets. For example, extreme weather events can have a short-term impact on the economy and prices by damaging infrastructure or disrupting supply chains. In the long term, a rise in temperature can lead to structural changes in various sectors of the economy and influence productivity and economic growth. Furthermore, political measures for the transition to a low-carbon economy can result in price changes for certain goods, particularly in the energy sector. The SNB analyses the above implications of climate change within the framework of its statutory mandate, and assesses the consequences that may arise for monetary policy as a result.

Research
Research activities help the SNB fulfil its constitutional and statutory mandate. They enhance the understanding of complex economic interrelationships, promote further development of analytical methods, and provide an important basis for monetary policy decisions. The SNB researches subjects connected with its core tasks, the focus being on monetary policy and financial stability.

Research and studies by SNB employees are published in the SNB Working Papers series, as well as in recognised academic journals. The SNB Research Report, which is published on an annual basis, provides an overview of the latest research activities at the SNB.

The SNB maintains a dialogue with other central banks, universities and research institutes in order to promote knowledge-sharing. It regularly holds conferences and seminars for this purpose. Four research conferences were held in 2023 (previous year: five), as well as 44 SNB research and 16 technology and finance seminars (previous year: 28 and 20 respectively).

1.2 INTERNATIONAL ECONOMIC DEVELOPMENTS

Solid global economic growth

Global economic growth was solid overall in 2023, although developments varied greatly between the individual economic areas. In many advanced economies, and in particular in Europe, economic momentum slowed markedly owing to tighter monetary policy and the loss of purchasing power due to inflation. However, the US economy remained surprisingly robust. China's exit from its zero-COVID policy led to a significant recovery.

Weak manufacturing

Although global growth momentum was solid overall, global trade contracted owing to weak manufacturing activity. The services sector was initially strong, by contrast, but it too lost momentum in the second half of the year.

Further tightening of monetary policy due to elevated inflation

Inflation declined, but was still above central banks' targets in most countries. Against this background, many central banks tightened their monetary policy further while at the same time signalling that they could maintain their restrictive monetary policy for some time yet.

Restrictive financial conditions

Financial conditions remained restrictive overall. This was above all attributable to tighter monetary policy and higher capital market yields. However, the equity markets mostly recouped the losses suffered in 2022, with the uncertainty in the international financial sector following the collapse of several regional banks in the US in the first half of the year having only a temporary impact. Differences in the extent of monetary policy tightening in the various currency areas led to changes in the interest rate differentials and thus shaped developments on the foreign exchange market. The US dollar and the euro moved sideways overall on a trade-weighted basis, while the Japanese yen depreciated significantly.

Slightly lower commodity prices

The prices of many commodities declined overall, for example in the case of industrial metals and natural gas. The price of a barrel of Brent crude fluctuated strongly over the course of 2023, closing the year roughly back where it started at around USD 80. The outbreak of war in the Middle East in October only briefly pushed up oil prices.

Economic slowdown in euro area

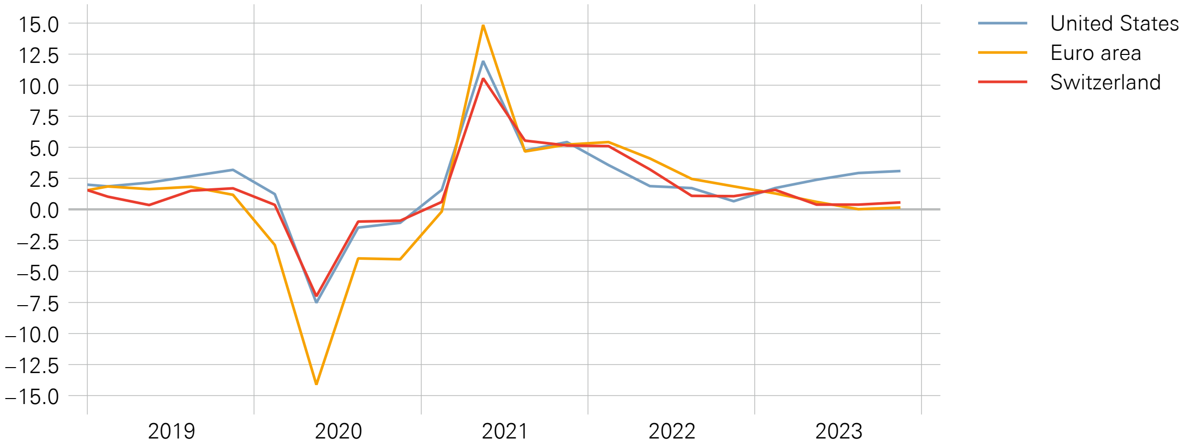
GDP growth in the euro area was weak in 2023 at 0.5%, this following the economy's recovery from the coronavirus pandemic in the preceding two years. This weakness was primarily attributable to domestic demand being negatively affected by households' loss of purchasing power due to inflation and by tighter financing conditions. Foreign demand was also subdued. Nevertheless, the labour market remained solid, thus contributing to above-average nominal wage growth.

Inflation in euro area above target

Consumer price inflation declined significantly in the euro area, but remained above the ECB's 2% target through to the end of the year. In December, it stood at 2.9%, compared to 9.2% a year earlier. Services inflation in particular was persistently high.

GROWTH OF GROSS DOMESTIC PRODUCT

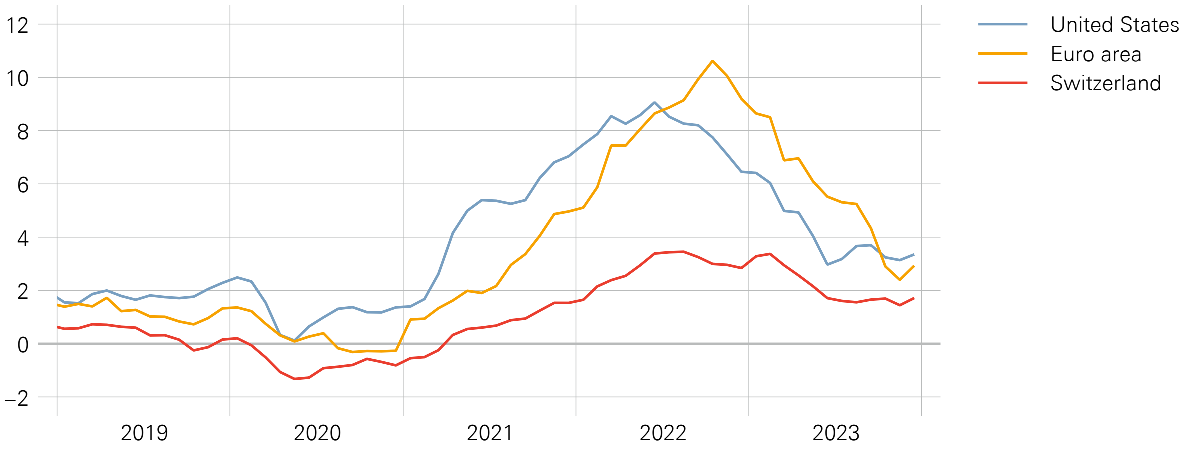
Real, year-on-year change in percent



Source(s): Refinitiv Datastream, SECO, SNB

INFLATION

Consumer prices, year-on-year change in percent



Source(s): Refinitiv Datastream, SFSO

Further tightening of monetary policy in euro area

The ECB continued to gradually tighten its monetary policy. Through to September it raised its key interest rates by a further 2 percentage points, bringing the deposit facility rate – which is relevant for steering money market rates – to 4%. Thereafter it left its key rates unchanged. The ECB also stated that it intended to keep its monetary policy sufficiently restrictive for as long as necessary to ensure inflation returns to the targeted level of 2% in a timely manner. It also began to gradually reduce its asset portfolio. The principal payments from maturing securities under its Asset Purchase Programme (APP) were no longer reinvested, with the result that the ECB's total securities holdings came to around EUR 4,700 billion by the end of the year. The ECB also announced that it would be gradually reducing the portfolio of the Pandemic Emergency Purchase Programme (PEPP) from 2024.

Robust US economy

US economic activity remained robust despite monetary and fiscal policy being tighter overall and despite the temporary tensions in the banking sector. GDP grew by 2.5%, a somewhat stronger increase than in 2022 (1.9%). The main driver was private consumption, which benefited from rising real incomes and a lower propensity to save among households. However, tighter financing conditions significantly curbed investment, especially in the case of the real estate sector. The labour market remained solid overall, indicating that production capacity was well utilised.

US inflation above target

Consumer price inflation declined in the US, and by the end of year stood at 3.4%, compared with 6.5% in December 2022. The reduction primarily reflected a return to normal for goods inflation, which had previously risen sharply. Services inflation remained elevated, however. Inflation as measured by the personal consumption expenditure deflator – the index used by the US Federal Reserve to set its 2.0% inflation target – was still above target at the end of the year at 2.6%.

Further tightening of US monetary policy

In light of the high level of inflation and strong labour market, the Fed initially continued to tighten its monetary policy. By July it had raised the target range for its policy rate by 1 percentage point to 5.25%–5.5%, and then left it unchanged at this level through to the end of the year. It also continued to reduce its balance sheet, and by the end of 2023 its portfolio of Treasury and mortgage-backed securities had decreased by around USD 930 billion to USD 7,100 billion. Furthermore, the Fed signalled that, in order to bring inflation back to its 2.0% target in the medium term, it would probably maintain a restrictive stance for quite some time.

At 5.2%, China's GDP grew more strongly than in 2022 (3.0%), and thus met the government's growth target of around 5%. The robust growth was in particular attributable to the exit from the zero-COVID policy towards the end of 2022, which led to a significant recovery in economic activity. However, the economic environment was still difficult, as the property crisis deteriorated and consumer and business sentiment remained subdued. From mid-2023 onwards the authorities implemented various measures to support the economy, such as increased infrastructure investment and targeted measures in the property sector (including an easing in lending conditions for property buyers). Monetary policy was also eased with the same intent.

Economic recovery in China after exit from zero-COVID policy

1.3 ECONOMIC DEVELOPMENTS IN SWITZERLAND

Swiss economic growth was modest in 2023, and inflation declined. Economic activity was dampened by a range of factors. Weak foreign demand, households' loss of purchasing power due to inflation and tighter financing conditions weighed on exports, consumption and investment. Value added in manufacturing decreased owing to the weak global demand, but the services sector showed solid growth. The situation in the labour market remained good overall; employment increased significantly and unemployment stayed very low.

Modest economic momentum

According to the initial estimate by the State Secretariat for Economic Affairs (SECO), growth in GDP adjusted for seasonal effects and sporting events was 1.3% in 2023. This was significantly slower than the 2.5% recorded the year before, when the economy had continued its recovery from the coronavirus pandemic.

Moderate GDP growth

Averaged over the year, GDP slightly exceeded estimated aggregate potential output. The utilisation of production capacity was thus still above-average overall, but declined gradually over the course of the year. Company surveys show that there was a particularly marked decline in the utilisation of technical capacity in the manufacturing sector. In the services sector however, it weakened only slightly and remained at an especially high level. Although the surveys showed a certain easing with regard to the labour situation, staffing levels remained tight in many industries through to the end of the year.

Production capacity utilisation still above average

Slowdown in many industries

Economic activity lost momentum in many industries. Value added declined for example in manufacturing, retail trade and banking. Manufacturing was hit by weak global demand, and retail trade by households' loss of purchasing power. The strongest decrease was recorded in banking. While the higher interest rate environment resulted in income from interest business, value added declined nevertheless, in part due to the strong outflows of foreign customers' deposits in connection with the crisis at Credit Suisse and the greater interest rate differential to other countries. By contrast, hospitality and transport services, which had been hit hard by the coronavirus crisis, continued their recovery, albeit less strongly than in 2022. The pronounced recovery in wholesale trade also supported GDP growth.

Slowing momentum in private consumption

Private consumption showed solid annual growth. In the areas of transport, hospitality and leisure, consumer spending was significantly higher, having fallen markedly during the coronavirus pandemic. Spending on healthcare and housing also continued to exhibit strong growth. Following a strong first quarter, consumption growth slowed significantly, this being primarily attributable to households' loss of purchasing power and higher interest rates.

Solid export growth

Export growth was above average, driven primarily by the robust development in the pharmaceuticals industry and solid growth in services exports. However, exports of other goods lost momentum over the year as the global economy cooled.

Decline in investment

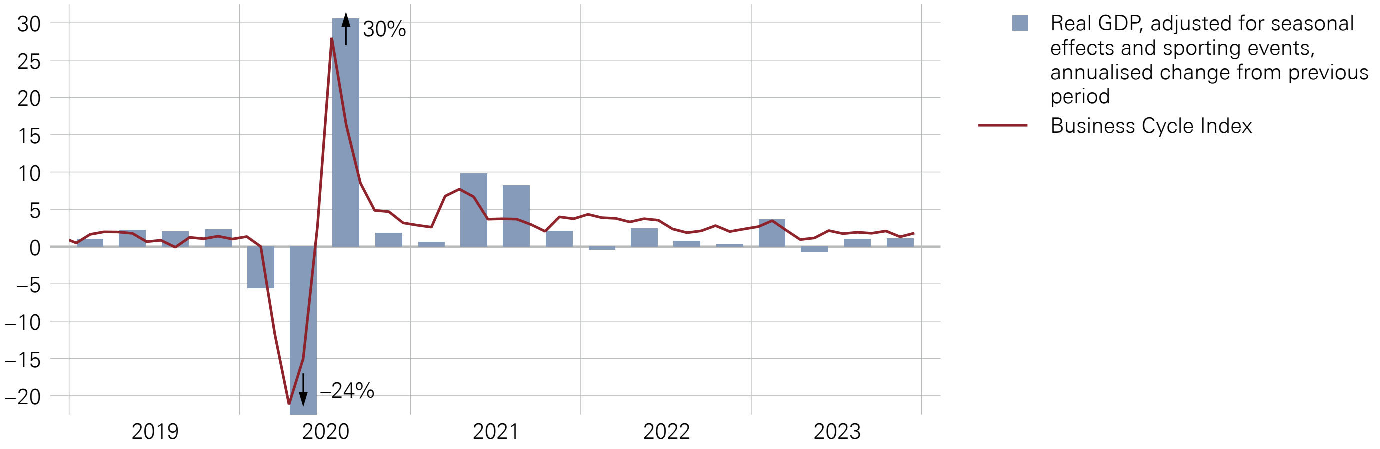
The economic slowdown and tighter financing conditions weighed on investment activity, with decreased spending on both equipment and construction.

Low unemployment

The labour market was robust overall. The unemployment rate published by SECO on the basis of regional employment office data rose over the course of 2023, but still ended the year at a historically low level of 2.2%. The unemployment rate calculated by the Swiss Federal Statistical Office (SFSO) in line with the definition of the International Labour Organization (ILO) also remained low and stood at 4.1% in the fourth quarter.

BUSINESS CYCLE INDEX AND GDP GROWTH

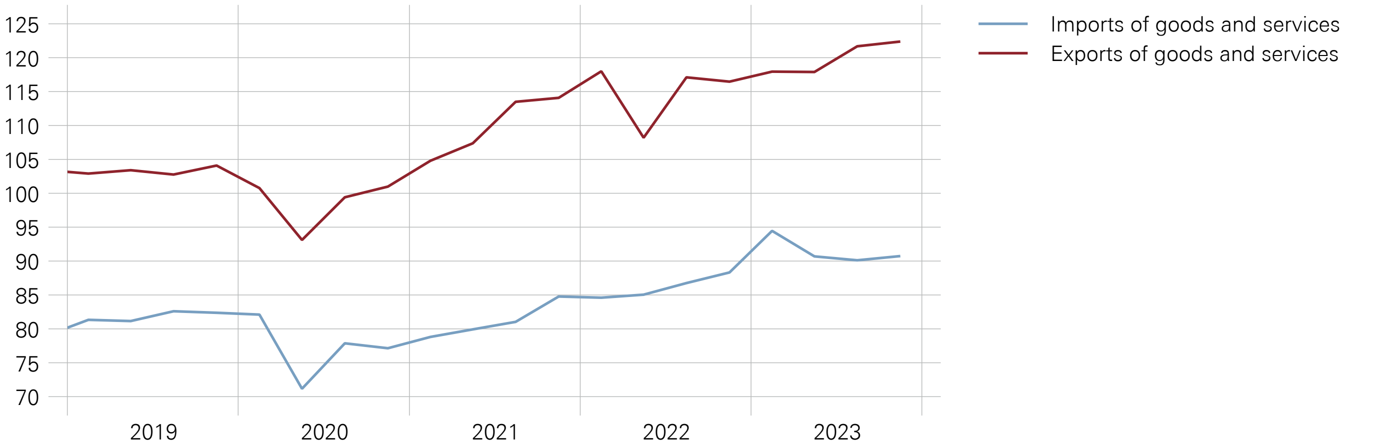
In percent



Source(s): SECO, SNB

FOREIGN TRADE

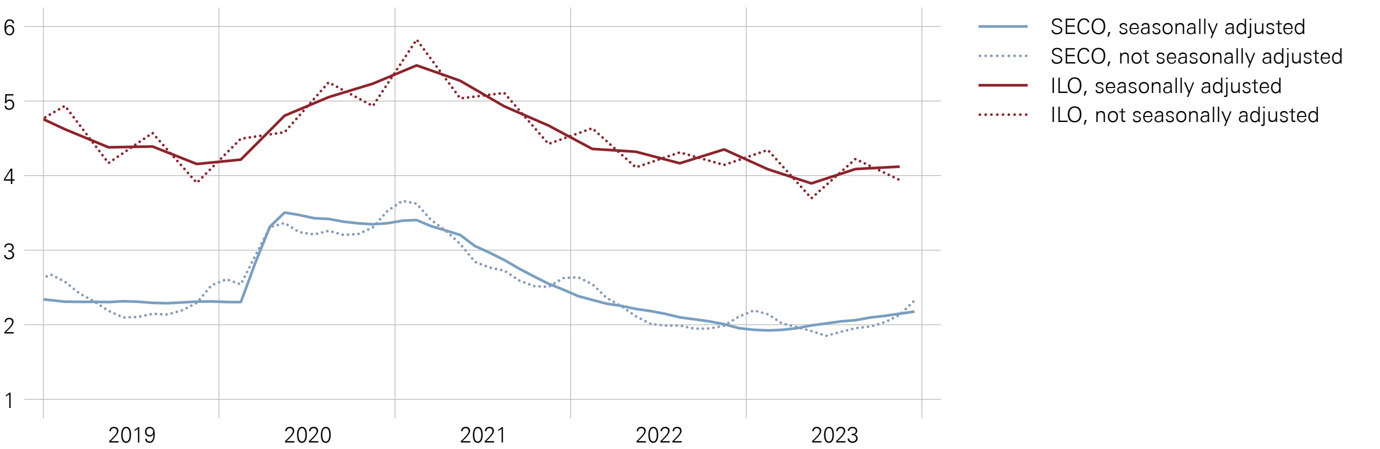
In CHF billions, in real terms, adjusted for seasonal effects and sporting events



Source(s): SECO

UNEMPLOYMENT RATE

In percent



Source(s): SECO, SFSO

Significant growth in employment

Employment increased significantly overall (2.0%). New jobs were created in many industries in the first half of the year. In the second half of the year however, employment developed very heterogeneously. There were job cuts in construction. While employment in manufacturing stagnated, it continued to rise in the services sector. Employment in banking was also higher than in the previous year, despite the acquisition of Credit Suisse by UBS.

Moderate growth in total real wage bill

Owing to inflation, real wage growth was again weak. Despite the significant rise in employment, the total real wage bill thus grew only moderately (1.2%). The share of labour income in GDP increased nonetheless, and remained high by historical comparison.

REAL GROSS DOMESTIC PRODUCT

Seasonally adjusted, year-on-year change in percent

	2018	2019	2020	2021	2022	2023
Private consumption	0.7	1.2	–3.4	1.8	4.2	2.1
Government consumption	0.8	0.8	3.8	3.3	–0.8	–0.5
Gross fixed capital formation	0.8	0.9	–1.4	2.8	1.2	–2.0
Construction	0.0	–0.9	–1.0	–3.1	–5.5	–2.1
Equipment	1.2	1.8	–1.6	6.0	4.6	–1.9
Domestic final demand[1]	**0.7**	**1.1**	**–1.9**	**2.3**	**2.6**	**0.6**
Exports of goods and services[1, 2]	3.8	2.0	–4.6	11.5	4.6	4.4
Aggregate demand[1, 2]	**2.7**	**1.9**	**–3.4**	**5.2**	**3.6**	**2.9**
Imports of goods and services[1, 2]	3.1	2.9	–5.9	5.3	6.2	6.2
Gross domestic product[2]	**2.5**	**1.5**	**–2.2**	**5.1**	**2.5**	**1.3**

1 Excluding valuables (non-monetary gold and other precious metals, precious stones and gems as well as objets d’art and antiques).
2 Adjusted for sporting events.
Source(s): SECO, SFSO

Economic picture derived from discussions with companies
The SNB bases its economic assessment on a broad array of information. This includes information gathered every quarter by the SNB's delegates for regional economic relations during discussions with over 200 companies from different industries. The findings of these talks are summarised in the 'Business cycle signals' section of the SNB's Quarterly Bulletin.

Turnover growth in the services sector was robust in the first quarter of 2023, but slowed in manufacturing. Manufacturing companies felt the impact of weaker momentum in foreign demand, especially from Europe. At the same time, the concerns cited in 2022 about the energy situation and supply chains receded into the background. The shortage of staff remained a major challenge for companies, however.

In the second quarter, it was again above all companies from the services sector that contributed to growth. By contrast, manufacturing companies reported increasingly weaker demand from Europe, especially from Germany. Thanks to the well-stocked order books, however, the utilisation of production capacity remained satisfactory. At the same time, companies were also seeing the first signs of an easing in the labour market. The acquisition of Credit Suisse by UBS had a direct impact on only a few companies.

All in all, economic growth in the third quarter was modest. While the services sector continued to expand, manufacturing stagnated. Companies frequently observed that demand, which was already weak, was being curbed further by customers reducing their inventories. Inventory levels had been increased in recent years to ensure the ability to deliver despite pandemic-related procurement bottlenecks. With the procurement situation having largely returned to normal, and the cost of capital and thus of warehousing having risen, many manufacturing companies described their inventories as being too high. In the labour market there were increasing signs that the situation was easing. Staff shortages continued to decrease, and recruitment became somewhat easier.

The trend from the third quarter continued in the fourth. Economic growth was very moderate, and was driven almost entirely by the services sector. In manufacturing, the decline in order intake over the course of the year was now reflected in significantly lower utilisation of both technical capacity and personnel resources. All in all, the recruitment of specialist staff was still said to be difficult, however. Given the decline in consumer price inflation and subdued business activity, companies expected wage growth to slow to around 2% in nominal terms in 2024.

Significantly lower producer and import price inflation

Inflation as measured by the producer and import price index declined significantly in the first months of 2023, fell into negative territory from May onwards, and by December stood at –1.1%. The average for the year was 0.2% (2022: 5.6%). The inflation rate for oil products in particular decreased markedly, but so, too, did that for intermediate goods, the latter development likely being attributable to the easing of global supply bottlenecks.

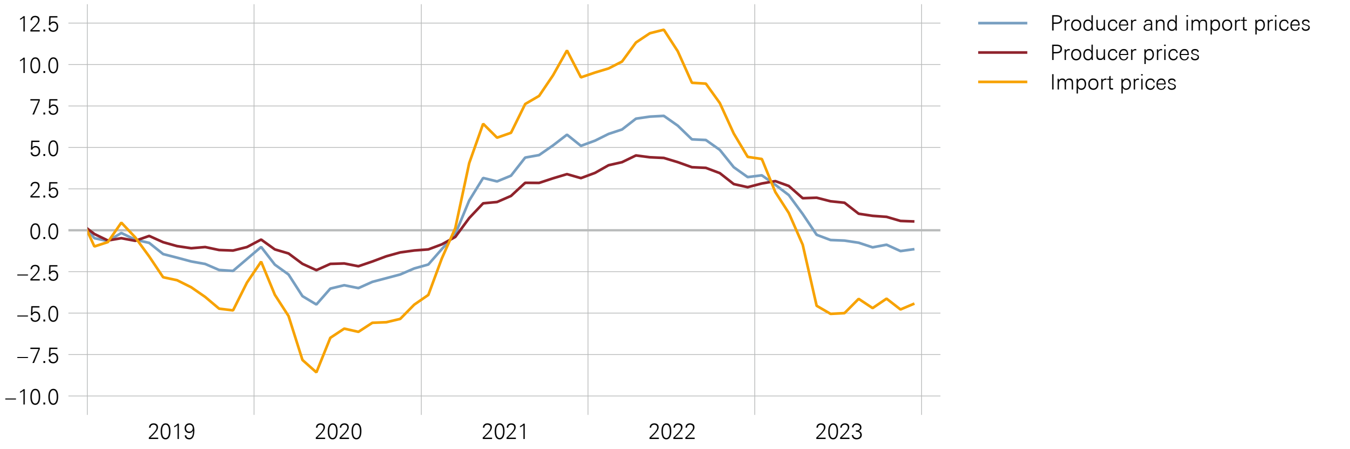
Decline in CPI inflation

After annual inflation as measured by the Swiss CPI had declined slightly towards the end of 2022, it initially rose again in the first quarter to 3.2%. It thereafter decreased significantly, and by the fourth quarter stood at 1.6%. The average for the year decreased from 2.8% in 2022 to 2.1% in the year under review.

The inflation rate for imported goods and services fell from 4.6% in the first quarter to –0.1% in the fourth. The average for the year was 1.4%, following 6.7% in 2022. The reduction was largely driven by the development of oil product prices, which were lower year-on-year. Besides the decrease in prices for oil products, another contributory factor in the decline was lower inflation rates for goods that in 2022 had still been still strongly affected by supply bottlenecks, such as, in particular, gas, cars and household goods.

PRODUCER AND IMPORT PRICES

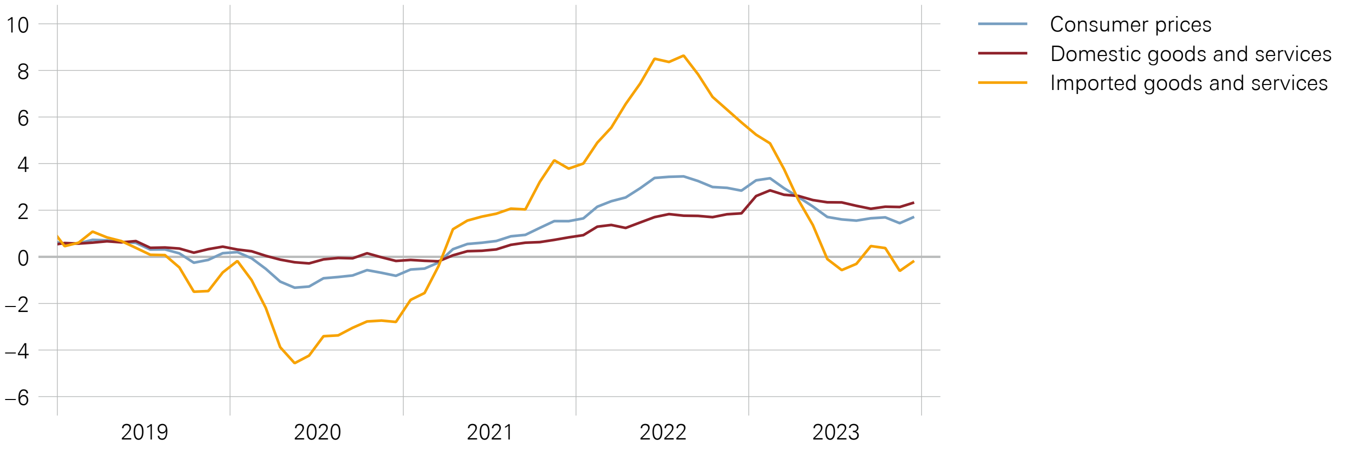
Year-on-year change in percent



Source(s): SFSO

CONSUMER PRICES

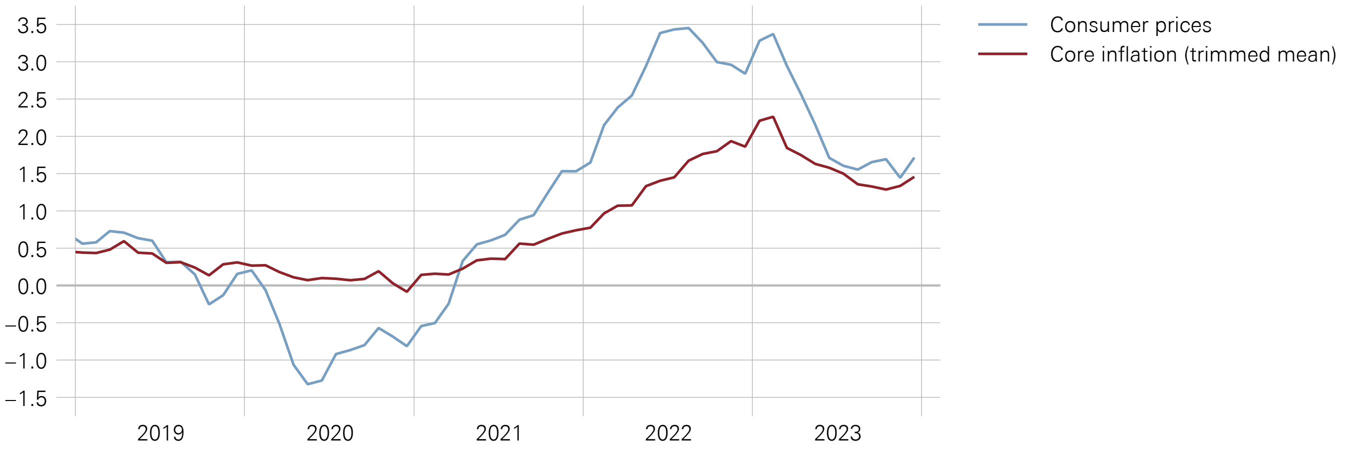
Year-on-year change in percent



Source(s): SFSO

CORE INFLATION

Year-on-year change in percent



Source(s): SFSO, SNB

The inflation rate for domestic goods and services continued to rise, however, from 1.6% in 2022 to 2.4% in 2023. Both goods and services contributed to this increase. Inflation for domestic goods increased from 2.9% to 5.4%, while that for domestic services rose from 1.1% to 1.5%. However, the development of these two inflation rates differed over the course of the year. Domestic goods inflation reached its high of 6.9% in the first quarter, and then gradually declined to 3.9% in the fourth. Meanwhile domestic services inflation rose towards the end of the year, reaching 1.7% in the fourth quarter. This increase was partly attributable to higher rents.

Core inflation slightly higher

In the short term, CPI headline inflation can be significantly affected by fluctuations in specific price components. In order to analyse the underlying inflation, the SNB therefore calculates core inflation using a trimmed mean. This measure excludes, each month, those goods and services with the largest and the smallest price changes compared to the same month one year earlier. Specifically, it factors out the 15% of items in the CPI basket with the highest price inflation and the 15% with the lowest. The core inflation rate calculated using the trimmed mean rose at the beginning of 2023 to just over 2.0%, and thereafter declined again over the remainder of the year. It averaged 1.7% for the year, compared with 1.4% in 2022.

Longer-term inflation expectations consistent with price stability throughout

Short-term inflation expectations derived from surveys mostly declined over the course of 2023. Towards the end of the year, they had returned to the range consistent with price stability. The longer-term inflation expectations hardly changed and remained within the price stability range throughout 2023.

SWISS CONSUMER PRICE INDEX AND COMPONENTS

Year-on-year change in percent

	2022	2023	2023 Q1	Q2	Q3	Q4
Consumer price index, overall	**2.8**	**2.1**	**3.2**	**2.1**	**1.6**	**1.6**
Domestic goods and services	1.6	2.4	2.7	2.5	2.2	2.2
Goods	2.9	5.4	6.9	5.8	5.0	3.9
Services	1.1	1.5	1.4	1.4	1.3	1.7
Private services (excluding rents)	1.1	1.5	1.3	1.4	1.5	2.0
Rents	1.4	1.7	1.5	1.5	1.6	2.2
Public services	0.5	0.8	1.3	1.4	0.5	0.2
Imported goods and services	6.7	1.4	4.6	1.2	–0.1	–0.1
Excluding oil products	3.9	2.9	5.0	3.9	2.1	0.8
Oil products	31.8	–10.0	1.9	–17.2	–15.7	–6.9
Core inflation						
Trimmed mean	1.4	1.7	2.1	1.7	1.4	1.4

Source(s): SFSO, SNB

1.4 MONETARY POLICY IN 2023

Further tightening of monetary policy

In 2023, the SNB continued to tighten its monetary policy with two further increases in the SNB policy rate in the first half of the year and foreign currency sales through to the fourth quarter. In doing so, it counteracted inflationary pressure, which was still high. A significant increase in energy prices, global supply bottlenecks as a result of the coronavirus pandemic and subsequent second-round effects had led to a sharp rise in inflation rates in Switzerland and abroad since 2021. In Switzerland, inflation peaked at 3.5% in August 2022. Over the course of 2023, the inflation rate fell and from June was back in the price stability range, which the SNB equates with an annual increase in consumer prices of between 0% and 2%. In December 2023, the conditional inflation forecast was also back within the range of price stability over the entire three-year forecast horizon for the first time in two years. The tightening of monetary policy, supported by the weakening of global inflation drivers, made a decisive contribution to the decline in inflation.

Increase in SNB policy rate

The SNB raised the SNB policy rate in two steps from 1.0% to 1.75% in the year under review. The first interest rate hike, of 0.5 percentage points, took place at the monetary policy assessment of 23 March 2023. At the 22 June assessment, the SNB decided to raise the policy rate by a further 0.25 percentage points in order to counter the renewed rise in inflationary pressure. At its assessment of 21 September, the SNB left its policy rate unchanged at 1.75%. However, it pointed out that a further tightening of monetary policy could become necessary to ensure price stability over the medium term. In view of the decline in inflationary pressure towards the end of the year, the SNB left the policy rate unchanged at 1.75% at its assessment on 14 December.

Money market rates close to SNB policy rate

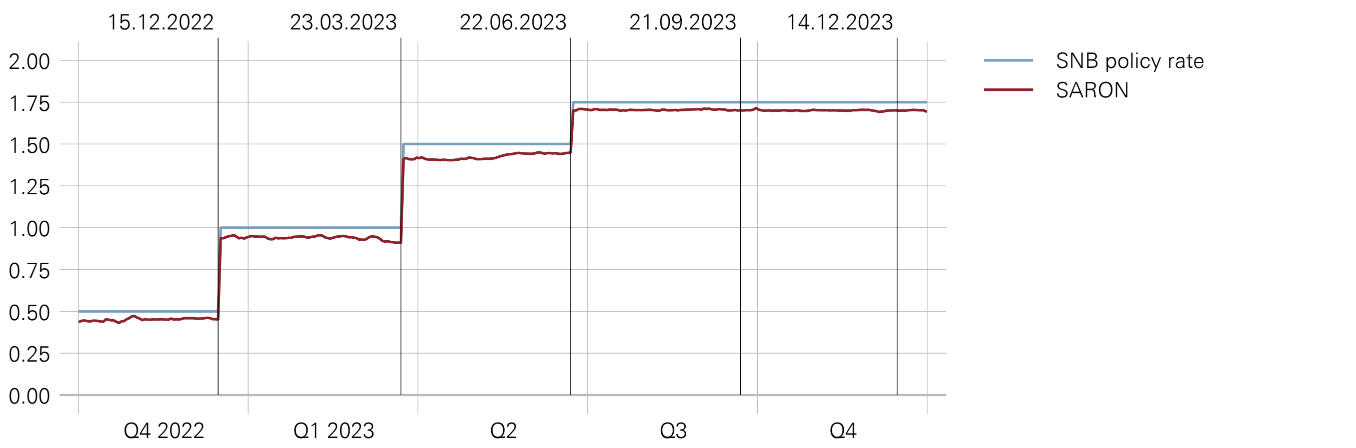
The SNB seeks to keep the secured short-term money market rates close to the SNB policy rate. The overnight rate SARON was invariably a few basis points below the SNB policy rate in the year under review. The increases in the SNB policy rate were also transmitted to the other segments of the money market and to longer maturities (cf. chapter 2.1).

Further increase in interest rate differentials versus euro area

Compared to the previous year, the difference between short-term euro interest rates and short-term Swiss franc interest rates widened further. Measured by three-month overnight index swap rates (OIS rates), the interest rate differential increased from around 1.3 percentage points at the beginning of the year to around 2.2 percentage points at the end of the year. The reason for this was the stronger tightening of monetary policy by the ECB. It increased its main refinancing rate and its deposit rate in six steps over the course of the year, from 2.5% to 4.5% and from 2.0% to 4.0% respectively, and thus by 2 percentage points in each case. In contrast, the difference between short-term dollar interest rates and Swiss franc interest rates remained practically constant throughout the year. The Fed raised the target range for the federal funds rate in four steps from 4.25%–4.50% to 5.25%–5.50%.

SNB POLICY RATE AND SARON

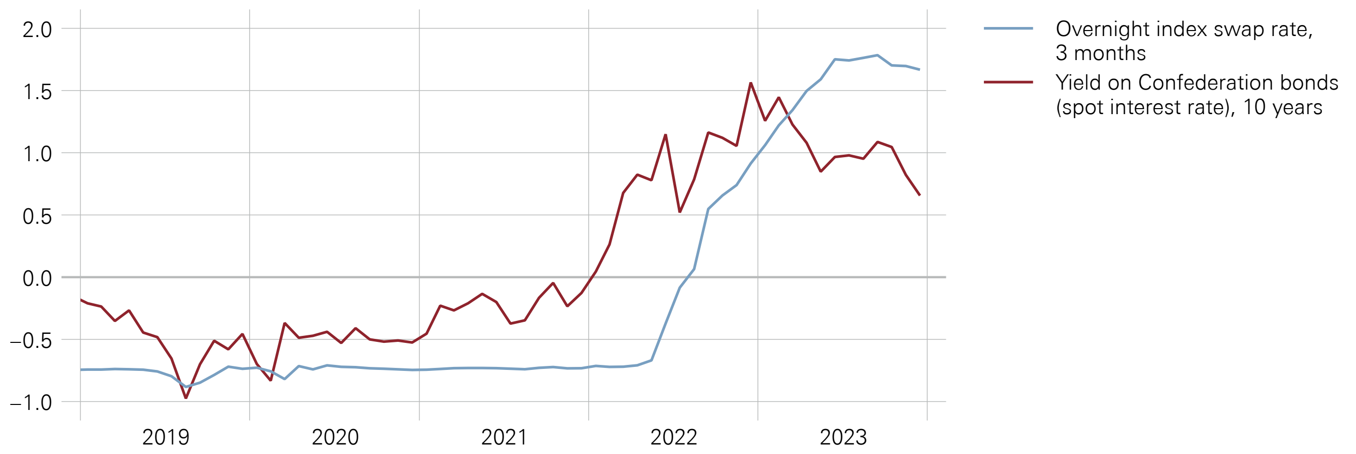
End-of-day values in percent, with dates of quarterly monetary policy assessments



Source(s): SIX Swiss Exchange Ltd, SNB

MONEY AND CAPITAL MARKET RATES

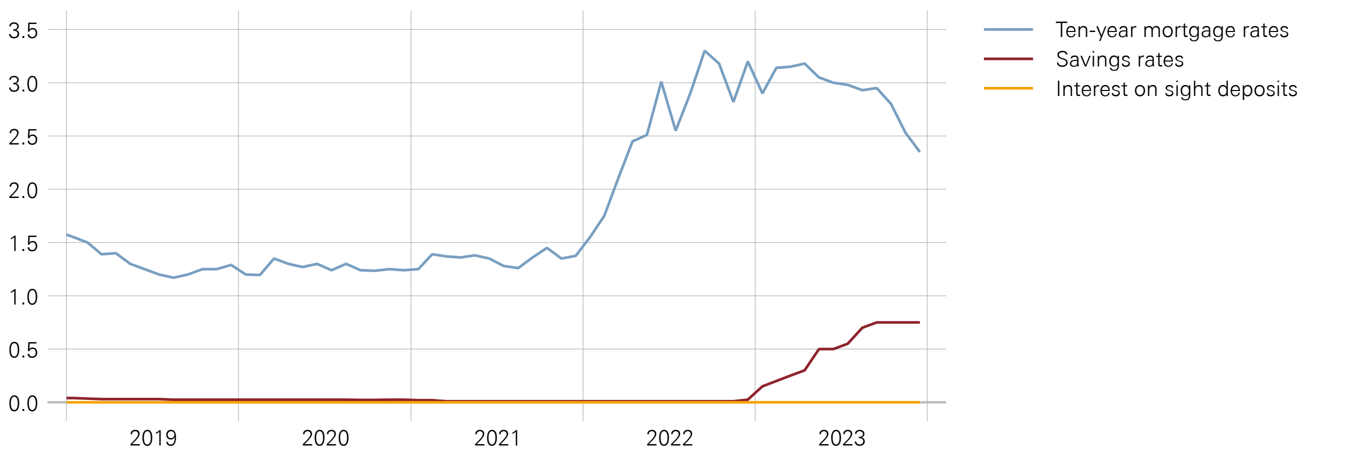
Monthly averages in percent



Source(s): SIX Swiss Exchange Ltd, SNB

BANK INTEREST RATES

Month-end values in percent



Source(s): SNB

Decline in capital market yields

Yields on Confederation bonds fell over the year under review, with the decline being most pronounced for longer-term bonds. This led to a slight inversion of the yield curve from the middle of the year. The yield on ten-year Confederation bonds was 0.7% at the end of the year, around 0.3 percentage points below that of two-year Confederation bonds. The yield curve for OIS rates also flattened over the year under review and became inverted from the middle of the year. The OIS rates reflect market expectations with regard to the average monetary policy interest rate during the term of the contract plus a risk premium. The flattening or inversion of the yield curve may indicate that market participants expect key interest rates to fall in the medium to long term.

Increase in lending and deposit rates

The OIS rates are important reference points for many other interest rates. The interest rates offered by banks largely followed the OIS rates in the year under review. The published interest rates for new mortgages initially continued to rise, but then fell again somewhat in the fourth quarter. As mortgage interest rates have risen over the past two years, the mortgage reference interest rate relevant for residential and commercial rents has also increased. This interest rate corresponds to the volume-weighted average interest rate of all outstanding bank mortgages in Switzerland, rounded to a quarter of a percentage point. It rose by a quarter of a percentage point in both June and December, from 1.25% to 1.75% (cf. box 'Mortgage reference interest rate'). The banks' average interest rate on sight deposits, which make up the bulk of deposits, remained close to zero in 2023. By contrast, average interest rates for savings and new time deposits rose in the first half of the year.

Mortgage reference interest rate
Since September 2008, a nationwide mortgage reference interest rate has been decisive for rent adjustments due to changes in mortgage rates in Switzerland. With the introduction of this reference interest rate, the previously applicable cantonal and local reference rates were standardised. The mortgage reference interest rate corresponds to the volume-weighted average interest rate of all outstanding bank mortgages in Switzerland, rounded to a quarter of a percentage point.

Adjustments to the SNB policy rate change the general interest rate level, which can also affect mortgage rates and the mortgage reference rate. Compared to the interest rates for new mortgages, the reference interest rate only adjusts very slowly to changes in interest rates because a significant part of the mortgages included in the calculation is based on long-term contracts. The latter were concluded at very low interest rates in recent years and still have a considerable weight in the calculation of the current reference interest rate.

Since the SNB policy rate was raised in June 2022, the reference interest rate has increased twice. In June 2023, it went up from 1.25% to 1.5%, which was also the first rise since its introduction in 2008. This was followed by a further increase from 1.5% to 1.75% in December 2023. A rent increase based on the mortgage reference interest rate is allowed if the reference interest rate on which the tenancy agreement is based is lower than the current reference interest rate. Changes in the reference interest rate affect rents with a time lag of several months, as the permitted rent adjustments can only come into effect on the next cancellation date at the earliest, subject to the notice period. In addition, landlords are entitled at any time to pass on 40% of the inflation that has occurred since the last rent adjustment or after the conclusion of the rental agreement, as well as general cost increases. A significant increase in rents in the national consumer price index (CPI), which is likely to be largely attributable to the rise in the reference interest rate in June, was first seen in November 2023.

As rents have a high weighting in the CPI basket, accounting for around one fifth, the statutory regulation on rent adjustments leads to a certain feedback effect between the SNB policy rate and the CPI. However, this feedback effect must not be taken as a reason for refraining from policy rate increases that are necessary for monetary policy. On the one hand, an increase in the mortgage reference interest rate only has a temporary effect on inflation. On the other, an increase in the SNB policy rate counteracts inflation overall despite the feedback effect, for example by slowing the growth of bank lending.

Foreign exchange market interventions

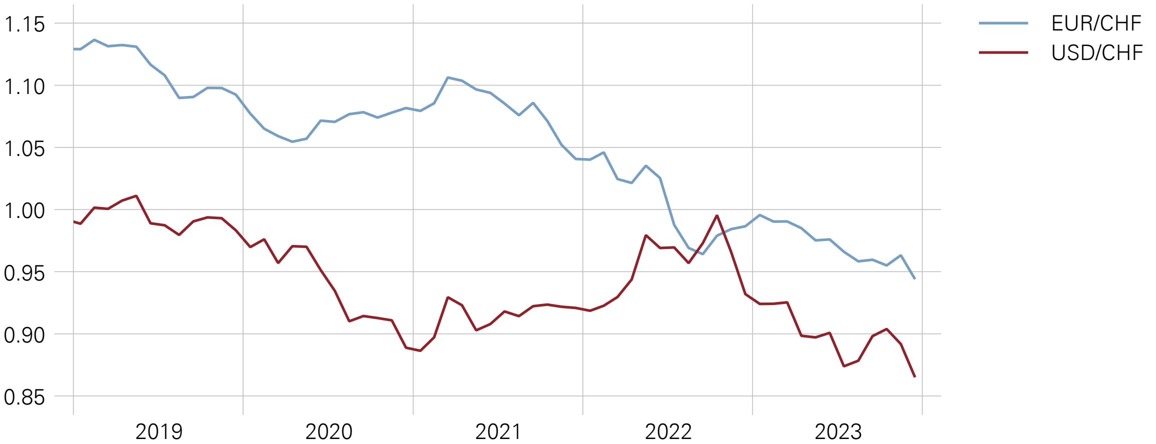
At its quarterly monetary policy assessments, the SNB regularly confirmed its willingness to intervene in the foreign exchange market if necessary in order to ensure appropriate monetary conditions. In 2023, the focus was on selling foreign currency. Over the year, the SNB made net sales of foreign exchange of CHF 132.9 billion, compared with sales of CHF 22.3 billion in 2022. The SNB's foreign currency sales contributed to the Swiss franc initially appreciating roughly in line with inflation differentials against other countries. In doing so, they prevented a weakening of the Swiss franc in real terms and thus helped in tightening monetary conditions. Towards the end of the year, the inflation rate fell significantly and the inflation forecasts at the December monetary policy assessment indicated sustained price stability. The Swiss franc also appreciated noticeably in real terms. Accordingly, the SNB announced that it was no longer focusing on foreign currency sales in its foreign exchange market activities.

Appreciation of Swiss franc

The nominal trade-weighted external value of the Swiss franc rose by more than 7% over the course of the year. In real terms it increased less strongly (by just under 5%), due to higher inflation abroad. The Swiss franc gained around 7% in nominal terms and 3% in real terms against the euro. It also appreciated against the US dollar, by around 7% in nominal terms and 5% in real terms. Besides the inflation differentials, the nominal appreciation reflected market expectations regarding a possible easing of monetary policy by the ECB and the Fed in 2024. In some phases of heightened uncertainty, the Swiss franc also appreciated due to its role as a safe haven. Overall, the nominal appreciation of the Swiss franc in the year under review helped to dampen the inflation of imported goods and services and thus again contributed to the decline in inflation. The appreciation in real terms took place mainly in the last months of the year.

EXCHANGE RATES

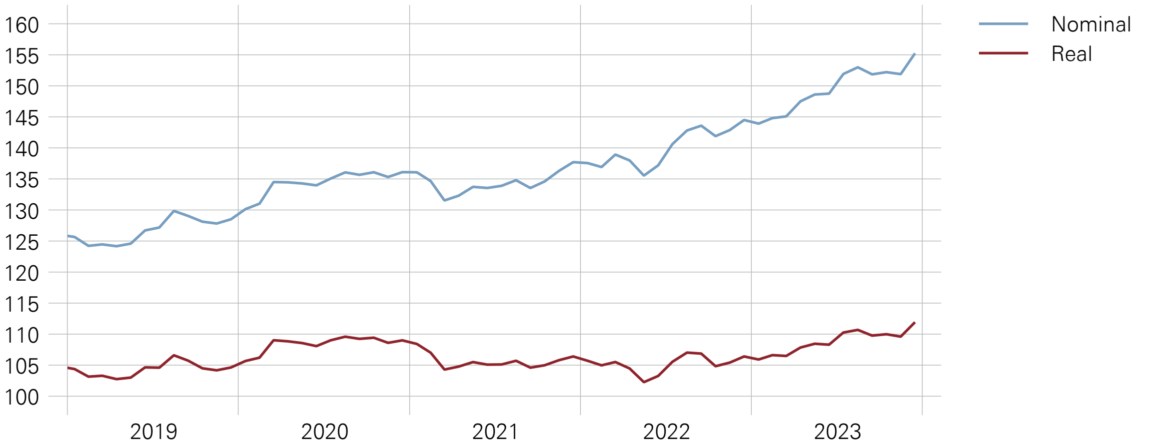
Monthly averages



Source(s): SNB

TRADE-WEIGHTED SWISS FRANC EXCHANGE RATES

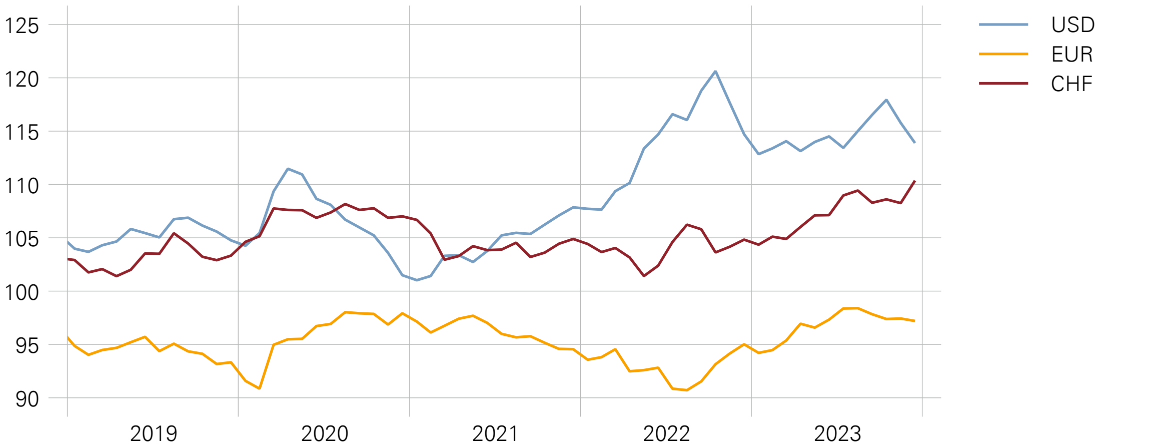
Index: average since 1990 = 100



Source(s): SNB

TRADE-WEIGHTED EXCHANGE RATES IN INTERNATIONAL COMPARISON

Real, 61 countries, index: average since 1990 = 100



Source(s): BIS, SNB

Decline in monetary base

The monetary base, which is made up of banknotes in circulation and domestic banks' sight deposits with the SNB, declined by 4.2% over the course of 2023. This continued decrease was due to the SNB's liquidity-absorbing operations and foreign currency sales. At the end of December 2023, the combined volume of liquidity-absorbing money market transactions and SNB Bills totalled CHF 148 billion. In April, these liquidity-absorbing operations had temporarily risen to CHF 214 billion, as the SNB partially reabsorbed the ample liquidity assistance provided to Credit Suisse from the money market (cf. chapter 2.3).

Monetary aggregates and bank lending

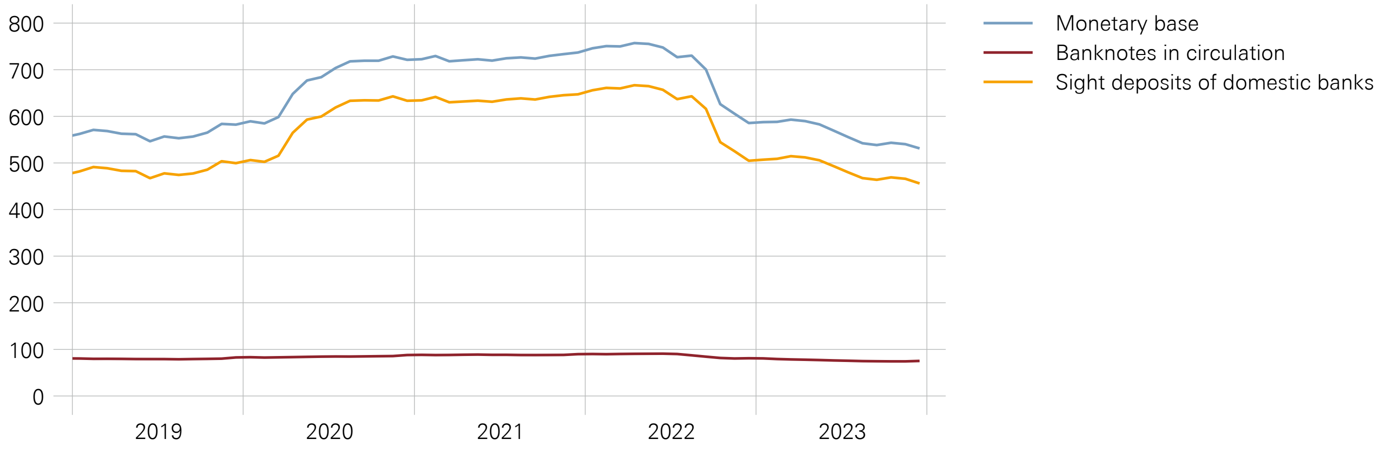
The broad monetary aggregates shrank in 2023, due to the rise in interest rates over the last two years. At the end of 2023, the monetary aggregate M2 (currency in circulation, sight deposits, transaction accounts and savings deposits) was 12.1% lower year-on-year. At 2.0%, the monetary aggregate M3 (M2 plus time deposits) fell less sharply than M2, as interest rates on time deposits rose significantly with the policy rate hikes and longer-term bank deposits became correspondingly more attractive. By contrast, the increase in bank loans to domestic customers continued in 2023. The volume of mortgage lending, which accounts for around 85% of bank loans, was 2.5% larger at the end of 2023 than a year earlier and thus growth was weaker year-on-year (3.5%). Other bank loans in Swiss francs are generally much more volatile than mortgage loans. Nevertheless, their volume at the end of 2023 was roughly at the same level as at the end of 2022.

International scenario for forecasts

The forecasts published by the SNB as part of its quarterly monetary policy assessments of March, June, September and December are based on scenarios for the global economy. An oil price assumption is also taken into account, which corresponds approximately to the market price per barrel of North Sea Brent at the time of the forecast. In December 2022, the SNB assumed that the global economy would grow only modestly in 2023 against the backdrop of the ongoing tense energy situation in Europe, the strict coronavirus containment measures in China and the tightening of monetary policy by many central banks. At that time, it anticipated global economic growth of 0.8% for 2023.

MONETARY BASE AND COMPONENTS

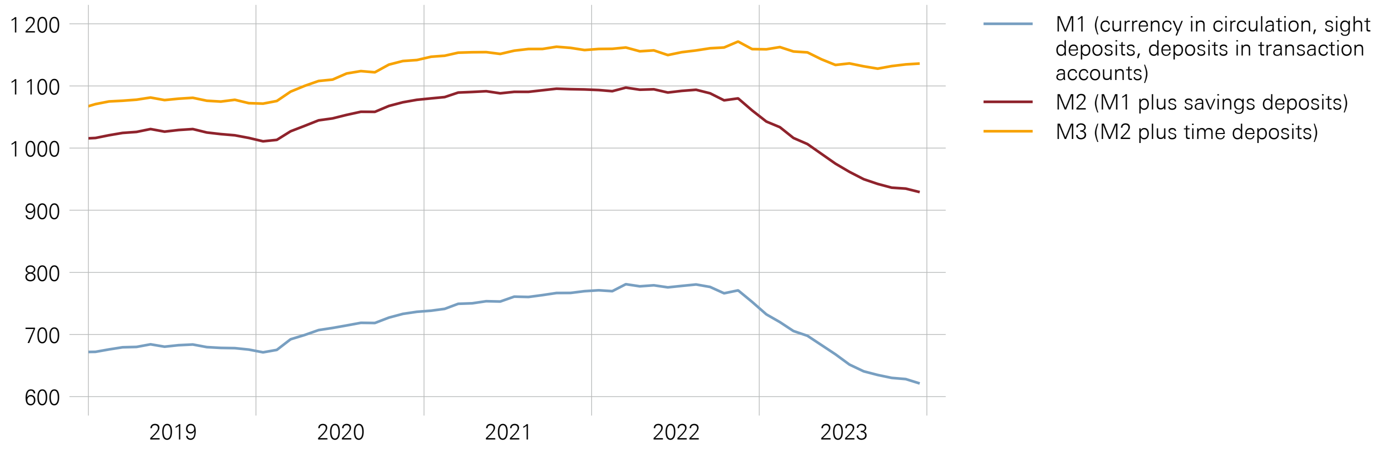
Monthly averages in CHF billions



Source(s): SNB

LEVEL OF MONETARY AGGREGATES

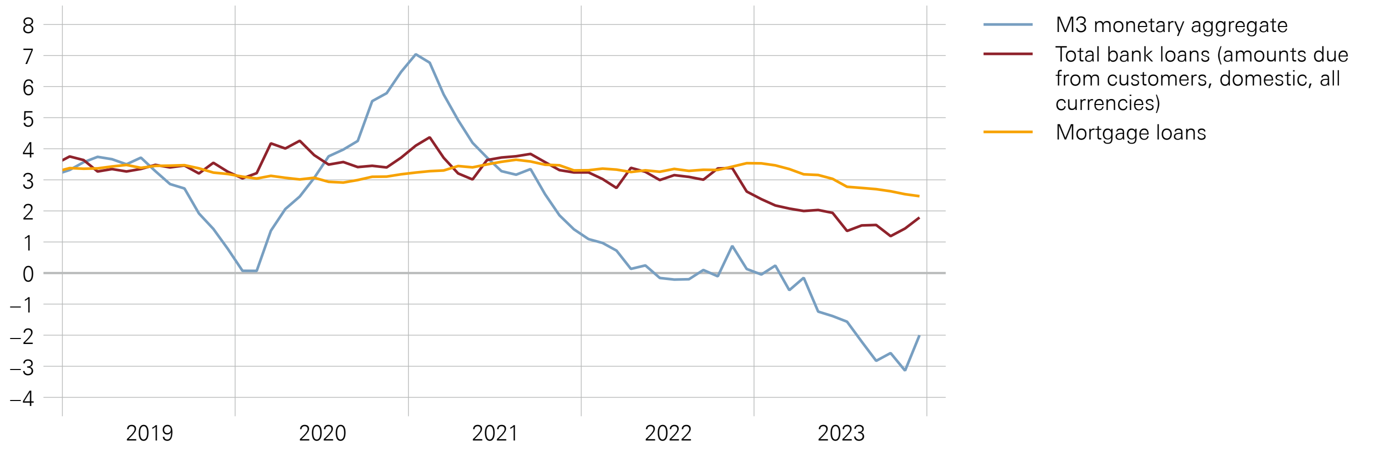
Month-end values in CHF billions



Source(s): SNB

GROWTH OF MONETARY AND CREDIT AGGREGATES

Year-on-year change in percent



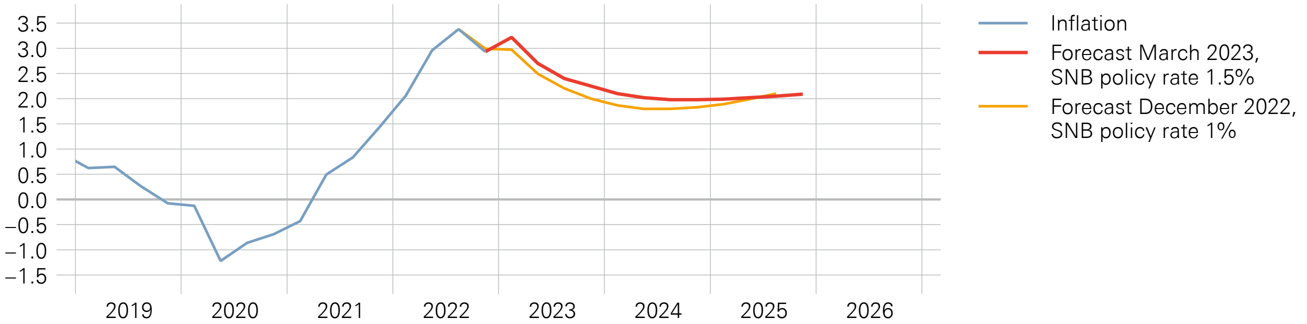
Source(s): SNB

In March 2023, the SNB raised its growth forecast for the global economy significantly to 3.3%, as it became apparent that the advanced economies would perform better than expected. The energy shortage in Europe had less of an impact on economic activity than assumed. In addition, the discontinuation of the zero-COVID policy in China led to a strong recovery in the Chinese economy. However, the global growth outlook for the remainder of 2023 remained rather subdued overall. While the US economy developed more robustly than expected, there were increasing signs of an economic slowdown in Europe in particular. At the end of the year, the SNB's growth forecast for the global economy in 2023 was 3.7%. The SNB expects global economic growth to slow to 3.0% in 2024.

Growth forecast for Switzerland

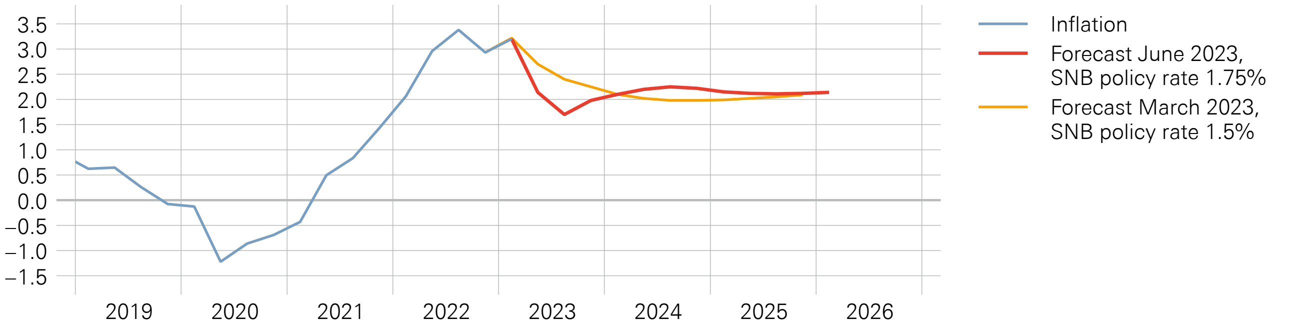
At the end of 2022, the SNB had forecast GDP growth for Switzerland of around 0.5% for 2023. This reflected the assumption that weaker demand from abroad and high energy prices would markedly curb economic activity. In March 2023, the SNB raised its forecast slightly to around 1.0% as economic growth looked set to be somewhat more positive in the first quarter. In June and September, the SNB maintained its moderate growth forecast from March. In addition to weaker demand from abroad and the loss of purchasing power due to inflation, tighter financing conditions also continued to have a dampening effect. In December, the SNB left its growth forecast for 2023 unchanged at around 1.0% and announced that it expected growth of between 0.5% and 1.0% in 2024.

CONDITIONAL INFLATION FORECAST OF MARCH 2023
Year-on-year change in Swiss consumer price index in percent



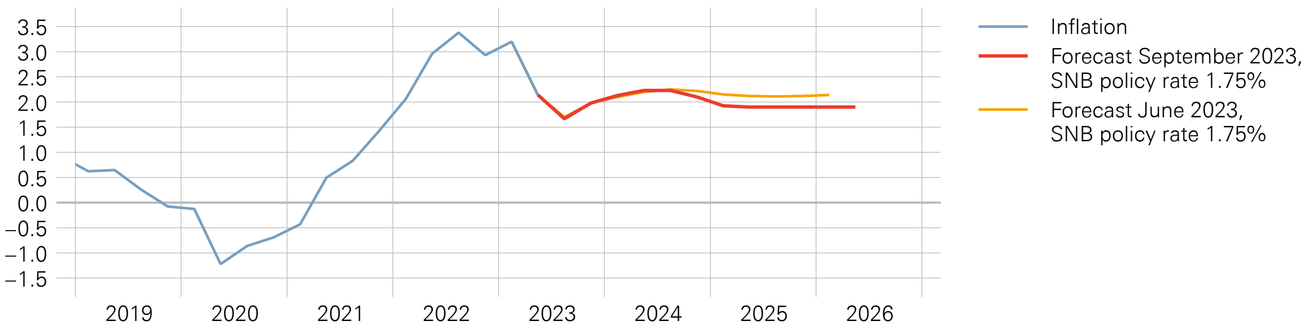
Source(s): SFSO, SNB

CONDITIONAL INFLATION FORECAST OF JUNE 2023
Year-on-year change in Swiss consumer price index in percent



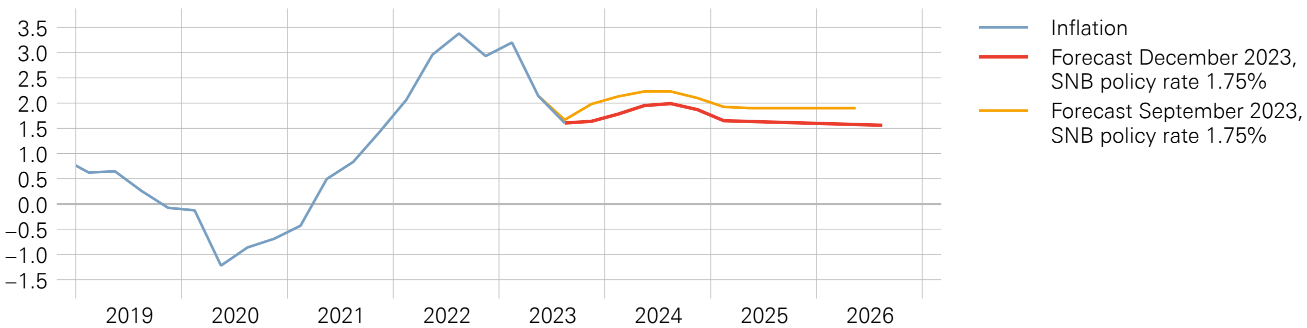
Source(s): SFSO, SNB

CONDITIONAL INFLATION FORECAST OF SEPTEMBER 2023
Year-on-year change in Swiss consumer price index in percent



Source(s): SFSO, SNB

CONDITIONAL INFLATION FORECAST OF DECEMBER 2023
Year-on-year change in Swiss consumer price index in percent



Source(s): SFSO, SNB

Conditional inflation forecast

The conditional inflation forecasts published as part of the quarterly monetary policy assessments are based on the applicable SNB policy rate and the assumption that it will remain constant over the three-year forecast horizon. In March 2023, a policy rate of 1.5% was assumed. In June, the assumption was raised to 1.75%, where it has remained since. At the monetary policy assessments in March and June, the conditional inflation forecast was revised upwards for the medium term despite the continued tightening of monetary policy. The upward revisions were mainly due to stronger-than-expected second-round effects, higher electricity prices, rent increases and persistently high inflation abroad. However, due to the stronger Swiss franc and lower-than-expected energy prices, the short-term forecast was also revised down in June 2023. In September and December, the economic slowdown and associated slightly weaker second-round effects, the somewhat reduced inflationary pressure from abroad and the appreciation of the Swiss franc led to a downward revision of the inflation forecast.

The conditional inflation forecast for 2023 was 2.4% in December 2022 and rose to 2.6% in March 2023, before falling back again. It stood at 2.2% in June and September, and at 2.1% in December. The conditional inflation forecast for 2024 was 1.8% in December 2022, but was revised upwards to 2.2% in March and June, and left there in September. It was then adjusted downwards to 1.9% in December. At the end of the year, the conditional forecast for 2023 was therefore just above and the forecast for 2024 within the range of 0% to 2%, which the SNB equates with price stability. The forecast was also in this range for 2025 and 2026.

Ongoing uncertainty

In its communications, the SNB regularly drew attention to risks that could lead to an adjustment in the forecasts and necessitate a reassessment of the situation. The greatest uncertainties in the year under review included the development of inflation and the extent of the economic slowdown abroad, the war in Ukraine and the energy situation in Europe, the possible effects of the turmoil in the global financial sector in the spring and the conflict in the Middle East.

Work on central bank digital currency for financial institutions

The SNB has for some time been looking into the question of how central bank digital currency for financial institutions (wholesale central bank digital currency, or wholesale CBDC) could be used for the settlement of financial transactions on infrastructures based on distributed ledger technology (DLT). With Helvetia Phase III, the SNB transferred the previous work on wholesale CBDC to a pilot project. Wholesale CBDC in Swiss francs is available for the settlement of real transactions in tokenised bonds on the regulated DLT platform of SIX Digital Exchange (SDX). The SNB is thus playing a leading role among central banks in this area.

The pilot began in December 2023 and is scheduled to run until June 2024. Six pilot banks will carry out the transactions on the DLT platform as intermediaries for issuers and investors. The tokenised bonds will be settled against wholesale CBDC on a delivery-versus-payment basis. In addition to the SDX platform, the project uses the Swiss Interbank Clearing infrastructure (SIC system) for the tokenisation of central bank money and that of SIX SIS for integration with the traditional bond settlement infrastructure. Furthermore, SIX Repo and SDX test systems are also being used to explore the trading and settlement of repo transactions in wholesale CBDC.

In addition to wholesale CBDC, which is the focus of the pilot, alternative models for the settlement of tokenised assets are conceivable. The SNB is examining two of these models, namely the linking of the settlement systems for such assets with the existing SIC system and the use of private, bankruptcy-protected token money that is backed by central bank money. This work does not mean that the SNB intends to introduce a wholesale CBDC on a permanent basis, does not support other models in this area, or prefers certain technical solutions. Rather, the SNB aims to test various use cases for CBDC and the settlement of tokenised assets with a view to how it can best fulfil its mandate in the future.

The SNB has undertaken other wholesale CBDC initiatives in collaboration with the BIS Innovation Hub Swiss Centre, including phases I and II of Project Helvetia, which were designed as proofs of concept and were completed in 2020 and 2022 respectively. At that time, the technical and legal feasibility of issuing wholesale CBDC was analysed in test environments and its integration into the core banking systems of commercial banks and the SNB was successfully tested. In addition to Project Helvetia, Project Jura (2021) and Project Mariana (2023) investigated the cross-border settlement of financial transactions with wholesale CBDC in various currencies (cf. 2021 and 2022 Annual Reports).

Annual loss: significance for monetary policy

The SNB's balance sheet, at CHF 795 billion, is large. This is due to the SNB's foreign currency purchases over 15 years from the start of the global financial crisis in 2007, these having being made in a phase marked by many international shocks and already very low interest rates. The foreign currency purchases counteracted an excessive appreciation of the Swiss franc and thus helped to stabilise the economy and price developments. In 2022 and 2023, however, the balance sheet decreased. This was primarily due to valuation losses in 2022 and foreign currency sales in 2023.

With the balance sheet still substantial, the potential for high returns remains, but so too does the risk of large losses. Fluctuations in exchange rates and changes in bond and share prices can have a strong influence on the SNB's investment performance, because with a sizeable balance sheet, even a small percentage gain or loss corresponds to a significant amount of Swiss francs in absolute terms.

In 2023, the SNB reported a loss of CHF 3.2 billion, following a loss of CHF 132.5 billion in the previous year. The loss in the year under review was the result of the appreciation of the Swiss franc against various investment currencies, as well as the interest paid in Swiss francs by the SNB on sight deposits held by it and on its liquidity-absorbing operations. Due to the loss, the SNB's equity capital decreased from CHF 65.8 billion to CHF 62.6 billion.

Central banks remain fully capable of acting and fulfilling their monetary policy mandate with low or even negative equity capital. Furthermore, they can rebuild their equity capital in the long term due to their monopoly on issuing legal tender. That said, negative equity capital over an extended period of time can pose a threat to the credibility and independence of a central bank. It is therefore important that the SNB has sufficient loss-absorbing equity capital and, given that its balance sheet is still large, that it continues to build up reserves and only makes distributions if the financial situation permits.

However, the decisive factor in assessing the SNB's success is not its financial result for the year. Rather, the SNB should be judged on whether it fulfils its mandate of ensuring price stability while taking due account of economic developments.

Continuation of work to prepare for possible power shortage
The SNB had made far-reaching preparations in view of a possible power shortage in the winter of 2022/23. The goal was to ensure the fulfilment of the SNB's tasks under all relevant electricity saving or electricity rationing scenarios.

Compared to the previous year, there was a significantly lower risk to electricity and gas supply last winter. However, some uncertainties remain, particularly in the medium and longer term. A power shortage would affect the whole of Switzerland and would have a major impact on the economy and society. Financial services could also be affected.

The SNB is well equipped to handle short-term interruptions in the power supply autonomously. In order to be able to cope with a nationwide power shortage lasting several days or even weeks, additional precautions are needed to strengthen the operational resilience of the financial centre. As part of its mandate to supply and distribute cash and facilitate cashless payments, the SNB again coordinated the corresponding work in these areas during 2023. The focus here was on the numerous dependencies on third parties (financial market infrastructures, counterparties, service providers, suppliers). In addition, the SNB increased the resilience of its own operations with numerous measures.

2
Implementation of monetary policy

2.1 BACKGROUND AND OVERVIEW

Mandate

It is the task of the Swiss National Bank to provide the Swiss franc money market with liquidity (art. 5 para. 2 (a) National Bank Act (NBA)). It implements its monetary policy by steering the interest rate level on the money market. In so doing, it seeks to keep the secured short-term Swiss franc money market rates close to the SNB policy rate. The SNB can influence money market rates by means of its open market operations or adjust the interest rate on sight deposits held by banks and other financial market participants at the SNB. If necessary, the SNB may also use additional monetary policy measures to influence the exchange rate or the interest rate level.

Increase in SNB policy rate

The Swiss National Bank implements its monetary policy by setting the SNB policy rate. In so doing, it seeks to keep the short-term Swiss franc money market rates close to the SNB policy rate. The focus in this regard is the interest rate for secured overnight money, SARON (Swiss Average Rate Overnight). The SNB continued the monetary policy tightening it had begun the previous year and raised its policy rate twice in 2023. The first rate hike came in March, with an increase of 0.5 percentage points to 1.5%. The second hike, 0.25 percentage points in June, increased the policy rate to 1.75%. In September and December, the SNB left its policy rate unchanged.

Implementation of monetary policy

To implement its monetary policy on the money market, the SNB uses two levers which together ensure that the secured short-term Swiss franc money market rates are close to the SNB policy rate. The first lever is a tiered remuneration of the sight deposits that banks and other financial market participants hold at the SNB. This remuneration enables effective steering of money market rates when the SNB policy rate is positive and there is high excess liquidity. For sight deposits up to a certain threshold, the SNB policy rate is applied (cf. chapter 2.3, box ‘Calculation of institution-specific thresholds for tiered remuneration of sight deposits’). Sight deposits above this threshold are remunerated at the SNB policy rate minus a discount of 0.5 percentage points. Since 1 December 2023, sight deposits which are held to meet minimum reserve requirements have no longer been remunerated. Tiered remuneration of sight deposits creates an incentive to trade sight deposits in the Swiss franc money market in that institutions with sight deposits above their threshold conclude money market transactions with institutions which have not yet exceeded theirs. An active and well-functioning money market is essential for the transmission of monetary policy and is the basis for the robust calculation of SARON.

The second lever deployed in the implementation approach is the absorption of reserves by way of open market operations. These operations reduce sight deposits and thereby the liquidity supply in the money market.

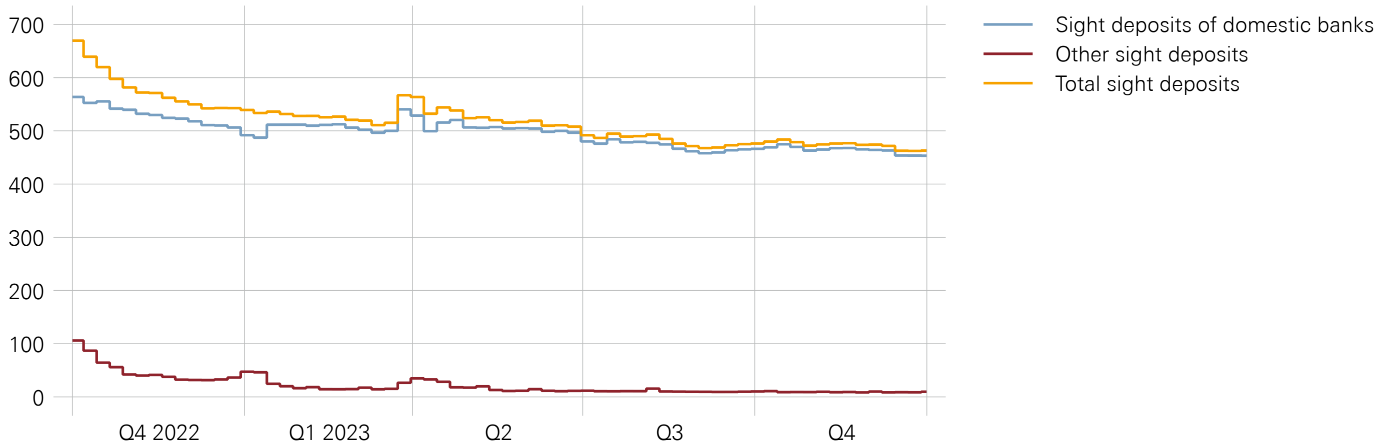
In order to contribute to appropriate monetary conditions, the SNB again intervened in the foreign exchange market in 2023. At the monetary policy assessment in December, however, it stated that it was no longer focusing on foreign currency sales.

Sight deposits at the SNB

The SNB maintains sight deposit accounts for banks and other financial market participants. The balances on these accounts (sight deposits) at the SNB are a financial market participant's most liquid assets since they can be used immediately to effect payments and are considered legal tender. Domestic banks' sight deposits at the SNB count towards satisfying minimum reserve requirements. Furthermore, banks require sight deposits as liquidity reserves. The SNB influences the level of sight deposits by deploying its monetary policy instruments. In addition to sight deposits held by domestic banks, total sight deposits include sight liabilities towards the Confederation, sight deposits of foreign banks and institutions, as well as other sight liabilities.

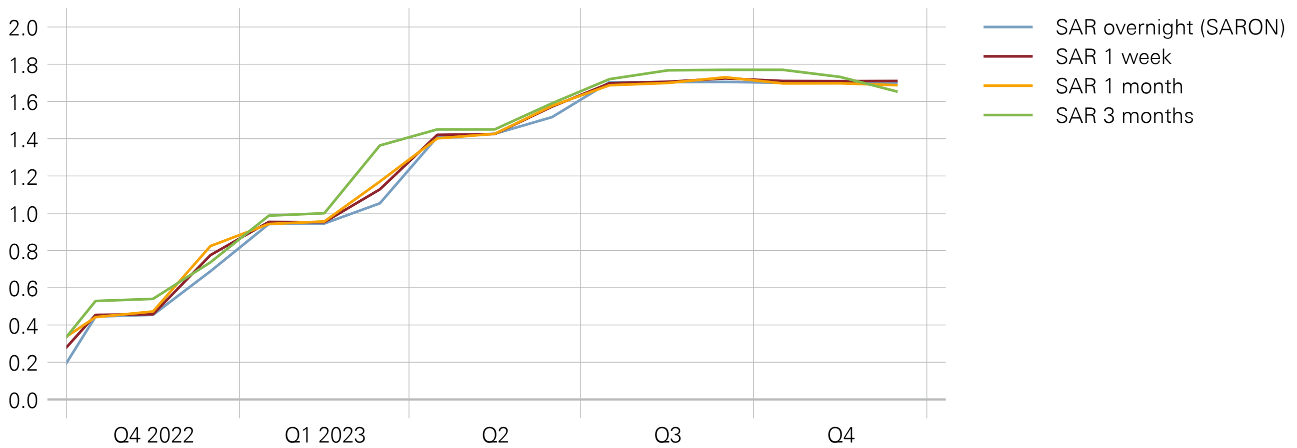
The level of sight deposits influences activity on the money market, where liquidity is redistributed between the individual financial market participants. Banks seeking to place funds on a short-term basis provide liquidity in the form of a loan to other banks that require short-term refinancing. These loans can be granted on a secured or unsecured basis. If there is ample liquidity in the financial system, the need for banks to adjust their liquidity positions declines and so too does trading activity on the money market. Tiered remuneration of sight deposits encourages liquidity redistribution between sight deposit account holders, thereby promoting money market activity.

SIGHT DEPOSITS AT THE SNB
Weekly averages in CHF billions



Source(s): SNB

SWISS FRANC REFERENCE RATES (SWISS AVERAGE RATES, SAR)
Monthly averages of end-of-day values in percent



Source(s): SIX Swiss Exchange Ltd

2.2 DEVELOPMENTS IN THE MONEY AND FOREIGN EXCHANGE MARKETS

Decline in sight deposits

Sight deposits held at the SNB totalled CHF 463 billion at the end of 2023 and were thus lower year-on-year (2022: CHF 526 billion). The decline in sight deposits is mainly due to their absorption for the purposes of steering money market interest rates and to foreign currency sales. The liquidity assistance provided to Credit Suisse led to a rise in sight deposits (cf. chapters 2.3, 2.6 and 6.2).

Money market rates close to SNB policy rate

As a result of the tiered remuneration and absorption of sight deposits, the relevant Swiss franc money market rates remained close to the SNB policy rate in 2023. Liquidity-absorbing repo transactions and the issuance of short-term SNB debt certificates (SNB Bills) were used to absorb sight deposits. Following the increases in the SNB policy rate, after a brief transitional phase in each case SARON remained close to the policy rate. Between March and May, SARON temporarily came under downward pressure against the backdrop of the crisis at Credit Suisse.

Stable trading activity on repo market

The tiered remuneration of sight deposits has created an incentive for account holders with balances above or below the threshold to trade their reserves with one another. This trading has shaped activity on the repo market (interbank market).

Activity on the money market continued to increase in the year under review. The daily turnover on the repo market was CHF 20.2 billion on average (2022: CHF 16.6 billion). The funds were traded at rates close to the SNB policy rate. The number of financial market participants active on the repo market decreased by some 2% compared to the previous year.

Principles of collateral policy

The SNB may enter into credit transactions with banks and other financial market participants on condition that sufficient collateral is provided for the loans (art. 9 NBA). In so doing, the SNB protects itself against potential losses from its credit transactions. By setting uniform criteria for eligible collateral, the SNB also ensures equal treatment of its counterparties.

The ‘Guidelines of the Swiss National Bank on monetary policy instruments’ set out, among other things, the securities the SNB will accept as collateral as part of open market operations and the standing facilities. The SNB’s open market operations on the money market and the use of the SNB’s standing facilities are conducted to a significant extent via repo transactions. The ‘Instruction sheet on collateral eligible for SNB repos’ details the criteria which securities must meet in order to be accepted as collateral in repo transactions with the SNB.

Only Swiss franc and foreign currency securities that fulfil stringent requirements with regard to credit rating and liquidity are permitted as collateral by the SNB. New kinds of security, such as distributed ledger technology securities, may also be accepted as collateral for SNB repos, provided they meet the criteria specified in the ‘Instruction sheet on collateral eligible for SNB repos’. Securities eligible as collateral for SNB repos meet the criteria for high-quality liquid assets as defined in the Liquidity Ordinance (LiqO).

Translated into Swiss francs, the volume of collateral eligible for SNB repos at the end of 2023 totalled CHF 11,550 billion, up around CHF 163 billion year-on-year. The ‘List of collateral eligible for SNB repos’ shows all securities accepted as collateral by the SNB in repo transactions.

Swiss Foreign Exchange Committee and FX Global Code

The SNB is a member of the Swiss Foreign Exchange Committee (Swiss FXC), which serves as a discussion forum for banks and other foreign exchange market participants in Switzerland and the Principality of Liechtenstein. It co-chairs the Swiss FXC along with a representative from the private sector. The committee is a member of the Global Foreign Exchange Committee (GFXC), which supports, maintains and updates the principles of the FX Global Code to promote the integrity and efficiency of foreign exchange trading. The SNB chaired the GFXC from December 2021 to June 2023. The SNB requires its counterparties to undertake to comply with the FX Global Code.

2.3 USE OF MONETARY POLICY INSTRUMENTS

Remuneration of sight deposits at SNB

The SNB in principle remunerates sight deposits held by banks and other financial market participants at the SNB. By setting the interest rate and defining other conditions, the SNB influences the interest rate level on the money market.

For sight deposits up to a certain threshold, the SNB policy rate is applied. Sight deposits above this threshold are remunerated at the SNB policy rate minus a discount. Since 1 December 2023, sight deposits which are held to meet minimum reserve requirements have no longer been remunerated. This adjustment reduces interest costs for the SNB while ensuring that monetary policy implementation remains effective. The remuneration of sight deposits resulted in an expense of CHF 7.4 billion in the year under review.

In order to steer money market rates, the SNB absorbed sight deposits, giving a total of CHF 463 billion at the end of December 2023. An expense of CHF 2.5 billion arose from liquidity-absorbing operations.

Monetary policy instruments

The framework within which the SNB may conduct transactions on the financial market is defined in art. 9 NBA. The 'Guidelines of the Swiss National Bank on monetary policy instruments' describe the instruments and procedures which the SNB uses to implement its monetary policy. They were revised in May 2023 to take into account the adjustment to the formulation of the monetary policy strategy and the introduction of indexed repo transactions (cf. Annual Report 2022). These guidelines are supplemented by instruction sheets for the SNB's counterparties. As lender of last resort, the SNB also provides emergency liquidity assistance under certain conditions.

The SNB's instruments comprise open market operations, standing facilities, and interest on sight deposits at the SNB. In the case of open market operations, the SNB takes the initiative in the transaction. Open market operations include repo transactions, the issuance, purchase and sale of its own debt certificates (SNB Bills), as well as foreign exchange transactions. The SNB can carry out open market operations in the form of auctions or bilateral transactions. Transactions on the money market are conducted via an electronic trading platform. Where standing facilities (i.e. the liquidity-shortage financing facility, the intraday facility and the SNB COVID-19 refinancing facility (CRF)) are concerned, the counterparties take the initiative in the transaction. The SNB merely sets the conditions under which counterparties can obtain liquidity.

In principle, all banks domiciled in Switzerland and the Principality of Liechtenstein are admissible as counterparties in monetary policy operations. Other domestic financial market participants, as well as foreign banks, may be admitted, provided there is a monetary policy interest in doing so and they contribute to liquidity on the secured Swiss franc money market.

With regard to the remuneration of sight deposits, art. 9 NBA authorises the SNB to maintain interest-bearing and non-interest-bearing accounts for banks and other financial market participants.

Repo transactions

In the case of liquidity-absorbing repo transactions, the SNB sells securities to a bank (or other financial institution admitted to the repo market) and debits the corresponding sum in Swiss francs from the counterparty's sight deposit account with the SNB. At the same time, it is agreed that the SNB will buy back securities of the same type and quantity at a later date. In the case of a liquidity-providing repo, the transactions are conducted in the opposite direction. For the term of the repo agreement, the cash taker generally pays interest (the repo rate) to the cash provider. Repo transactions can be conducted by way of auction or on a bilateral basis with a wide range of counterparties.

The SNB absorbed liquidity by means of repo auctions on a daily basis in 2023. This was done with the aim of keeping the secured short-term Swiss franc money market rates close to the SNB policy rate. The SNB also concluded occasional liquidity-absorbing repo transactions on a bilateral basis. In 2023, an average of CHF 67.1 billion in liquidity-absorbing repo transactions was outstanding daily.

Fixed-rate repo transactions and indexed repo transactions

In 2022, the SNB introduced the possibility of having the repo rate on its repo transactions indexed to the SNB policy rate (indexed repo transactions). This enhances the SNB's flexibility in steering liquidity, since expectations of an interest rate change are irrelevant to the participation of market players in auctions for indexed repo transactions. Since February 2023, the SNB has been using this indexed repo rate in its liquidity-absorbing repo auctions. However, repo transactions with a fixed repo rate remain one of the SNB's monetary policy instruments.

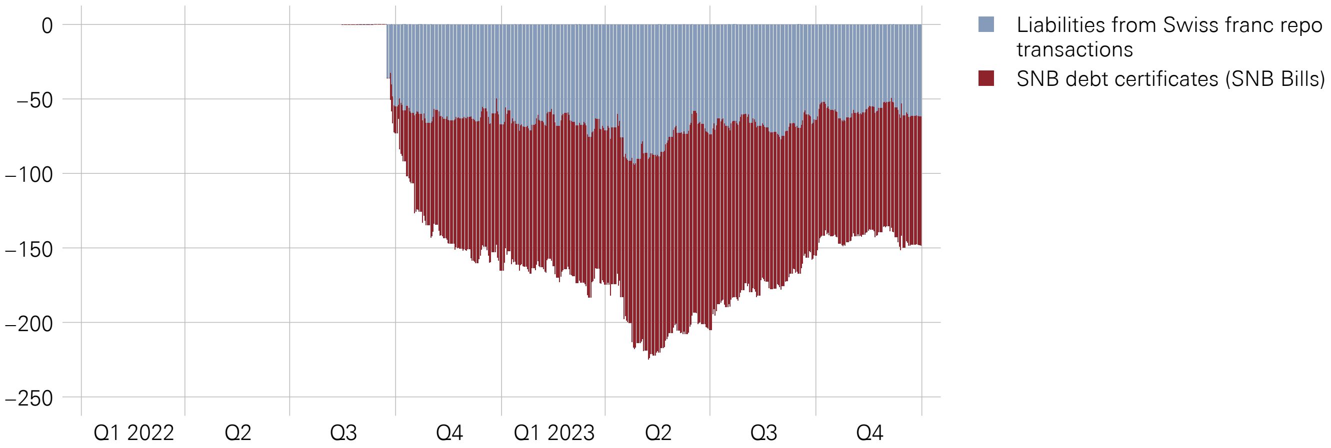
In contrast to a repo transaction with a fixed repo rate, in the case of an indexed repo transaction the repo rate is calculated as the simple average of the index values over the term minus any discount. The discount remains constant over the term of the repo transaction, but the average of the index values – and thus also the repo rate – is not known until the transaction matures.

SNB debt certificates

The issuance of its own debt certificates in Swiss francs (SNB Bills) allows the SNB to absorb liquidity. It can repurchase SNB Bills via the secondary market in order to increase the supply of liquidity to the financial system where necessary.

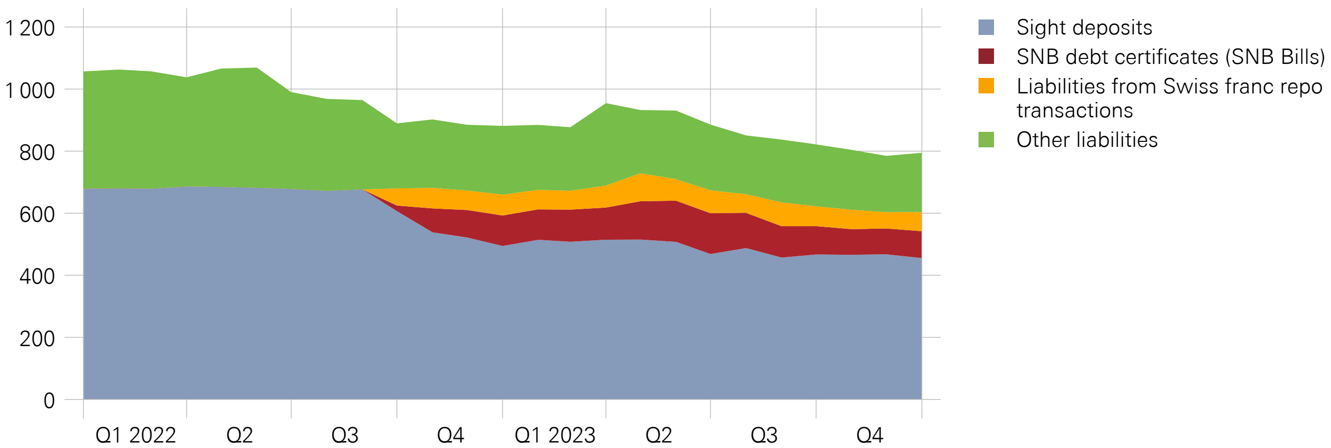
Throughout 2023, SNB Bills with various terms were auctioned on a weekly basis to absorb sight deposits. To give market participants additional flexibility in their liquidity management in the wake of the crisis at Credit Suisse, the SNB temporarily offered SNB Bills with very short maturities. Between 23 March and 8 June, the SNB auctioned SNB Bills with a maturity of seven days. This short maturity was attractive for investors during the period of financial market stress, and contributed to conditions on the Swiss franc money market quickly returning to normal. No SNB Bills were repurchased. At the end of 2023, the total volume of outstanding SNB Bills was CHF 86.7 billion.

LIABILITIES FROM SNB REPO TRANSACTIONS AND SNB BILLS
Outstanding volume, in CHF billions



Source(s): SNB

SNB LIABILITIES
Month-end values, in CHF billions



Source(s): SNB

The SNB may use SNB Bills as collateral as part of liquidity-absorbing repo transactions. For this purpose, the SNB may participate in auctions of SNB Bills and take the securities into its own portfolio. Such participation by the SNB has no influence on the allotments to the participants or the issue price.

Foreign exchange transactions

In order to fulfil its monetary policy mandate, the SNB may purchase and sell foreign currency against Swiss francs on the financial markets. Foreign exchange transactions conducted by the SNB are usually spot or swap transactions. In a foreign exchange swap, the purchase (sale) of foreign currency at the current spot rate and the sale (purchase) of the foreign currency at a later date are simultaneously agreed. The SNB concludes foreign exchange transactions with a wide range of domestic and foreign counterparties.

The SNB was active in the foreign exchange market in 2023 to ensure appropriate monetary conditions. Over the course of the year, the SNB made net sales of foreign currency equivalent to a total of CHF 132.9 billion (2022: net sales equivalent to CHF 22.3 billion). As in 2022, the SNB did not conclude any foreign exchange swaps for the purposes of influencing conditions on the Swiss franc money market.

Use of monetary policy instruments during crisis at Credit Suisse

The liquidity assistance provided during the crisis at Credit Suisse led to an increase in sight deposits and in liquidity on the Swiss franc money market (cf. chapter 2.6). This resulted in a certain amount of downward pressure on money market rates. The SNB countered this by absorbing part of these additional sight deposits by issuing SNB Bills and conducting repo transactions. The SNB's flexible set of monetary policy instruments for absorbing liquidity thus enabled the effective steering of money market interest rates and ensured that the implementation of monetary policy was not impaired by the provision of emergency liquidity assistance to Credit Suisse.

SNB COVID-19 refinancing facility

Since March 2020, banks have been able to obtain liquidity against collateral and at the SNB policy rate via the SNB COVID-19 refinancing facility (CRF). As collateral the SNB accepts credit claims in respect of loans guaranteed by the federal government under the COVID-19 ordinance on joint and several guarantees. It also accepts claims secured by loan guarantees or credit default guarantees offered by cantons, provided these have been granted in order to cushion the economic impact of the pandemic. Claims in respect of loans secured by joint and several guarantees provided for startups by the federal government in cooperation with the cantons are also deemed by the SNB to be eligible collateral, as are other claims in respect of loans guaranteed by the federal government.

The decline in use of the CRF continued in 2023. As at the end of December, drawdown of the CRF amounted to CHF 2.6 billion (2022: CHF 4.4 billion).

Intraday facility

During the day, the SNB provides its counterparties with interest-free liquidity (intraday facility) through repo transactions so as to facilitate the settlement of payment transactions via the Swiss Interbank Clearing (SIC) system and the settlement of foreign exchange transactions via Continuous Linked Settlement, the multilateral foreign exchange settlement system. The funds received must be repaid by the end of the same bank working day at the latest.

Average utilisation of the intraday facility amounted to CHF 0.7 billion in 2023 (2022: CHF 0.6 billion).

Liquidity-shortage financing facility

To bridge unexpected liquidity bottlenecks, the SNB offers a liquidity-shortage financing facility (LSFF). For this purpose, it grants its counterparties a limit which must be covered at all times by at least 110% collateral eligible for SNB repos. Counterparties can obtain liquidity up to the limit granted until the following bank working day. The LSFF is granted in the form of a special-rate repo transaction. The special rate corresponds to the SNB policy rate plus a surcharge of 0.5 percentage points, but is always at least 0%. Since 2020, an adapted form of the LSFF has been available for systemically important financial market infrastructures.

Credit Suisse availed itself of the LSFF in March. Other than this, hardly any use was made of the LSFF; averaged over the year the volume stood at CHF 0.2 billion. At the end of the year, 75 financial market participants held LSFF limits, with the total amounting to CHF 36.5 billion.

Calculation of institution-specific thresholds for tiered remuneration of sight deposits

With the transition from a negative to a positive SNB policy rate in September 2022, the SNB adopted a new approach to monetary policy implementation. One part of this is tiered remuneration, in which institution-specific thresholds are applied. The calculation of the thresholds is based on the minimum reserve requirements of the sight deposit account holders subject to such requirements. The thresholds correspond to the moving average of the minimum reserve requirements over the preceding 36 reference periods, multiplied by the applicable threshold factor. As of 1 December 2023, the threshold factor was lowered from 28 to 25. Also from this date, in the case of sight deposit account holders subject to minimum reserve requirements, sight deposits held to meet these requirements are no longer remunerated. The non-remunerated portion of the sight deposit holdings up to the threshold corresponds to the minimum reserve requirement in the last reference period minus the cash holdings in the last reference period. The SNB sets fixed thresholds for all other sight deposit account holders not subject to any minimum reserve requirements. These are in principle set at CHF 0. The SNB regularly reviews the calculation of the thresholds.

2.4 MINIMUM RESERVES

Main features of regulation

The duty to hold minimum reserves (arts. 17, 18 and 22 NBA) ensures that banks have a minimum demand for base money and thus fulfils a monetary policy objective. Eligible assets in Swiss francs comprise coins in circulation, banknotes and sight deposits held at the SNB. The minimum reserve requirement amounts to 2.5% of the relevant liabilities, which are calculated as the sum of short-term liabilities in Swiss francs (up to 90 days) plus 20% of liabilities towards customers in the form of savings and investments. The National Bank Ordinance (NBO) sets out in detail which balance sheet positions are subject to minimum reserve requirements. The relevant figure for the minimum reserve requirement is taken to be the average for the respective reporting period, which lasts from the 20th day of one month to the 19th day of the following month. It is calculated as the average of the last three month-end values of the relevant liabilities.

The minimum reserves form the basis for calculating the thresholds for the remuneration of domestic banks' sight deposits (cf. chapter 2.3, box 'Calculation of institution-specific thresholds for tiered remuneration of sight deposits').

If a bank fails to fulfil the minimum reserve requirement, it is obliged to pay the SNB interest on the shortfall for the number of days of the reporting period during which the minimum reserve requirement was not observed. The interest rate is 4 percentage points higher than SARON over the reporting period in question.

MINIMUM RESERVES

In CHF millions

	2023 Outstanding Average	2022 Outstanding Average
Sight deposits at the SNB	487 796	624 640
Banknotes	4 945	5 686
Coins in circulation	91	95
Eligible assets	492 831	630 422
Requirement	22 252	22 969
Compliance in excess of requirement	470 579	607 453
Compliance in percent	2 215	2 745

In 2023 (between 20 December 2022 and 19 December 2023), statutory minimum reserves averaged CHF 22.3 billion. This is a 3% decrease year-on-year. Eligible assets fell to CHF 492.8 billion on average, compared with CHF 630.4 billion the previous year. Banks thus exceeded the requirement by an annual average of CHF 470.6 billion. The statutory minimum reserve requirement was met by all 212 banks.

2.5 LIQUIDITY IN FOREIGN CURRENCIES

Swap arrangements

Since 2013, standing bilateral liquidity swap arrangements have been in place between the SNB and the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank and the US Federal Reserve. This network of swap arrangements allows the participating central banks, where necessary, to provide banks in their jurisdiction with liquidity in any of the relevant currencies, thus serving as a liquidity backstop.

The SNB has further bilateral swap arrangements with the National Bank of Poland, the People's Bank of China and the Bank of Korea in place since 2012, 2014 and 2018, respectively.

Little demand for US dollar liquidity

Until March 2023, the SNB offered repo transactions in US dollars with maturities of seven days on a weekly basis. There was no demand. On 19 March, the SNB announced jointly with the other central banks participating in the network of swap arrangements that the frequency of seven-day maturity operations would be increased from weekly to daily to enhance the provision of US dollar liquidity to the financial system. In light of the improvements in US dollar funding conditions and the low demand, on 25 April the SNB, again together with the other participating central banks, announced that the frequency of US dollar auctions would revert to once a week as of 1 May. The SNB recorded smaller purchases between the end of March and the beginning of April, but thereafter – with the exception of small test purchases – there was no demand.

There was no requirement for liquidity in other foreign currencies or in Swiss francs within the framework of these swap arrangements.

The SNB can source US dollar liquidity on an overnight basis from the Fed under the latter's FIMA Repo Facility using its holdings of US Treasuries. It used this facility in spring 2023 to cover a portion of the foreign currency needed by Credit Suisse in US dollars as part of the emergency liquidity assistance (cf. chapter 2.6).

Fed's FIMA Repo Facility

2.6 EMERGENCY LIQUIDITY ASSISTANCE

The SNB can act as lender of last resort. Within the context of this emergency liquidity assistance, the SNB provides liquidity to domestic banks if they are no longer able to obtain sufficient liquidity on the market.

SNB as lender of last resort

Based on art. 5 para. 2 (a) and (e) as well as art. 9 para. 1 (e) NBA, the SNB may act as lender of last resort (cf. chapter 6.2.2). The granting of emergency liquidity assistance (ELA) is subject to certain conditions. The bank or group of banks requesting credit must be important for the stability of the financial system and solvent. To assess their solvency, the SNB obtains an opinion from the Swiss Financial Market Supervisory Authority (FINMA). The NBA expressly requires that the SNB only grant loans against sufficient collateral. The granting of loans without collateral or against collateral that does not fully cover the risks involved (above all market and credit risks) is not permitted (Dispatch on NBA 2002).

Conditions for emergency liquidity assistance

In connection with the crisis at Credit Suisse, the federal government created via emergency law the basis for the SNB to provide additional emergency liquidity assistance with preferential rights to repayment in bankruptcy proceedings over certain creditors (ELA+). Also via emergency law, the federal government enabled the provision of liquidity assistance under a public liquidity backstop (PLB), which was secured by a federal guarantee and additionally came with preferential rights in bankruptcy proceedings (cf. chapter 6.2).

Granting of emergency liquidity assistance to Credit Suisse

In its role as lender of last resort, the SNB made ample liquidity assistance available to Credit Suisse in Swiss francs and foreign currencies in March 2023. In addition to the provision of CHF 10 billion in liquidity via the LSFF, ELA loans to the value of CHF 38 billion were granted, these being secured by mortgages. The SNB also provided a total of CHF 50 billion in liquidity assistance to Credit Suisse under ELA+. Furthermore, liquidity to the value of CHF 70 billion was provided under the PLB. The PLB loans to Credit Suisse had a federal guarantee up to the amount of CHF 100 billion.

By the end of the year, Credit Suisse had paid back all of the funds drawn under the PLB and ELA+. All in all, CHF 168 billion was provided in liquidity assistance; of this, the ELA loans of CHF 38 billion remained outstanding as at 31 December 2023.

Significant need for foreign currency liquidity assistance at Credit Suisse

As regards the amounts received under ELA+ and the PLB, Credit Suisse had a significant need for liquidity in foreign currencies. The SNB made this available on an overnight basis via foreign exchange swaps against the liquidity provided in Swiss francs. The liquidity provided in foreign currencies in this manner made up a large part of the amounts received under the PLB and ELA+.

3
Ensuring the supply and distribution of cash

3.1 BACKGROUND

Mandate

The Swiss National Bank is entrusted with the note-issuing privilege. Pursuant to art. 5 para. 2 (b) of the National Bank Act, it is responsible for ensuring the supply and distribution of cash (banknotes and coins) in Switzerland. It works to ensure an efficient and secure cash payment system. The SNB is also charged by the Confederation with the task of putting coins into circulation.

Role of SNB

Cash is supplied and distributed to the economy via the two cashier's offices at the Berne and Zurich head offices, as well as 13 agencies operated by cantonal banks on behalf of the SNB. The SNB issues banknotes and coins commensurate with demand for payment purposes, offsets seasonal fluctuations, and withdraws banknotes and coins no longer fit for circulation. Local distribution and redemption of banknotes and coins are performed by commercial banks, Swiss Post and cash processing operators.

3.2 CASHIER'S OFFICES, AGENCIES AND CASH DEPOSIT FACILITIES

Turnover at cashier's offices

In 2023, the turnover (incoming and outgoing) of the cashier's offices in Berne and Zurich amounted to CHF 50.7 billion (2022: CHF 66.8 billion). They received a total of 257.9 million banknotes (2022: 301.6 million) and 148.8 million coins (2022: 156.2 million). The SNB examined the quantity, quality and authenticity of the incoming notes and coins. The incoming banknotes and coins were offset by an outflow of 252.4 million banknotes (2022: 292.1 million) and 159.3 million coins (2022: 206.2 million).

Turnover at agencies

The agencies assist the SNB's cashier's offices in the distribution and redemption of cash. They play an important role in ensuring the regional supply and distribution of cash by providing cash withdrawal services to third-party banks (local institutions or branches of larger banking groups), as well as to the branches of the cantonal banks operating each agency.

The agencies' turnover (incoming and outgoing) amounted to CHF 7.5 billion (2022: CHF 8.7 billion). This constitutes 14.7% of the turnover at the SNB's cashier's offices (2022: 13.1%).

Cash logistics

The SNB's main partners with respect to cash logistics are commercial banks, Swiss Post and cash processing operators. They conduct their business activities at separate locations around the country. To ensure the supply and distribution of cash in Switzerland, the SNB operates cash logistics centres at the head offices in Zurich and Berne and issues regulations on the manner, place and time for the delivery and withdrawal of banknotes and coins. Its activities in this field are based on the Federal Act on Currency and Payment Instruments (CPIA).

Cash deposit facilities

Cash processing operators can apply for cash deposit facilities with the SNB. These storage facilities contain stocks of notes and coins. The SNB sets up the facilities with third parties, while retaining ownership. The cash processing operators deposit surplus cash and withdraw it as required. The corresponding bookings are made to their sight deposit accounts at the SNB. Cash deposit facilities reduce the amount of incoming and outgoing cash at the SNB, as well as the number of transports made by the operators of cash deposit facilities, which makes for a more efficient supply and distribution of cash.

3.3 BANKNOTES

Mandate

Pursuant to art. 7 CPIA, the SNB issues banknotes commensurate with the demand for payment transactions and takes back any banknotes which are worn, damaged or surplus to requirements due to seasonal fluctuations. It also determines the denomination and design of the notes. Particular attention is paid to banknote security.

Banknotes in circulation

Following the SNB policy rate hike in June 2022, cash flows back to the SNB increased. Since cash does not earn interest, if interest rates rise, demand falls for large-denomination banknotes, which are primarily used as a store of value. The value of banknotes in circulation thus decreased. It averaged CHF 76.5 billion in 2023, a 12.2% decline year-on-year. The total number of notes in circulation was 3.5% lower than in 2022, averaging 519.0 million.

Payment methods surveys

In June 2023, the SNB published the results of its third representative survey on payment methods of private individuals. As regards payment method usage, the results show that the shift from cash to cashless payment methods is continuing, albeit at a slower pace than in previous years.

More than 95% of the population would like to retain the option of paying with cash in the future and to be able to choose between cash and electronic payment methods. This freedom of choice is largely a given these days, but it is not to be taken for granted. Cash usage is closely linked to cash access and acceptance. If, for example, the access to cash via ATMs declines, so will its use and thus also its acceptance, which can, in turn, result in low usage. The use of cash, the number of ATMs, and the acceptance of cash in retail have declined in recent years.

The second payment methods survey of companies in Switzerland began in spring. Around 1,750 companies participated in the survey, covering all sizes, language regions and industries (excluding large retailers and financial institutions). Selected results on payment method acceptance and on cash logistics were published in October 2023, the detailed report in February 2024.

The surveys give the SNB an overview of changes affecting payments and contribute to efficient planning of the supply and distribution of cash. The SNB intends to continue regularly conducting surveys of households and companies (cf. box 'Results of payment methods surveys – 2022 survey of private individuals and 2023 survey of companies').

Roundtable on cash supply and distribution

In October 2023, a first exchange took place as part of a roundtable on the topic of the supply and distribution of cash in Switzerland. The event was conducted jointly by the SNB and the Federal Finance Administration. Questions on the access to and acceptance of cash were discussed with representatives of key stakeholders in the field of cash supply and distribution as well as trade and consumer associations. The aim of the cash roundtable is to identify at an early stage any need for action with regard to cash supply and distribution, and to address this with the responsible stakeholders. The roundtable participants agree that a possible downward spiral within the cash system should be countered. The roundtable is to take place regularly in the future.

The supply and distribution of cash is an important task for the SNB. The SNB provides this service to the population and to the economy together with commercial banks, Swiss Post and cash processing operators. A newly established, broad-based group of experts aims to identify challenges in cash supply and distribution and to develop solutions. In particular, it is necessary to secure access to cash so that both consumer use and acceptance by companies remain unrestricted.

Issuance and destruction

In 2023, the SNB put 47.0 million freshly printed banknotes (2022: 61.7 million) with a nominal value of CHF 5.9 billion (2022: CHF 10.9 billion) into circulation. It destroyed 34.7 million damaged or recalled notes (2022: 51.4 million) with a nominal value of CHF 4.4 billion (2022: CHF 10.4 billion). The decrease in new banknotes put into circulation and banknotes destroyed shows that large proportions of the recalled eighth-series banknotes have already been replaced. This exchange process will continue for some years.

Counterfeits

In 2023, a total of 4,082 counterfeit banknotes (2022: 8,200) were confiscated in Switzerland. The counterfeits could be easily and reliably detected by checking the standard security features, without the use of technical aids. The strong decrease in counterfeit banknotes was due to the decline in major scams.

The sixth-series banknotes were recalled with effect from the end of April 2000 and have not been legal tender since. In accordance with a revision to the CPIA which came into effect on 1 January 2020, there is no limitation on the period during which these banknotes can be exchanged at the SNB and the SNB agencies at full nominal value. At the end of 2023, a total of 17.3 million notes (equivalent to CHF 1.0 billion) from the sixth series had still not been exchanged.

Recall and exchange of sixth-series banknotes

The SNB recalled the banknotes from the eighth series with effect from the end of April 2021. The banknotes thereby lost their status as legal tender from May 2021. They can, however, be exchanged at the SNB and the SNB agencies for an unlimited period at their full nominal value. At the end of 2023, a total of 73.4 million notes (equivalent to CHF 9.7 billion) from the eighth series had still not been exchanged.

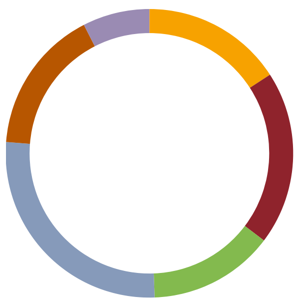
Recall and exchange of eighth-series banknotes

KEY FIGURES ON BANKNOTES AND COINS IN CIRCULATION (ANNUAL AVERAGE)

	2019	2020	2021	2022	2023
Banknotes in circulation					
In value terms (in CHF millions)	79 809	84 450	88 281	87 174	76 498
Year-on-year change (in percent)	1.0	5.8	4.6	–1.3	–12.1
Number of notes (in thousands)	488 060	513 381	531 983	537 573	518 997
Year-on-year change (in percent)	3.6	5.2	3.6	1.1	–3.5
Coins in circulation					
In value terms (in CHF millions)	3 180	3 189	3 182	3 210	3 217
Year-on-year change (in percent)	1.2	0.3	–0.2	0.9	0.2
Number of coins (in millions)	5 693	5 737	5 745	5 795	5 824
Year-on-year change (in percent)	1.3	0.8	0.1	0.9	0.5

NUMBER OF BANKNOTES IN CIRCULATION

In millions



10s **82**
20s **101**
50s **73**
100s **139**
200s **84**
1000s **39**

Annual average for 2023

3.4 COINS

Mandate

The SNB is entrusted by the Confederation with the task of coin circulation. Its role is defined in art. 5 CPIA. It takes over the coins minted by Swissmint and puts the required number into circulation. Coins that are surplus to requirements are taken back against reimbursement of their nominal value. The SNB's services with regard to coins are specified in the Coinage Ordinance. As they constitute part of its mandate to ensure the supply and distribution of cash in Switzerland, they are largely not remunerated. The SNB is supported in supplying and distributing coins by Swiss Post and Swiss Federal Railways (SBB) in accordance with the Coinage Ordinance.

Coin circulation

In 2023, the value of coins in circulation averaged CHF 3.2 billion. This corresponds to 5.8 billion coins. The overall change compared to the previous year was small. The value of coins in circulation increased by 0.2%, while their number grew by 0.5%.

Results of payment methods surveys – 2022 survey of private individuals and 2023 survey of companies

In autumn 2022, the SNB conducted its third payment methods survey of private individuals. The results of the survey were published in a report in June 2023. In spring 2023, the SNB also conducted its second payment methods survey of companies in Switzerland. Selected results were published in October 2023 shortly after the end of the survey period. The report on the results of the survey of companies was published in February 2024. Conducting the two surveys regularly allows for a comprehensive analysis of payment method use over time. The surveys contribute significantly to the fulfilment of the SNB's statutory mandate in the area of payments. The insights gained from the recent surveys are incorporated in the measures connected to the roundtable on cash supply and distribution (cf. chapter 3.3).

The survey of private individuals shows that payment method usage is continuing to shift from cash to cashless payment methods, albeit at a slower pace than in previous years. Payment cards such as debit or credit cards are used in every second everyday payment, mobile payment apps in one in ten such payments. It is likely that mobile payment apps will continue to gain in importance for the population. Cryptocurrencies, on the other hand, are currently not relevant as a payment method and are held only by a small proportion of the population. Cash continues to be used widely, with more than one-third of transactions being made in cash. The population wants cash to remain available as a payment method in the future. Even individuals who use cash rarely or not at all in their day-to-day lives are in favour of its preservation. To ensure that the preferred method of payment can be used for as many transactions as possible, a high level of acceptance of the different payment methods is necessary.

The results of the survey of companies confirm that there is freedom of choice between cash and cashless payment methods thanks to the widespread acceptance of various methods of payment by companies. The survey also shows that customer needs play a key role in determining which payment methods are accepted by companies. A decline in cash usage by the population could therefore lead to a decline in companies accepting cash. However, broad acceptance of cash is important, for instance in exceptional circumstances. For example, the survey of private individuals shows that in the event of technical disruptions affecting cashless payment methods, cash is often used as an alternative.

Aside from a high level of acceptance, cash must also be easily accessible for consumers to continue using it and for companies to continue accepting it. In the event of a reduction in the infrastructure or increase in fees for cash withdrawals, however, many people would curb their cash usage. Likewise, one in four companies would use less cash were this to be the case, which in turn would likely have a negative effect on cash acceptance. These interdependencies demonstrate that the population’s demand for cash and its usage as a payment method are influencing future developments.

4 Facilitating and securing cashless payments

4.1 BACKGROUND

Mandate

In accordance with art. 5 para. 2 (c) of the National Bank Act (NBA), the Swiss National Bank facilitates and secures the operation of cashless payment systems. Art. 9 of the NBA empowers the SNB to maintain sight deposit accounts for banks and other financial market participants.

Role in cashless payment transactions

The SNB fulfils its statutory task of facilitating and securing the operation of cashless payment systems in its role as commissioning party and system manager of the Swiss Interbank Clearing (SIC) payment system. The SIC system is the central payment system for payments in Swiss francs. The SNB determines the admission criteria, provides the system with liquidity and defines the functionalities and settlement rules, thus ensuring a sound and efficient core infrastructure for cashless payment transactions. As a systemically important financial market infrastructure (FMI), the SIC system is overseen by the SNB (cf. chapter 6.6).

Main features of SIC system

The SIC system is a real-time gross settlement (RTGS) system for payments in Swiss francs. This means that payment orders are settled continuously, individually, irrevocably and with finality in central bank money. Via the SIC system, banks and other financial market participants settle both interbank payments (payments between financial institutions as well as third-party system payments) and retail payments.

Since November 2023, in addition to the real-time gross settlement of payments (RTGS service), the SIC system has been offering so-called instant payments (IP service). These enable the immediate and final transfer of value for cashless retail payments throughout the entire settlement chain – 24 hours a day, 7 days a week. Payments via the IP service are generally settled within a few seconds and credited directly to the recipient's account. This service is therefore suitable for retail payments that have to be paid immediately. However, retail payments may also continue to be settled via the existing RTGS service (cf. chapter 4.2, section on 'SIC5 and instant payments').

Provided their bank offers instant payments, customers may choose whether their payment is settled via the IP service or the RTGS service.

Operation of SIC system

SIC participants can use their sight deposits at the SNB to make payments in the SIC system. If required, they can also obtain liquidity against collateral in the form of intraday loans (cf. chapter 2.3). The SNB has entrusted the operation of the SIC system to SIX Interbank Clearing Ltd, a subsidiary of SIX Group Ltd (SIX). The provision of services for the SIC system is governed by contract between the SNB and SIX Interbank Clearing Ltd. Furthermore, the SNB has a seat on the Board of Directors of SIX Interbank Clearing Ltd and participates in various payment system bodies, where it represents its interests based on its mandate. The business relationship between the SNB and the SIC participants is governed by the SIC participant agreement.

Admission to SIC system

The SNB grants domestic financial market participants access to the SIC system. They include banks, securities firms, insurance companies and other institutions such as licensed fintech companies, cash processing operators and FMIs. Third-party system operators which are able to effect debits and credits to the accounts of other participants also have access to the SIC system. The SNB may grant foreign financial market participants access to the SIC system too. The principle of admission is that participants must make a significant contribution to the fulfilment of the SNB's tasks, and their admission must not pose any major risks.

SIC system as part of Swiss financial market infrastructure

The SIC system is a key element of the Swiss financial centre. The financial market infrastructure is operated by SIX, a company owned by around 120 financial institutions which are also the main users of the services provided by SIX. A well-functioning, secure and efficient financial market infrastructure is of vital importance to the SNB for the fulfilment of its statutory tasks, particularly with regard to facilitating and securing the operation of cashless payment systems. The SNB regularly exchanges information with SIX and the banking sector with the aim of continually developing Switzerland's financial market infrastructure.

4.2 THE SIC SYSTEM IN 2023

Key figures

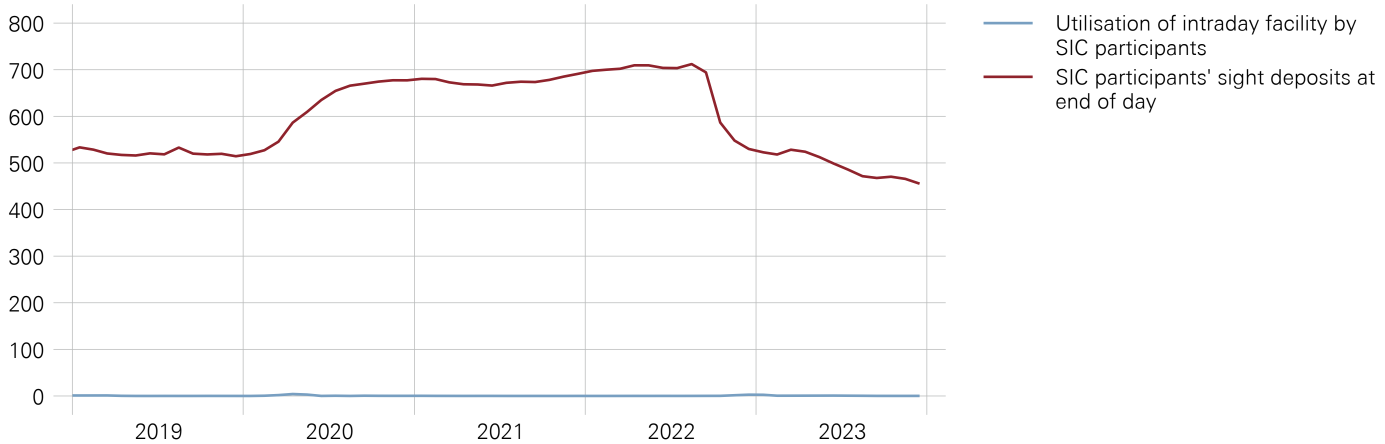
In 2023, a daily average of approximately 3.9 million transactions amounting to CHF 228 billion were settled via the SIC system. Compared to 2022, the average number of transactions settled per day rose by almost 3.8% and turnover increased by 14.1%. The average value per transaction increased by 10% to around CHF 59,000. Peak days saw up to 10.6 million transactions, with turnover of up to CHF 420 billion. Both the rise in daily turnover and the increase in average value per transaction are attributable to interbank payment transactions.

One of the drivers of the higher turnover was the further tightening of monetary policy in 2023. The cash side of the SNB's liquidity-absorbing operations, such as liquidity-absorbing repo transactions and issuing SNB Bills, is settled in the SIC system and therefore contributed significantly to the higher turnover. The liquidity-absorbing operations and the reduction of the SNB's balance sheet caused the sight deposits of SIC participants to decline by around one-quarter year-on-year (cf. chapter 2.3).

Retail payments accounted for 98.2% of the transactions in the SIC system (10.7% of turnover) and interbank payments for 1.8% (89.3% of turnover).

SIGHT DEPOSITS AND INTRADAY FACILITY IN SIC SYSTEM

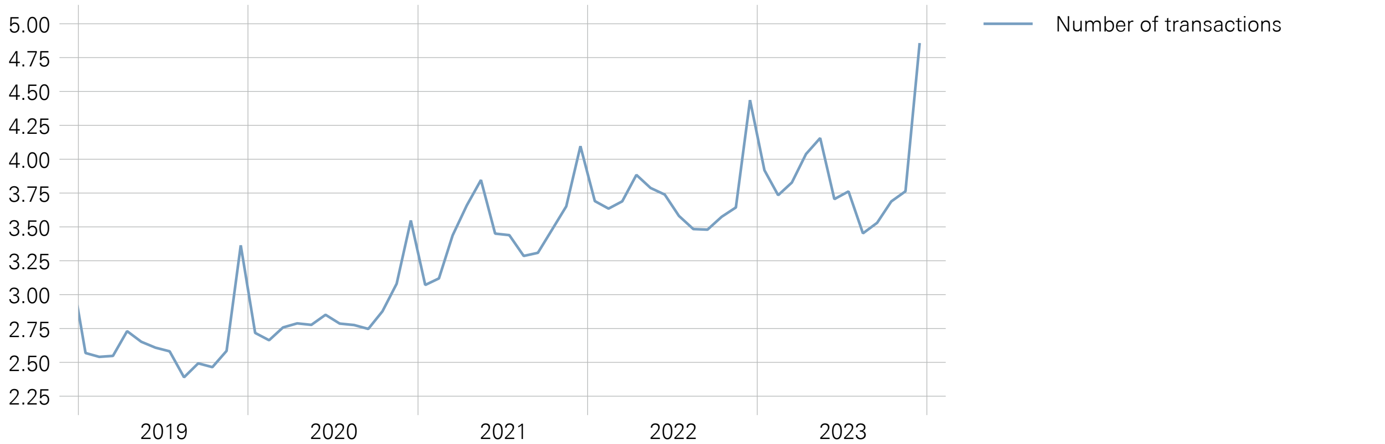
Monthly averages of daily values, in CHF billions



Source(s): SNB

TRANSACTIONS IN SIC SYSTEM

Monthly averages of daily values, in millions of transactions



Source(s): SNB

TURNOVER IN SIC SYSTEM

Monthly averages of daily values, in CHF billions

Source(s): SNB

KEY FIGURES ON SIC SYSTEM

	2019	2020	2021	2022	2023
Number of transactions					
Daily average (in thousands)	2 623	2 867	3 490	3 715	3 855
Peak daily value for year (in thousands)	7 484	9 286	9 909	12 388	10 595
Share of interbank payments (in %)	2.4	2.5	1.9	1.9	1.8
Share of retail payments (in %)	97.6	97.5	98.1	98.1	98.2
Turnover					
Daily average (in CHF billions)	158	178	163	200	228
Peak daily value for year (in CHF billions)	240	276	247	403	420
Average value per transaction (in CHF)	60 256	62 160	46 797	53 735	59 100
Share of interbank payments (in %)	88.6	89.7	88.3	88.7	89.3
Share of retail payments (in %)	11.4	10.3	11.7	11.3	10.7
Sight deposits of SIC participants and intraday facility					
Average sight deposits at end of day (in CHF millions)	521 595	621 458	676 024	666 048	493 216
Average intraday facility utilisation (in CHF millions)	416	1 111	134	585	669

SIC system participants

As at 31 December 2023, the SNB had 376 holders of sight deposit accounts (2022: 383). Of these, 302 participated in the SIC system (2022: 311). The majority of SIC participants (239) are domiciled in Switzerland (2022: 236). Six third-party system operators also have access to the SIC system.

SIC5 and instant payments

In 2023, the SNB and SIX Interbank Clearing Ltd reached an important milestone in the SIC5 project to further develop the SIC system. Three years after the project launch, the technical conditions for instant payments were put in place in November 2023 with the successful go-live of the IP service on the SIC5 platform. All SIC participants active in retail payment transactions must be able to receive instant payments by the end of 2026. For the largest financial institutions in retail payments, this requirement will already apply from August 2024. The next project milestone is set for 2026, when the SIC system's regular RTGS service will also be migrated to the new platform.

Secure Swiss Finance Network

Since June 2022, the Secure Swiss Finance Network (SSFN) has been approved as a means of connecting to the SIC system in addition to the existing Finance IPNet. The SSFN uses a routing architecture developed at ETH Zurich known as SCION (Scalability, Control and Isolation on Next-Generation Networks; for further information, cf. Annual Report 2022, box 'The Secure Swiss Finance Network', p. 86). Since the network's approval, the SNB has been using the SSFN for its own connection to the SIC system. In 2024, SIX will decommission Finance IPNet for all services. All participants with a Finance IPNet connection are therefore requested to replace it. The SSFN is generally mandatory for customers with a direct connection to the SIC system. SIC participants that use a service bureau to connect to the SIC system (rather than connecting directly) are also recommended to use the SSFN to communicate with their service bureau.

In February 2023, the SCION Association was established. The association focuses on the development and standardisation of SCION technology and the certification of providers using and selling SCION. It also supports the national and international deployment of the technology. As a founding member and non-voting observer, the SNB plays an advisory role on the SCION Association's board.

5
Asset management

5.1 BACKGROUND

Mandate

The assets of the Swiss National Bank fulfil important monetary policy functions. They consist largely of investments in foreign currencies, gold and, to a lesser extent, financial assets in Swiss francs. Their size and composition are determined by the established monetary order and the requirements of monetary policy. Under art. 5 para. 2 of the National Bank Act (NBA), the SNB is responsible for managing the currency reserves, part of which must be held in the form of gold (art. 99 para. 3 Federal Constitution).

Currency reserves

The SNB's currency reserves are held primarily in the form of foreign currency investments and gold. The currency reserves also include the reserve position in the International Monetary Fund (IMF) and international payment instruments. Currency reserves ensure that the SNB has the necessary room for manoeuvre in its monetary policy at all times. They also serve to build confidence, and to prevent and overcome potential crises. In the current environment, the level of the currency reserves is largely dictated by the implementation of monetary policy.

Financial assets in Swiss francs

The financial assets in Swiss francs are made up of Swiss franc bonds, claims from repo transactions, and secured loans. In addition to the SNB COVID-19 refinancing facility (CRF) established in 2020, the latter include claims from the facilities for drawing emergency liquidity assistance (ELA).

Investment principles

Asset management is governed by the primacy of monetary policy. In applying its investment policy, the SNB has two main objectives. The first is to ensure that its balance sheet can be used for monetary policy purposes at any time. In particular, the SNB must be in a position to expand or shrink the balance sheet if necessary. The second objective of the SNB's investment policy is to preserve the value of currency reserves in the long term.

A high degree of market liquidity of the assets, in particular, is required to achieve the first main objective of ensuring sufficient room for manoeuvre in the implementation of monetary policy. The SNB therefore invests a substantial portion of its currency reserves in highly liquid foreign government bonds. The second main objective of preserving at least the real value of the assets over the long term is pursued through broad diversification of currencies. Additionally, to improve the long-term risk/return profile, government bond holdings in the major currencies are supplemented by other asset classes. Since all investments are valued in Swiss francs, the return must offset the Swiss franc's long-term upward trend. This necessitates sufficiently positive returns in the local currencies. By investing part of the currency reserves in a well-diversified range of shares and corporate bonds, the SNB is able to exploit the positive return contribution of these asset classes. At the same time, it retains the flexibility to adjust its monetary and investment policy to changing requirements.

The primacy of monetary policy means that there are restrictions on investment policy. With regard to its investments, the SNB does not hedge currency risks against the Swiss franc in order to avoid affecting demand for Swiss francs. In addition, the SNB does not want to influence markets with its investment policy and therefore aims for minimal market impact.

The investment process ensures that no privileged information from within the SNB can influence investment activity and that no unintentional signalling effects are created. For this reason, the SNB does not invest in the shares of any systemically important banks. Equally, it generally does not invest in Swiss shares or in bonds issued by Swiss companies, and the Swiss franc bond portfolio is managed passively.

5.2 INVESTMENT AND RISK CONTROL PROCESS

Bank Council and Risk Committee responsibilities

The NBA defines the SNB's responsibilities and describes in detail its mandate with regard to asset management. The Bank Council is charged with the general oversight of the investment and risk control process. Its role is to assess the underlying principles and monitor compliance with them. The Risk Committee – which is composed of three Bank Council members – supports the Bank Council in this task. It monitors risk management, in particular, and evaluates the governance of the investment process. Internal risk management reporting is addressed to the Governing Board and the Risk Committee.

Governing Board responsibilities

The Governing Board defines the investment policy. Specifically, it sets the parameters for the balance sheet structure and investment targets, the investment universe, investment strategy and the associated risk tolerance, as well as the investment and risk control process. In particular, it sets out the requirements with regard to the security, liquidity and return of the investments, as well as the eligible currencies, asset classes, instruments, and borrower categories. The Governing Board decides on the composition of the currency reserves and other assets, and defines the foreign currency investment strategy. The investment strategy covers the allocation of foreign currency investments to different asset classes and currencies, and determines the scope for management at operational level.

Investment Committee responsibilities

The Investment Committee, an internal body, decides on the tactical allocation of the foreign currency investments at operational level. It may deviate from the strategy within the prescribed ranges set by the Governing Board for currency weightings, bond durations and allocations to the various asset classes.

Portfolio Management responsibilities

Portfolio Management manages the individual portfolios. The majority of the foreign currency investments (98%) are managed internally. External asset managers are used to benchmark internal portfolio management and obtain efficient access to new asset classes. At operational level, responsibilities for monetary policy and investment policy transactions are organised in such a way as to avoid conflicts of interest.

The Asia-Pacific portfolios are managed by SNB portfolio managers in the Singapore branch office, which opened in 2013. It is the SNB's only branch office outside Switzerland. Its primary task is to ensure the efficient management of the SNB's currency reserves in the Asia-Pacific region. Having a presence in Asia is also beneficial when it comes to implementing monetary policy on the foreign exchange market. The office's trading and portfolio management operations are fully integrated into the investment and risk control process in Switzerland.

Singapore office responsibilities

The most important element for managing absolute risk is broad diversification of investments. Risk is managed and mitigated by means of a system of reference portfolios (benchmarks), guidelines and limits. All relevant financial risks are identified, assessed and monitored continuously. Risk measurement is based on standard procedures and risk indicators. In addition, sensitivity analyses and stress tests are carried out on a regular basis. The SNB's generally long-term investment horizon is taken into account in these risk analyses.

Risk Management responsibilities

To assess and manage credit risk, information from major rating agencies, market indicators and in-house analyses are used. Credit limits are set on the basis of this information, and adjusted whenever the risk assessment changes. To mitigate counterparty risk, the replacement values of derivatives are usually netted for each counterparty and collateralised by securities. Concentration and reputational risks are also factored in when determining risk limits. Risk indicators are aggregated across all investments; compliance with the guidelines and limits is monitored daily. The risk analyses and results of risk monitoring activities are submitted to the Governing Board and the Bank Council's Risk Committee in quarterly risk reports. In addition, the Risk Management unit's annual report is submitted to the Bank Council for information purposes.

5.3 BREAKDOWN OF AND CHANGES IN ASSETS

Breakdown of assets

At the end of 2023, the SNB's assets amounted to CHF 795 billion. This included foreign currency investments (CHF 677 billion), gold (CHF 58 billion), Special Drawing Rights (SDR; CHF 14 billion) and Swiss franc bonds (just under CHF 4 billion). At year-end, there were no outstanding claims from Swiss franc repo transactions for monetary policy purposes or from US dollar repo transactions under the swap arrangement with the US Federal Reserve. Since 2020, the assets have also included the item secured loans. At the end of 2023, this item amounted to CHF 40 billion and comprised loans granted under the CRF established in March 2020, as well as ELA loans. Other assets amounted to just under CHF 2 billion.

Changes in assets

At end-2023, assets were thus down CHF 87 billion year-on-year. While the secured loans increased, foreign currency investments decreased by CHF 123 billion in the course of the year due to foreign currency sales.

Balance sheet-expanding repo transactions are carried out as part of portfolio management. Foreign-issued securities are transferred for a given term in exchange for foreign currency sight deposits, and then the process is reversed at maturity. Since there is a market demand for these securities, a corresponding premium can be achieved with such repo transactions. There is also a temporary expansion of the balance sheet because, first, the securities that are temporarily exchanged under the transaction continue to be on the SNB's books and, second, the sight deposits received and the commitments to repay them at maturity are also reported on the balance sheet under assets or liabilities respectively. The claims and liabilities from these transactions are netted in the foreign exchange reserves. At the end of 2023, outstanding, balance sheet-expanding foreign currency repo transactions stood at CHF 23 billion.

Currency reserves

At the end of 2023, total currency reserves, comprising foreign exchange reserves, gold, the reserve position in the IMF and international payment instruments, amounted to CHF 725 billion, a decline of CHF 128 billion compared to 2022. While foreign exchange reserves declined by CHF 129 billion, the value of the gold holdings of 1,040 tonnes remained virtually unchanged.

COMPOSITION OF CURRENCY RESERVES

In CHF billions

	31.12.2023	31.12.2022
Gold reserves	58	56
Foreign currency investments	677	801
Less: associated liabilities[1]	–23	–17
Derivatives (replacement values, net)	0	–1
Total foreign exchange reserves	655	784
Reserve position in the IMF (SDR)	2	2
International payment instruments (SDR)	11	11
Total currency reserves	**725**	**853**

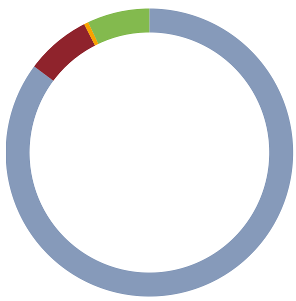
1 Liabilities from foreign currency repo transactions.

Bond portfolios

The SNB's foreign exchange reserves are made up of bond and equity portfolios. The SNB's bond portfolios chiefly comprise government bonds (approximately 81% of total bond holdings). The selection of government bonds and the corresponding markets takes into account the SNB's specific requirements and, in particular, ensures a high degree of liquidity. Within a given market, investments are diversified broadly across maturities so that, if necessary, large volumes can be bought or sold with minimum impact on prices. In addition to government bonds, the bond portfolios in the foreign exchange reserves contain quasi-government bonds as well as bonds issued by supranational organisations, local authorities, financial institutions (mainly covered bonds and similar instruments) and other companies.

The average duration of the portfolio increased slightly in 2023, and stood at 4.7 years at year-end.

BREAKDOWN OF SNB ASSETS



Total: CHF 795 billion

At year-end 2023

Equity portfolios

Equities are managed passively according to a set of rules based on a strategic benchmark comprising a combination of equity indices in various markets and currencies. Thus, the SNB does not overweight or underweight particular companies and sectors. The percentages of the individual shares in the portfolios are determined according to their market capitalisation. The principle of broadly replicating markets ensures that the SNB operates as neutrally as possible in the individual stock markets and that structural changes in the global economy are also reflected in the SNB's portfolio.

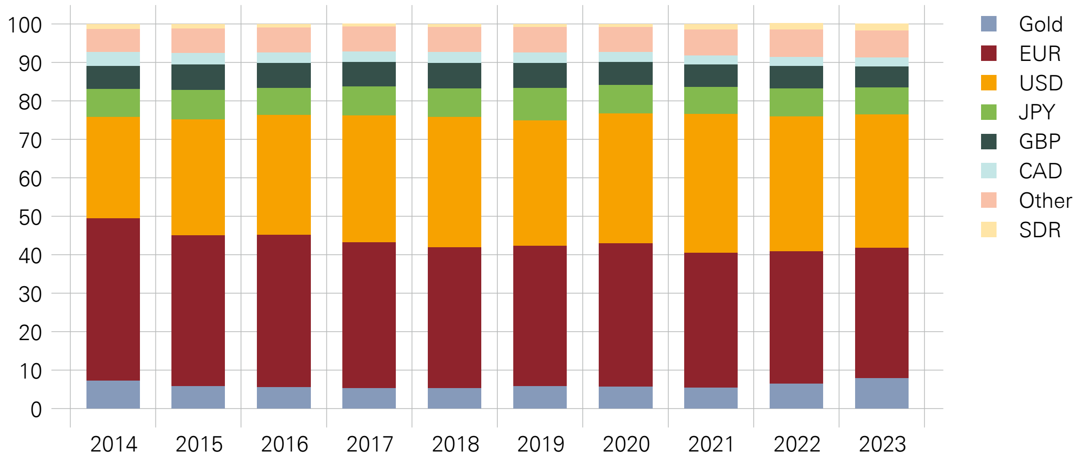
At the end of 2023, the equity portfolios comprised mostly shares of mid-cap and large-cap companies in advanced economies. Shares of small-cap companies in advanced economies and shares of companies in emerging economies were also held. This resulted in a globally well-diversified equity portfolio of around 6,600 individual shares (1,300 shares of mid-cap and large-cap companies and 4,100 shares of small-cap companies in advanced economies, as well as just under 1,200 shares of companies in emerging economies). With its broad market coverage based on market capitalisation, the SNB's ownership share of individual mid-cap and large-cap companies in all advanced economies is roughly the same. For reasons of liquidity and risk, the corresponding proportions of small-cap companies and companies in emerging economies are somewhat lower; with respect to the individual companies, the proportions held by the SNB are also roughly the same.

Swiss franc bonds

The passively managed Swiss franc bond portfolio primarily contains bonds issued by the Confederation, the cantons, municipalities and foreign borrowers, as well as Swiss Pfandbriefe. The average duration of the portfolio was 7.9 years.

BREAKDOWN OF CURRENCY RESERVES AT YEAR-END

In percent



Source(s): SNB

Non-financial aspects of managing securities of private sector issuers

The SNB holds part of its foreign currency investments in the form of shares and corporate bonds in order to take advantage of the positive return contribution of these asset classes and strengthen diversification, thus improving the long-term risk/return ratio. When managing such securities of private sector issuers, the SNB also takes non-financial aspects into consideration.

Owing to its special role vis-à-vis the banking sector, the SNB refrains from investing in shares of systemically important banks worldwide. The SNB also takes account of Switzerland's fundamental standards and values in its investment policy. It does not invest in shares and bonds of companies whose products or production processes grossly violate values that are broadly accepted at a societal level. It therefore does not purchase securities issued by companies that seriously violate fundamental human rights, systematically cause severe environmental damage, or are involved in the production of internationally condemned weapons.

Climate risks and adjustments to climate policy can trigger or amplify market fluctuations and influence the attractiveness of investments. From an investment perspective, such risks are essentially no different from other financial risks. All risks are managed by the SNB by means of its broad diversification strategy. The SNB monitors the latest climate change developments and findings and, for this purpose, engages in regular discussions with other central banks and institutions as well as the academic and scientific communities. Within the Central Banks and Supervisors Network for Greening the Financial System (NGFS), it actively participates in the various workstreams.

It should be noted that the constitutional and legislative authorities have deliberately not tasked the SNB with using its asset management activities to selectively influence the development of certain economic sectors. The SNB's investment policy therefore cannot be geared to pursuing structural policies, i.e. undertaking positive or negative selection with the aim of advantaging or disadvantaging specific economic sectors or of promoting or inhibiting economic, political or social change.

The process of exercising voting rights relating to shares is another non-financial aspect of managing assets issued by private sector companies. Here, the SNB restricts itself to issues of corporate governance. In the long term, good corporate governance helps companies – and hence the SNB's investments in them – to perform favourably. In exercising its voting rights, the SNB focuses on mid-cap and large-cap companies in Europe and works with external service providers to this end. The voting procedure is based on the SNB's internal guidelines for exercising voting rights. The SNB does not exercise its voting rights in the US.

The criteria for company exclusions, the implementation of these exclusions, as well as the exercise of voting rights are described in the SNB's Sustainability Report.

BREAKDOWN OF FOREIGN EXCHANGE RESERVES AND SWISS FRANC BOND INVESTMENTS AT YEAR-END

	2023 Foreign exchange reserves	2023 CHF bonds	2022 Foreign exchange reserves	2022 CHF bonds
Currency allocation (in percent, incl. derivatives positions)				
CHF		100		100
EUR	37		37	
USD	39		38	
JPY	8		8	
GBP	6		6	
CAD	3		3	
Other[1]	7		8	
Asset classes (in percent)				
Investments with banks	0		0	
Government bonds[2]	64	32	64	32
Other bonds[3]	11	68	11	68
Shares	25		25	
Breakdown of interest-bearing investments (in percent)				
AAA-rated[4]	32	82	61	80
AA-rated[4]	49	16	20	18
A-rated[4]	15	1	15	1
Other	4	1	4	1
Investment duration (years)	4.7	7.9	4.4	7.6

1 Mainly AUD, CNY, DKK, HKD, KRW, SEK, SGD plus small holdings of other currencies in the equity portfolios.
2 Government bonds in own currency, deposits with central banks and the BIS; in the case of Swiss franc investments, also bonds issued by Swiss cantons and municipalities.
3 Government bonds in foreign currency as well as bonds issued by foreign local authorities and supranational organisations, covered bonds, corporate bonds, etc.
4 Average rating, calculated from the ratings of major credit rating agencies.

Changes in asset structure

There was little year-on-year change in the structure of the foreign exchange reserves and Swiss franc bonds. The euro and US dollar shares, as well as those for the smaller currencies, remained largely unchanged. As regards the distribution of ratings for interest-bearing investments, compared to 2022 there was a significant reduction in the proportion of AAA-rated investments in favour of investments with an AA rating. This change is due to the downgrading of the US's credit rating (from AAA to AA). The shares of the other investments remained constant. The share of equities in the foreign exchange reserves stood at 25% at the end of 2023, as at the end of 2022.

5.4 BALANCE SHEET RISK

Risk profile of assets

The risk profile of the assets is determined by the currency reserves. The main risk to the currency reserves is market risk, in particular risks related to exchange rates, the gold price, share prices and interest rates. In addition, there is liquidity risk as well as credit and country risk, although these are not as significant as market risk. The contributions of Swiss franc bonds and outstanding Swiss franc loans to total risk are small.

Market risk

Exchange rates are the most important risk factor for the currency reserves. Currency risk is not hedged against the Swiss franc, as this would influence demand for Swiss francs. As a result, even minor changes in the Swiss franc exchange rates lead to substantial fluctuations in investment income, and thus in the SNB's equity. In addition to exchange rates, important risk factors include stock prices, interest rates and the gold price. Currency risk, share price risk and interest rate risk are limited through the specification of benchmarks and management guidelines. Various means, including the use of derivative financial instruments such as interest rate swaps, stock index futures and interest rate futures, are used to control these risks. Foreign exchange derivatives can be used to manage the currency mix.

Liquidity risk

The SNB's liquidity risk arises from the possibility that, should investments in foreign currencies need to be sold, such sales could be effected only partially or after considerable price concessions, or may not be possible at all. By holding a large volume of highly liquid government bonds in the major currencies – euros and US dollars – the SNB continued to ensure a correspondingly high level of liquidity in its foreign exchange reserves in 2023. Liquidity risk is reassessed periodically.

Credit risk

Credit risk stems from the possibility that counterparties or issuers of securities do not meet their obligations. Such risks are inherent in bilateral (over-the-counter) transactions with banks and in bonds issued by all borrower categories. The SNB holds bonds issued by public and supranational borrowers, covered bonds and similar instruments, as well as corporate bonds, as part of its currency reserves. For bonds, the SNB requires a minimum rating of 'investment grade'. Exposure to individual issuers is limited by means of concentration limits. Credit risk arising from non-tradable instruments with respect to banks was very low in 2023. Replacement values of derivatives were netted and collateralised, in accordance with the ISDA (International Swaps and Derivatives Association) agreements with counterparties. The SNB settles most of its interest rate swaps via a central counterparty. This facilitates netting of offsetting positions. Additionally, efficiency gains are made in the daily management of the securities used as collateral. Profits and losses from exchange-traded futures positions are netted daily; as a result, there is no default risk. Credit risk arising from futures transactions is limited to the extent of the collateral deposited at the exchanges.

In 2023, too, investments mainly took the form of government bonds; the bulk of these were in highly liquid bonds issued by the US and by European countries with very good credit ratings. At the end of 2023, outstanding balances at central banks and the Bank for International Settlements amounted to CHF 19 billion. Overall, 80% of interest-bearing investments were rated AA or higher.

Country risk

Country risk arises, among other things, from the possibility that a country may block payments by borrowers domiciled in its sovereign territory or block the right to dispose of assets held there. The tradability of investments may also be restricted by sanctions. In order to avoid entering into any unbalanced country risk, the SNB endeavours to distribute assets across a number of different depositories and countries, and seeks, wherever possible, to ensure that no investments originate from countries with a high risk of sanctions.

Gold holdings are stored according to these principles as well. In choosing a location, attention is paid to both appropriate regional diversification and easy market access. As before, of the 1,040 tonnes of gold, approximately 70% is stored in Switzerland, some 20% at the Bank of England, and roughly 10% at the Bank of Canada. Decentralised storage of gold holdings in Switzerland and abroad ensures that the SNB has access to its gold reserves even in the event of a crisis.

Balance sheet growth

The increase in currency reserves largely stemming from monetary policy in recent years had led to corresponding growth in the SNB's balance sheet. With the expansion of the balance sheet from 2008 onwards, the ratio of equity capital to currency reserves decreased significantly. Furthermore, loss risk rose in absolute terms. The SNB aims for a robust balance sheet with sufficient equity capital, to ensure that it can absorb even large losses. As of 2009, allocations to the provisions were thus gradually increased. The equity ratio (ratio of equity capital to currency reserves) subsequently stabilised. Owing to the high loss on investments in 2022, however, the equity ratio fell back below 10%. Despite a further contraction of the balance sheet by CHF 87 billion to CHF 795 billion as a result of additional foreign currency sales, the equity ratio remained below 10% at the end of 2023.

Provisions and distribution reserve

The SNB is required by art. 99 para. 3 of the Federal Constitution to create sufficient currency reserves from its earnings. According to art. 30 para. 1 NBA, the SNB must set aside provisions that allow it to maintain the currency reserves at the necessary level, while taking into account the development of the Swiss economy. The provisions for currency reserves and the distribution reserve together form the SNB's equity capital.

The provisions for currency reserves correspond to the desired level of equity capital at the given point in time. Allocations are made to these provisions on an annual basis with the aim of ensuring that the SNB has a solid equity base to absorb even large losses. The annual allocation is determined on the basis of double the average nominal GDP growth rate over the previous five years. This requirement was supplemented in 2016 with the specification of a minimum annual allocation of 8% of the provisions for currency reserves. In view of the considerable increase in currency reserves in the subsequent years, the minimum allocation was raised to 10% as of 2020. This is aimed at ensuring that sufficient allocations are made to the provisions for currency reserves and the balance sheet is strengthened even in periods of low nominal GDP growth. The minimum allocation of 10% applied again in 2023 and amounted to CHF 10.5 billion. The allocation raises the provisions for currency reserves to CHF 115.8 billion.

The distribution reserve is a form of profit/loss carried forward and serves as a fluctuation reserve to enable the legally required medium-term smoothing of the annual distributions. The portion of the annual result remaining after the appropriation of profit is allocated to the distribution reserve, or the shortfall for the appropriation of profit is drawn from it. Due to the high loss in 2022, the distribution reserve fell into negative territory for the first time since 2013. At the end of 2023, it stood at CHF –39.5 billion. The 2023 annual result was once again negative (CHF –3.2 billion). After the allocation to the provisions and offsetting with the annual result, the distribution reserve amounts to CHF –53.2 billion.

No profit distribution for 2023

In accordance with art. 31 para. 2 NBA, one-third of the SNB's net profit remaining after the dividend requirement is met accrues to the Confederation and two-thirds to the cantons. The amount of the annual profit distribution to the Confederation and the cantons is laid down in an agreement between the Federal Department of Finance and the SNB, with the aim of smoothing the distributions in the medium term. The current agreement covering the period through to the 2025 financial year stipulates the amount of the annual distribution depending on the net profit. A distribution is made only in the event of a positive net profit. The portion of the annual result remaining after the allocation to the provisions for currency reserves is the distributable profit. Together with the distribution reserve, this makes up the net profit/net loss. For the 2023 financial year, a net loss of CHF 53 billion was recorded. Accordingly, no profit distribution will be made to the Confederation and the cantons.

Changes in equity

After the increase in the provisions for currency reserves and the offsetting of the net loss, the SNB's equity amounted to CHF 62.6 billion (provisions of CHF 115.8 billion plus a distribution reserve of CHF –53.2 billion). In 2022, it had been slightly higher at CHF 65.8 billion. It thus declined by CHF 3.2 billion in the course of the year. The large loss incurred in 2022 highlights the importance of holding a sufficient level of equity, which can be built up through allocations to the provisions.

5.5 INVESTMENT PERFORMANCE

Investment performance

Investment return comprises the returns on foreign exchange reserves, gold and Swiss franc bonds.

In 2023, the return on currency reserves was 0.8%. Gold increased in value (3.1%), and the return on the foreign exchange reserves was also slightly positive (0.7%). In local currency, the return on foreign exchange reserves was 9.4%. Owing to the appreciation of the Swiss franc, the exchange rate return was negative (–8.0%). In Swiss franc terms, the annual return on the currency reserves has averaged 1.2% over the last 15 years.

Contributions of asset classes to investment performance

The currency reserves are mainly composed of gold, bonds and shares. The diversification effects achieved by adding shares to a portfolio, as well as their high liquidity, make them an attractive asset class for the SNB. Furthermore, given that expected return is higher on shares than on bonds, this asset class helps to preserve the real value of the currency reserves. Though long-term return expectations are higher for equities, they are also subject to greater fluctuations in value. Yet, while equities, viewed on their own, are indeed more prone to fluctuation, in the context of the portfolio as a whole – and with an equity exposure of the current magnitude – this disadvantage is offset by the asset class's favourable diversification effects relative to bonds and gold.

RETURN ON INVESTMENTS

Returns in percent

	Total[3]	Gold[3]	Currency reserves[1] Foreign exchange reserves Total[3]	Exchange rate return	Return in local currency	CHF bonds Total[3]
2009	11.0	23.8	4.8	0.4	4.4	4.3
2010	–5.4	15.3	–10.1	–13.4	3.8	3.7
2011	4.9	12.3	3.1	–0.8	4.0	5.6
2012	2.3	2.8	2.2	–2.3	4.7	3.7
2013	–2.5	–30.0	0.7	–2.4	3.2	–2.2
2014	8.0	11.4	7.8	2.6	5.1	7.9
2015	–4.7	–10.5	–4.4	–5.6	1.3	2.3
2016	3.8	11.1	3.3	–0.4	3.7	1.3
2017	7.2	7.9	7.2	2.9	4.2	–0.1
2018	–2.1	–0.6	–2.2	–1.5	–0.7	0.2
2019	6.1	16.3	5.5	–2.4	8.1	3.2
2020	1.9	13.5	1.2	–4.5	6.0	1.2
2021	2.7	–0.1	2.9	–0.6	3.5	–2.4
2022	–13.1	0.7	–13.9	–3.5	–10.8	–12.8
2023	0.8	3.1	0.7	–8.0	9.4	7.9
2019–2023[2]	–0.5	6.5	–1.0	–3.8	3.0	–0.8
2014–2023[2]	0.9	5.0	0.6	–2.1	2.8	0.7
2009–2023[2]	1.2	4.3	0.4	–2.7	3.2	1.5

1 In this table, they correspond to gold and foreign exchange reserves, excluding IMF Special Drawing Rights.
2 Average annual return over 5, 10 and 15 years.
3 In Swiss francs.

The share of equity holdings stood at 25% at the end of 2023. Equity exposure improves the risk/return profile of the foreign exchange reserves. Measured in Swiss francs, the average annual return on equities since their introduction as an asset class in 2005 has been 4.5%. Likewise measured in Swiss francs, the annual return on bonds over the same period has averaged –0.4%. The bond component of the foreign exchange reserves recorded a loss of CHF 112 billion between 2005 and 2023. The equity holdings generated earnings of CHF 130 billion over this period. In recent years, equities have thus enabled the SNB to make distributions and increase its equity capital.

RETURNS ON FOREIGN EXCHANGE RESERVES, IN SWISS FRANCS

Returns in percent

	Total	Bonds	Shares
2005	10.8	10.6	24.4
2006	1.9	1.3	11.1
2007	3.0	3.3	0.6
2008	–8.7	–3.1	–44.9
2009	4.8	3.7	20.4
2010	–10.1	–11.0	–2.6
2011	3.1	4.0	–6.8
2012	2.2	0.8	12.7
2013	0.7	–2.4	20.4
2014	7.8	6.9	12.7
2015	–4.4	–5.2	0.6
2016	3.3	1.5	9.2
2017	7.2	4.5	18.4
2018	–2.2	–1.1	–7.1
2019	5.5	1.1	24.5
2020	1.2	–0.7	5.1
2021	2.9	–2.4	22.1
2022	–13.9	–13.1	–16.5
2023	0.7	–3.2	12.4
2005–2023[1]	0.6	–0.4	4.5

1 Average annual return over 19 years.

6
Contribution to financial system stability

6.1 BACKGROUND

Mandate

Art. 5 para. 2 (e) of the National Bank Act (NBA) confers upon the Swiss National Bank the task of contributing to the stability of the financial system. In a stable financial system, financial intermediaries (especially banks) and financial market infrastructures (FMIs) can perform their functions at any time and are resilient to potential shocks and disruptions. Financial stability is an important prerequisite for economic development and effective monetary policy implementation. The SNB fulfils its task of contributing to financial stability, firstly through crisis prevention, and secondly through crisis management by acting as lender of last resort.

Crisis prevention

In the context of crisis prevention, the SNB analyses the sources of risk to the financial system and identifies areas where action is needed. Moreover, the SNB has two macroprudential regulatory powers at its disposal, namely the authority to designate banks as systemically important and to submit a proposal to the Federal Council for the activation, adjustment or deactivation of the countercyclical capital buffer (CCyB). While the designation of systemically important banks is focused on structural risks, the use of the CCyB addresses cyclical risks. In addition, the SNB helps to create and implement a regulatory framework for the financial sector at national and international level, and oversees systemically important FMIs. The SNB is not, however, responsible for banking supervision.

Crisis management

In the management of crises, the SNB acts as lender of last resort. In this role, it provides emergency liquidity assistance to domestic banks whose insolvency could have an impact on financial system stability if they are no longer able to refinance themselves on the market (cf. also chapter 2.6).

Collaboration with FINMA, FDF and foreign authorities

At national level, the SNB works closely with the Swiss Financial Market Supervisory Authority (FINMA) and the Federal Department of Finance (FDF) to create a regulatory framework that promotes stability. The SNB takes a primarily systemic view, focusing on the macroprudential aspects of regulation. FINMA, on the other hand, is responsible for the supervision of individual financial institutions and for ensuring that the financial markets function effectively. This collaboration is set out in two Memoranda of Understanding: one bilateral with FINMA, and the other trilateral with FINMA and the FDF.

At international level, the SNB participates in the design of the regulatory framework through its membership of the Financial Stability Board, the Basel Committee on Banking Supervision, the Committee on Payments and Market Infrastructures and the Committee on the Global Financial System (cf. chapters 7.2.2 and 7.2.3). In the oversight of cross-border FMIs, the SNB liaises closely with FINMA and with foreign authorities.

6.2 CRISIS AT CREDIT SUISSE

2023 was shaped by the crisis at Credit Suisse. Up until March the prospect still remained that the bank would be able to stabilise itself through strategic reorientation. However, the situation escalated abruptly mid-month. Following the authorities' announcement on 19 March of a package of measures comprising the acquisition by UBS as well as state support, the situation at Credit Suisse stabilised. Within the framework of its statutory task to contribute to the stability of the financial system, the SNB played a key part in finding a solution. In its role as lender of last resort, it made ample liquidity assistance available on an unprecedented scale, in Swiss francs and in foreign currencies. The package of measures was crucial in managing the acute crisis at Credit Suisse and thus in avoiding a financial crisis which would have had serious negative economic consequences for Switzerland and other countries. By providing liquidity assistance, the SNB acted within the scope of its role intended by law and made a decisive contribution to the success of this package of measures and thereby to the maintenance of financial stability. Based on experience gained from the crisis, the SNB is contributing lessons learnt to discussions being held at national and international level (cf. chapter 6.2.3).

6.2.1 CAUSES AND MANAGEMENT OF THE CRISIS

Repeated violations and fundamental shortcomings in risk management

On 19 March 2023, the Federal Council, FINMA and the SNB announced the acquisition of Credit Suisse by UBS as well as state support measures. This followed a prolonged period which had seen an erosion of profitability at Credit Suisse. Contributory factors were repeated incidents at the bank itself, primarily triggered by violations of statutory and supervisory requirements as well as fundamental shortcomings in risk control and risk management. As a consequence, large fines were imposed, a number of enforcement proceedings were initiated by the supervisory authorities, and financial losses were incurred – for example, due to the default of the US hedge fund Archegos Capital Management in 2021. Besides the challenging economic and financial environment, Credit Suisse's exit from some of its business areas and the reputational damage it suffered led to a reduction in revenues and an increase in its funding costs. Unable to offset these with cost-cutting measures, the bank reported losses over several quarters.

Increasingly critical market assessment despite strategic reorientation

At the end of October 2022, as part of its strategic reorientation, Credit Suisse announced a significant downsizing of its investment banking business and a focus on wealth management, asset management and its Swiss business. This reorientation was aimed at risk reduction and as such was welcomed by the SNB. However, the strategic reorientation came at a time when the bank was already ailing. Furthermore, its implementation entailed high restructuring costs and a long transition period, and analysts and rating agencies considered the associated risk to be high. In the end, the plans that Credit Suisse had drawn up were not sufficient to restore confidence in its business model on a sustainable basis. On the contrary, clients, rating agencies and market participants were taking an increasingly critical assessment of the bank. This was reflected in high outflows of customer deposits, rating downgrades and a significant deterioration in market-based indicators, such as credit default swap (CDS) premia and the share price.

Massive loss of confidence in March 2023

Following the failure of various banks in the US in March 2023, the market's perception of Credit Suisse deteriorated massively. Despite the fact that its exposure to these US banks was immaterial, Credit Suisse's share price fell by over 30% in the days that followed, while its CDS premia peaked at more than 1,000 basis points on 15 March.

These market events were compounded by a finding of the US Securities and Exchange Commission (SEC) which led to the postponement in the publication of Credit Suisse's 2022 annual report, and the public announcement by a major shareholder that it would not make any further capital injections. This significantly intensified the loss of confidence once more. The bank's liquidity was now under immediate threat, as clients withdrew deposits at a rapid rate and on a massive scale and counterparties cut their credit limits, while payment agencies and clearing institutions requested substantial prepositioning of liquidity. Although Credit Suisse still complied with the regulatory capital and liquidity requirements, it became increasingly unlikely that the bank would be able to stabilise its situation through its own efforts. From 16 March, the SNB provided Credit Suisse with ample liquidity assistance. This liquidity assistance served to create the necessary time window until a comprehensive package of measures to solve the crisis of confidence in Credit Suisse could be worked out.

Acquisition seen as best solution for financial stability and Swiss economy

Key elements of this package of measures were the acquisition of Credit Suisse by UBS and the liquidity assistance in Swiss francs and foreign currencies provided by the SNB (cf. chapter 6.2.2). Besides the existing liquidity-shortage financing facility and emergency liquidity assistance (ELA), two new instruments were deployed – additional emergency liquidity assistance (ELA+), and a liquidity assistance loan secured by a federal default guarantee (public liquidity backstop, PLB). Both new instruments were made possible under emergency law passed by the Federal Council and came with preferential rights in bankruptcy proceedings. Essential conditions that made the acquisition possible were the derogation from the Mergers Act and the granting of a loss protection guarantee of up to CHF 9 billion by the federal government to UBS for a specific portfolio of difficult-to-assess Credit Suisse assets. Both measures were also based on emergency law. Moreover, FINMA ordered Credit Suisse to write down additional Tier 1 (AT1) debt instruments in the amount of around CHF 15 billion. This led to a substantial increase in the bank's Common Equity Tier 1 (CET1) capital.

The acquisition of Credit Suisse by UBS together with the measures implemented by the authorities quickly stabilised the situation at Credit Suisse and prevented the crisis from spreading to other banks in Switzerland and worldwide.

Since autumn 2022, the authorities had been carefully evaluating various options, including in particular a resolution, sale or temporary public ownership (TPO) of Credit Suisse. After considering the risks involved, the authorities ultimately decided in favour of the acquisition of Credit Suisse by UBS. Client confidence in Credit Suisse had been eroded to such an extent that it was uncertain whether the resolution measures would have restored market confidence. Furthermore, given the fragility of the financial markets at that time, there were fears that resolution of the bank with a bail-in would destabilise the financial system in Switzerland and worldwide. Moreover, such a resolution involves legal risks in the conversion of debt into equity. A TPO was considered as a fallback option had the acquisition not gone through.

Positive market assessment of package of measures

Crucial to the restoration of confidence were primarily three factors: first, the market's perception that Credit Suisse was being acquired by a solid bank with a profitable business model; second, the ample liquidity assistance from the SNB, which ensured Credit Suisse's ability to meet its financial obligations; and third, the loss guarantee granted to UBS by the federal government, which reduced the risks the bank faced. As a result, Credit Suisse's market indicators started to converge with those of UBS, and the customer deposit outflows slowed quickly. Following the repayment of the liquidity assistance made available on the basis of emergency law (ELA+ and the PLB) as well as the termination on 11 August 2023 of the federal loss protection guarantee, UBS's market indicators improved considerably compared with their levels at the time of the Credit Suisse acquisition. The liquidity assistance provided by the SNB was crucial not only in March, but remained important thereafter.

6.2.2 THE SNB'S ROLE AND ITS CONTRIBUTION TO MANAGING THE CRISIS

SNB's contribution to finding solution

Since late summer 2022, the SNB had been in close dialogue with the FDF and FINMA concerning the situation at Credit Suisse. Among other things the SNB advocated the preparation and development of various courses of action, should the crisis at Credit Suisse deteriorate further. The options considered also included acquisition by another bank. The SNB deemed an acquisition to be an appropriate solution to safeguard financial stability should the situation escalate. Preparatory work on this option, in which the SNB participated, was a critical factor in ensuring that it was indeed available in the emergency situation that subsequently arose.

At the beginning of 2023, the SNB identified the execution risks of each option for submission to the crisis committees, estimating their costs and benefits from an economic perspective under different scenarios, and comparing these with the economic impact of a disorderly failure of Credit Suisse.

Preparation of liquidity assistance intensified from autumn 2022

Based on its statutory task to contribute to the stability of the financial system, the SNB can act as lender of last resort in the event of a crisis. In this role, it provides emergency liquidity assistance against sufficient collateral to banks that are solvent but no longer able to refinance themselves on the market. The SNB works continuously on being able to optimally perform its tasks as lender of last resort. This includes regularly testing the processes with the systemically important banks as well as collaborating with other key central banks that play a crucial role in granting liquidity assistance in foreign currency in the event of a crisis. Furthermore, it includes the expansion of facilities. In recent years, this has involved the inclusion of commercial mortgages in the range of eligible collateral, and allowing the delivery of securities through foreign settlement intermediaries acting as triparty agents.

From autumn 2022, the SNB stepped up preparations for a possible provision of liquidity assistance in light of the escalating crisis at Credit Suisse. In particular, it asked Credit Suisse to identify further assets on its balance sheet which could establish a valid and enforceable security interest in favour of the SNB and could thus be used for obtaining emergency liquidity assistance. However, Credit Suisse failed to identify any further material items that met this criterion. Against this backdrop and in close consultation with the crisis committees, the SNB developed the ELA+ concept and aligned it with the application of the PLB.

Ample liquidity assistance crucial for success of package of measures

In March 2023, Credit Suisse was in jeopardy of being unable to meet its financial obligations due to the very high liquidity outflows associated with the loss of confidence. The SNB therefore made ample liquidity assistance available to the bank in Swiss francs and foreign currencies.

On 16 March 2023, the SNB provided CHF 38 billion in liquidity under emergency liquidity assistance (ELA) and CHF 10 billion under the liquidity-shortage financing facility. On 17 March, the SNB provided additional emergency liquidity assistance (ELA+) of CHF 20 billion. This new instrument established under emergency law became necessary because the liquidity buffers and the collateral prepared by Credit Suisse for the existing SNB facilities were not sufficient to cover the liquidity outflows. The use of ELA+ made it possible to ensure Credit Suisse's liquidity supply until the weekend and to find a definitive solution to the crisis of confidence in the bank during this period. On 20 March, the SNB provided a further CHF 30 billion in ELA+ as well as CHF 70 billion in liquidity assistance under the PLB. The Federal Council activated the PLB on the basis of emergency law to ensure the successful implementation of the acquisition of Credit Suisse by UBS.

Altogether, the SNB provided Credit Suisse with CHF 168 billion in liquidity via these instruments (cf. chapter 2.6). This was the largest amount of liquidity assistance ever provided to a single bank anywhere in the world. Due to the massive loss of confidence, the maximum amount of liquidity assistance was calculated so that it covered virtually all possible short-term outflows from the bank. The liquidity assistance was always provided immediately upon the bank's request, and supplied in Swiss francs, US dollars and euros.

It was only thanks to its well-established processes and extensive preparation for crisis scenarios that the SNB was able to provide Credit Suisse with such a high volume of liquidity in the required currencies within a very short space of time. The access granted to the Federal Reserve's repo facility for foreign and international monetary authorities (FIMA Repo Facility, cf. chapter 2.5) was particularly important for procuring US dollars. The SNB had to use USD 75 billion of its own US Treasury holdings as collateral for the FIMA transaction.

Credit Suisse repaid the liquidity assistance loans granted under the PLB and ELA+ in full by the end of May and mid-August 2023 respectively. As at 31 December 2023, the ELA loans of CHF 38 billion remained outstanding.

Broad range of eligible collateral

Under the National Bank Act, the SNB must demand sufficient collateral from a bank when providing liquidity assistance. This principle is consistent with international practice. The SNB accepts a broad range of collateral which is determined in dialogue with the banks and is therefore known to them. The focus is on non-liquid assets which the banks are unable to use at short notice to generate liquidity in a crisis. These primarily comprise mortgages to private individuals and companies which, for systemically important banks in Switzerland, constitute around 85–95% of a bank's domestic lending volume to non-financial customers. A large proportion of the illiquid domestic assets available in the banking sector can therefore be used as collateral for liquidity assistance from the SNB. Systemically important banks can also use various securities as collateral. Through securitisation, loans to foreign clients – such as Lombard loans, which make up a large share of big banks' portfolios – can also be used as collateral. The collateral deemed eligible by the SNB and the risk-based haircuts which the SNB applies in its valuation of such securities are comparable to those of other central banks. Given their international focus, big banks also have the opportunity to post foreign collateral directly at liquidity facilities of foreign central banks.

A prerequisite for illiquid assets to be used as collateral in obtaining liquidity assistance is that a valid and enforceable security interest in favour of the SNB can be established on these assets, for instance through a pledge or assignment as security. Otherwise, should the loan not be repaid, the SNB would be unable to realise the collateral. A decisive factor for the usability of assets as collateral is that the banks have made the necessary preparations. This particularly concerns legal aspects such as the amendment of transfer clauses and, in the case of loans to foreign clients, securitisation. A check must also be made that the relevant assets are not already encumbered under another agreement. Finally, a client's assets have to be offset against its liabilities. Banks are familiar with the requirements that must be met for a valid and enforceable delivery of collateral.

For many years, the SNB has adhered to the principle of constructive clarity in connection with its role as lender of last resort. Constructive clarity means that the banks and authorities are aware of the requirements for ELA and the corresponding potential for liquidity assistance.

In the case of Credit Suisse, it was not the range of collateral accepted by the SNB and other central banks that limited the provision of liquidity assistance. Rather, the preparations made by Credit Suisse were not sufficient to exploit the full potential for liquidity assistance. First, in the case of certain assets, the requirements for a valid and enforceable delivery of collateral were not met. Second, a substantial proportion of eligible assets was already encumbered, or committed in other financial transactions of the bank. Even though, with better preparation, Credit Suisse could have been granted a larger proportion of liquidity by the SNB under ELA, the PLB would still have been necessary because the bank's need for liquidity was so great.

SNB's contribution in line with division of roles between authorities

Even in an acute crisis situation, the SNB must adhere to the framework established by law and comply with the allocation of roles to authorities envisaged therein. According to the NBA, the SNB may only lend to banks on a secured basis. This ensures that the SNB's support is limited to liquidity assistance and does not become solvency support. The granting of unsecured loans and thus the decision whether to support a bank incorporated under private law with public funds and at taxpayers' risk must be taken by government and parliament. This is why the SNB is not permitted to provide a bank with unlimited and/or unsecured financial assistance. Furthermore, the SNB has no legal basis for guaranteeing deposits or recapitalising, acquiring or resolving banks.

6.2.3 LESSONS FROM THE CRISIS

Address weaknesses in regulatory system

The crisis at Credit Suisse highlighted weaknesses in the regulatory framework. Banks' resilience and their resolvability in a crisis should therefore be strengthened. At the same time, the current 'too big to fail' (TBTF) regulations should be reviewed to ensure that they take adequate account of the systemic importance of individual banks. In particular, the SNB recognises a need for action in the areas of early intervention, capital and liquidity requirements, and resolution planning. It is participating at both national and international level in the ongoing debate about regulatory adjustments (cf. chapter 7.2).

In the case of Credit Suisse, the strong focus on regulatory metrics led to a delay in stabilisation measures being taken. Despite the fact that, even at the peak of the crisis, Credit Suisse met the regulatory capital requirements, clients, rating agencies and investors increasingly lost confidence in the bank. The corrections initiated by the bank were not enough to enable it to stabilise its situation in time through its own efforts. The massive loss of confidence ultimately necessitated a comprehensive package of measures involving the acquisition by UBS as well as support measures from the SNB and the federal government. In this situation, the resolution strategy provided for under the TBTF regulations was rejected because it was doubtful whether this would have restored the necessary confidence. In order to stabilise a systemically important bank in a timely manner, the early intervention toolkit should therefore be expanded to include market-based and forward-looking indicators.

Expand toolkit for early intervention

The SNB identifies a need for action in the area of capital regulation in two respects. First, the AT1 instruments only became loss absorbing at a late stage. They were written off at the point when state support had become unavoidable. Although they did indeed play a key role in the solution that was finally chosen to manage the crisis, the opportunities AT1 instruments offered for reducing the bank's financing costs or absorbing losses, such as through the suspension of buybacks and interest payments, had not been taken advantage of in the months leading up to this point. These options were not exercised because of concerns that this would be interpreted by the market as a sign of weakness, accelerating the loss of confidence. The AT1 instruments were thus unable to make their intended contribution to the stabilisation of the bank as a going concern. In the SNB's view, the aim should be to strengthen this contribution through a timely suspension of buybacks and interest payments as well as conversion of these instruments into CET1 capital at an earlier stage.

Strengthen quality of capital base

Second, it became apparent that some of Credit Suisse's CET1 capital was not of a high enough quality. Credit Suisse was able to include assets in its regulatory capital at a value that proved not to be robust in the crisis. These assets dropped sharply in value when strategy adjustments and radical restructuring measures became necessary. They included, for example, capitalised software and deferred tax assets. Impairments of the latter depleted around half of the capital increase carried out in Q4 2022. In addition to these impairments, Credit Suisse expected high restructuring costs. Doubts as to the intrinsic value of certain balance sheet items used in calculating CET1 capital also led to substantial valuation adjustments, which UBS implemented in Q2 2023 following the acquisition. Altogether, these valuation adjustments by UBS resulted in a CET1 reduction that almost equalled Credit Suisse's total regulatory CET1 capital requirements.

The crisis also uncovered weaknesses in the regulatory treatment of participations of the bank's parent company, i.e. of Credit Suisse AG as a stand-alone operating bank. The value of these participations halved during the course of the crisis due to the increasingly poor profitability outlook. This led to a massive reduction in the parent company's capital, which restricted the bank's room for manoeuvre in terms of strategy adjustments. It is the SNB's view, therefore, that efforts should be made to adjust both the valuation of assets that are included in regulatory capital and the regulatory treatment of parent company participations in order to ensure that bank capital retains its intrinsic value in crisis situations.

Review appropriateness of progression in capital requirements

Under the current TBTF regulations, capital requirements increase with the degree of systemic importance ('progression'). Systemic importance is measured according to the bank's size and domestic market share. Progression is intended to reflect the risk that the failure of a systemically important bank would present for the Swiss economy. The systemic importance of UBS has increased considerably with the acquisition of Credit Suisse. A review needs to be made as to whether the progression takes adequate account of this increase in systemic importance.

Improve liquidity supply

The experience with Credit Suisse in March 2023 showed that neither its compliance with the current liquidity requirements nor the collateral prepared by the bank for obtaining emergency liquidity assistance from central banks were sufficient to cover a sharp rise in its liquidity needs. The crisis at Credit Suisse also demonstrated that the prospects of successful stabilisation or resolution are seriously undermined if the bank in question has already lost a large proportion of its deposits base.

The current liquidity regulations underestimate operational needs for liquidity and potential outflows of deposits, particularly from large clients. Furthermore, due to its inadequate preparation, Credit Suisse did not exhaust the potential for liquidity assistance. Accordingly, its liquidity needs could not be fully satisfied even with the SNB's liquidity assistance.

It is the SNB's view that the stability of bank financing needs to be considerably strengthened through the liquidity regulations. Banks should also be required to prepare a much higher volume of collateral for the purposes of obtaining emergency liquidity assistance from the SNB and foreign central banks. Nevertheless, there may be circumstances when the SNB's facilities for providing emergency liquidity assistance against sufficient collateral have been exhausted. In such cases, a PLB allows the SNB to provide the bank in question with additional liquidity, the repayment of which is guaranteed by the federal government.

The Liquidity Ordinance stipulates that every bank has to prepare an emergency liquidity plan which must contain effective strategies to address liquidity shortages. Systemically important banks must also show, in a FINMA-approved recovery plan, how they intend to stabilise themselves in a crisis through their own efforts. Finally, FINMA prepares a resolution plan for large globally active banks. This includes measures to be taken in a resolution when there is a liquidity shortage. These precautions proved insufficient in the crisis. The relevant requirements and specifications should therefore be tightened.

Improve resolution planning

In a report based, inter alia, on the experience with Credit Suisse, the Financial Stability Board (FSB) identified possible obstacles in connection with the execution of resolution measures. These concern, in particular, legal risks and possible contagion effects in connection with a bail-in, which could pose a risk to financial stability. These risks should be addressed. In addition, it is important to prepare a broad range of options for the resolution of a systemically important bank. Lastly, it is necessary to ensure that, also in the case of a liquidity crisis, FINMA is able to enforce resolution measures in a timely manner and with sufficient legal certainty.

TBTF report of spring 2024

In the wake of the Credit Suisse crisis, the FDF announced that it would comprehensively review the TBTF regulatory framework. The results are to be submitted to parliament in spring 2024 as part of the Federal Council's next report on systemically important banks (TBTF report). The review of the TBTF framework will also have to take into account the findings of the parliamentary investigation committee (PIC) set up by the Federal Assembly, which is examining the role and actions of the competent authorities in the crisis at Credit Suisse.

6.3 INITIATIVE TO EXPAND LIQUIDITY ASSISTANCE

Liquidity against mortgage collateral (LAMC)

In 2023, the SNB presented its 'Liquidity against Mortgage Collateral' (LAMC) initiative. Banks of all sizes can find themselves in a situation where they need significant amounts of liquidity quickly despite having precautions in place that comply with regulations. The aim of the LAMC initiative is to ensure that, should the need arise, the SNB will in future be able to provide liquidity against mortgage collateral to all banks in Switzerland that have made the requisite preparations. This possibility was already available to systemically important banks.

The SNB started preparatory work for this expansion in 2019. Implementation began in 2022 with two pilot banks. The LAMC initiative focuses on mortgages in Swiss francs granted to companies and private individuals because this is by far the most significant illiquid balance sheet item in the banking system. Mortgage collateral is transferred digitally and in a standardised format via the SIX Terravis platform.

The SNB expects banks involved in mortgage lending to take part in the initiative. The greater the number of banks that take the preparatory steps necessary to use the new possibility of obtaining liquidity, the greater the SNB's room for manoeuvre will be in time of need. This initiative will strengthen the banking system's resilience to liquidity shortages, and contribute to financial stability.

6.4 RISK MONITORING: CURRENT TOPICS

Weaker momentum on mortgage and real estate markets

Against the background of rising capital market and mortgage interest rates in 2022 and 2023, momentum on the mortgage and real estate markets started to weaken gradually in the course of 2023. In the owner-occupied residential property segment, price movements slowed significantly, and in the residential investment property segment they turned negative. Mortgage growth also declined, particularly mortgage lending to households.

Persisting vulnerabilities

Despite this slowdown, the vulnerabilities on the mortgage and real estate markets persisted. With regard to credit quality, for instance, there were signs of elevated affordability risks, most notably regarding new mortgage lending to commercial borrowers. Moreover, prices on the residential real estate market continued to be higher than can be explained by fundamental factors. Against this backdrop, the capital buffers in the banking system play a crucial role.

Climate risk

The SNB monitors climate-related risks to financial stability. Climate change could affect banks' traditional core business – e.g. as a result of write-downs on loans to particularly exposed companies and households or due to trading losses caused by valuation adjustments in stock and bond markets. For example, the transition to a low-carbon economy can make the business model of companies or entire industries unviable. Acute weather events such as storms and floods can cause damage to buildings and infrastructure. To monitor these risks, the SNB is in dialogue with FINMA, the State Secretariat for International Finance and other expert bodies.

Mortgages are the largest item on the assets side of domestically focused banks' balance sheets, as they constitute around 90% of credit volume. Alongside the traditional risks for mortgages in Switzerland, such as the effects of interest rate rises on affordability and loan-to-value ratios, climate risks can represent an additional risk. For the analysis of these risks, representative data must be collected. The assessment of transition risks for mortgages, i.e. the risks associated with moving to a low-carbon economy, in particular uses data on the energy efficiency of properties, such as energy labels. Physical climate risks in the mortgage portfolio are identified through an evaluation of the data basis and scenario analysis for Switzerland.

FINMA and the SNB launched a further project to analyse transition risks in UBS's corporate portfolios (stocks, bonds and loans). This project aims to facilitate a more robust assessment of the materiality of the bank's climate risks in this area. First, the results and methodologies can be compared with those of the pilot project completed in 2022, thus enabling better interpretation of the data. Second, the higher granularity of the analysis will better account for company-specific characteristics such as the energy mix used for production, individual transition plans or the level of indebtedness.

6.5 MEASURES RELATING TO MORTGAGE AND REAL ESTATE MARKETS

Measures up to end-2022

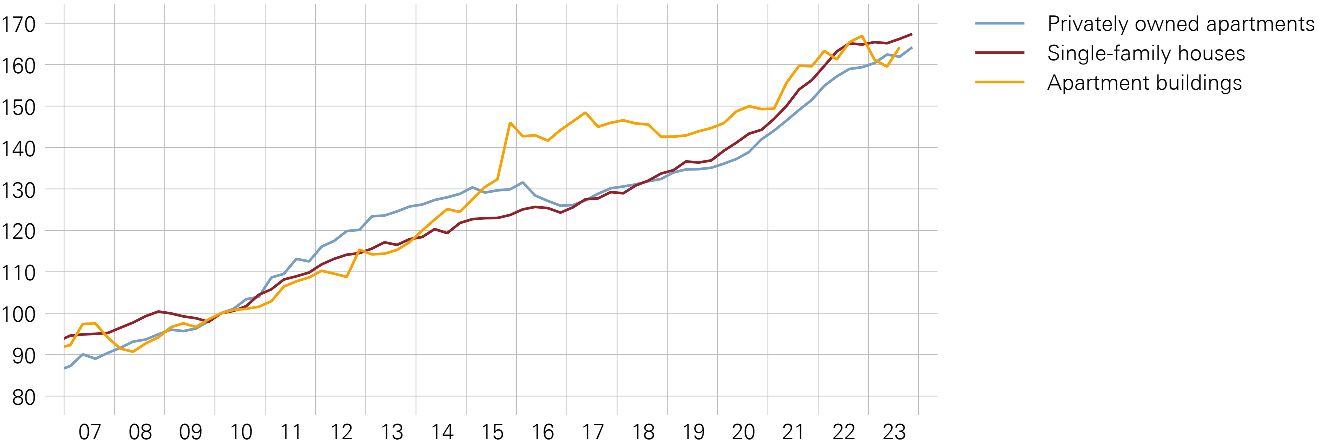
In the aftermath of the global financial crisis, vulnerabilities had increasingly built up due to the strong growth in mortgage volume and real estate prices. These vulnerabilities posed a threat to the stability of the banking system. In response to this, the Swiss Bankers Association's self-regulation guidelines on mortgage financing were tightened several times. Moreover, a sectoral CCyB, targeted at mortgage loans financing residential real estate in Switzerland, was first activated at 1% in 2013 and then increased to 2% in 2014. Following its temporary deactivation amid the coronavirus pandemic, the sectoral CCyB was reactivated in 2022 and, due to the build-up of vulnerabilities on the mortgage and real estate markets, increased to 2.5%.

No proposal for CCyB adjustment in 2023

The SNB monitors the situation on the mortgage and real estate markets closely, and regularly assesses the need for an adjustment of the CCyB. In 2023, following an in-depth analysis, the SNB decided not to submit a proposal to the Federal Council for an adjustment to the sectoral CCyB. Given the existing vulnerabilities on the Swiss mortgage and real estate markets, the level of 2.5% was still deemed appropriate.

REAL ESTATE PRICE INDICES

Transaction prices, nominal, index: Q1 2010 = 100



Source(s): Wüest Partner

6.6 OVERSIGHT OF FMIs

6.6.1 BACKGROUND

Mandate

The NBA (art. 5 and arts. 19–21) requires the SNB to oversee systemically important central counterparties, central securities depositories, payment systems and trading facilities for distributed ledger technology securities (DLT trading facilities) as specified in art. 22 of the Financial Market Infrastructure Act (FinMIA). To this end, the SNB cooperates with FINMA as well as with foreign supervisory and oversight authorities. The National Bank Ordinance (NBO) sets out the details of the oversight of systemically important FMIs.

Focus on systemically important FMIs

The domestic FMIs that could harbour risks for the stability of the financial system currently include the central counterparty SIX x-clear, the central securities depository SIX SIS and the payment system Swiss Interbank Clearing (SIC system). These are operated by SIX x-clear Ltd, SIX SIS Ltd and SIX Interbank Clearing Ltd respectively, which are subsidiaries of SIX Group Ltd (SIX).

Other FMIs that are important for the stability of the Swiss financial system are the Continuous Linked Settlement (CLS) foreign exchange settlement system and the central counterparties London Clearing House (LCH) and Eurex Clearing. The operators of these FMIs are domiciled in the US, the UK and Germany respectively.

Cooperation with FINMA

The central counterparty SIX x-clear and the central securities depository SIX SIS are subject both to prudential supervision by FINMA and to oversight by the SNB. Although FINMA and the SNB exercise their supervisory and oversight powers separately, they coordinate their activities. Oversight of the SIC system is exclusively the SNB's responsibility.

… and with foreign authorities

For the oversight of Swiss FMIs with cross-border activities, the SNB cooperates with foreign authorities, in particular the European Securities and Markets Authority, the European Central Bank, authorities in the Netherlands, and the Bank of England. For the oversight of FMIs domiciled abroad, namely CLS, Eurex Clearing and LCH, the SNB cooperates with the relevant foreign authorities. It also participates in the oversight of the Belgium-based Society for Worldwide Interbank Financial Telecommunication (SWIFT), which operates a global network for the transmission of financial messages.

6.6.2 ONGOING OVERSIGHT

Based on their ongoing supervision and oversight activities, FINMA and the SNB issue annual statements regarding systemically important FMIs' compliance with regulatory requirements. While FINMA addresses compliance with the general requirements of the FinMIA, the SNB addresses compliance with the special requirements of the NBO.

Assessing compliance with special requirements

In its statements for 2023, the SNB noted that the systemically important FMIs were complying with all but one of the special requirements. As in previous years, the exception related to requirements for FMIs' business continuity management, which needs to be enhanced. Implementation of the necessary measures will take several years.

In 2023, the FMIs refined their analysis of the impact of various extreme but plausible scenarios. These include scenarios leading, for example, to a partial or total loss of data at all data centres, or scenarios in which data integrity is severely compromised. Furthermore, the FMIs evaluated their current ability to resume their critical business processes in the event of these scenarios materialising. To improve their recovery capability in such scenarios, the FMIs implemented a number of measures, e.g. ransomware-proof data storage. Additional technical and organisational measures, such as building an isolated infrastructure for system recovery, are aimed at further optimising, in the short to medium term, the ability to recover critical business processes. It is the SNB's expectation that FMIs should further develop and enhance business continuity management for extreme but plausible scenarios in the longer term too.

In its statements in the year under review, the SNB set out expectations to be taken into consideration by FMIs in the ongoing development of their services and risk management tools in order to ensure continued compliance with the special requirements. In 2023, the FMIs implemented a number of measures, as an appropriate response to the expectations set out by the SNB in 2022. For example, SIX SIS was able to significantly reduce its settlement risks associated with foreign exchange transactions by connecting to the CLS foreign exchange settlement system.

The SNB contracted an external audit firm to investigate an operational incident that had occurred at a systemically important FMI in June 2022. The audit conducted in 2023 identified room for improvement in the areas of release and test management as well as incident and crisis management. The FMI in question implemented the necessary measures without delay. As the findings from this operational incident may also be relevant for other FMIs, the SNB called on them to analyse whether they have a similar need for improvement.

Effects of Credit Suisse's acquisition by UBS

The acquisition of Credit Suisse by UBS also has an impact on systemically important FMIs. All systemically important FMIs analysed the effects of the acquisition on their organisation, services, products, business performance and risk management, and discussed their findings with the SNB. For example, SIX x-clear analysed how its risk exposure to UBS and Credit Suisse as a combined bank is changing and how this impacts its credit and liquidity stress test results. The analysis showed that the impact is small, in particular because of netting effects, and that it is therefore not necessary for SIX x-clear to take additional risk mitigation measures at this point in time.

Monitoring major projects

In 2023, the SNB once again addressed various SIX projects. For example, it monitored the renewal of the SECOM technology platform, which forms the technical basis for the operation of various systemically important business processes. The migration to new technology, which SIX successfully completed in June 2023, increases flexibility in application design while reducing operating costs. The SNB also addressed the SIC5 project, which entails building a new technology platform allowing the settlement of instant payments (cf. chapter 4). The SIC5 platform was successfully launched in November 2023.

6.6.3 ASSESSMENT OF SYSTEMIC IMPORTANCE OF FMIs

Authorisation procedure for new Swiss FMIs

Central counterparties, central securities depositories, payment systems and DLT trading facilities which apply for a licence from FINMA are assessed by the SNB for their systemic importance pursuant to art. 22 para. 1 FinMIA. To conduct such an assessment, the SNB considers the impact of an FMI on the stability of the Swiss financial system.

The SNB completed the assessment (started in 2021) of the systemic importance of the euroSIC payment system operated by SIX Interbank Clearing Ltd. It classified euroSIC as a non-systemically important payment system. This assessment is based in particular on the fact that the participating banks can quickly substitute euroSIC's payment services with alternative settlement procedures if necessary.

6.7 FINANCIAL SECTOR CYBERSECURITY

Importance of cybersecurity for financial sector

IT system outages and disruptions, particularly those resulting from cyberincidents, can severely jeopardise the availability, integrity and confidentiality of data as well as critical services and functions within the financial system. It is first and foremost the responsibility of the individual financial institutions to adequately protect themselves against cyber risks. However, due to the highly interconnected nature of the financial system and the various cross-institutional processes, sector-wide precautions and measures are also necessary. This calls for close cooperation between the private stakeholders. In addition, the federal government, FINMA and the SNB contribute to the cybersecurity of the financial sector within the scope of their respective mandates.

Participation in Swiss FS-CSC association

The SNB is a member of the Swiss Financial Sector Cyber Security Centre (Swiss FS-CSC), founded in 2022. This association promotes cooperation between financial institutions and authorities in strategic and operational matters, thus strengthening the financial sector's cybersecurity. The Swiss FS-CSC facilitates a better exchange of information on the threat situation and specific incidents. Furthermore, it supports the identification as well as the implementation of sector-wide prevention and protection measures. In addition, it supports financial sector participants in managing systemic cyberincidents and conducts strategic and operational crisis simulation exercises on a regular basis.

In the year under review, the SNB supported the Swiss FS-CSC notably in setting up a sector-wide crisis organisation. Moreover, it participated in two crisis simulation exercises that were planned and conducted by the association.

Sector-wide measures to enhance cybersecurity

The SNB conducts or takes part in projects aimed at enhancing cybersecurity on a sector-wide basis, particularly in the area of cashless payments. In 2023, the focus was on the Secure Swiss Finance Network (SSFN). The SNB pursued this project in its role as commissioning party and system manager of the SIC payment system (cf. chapter 4.2).

7 Participation in international monetary cooperation

7.1 BACKGROUND

Mandate

The Swiss National Bank participates in international monetary cooperation and, for this purpose, works with the Federal Council (art. 5 para. 3 National Bank Act). The objective of international monetary cooperation is to promote the functioning and stability of the international monetary and financial system and help overcome crises. As a globally integrated economy with an important financial centre and its own currency, Switzerland derives particular benefit from a stable international monetary and financial system. As part of its international monetary cooperation, the SNB is involved in multilateral institutions and forums. It also cooperates on a bilateral level with other central banks and authorities.

7.2 MULTILATERAL COOPERATION

7.2.1 INTERNATIONAL MONETARY FUND

Participation in IMF

The International Monetary Fund (IMF) is the central institution for international monetary cooperation. It promotes the stability of the global monetary and financial system as well as the economic stability of its 190 member countries. Its main fields of activity are economic policy surveillance, the provision of financial support for countries facing balance of payments difficulties, and technical assistance.

Switzerland is jointly represented in the IMF by the Federal Department of Finance (FDF) and the SNB. The Chairman of the SNB's Governing Board represents Switzerland on the Board of Governors, the IMF's highest decision-making body. The Head of the FDF is one of the 24 members of the International Monetary and Financial Committee (IMFC), the IMF's steering committee. Switzerland is part of a voting group (constituency) whose other members are Azerbaijan, Kazakhstan, the Kyrgyz Republic, Poland, Serbia, Tajikistan, Turkmenistan and Uzbekistan. Switzerland and Poland alternate in appointing the executive director, for two years each time, who represents the group as one of the 24 members on the Executive Board, the IMF's most important operational body.

SNB priorities in IMF

Together with the FDF, the SNB advocated an economic policy in the IMF that promotes sustainable growth and a stable international monetary system, focusing particularly on combating inflation, reducing the risks of over-indebtedness in developing countries and emerging economies, and pursuing appropriate structural reforms. In the year under review, IMF governance and financing were also central concerns. Given that Switzerland is an important contributor to the IMF, the SNB joined the FDF in calling for adequate resources for the institution. It also stressed that ensuring the financial soundness of the IMF and its trusts is indispensable if the body is to continuing serving reliably as a lender to countries facing balance of payments difficulties. In this regard, effective conditionality and criteria for lending are just as essential as the IMF's concentration on its core mandate.

Article IV consultation

As part of its Article IV consultations, the IMF regularly reviews the economic policies of its member countries and issues appropriate recommendations. An IMF team visited Switzerland as part of the 2023 Article IV consultations in March, and in May the IMF Executive Board endorsed the associated report, in which the IMF welcomed the SNB's tightening of monetary policy in response to the rise in inflation. In a scenario of more persistent inflation, the report noted, the SNB should be prepared to raise interest rates further. In addition, the IMF commended the Swiss authorities for their decisive action during the crisis at Credit Suisse. The IMF made particular mention of the fact that the measures implemented by the authorities had been key to ensuring financial stability and to preventing a potential impact on the financial markets worldwide (cf. chapter 6.2).

Swiss contribution to IMF financing

The IMF's main source of financing is its member countries' quotas. The quotas determine the participation of each member in the regular financing of the IMF (cf. box 'IMF quotas'). As a second line of defence, the New Arrangements to Borrow (NAB) form a permanent safety net in the event that the IMF's regular means are not sufficient to manage a crisis. Temporary bilateral borrowing agreements (BBAs) serve as a third line of defence for the IMF.

Switzerland is committed to financing the IMF under the framework of Switzerland's quota, under the NAB, and under the BBA. At the end of 2023, its commitment to financing the IMF's regular lending amounted to a maximum of CHF 23.0 billion; the effective outstanding amount was CHF 1.9 billion. The SNB finances these amounts, with loans granted under the BBA being guaranteed by the federal government.

THE SNB'S FINANCIAL COMMITMENT TO THE IMF

In CHF millions

		End-2023
	Maximum	Drawn down
Reserve position[1]		1 880
Quota	6 609	1 867
NAB	12 691	13
Bilateral borrowing agreement[2]	3 662	0
Poverty Reduction and Growth Trust[2]	1 578	739
SDR[3]	5 050	801

1 The used portion of the Swiss quota and the amount drawn by the IMF under the NAB and the bilateral borrowing agreement together equal Switzerland's reserve position in the IMF. This reserve position represents a liquid asset of the SNB vis-à-vis the IMF and thus forms part of the currency reserves.
2 With federal guarantee.
3 As part of the voluntary trading arrangement (VTA) with the IMF, the SNB has committed itself to purchasing or selling SDRs against foreign currencies (USD, EUR) up to the agreed maximum of SDR 4.4 billion (CHF 5.5 billion).

IMF quotas

Each IMF member has a quota, the amount of which is determined upon that member's admission to the IMF. GDP, economic and financial openness, the variability of trade and capital flows, and the level of reserves are all used in the formula to calculate the quota. Quotas are intended to reflect a given country's relative position in the world economy. The allocation of quotas is reviewed at regular intervals and adjusted as required, in particular during general quota increases. The quota fulfils three important functions. First, a member's quota determines the maximum amount of financial resources which the member is obliged to provide to the IMF if required. Second, the quota is used in determining a member's voting power in IMF decisions. Third, the amount of financing a member can obtain from the IMF is based on its quota. Switzerland's quota share at the IMF is 1.21%.

Quota reform

The IMF regularly reviews the appropriateness of quotas. The 16th General Review of Quotas was concluded in December with the IMF member countries agreeing to a 50% quota increase. A decision was also reached to allow the BBAs to expire at the end of 2024 and to slightly scale back the NAB, so that the IMF's overall lending capacity remains unchanged. The quotas have thus been restored as the IMF's primary source of financing, which was one of the main aims of the 16th Review of Quotas. On the other hand, emerging economies were not granted their wish for an amendment to country-specific quotas and voting shares.

Resilience and Sustainability Trust

Beginning in October 2022, the IMF has been offering concessional, longer-term loans by way of the Resilience and Sustainability Trust (RST) to help low-income and vulnerable countries overcome structural challenges, particularly those associated with climate change and pandemic preparedness. The RST is funded by voluntary contributions from IMF members with strong external positions. Switzerland's financial contribution of SDR 500 million at the beginning of 2024 will be based on art. 3 of the Monetary Assistance Act, MAA (cf. also box 'Monetary assistance' in chapter 7.3) and will consequently take the form of a loan by the SNB to the IMF. In December 2023, Parliament approved a credit commitment of CHF 750 million as a guarantee for the loan.

7.2.2 BANK FOR INTERNATIONAL SETTLEMENTS

Participation in BIS

The Bank for International Settlements (BIS) is an organisation headquartered in Basel that fosters monetary and financial cooperation and serves as a bank and forum for central banks. The SNB has held one of the seats on the Board of Directors since the BIS was founded in 1930. The governors of member central banks convene every two months to discuss developments in the global economy and the international financial system, and also to guide and oversee the work of the standing committees. The SNB participates in the four standing committees of the BIS: the Basel Committee on Banking Supervision, the Committee on Payments and Market Infrastructures, the Committee on the Global Financial System, and the Markets Committee. The SNB is also involved in the BIS Innovation Hub Swiss Centre and takes part in a working group on central bank digital currency (CBDC).

Basel Committee on Banking Supervision

The Basel Committee on Banking Supervision (BCBS) brings together high-ranking representatives of banking supervisory authorities and central banks. It issues recommendations and sets international standards in the area of banking supervision.

In the year under review, the BCBS focused on monitoring vulnerabilities in the banking sector, on follow-up work relating to the banking turbulence in March 2023 (cf. chapter 6.2), and on supporting a consistent and timely implementation of the Basel III reforms. The monitoring of vulnerabilities continued to require special care due to ongoing geopolitical tensions, heightened interest rate risk and the tense market situation. The banking turbulence in the US and Switzerland in March triggered comprehensive follow-up work. In October, the Committee published a report on the turmoil's causes and its preliminary lessons. The SNB worked closely with the Swiss Financial Market Supervisory Authority (FINMA) on this report, to which it contributed its experience with the crisis at Credit Suisse. In addition, the Committee initiated more advanced study of identified problem areas, among them the regulation of liquidity risks, the role of additional Tier 1 (AT1) instruments, and the regulation of interest rate risk in the banking book. Based on this, a review is underway of whether there is a need for selective adjustments to the Basel Framework. However, this review is not intended to affect the overarching aim of implementing the agreed final Basel III reforms in the individual jurisdictions as soon as possible. Full implementation is planned in Switzerland by 2025.

Committee on Payments and Market Infrastructures

The Committee on Payments and Market Infrastructures (CPMI) promotes the safety and efficiency of cashless payment arrangements and market infrastructures via which financial market transactions are cleared or settled.

In the year under review, the SNB was principally concerned with the CPMI's work on improving cross-border payments. The Committee concentrated more closely on practical measures and their implementation. These include the promotion of interoperability between payment systems and the harmonisation of data transmission standards for cross-border payments. In addition, the SNB participated in the Committee's work on digital payment innovations as well as in its efforts to enhance the operational and financial resilience of financial market infrastructures.

Other committees

The Markets Committee (MC), which examines current developments in the financial markets as well as the functioning of these markets, focused in 2023 on the implementation of monetary policy in a restrictive environment. In this regard, together with the BIS and the Federal Reserve Board, and in response to the balance sheet reductions being undertaken by many central banks, the SNB held a conference on the demand for central bank reserves. The Committee on the Global Financial System (CGFS), which monitors developments on the financial markets to determine their impact on financial stability, focused on analysing the turbulence in the banking sector. To this end, the SNB contributed its experience with the crisis at Credit Suisse, in particular with regard to the liquidity assistance it provided.

Working group on central bank digital currency

Since 2020, the SNB has been participating in a working group on CBDC together with the Bank of Canada, the Bank of Japan, the Bank of England, the European Central Bank, the Sveriges Riksbank, the US Federal Reserve and the BIS. The aim of this working group is to discuss experiences in evaluating potential applications of CBDC.

BIS Innovation Hub and projects at its Swiss Centre

The BIS Innovation Hub Swiss Centre has been in existence since late 2019. The BIS operates seven centres in various locations around the globe. The hub's goal is to analyse – and potentially harness – technological trends for central banks. The BIS Innovation Hub facilitates dialogue with other central banks. This is important for the SNB, as it can use what it learns there in its ongoing work. One example is Project Helvetia, whose pilot, launched at the SNB in December 2023 and continuing into June 2024, is testing real Swiss franc wholesale CBDC (cf. chapter 1.4, box 'Work on central bank digital currency for financial institutions').

Work at the Swiss Centre focused on technologies for tokenising assets and on the analysis of large volumes of data. Various projects were launched on these topics in 2023. In the area of tokenisation, the Centre is working on a project to digitalise promissory notes issued by countries to development banks. Experiments are underway to digitalise – and thereby simplify – this process, which is still largely paper-based. Another project, undertaken jointly with the Federal Reserve Bank of New York, involves testing the implementation of money market operations on a platform based on distributed ledger technology (DLT). In the area of data analysis, the Swiss Centre is pursuing a project designed to generate more up-to-date and accurate consumption indicators from new data sources.

Conclusion of Projects Tourbillon and Mariana

Project Tourbillon at the BIS Innovation Hub's Swiss Centre tested three specific requirements of CBDC, whose implementation had proven difficult in the past. The first test explored a concept to ensure privacy by providing cash-like payer anonymity while disclosing the identity of the merchant receiving the payment. The second test, relating to cybersecurity, used post-quantum cryptography to protect CBDCs against attacks by quantum computers. The third test investigated whether the system can handle a high number of transactions: in other words, its scalability.

Project Mariana explored what foreign exchange trading might look like in a world where central banks issue CBDCs and financial market infrastructures deploy decentralised finance (DeFi) concepts. To this end, and together with Banque de France and the Monetary Authority of Singapore, the SNB tested the cross-border settlement in CBDC via a so-called automated market maker (AMM), which uses algorithms built on a DLT platform to manage liquidity and set exchange rates. This in turn made it possible to automatically price, execute and instantly settle foreign exchange transactions between fictitious CBDCs in Swiss francs, euros and Singapore dollars.

Central Banking Dialogue in Lugano

At the end of May 2023, the SNB, together with the BIS and the Università della Svizzera italiana, organised the Central Banking Dialogue in Lugano, a podium discussion at which the General Manager of the BIS and the Chairman of the SNB's Governing Board discussed some fundamental issues of monetary policy before a local audience. Key topics were the development of inflation and interest rates, the important benefits of price stability for the economy and the population, and the significance of central bank independence.

7.2.3 FINANCIAL STABILITY BOARD

Participation in FSB

The Financial Stability Board (FSB) brings together national authorities responsible for financial stability (central banks, supervisory authorities and finance ministries), international organisations, and standard-setting bodies. Switzerland's representation on the FSB is shared between the FDF, the SNB and FINMA. The SNB is a member of the Steering Committee, the Plenary, and the Standing Committee on Assessment of Vulnerabilities. Since November 2020, the SNB has chaired the Standing Committee on Budget and Resources.

The FSB addressed the risks in the financial system and coordinated the precautions taken to counter such risks. At the centre of its concerns were the banking turbulence in March and the effects of a higher interest rate environment on the global financial system. From the SNB's point of view, the analyses following the crisis at Credit Suisse and the US regional banks were of greatest significance. The FSB placed particular emphasis on the options for resolving global systemically important banks (G-SIBs). As the standard setter for the resolution of international banks, the FSB will be focusing intensively on this topic in the years to come. In addition, the SNB participated in the FSB's work in the area of crypto, particularly the finalisation of FSB recommendations on the regulation of cryptoassets and stablecoins. Monitoring the implementation of these recommendations will continue to be important for the FSB and for Switzerland. The SNB also supported the FSB's work on improving cross-border payments and on the risks to the financial system arising from the effects of climate change.

7.2.4 OECD

Participation in OECD

Switzerland is a founding member of the Organisation for Economic Co-operation and Development (OECD). It works in the organisation's intergovernmental committees to maintain and develop relations among the 38 member countries with regard to economic, social and development policies. Together with the federal government, the SNB represents Switzerland on the Economic Policy Committee (EPC), the Committee on Financial Markets (CMF), and the Committee on Statistics and Statistical Policy (CSSP).

In the year under review, the SNB collaborated with the OECD on preparations for the organisation's 2024 country report on Switzerland's economic policy. The report, which appears every two years, contains a detailed analysis of the Swiss economy and its main structural challenges, as well as recommendations on how to deal with them. The SNB was particularly involved in the dialogue on monetary policy, the economic outlook and financial stability. The country report will appear at the end of March 2024.

7.2.5 G20

SNB participation in G20

The G20 comprises the twenty leading advanced and emerging economies and is a key forum for international cooperation on financial and economic issues. In recent years, Switzerland has been invited to participate in the meetings of the G20 finance ministers and central bank governors, known as the Finance Track. These meetings focus on economic, monetary and financial issues. Swiss interests are represented jointly by the federal government and the SNB. For the SNB, the main focus is on issues relating to the global economic outlook, the international financial and monetary system, and global financial market regulation.

Switzerland was invited to participate in the 2023 Finance Track by the Indian G20 presidency. India focused on strengthening the governance of the development banks and of the IMF and on improving the debt situation of developing countries, as well as on digital payment systems and regulation of crypto. Weak growth levels and high inflation were also discussed, as were the associated challenges for monetary and fiscal policy. The SNB emphasised the importance of pursuing a monetary policy geared to price stability. It also participated in discussions about CBDC and payment systems. In particular, it contributed the experience it had garnered from its own projects involving central bank digital currency and stressed the importance of including existing systems in efforts to improve cross-border payments.

7.2.6 NETWORK FOR GREENING THE FINANCIAL SYSTEM

Participation in NGFS

The Network for Greening the Financial System (NGFS) is a network of central banks and supervisory authorities. It serves as a forum in which participating institutions can discuss the risks climate change poses to the economy and the financial system. The SNB and FINMA are both represented in the NGFS Plenary. The SNB engages in dialogue in the NGFS so as to better gauge the potential impact of climate risks on macroeconomic developments and financial stability.

Within the framework of its mandate, the SNB participates actively in discussions in the NGFS aimed at developing global approaches to dealing with climate risks and sharing knowledge and experience. In 2023, the NGFS completed the first half of its 2022–2024 work programme, which is divided among four workstreams. The SNB was particularly active in the workstream devoted to monetary policy, with an eye to better evaluating the effects of climate risks on key economic variables such as prices, interest rates and GDP. It was also involved in the workstreams on the development of climate scenarios for the financial sector as well as on sustainable investment practices and climate-related reporting.

7.3 BILATERAL COOPERATION

The SNB cooperates on a bilateral level with other central banks and authorities. As part of this bilateral cooperation, the SNB provides technical assistance to central banks – mainly those from the group of countries with which Switzerland forms a constituency at the IMF and the World Bank. Furthermore, pursuant to art. 4 and art. 6 para. 3 MAA, the SNB can participate in the federal government's bilateral monetary assistance. In the year under review, however, no such activities took place.

Monetary assistance

The division of responsibilities between the SNB and the federal government regarding the granting of monetary assistance loans is specified in the MAA (19 March 2004, revised 2017). The MAA sets out three types of monetary assistance, provided in the form of loans, guarantee commitments and non-repayable grants. Under art. 2, the federal government can participate in multilateral assistance operations aimed at preventing or remedying serious disruptions to the international monetary system; art. 3 permits it to take part in financing special funds or other IMF facilities in favour of low-income countries; and it may, pursuant to art. 4, provide monetary assistance to individual countries. The federal government can request that the SNB grant loans for these three types of monetary assistance. In return, the federal government guarantees the SNB the interest payments on the loans and their repayment (art. 6).

7.3.1 COOPERATION WITH OTHER CENTRAL BANKS AND FOREIGN AUTHORITIES

Regular exchange with central banks and partner countries

The SNB cultivates regular bilateral contacts with other central banks. This includes exchange on matters relating to international monetary cooperation. In addition, the SNB occasionally participates in financial dialogue with other countries, such as Hong Kong, Singapore and the United Kingdom. These encounters are led by the State Secretariat for International Finance (SIF) in liaison with various federal institutions and associated enterprises. They serve to strengthen the contacts with key partner countries and provide a platform for sharing views on financial topics.

US Treasury report and dialogue

The US Treasury regularly publishes a report on the foreign exchange policies of major trading partners of the United States. In 2023, in contrast to preceding years, Switzerland's monetary practices were no longer subjected to in-depth analysis. The regular exchange initiated in 2022 by the FDF, the SNB and the US Treasury (Standing Macroeconomic and Financial Dialogue) was continued.

Mutual recognition agreement with UK

In 2021, negotiations began between Switzerland and the UK regarding an agreement on mutual recognition of the legal and supervisory framework in the financial sector (Mutual Recognition Agreement, MRA). The relevant treaty was formally signed in December 2023. The SNB was involved in the negotiations in its role as overseer of the systemically important financial market infrastructures.

7.3.2 PRINCIPALITY OF LIECHTENSTEIN

Currency treaty and cooperation

Switzerland and the Principality of Liechtenstein concluded a Currency Treaty in 1980. Under the Currency Treaty, the Swiss franc became legal tender in Liechtenstein, and the SNB became the country's central bank. As a result, certain Swiss legal and administrative regulations relating to monetary policy are applicable in Liechtenstein, in particular the National Bank Act and the National Bank Ordinance. The SNB has the same powers in respect of banks and other persons and entities in the Principality of Liechtenstein as it does in respect of banks, persons and entities domiciled in Switzerland. To this end, it cooperates closely with the relevant authorities in Liechtenstein.

Membership of IMF

The Principality of Liechtenstein submitted an official application to join the IMF in May 2023. This initiated the formal admission process, which is expected to conclude in summer 2024. Given its close relations with Switzerland, Liechtenstein intends to join the Swiss constituency within the IMF. The SNB, the SIF and the office of the Swiss Executive Director at the IMF in Washington supported the Liechtenstein authorities in preparing for the application process. The SNB was particularly supportive in establishing an approximate balance of payments for Liechtenstein, as required for the calculation of the quota, and thus for admission to the IMF.

7.3.3 TECHNICAL ASSISTANCE

Principles

The SNB provides technical assistance to other central banks upon request. This assistance comprises the transfer of central bank know-how. The SNB's technical assistance is primarily oriented towards the countries of Central Asia and the Caucasus that are members of Switzerland's constituency at the IMF and the World Bank.

Activities in 2023

In 2023, technical advice was provided to 12 central banks and 19 technical assistance projects were delivered. The SNB focused on physical meetings, either via study visits and workshops in Switzerland or by sending experts to central banks requesting assistance. Once again, it worked with relevant partners, such as the IMF and SECO. The SNB concentrated its support mainly on the areas of financial stability, cash, risk management, monetary policy analysis, internal auditing and procurement. Consulting days increased overall compared to 2022, which can be attributed to high demand following the pandemic and increased on-site delivery.

Central Bankers Courses at Study Center Gerzensee

The SNB has been running the Study Center Gerzensee since 1984. It serves as a hub for both academic research and training for central bankers from around the world. In 2023, six courses were held at the Study Center for employees of foreign central banks. These courses were attended by 159 representatives from 73 central banks. The number of participants was similar to the previous year.

8 Banking services for the Confederation

Mandate

The Swiss National Bank provides banking services to the Swiss Confederation (art. 5 para. 4 and art. 11 National Bank Act).

Issuing activities

In 2023, the Confederation's short-term financing needs increased year-on-year. Bids for money market debt register claims (MMDRCs) amounted to CHF 200.9 billion (2022: CHF 131.2 billion) and CHF 52.5 billion was allotted (2022: CHF 33.5 billion). The corresponding figures for Confederation bonds were CHF 12.8 billion (2022: CHF 10.6 billion) and CHF 8.1 billion (2022: CHF 6.8 billion) respectively. The SNB issued the MMDRCs and Confederation bonds by auction.

Higher MMDRC yields

In line with the other money market rates, yields for MMDRCs rose in 2023. Taken over the whole year, yields on three-month issues ranged from 0.94% to 1.79%.

Account management and payment transactions

The SNB keeps sight deposit accounts in Swiss francs and foreign currencies for the Confederation. At year-end, liabilities towards the Confederation (including term liabilities) amounted to CHF 15.4 billion, compared to CHF 16.7 billion at the end of 2022.

Remuneration for banking services

The SNB provides banking services to the Confederation in return for adequate remuneration. These services include account management, payment transactions, liquidity management, the custody of securities, and the issuance of MMDRCs and Confederation bonds on behalf of and for the account of the Confederation. If the services facilitate the implementation of monetary policy, the SNB provides them free of charge. Details of the services to be provided and the remuneration are laid down in an agreement concluded between the Confederation and the SNB.

9 Statistics

9.1 BACKGROUND

Purpose of activities in field of statistics

On the basis of art. 14 of the National Bank Act (NBA), the Swiss National Bank collects the statistical data it requires to perform its statutory tasks. It collects data for the conduct of monetary policy and the oversight of financial market infrastructures (FMIs), for safeguarding the stability of the financial system and for preparing both the balance of payments and the statistics on the international investment position. Statistical data compiled for purposes relating to international monetary cooperation are transmitted to international organisations. The National Bank Ordinance (NBO) lays down the details of the SNB's activities in the field of statistics.

Reporting institutions

Banks, FMIs, securities firms and authorised parties in accordance with art. 13 para. 2 of the Collective Investment Schemes Act are required to provide the SNB with figures on their activities (art. 15 NBA). The SNB may also collect statistical data from other private individuals or legal entities where this is necessary to analyse developments in the financial markets, obtain an overview of payment transactions, or prepare the balance of payments or the statistics on Switzerland's international investment position. This applies in particular to entities for the issuing of payment instruments or for the processing, clearing and settlement of payment transactions, insurance companies, occupational pension institutions, and investment and holding companies.

Survey activity kept to minimum

The SNB limits the number and type of surveys to what is strictly necessary. It seeks to minimise the demands placed on reporting institutions.

Confidentiality and exchange of data

Pursuant to art. 16 NBA, the SNB ensures the confidentiality of the data it collects and only publishes them in aggregated form. However, the SNB is authorised to supply to the competent Swiss financial market supervisory authorities and to the Swiss Federal Statistical Office (SFSO) data relevant to them in non-aggregated form as well (cf. also chapter 9.4).

9.2 PRODUCTS

Surveys and statistics

The SNB conducts statistical surveys in the areas of banking statistics, collective investment statistics, the balance of payments and the international investment position, and payment transactions. An overview is contained in the annex to the NBO and on the SNB website. The SNB publishes the results of its surveys in the form of statistics. It also maintains a data bank with just under 21 million time series in the fields of banking, financial markets and economics.

Statistical publications

The SNB publishes its statistics on its online data portal (data.snb.ch) and its website (www.snb.ch) and, in some cases, also in the form of printed publications.

9.3 PROJECTS

In the year under review, the SNB continued its work on projects in the areas of banking statistics and the balance of payments.

Individual-loan survey

In 2022, the SNB, together with the Swiss Financial Market Supervisory Authority (FINMA), launched a project to introduce an individual-loan survey. Within the framework of this survey, the major lending banks are to regularly report their total loan portfolios on an individual-loan basis.
In pursuing this project, the two institutions have several objectives. First, the survey will provide more detailed data on bank lending, which will support them in the performance of their respective statutory tasks. Second, such ‘granular’ surveys have an advantage over traditional aggregated surveys in that, even in the case of fresh queries, they often already include sufficient information for analysis, thereby rendering additional surveys unnecessary. This improves the SNB’s and FINMA’s response time in crisis situations and reduces the costs for reporting institutions associated with additional surveys. The project to introduce an individual-loan survey will run over several years. The first survey findings are not expected until 2026 at the earliest. The main emphasis of the work in 2023 was on working out the details of the data to be collected, involving numerous meetings with the reporting banks.

Project work on the balance of payments, which includes the current and financial accounts, continued to be mainly focused on the current account. Large multinational enterprise groups distribute their production and trade processes across various countries, thus influencing Switzerland's cross-border linkages. In the reporting year, in order to better record this 'global production' in Switzerland's balance of payments statistics, the SNB introduced a new current account survey. The goal is to publish data based on the new survey from 2025.

Recording global production in current account

In addition, the revision of the balance of payments in 2025 will allow both digital trade – trade in goods and services that are digitally ordered, digitally delivered or made available on a platform – and trade in intellectual property to be more comprehensively captured.

Digital trade

In 2029, new international standards for drawing up the balance of payments and international investment position will come into effect. The SNB is taking the opportunity to review its surveys on cross-border capital linkages, to revise them as necessary, and to close any further gaps in data. The corresponding project started in 2023.

Future development of balance of payments

With their business activities, large multinational enterprise groups exert a notable influence on the development of the balance of payments and international investment position. For this reason, in the year under review the SNB decided to set up a team which aims to support such groups in their duty to provide information, and thus to systematically improve data quality. Such large case management will continue to be developed over the course of 2024.

Large case management

9.4 COLLABORATION

The SNB gives reporting institutions and their associations the opportunity to comment on organisational and procedural issues, as well as on the introduction of new surveys or the modification of existing ones.

Groups of experts

The SNB is advised on the content of its banking surveys by the banking statistics committee. This committee is made up of representatives of the Swiss commercial banks, the Swiss Bankers Association and FINMA. A group of experts under the direction of the SNB participates in the compilation of the balance of payments. It comprises representatives from manufacturing, banking and insurance, as well as from various federal agencies and academic bodies.

Public institutions

In compiling statistical data, the SNB collaborates with the relevant federal government bodies, particularly the SFSO, with FINMA, and also with the authorities of other countries and international organisations.

Swiss Federal Statistical Office

The SNB has a close working relationship with the SFSO. Reciprocal data access is governed by a data exchange agreement, which is currently being revised to take account of the modified legal framework for data exchange with the SFSO. Pursuant to art. 16 para. 4^{bis} of the NBA, a partially revised version of which came into force on 1 September 2023, the SNB may disclose the data collected to the SFSO in a non-aggregated form for statistical purposes. This facilitates collaboration between the two authorities. In addition to its direct collaboration with the SFSO in regard to statistics, the SNB is also a member of various bodies that work with Swiss federal statistics. These include the Federal Statistical Committee and the SFSO expert group on the economy.

Federal Office for Housing

The SNB collects quarterly data on mortgage rates from about 80 banks on behalf of the Federal Office for Housing (FOH). Based on these data, the FOH calculates the mortgage reference interest rate for tenancies. Responsibility for the content of this survey lies with the FOH, which also publishes the reference rate.

Under the terms of a Memorandum of Understanding between FINMA and the SNB on the collection and exchange of data, the SNB carries out surveys in areas such as capital adequacy, liquidity and interest rate risk of banks and securities firms.

FINMA

The SNB also surveys Liechtenstein companies when preparing its balance of payments figures and its statistics on Switzerland's international investment position. It works with the relevant authorities in Liechtenstein (the Office of Economic Affairs and the Financial Market Authority).

Principality of Liechtenstein

The SNB's collaboration with the EU is based on the bilateral agreement on statistics. It covers the financial accounts, parts of the banking statistics, the balance of payments and the international investment position, as well as the direct investment statistics. The SNB participates in various bodies of the EU statistical office (Eurostat).

European Union

In the area of statistics, the SNB works closely with the Bank for International Settlements (BIS), the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF). This collaboration is aimed at harmonising statistical survey methods and analyses.

Other international organisations