Accountability report

On 19 March 2020, the Governing Board of the Swiss National Bank submitted its accountability report for 2019 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. Its monetary policy strategy consists of the following elements: a definition of price stability, a medium-term conditional inflation forecast, and the SNB policy rate, with which the SNB replaced the previously used target range for the three-month Libor in June 2019. The SNB seeks to keep the secured short-term money market rates close to the SNB policy rate. Replacing the target range with the SNB policy rate became necessary since Libor will probably no longer exist in three years' time, i.e. the horizon for the SNB medium-term inflation forecast.

Global economic growth weakened in 2019. The slowdown affected most large economies, and was particularly pronounced in the industrial sector. The weaker economic momentum was in particular related to the uncertainty and risks stemming from the ongoing trade dispute between the US and China, as well as political imponderables. Investment activity was subdued, and global trade in goods stagnated. Against the backdrop of weaker economic growth worldwide, inflation was modest. Many central banks eased monetary policy in the second half of the year to lend support to their economies.

Economic growth was also weaker year-on-year in Switzerland. On an annual average basis, GDP rose by 0.9%, following growth of 2.8% in 2018. However, this marked slowdown was in part attributable to an exceptional factor (absence of major international sporting events). Manufacturing output and exports continued to provide support to the economy. Positive impetus came above all from the pharmaceuticals industry, which is continuing to grow strongly, while growth in most of the other industries in the manufacturing sector was modest. The situation on the labour market remained favourable, and employment increased further.

Inflation, as measured by the Swiss consumer price index, averaged 0.4% in 2019, compared with 0.9% in 2018. Following the rise in 2018, the prices of imported goods stagnated, while inflation increased marginally in the case of domestic goods.

The SNB maintained its expansionary monetary policy. This continued to be based on the negative interest that banks and other financial market participants pay on their sight deposits at the SNB, and on the SNB's willingness to intervene in the foreign exchange market as necessary. Both these measures remained essential to ensure appropriate monetary conditions. Negative interest helped in particular to reduce the attractiveness of Swiss franc investments by maintaining a certain interest rate differential between Switzerland and other countries. The Swiss franc remained highly valued, and the situation on the foreign exchange market was still fragile. Over the course of the year, the Swiss franc appreciated against the euro, and its nominal trade-weighted external value at the end of 2019 was higher than at the beginning of the year. Against the backdrop of the higher exchange rate and slower economic growth, inflation declined. The conditional forecasts published in 2019 were revised down over the course of the year. They remained within the range the SNB equates with price stability.

Climate change is an issue that has attracted ever greater public interest in Switzerland in recent years as it poses major challenges for society, the economy and politics. As a central bank, the SNB's focus when addressing climate change is on the aspects that may be relevant for fulfilling its mandate; this concerns monetary policy, financial stability and investment policy in particular. Since 2019, the SNB has been participating in the international exchange of experience in climate-related matters as a member of the Central Banks and Supervisors Network for Greening the Financial System (NGFS).

Implementation of monetary policy

The SNB maintained the target range for the three-month Libor at between –1.25% and –0.25% until June 2019. At this time, the SNB replaced the three-month Libor with the SNB policy rate, set it at –0.75% (corresponding to the middle of the Libor target range) and kept it at this level for the rest of the year. Interest on sight deposits held at the SNB remained at –0.75% throughout the year. The relevant rates on the Swiss franc money market were close to the SNB policy rate until the end of October. At its monetary policy assessment in September, the SNB announced that it was adjusting the basis for calculating negative interest with effect from 1 November; the higher exemption thresholds led to increased activity on the repo market at the beginning of November and to a rise in short-term money market rates. The SNB countered this with liquidity-providing repo transactions so that the money market rates remained close to the SNB policy rate. At the end of the year, the Swiss Average Rate Overnight (SARON), the interest rate for secured overnight money, was –0.66%. In 2019, the SNB purchased a total of CHF 13.2 billion in foreign currency.

Cash supply and distribution

Banknotes in circulation in 2019 averaged CHF 79.8 billion. This constituted an increase of 1.0% and was thus lower than in the previous year (3.3%).

In March, the SNB began issuing the 1000-franc note, the fifth denomination in the ninth banknote series. The issuance of the 100-franc note, the sixth denomination, in September 2019, marked the completion of the new banknote series. The new banknotes were well received by both the public and international experts and are proving their worth in payment transactions.

On 1 January 2020, the partially revised Federal Act on Currency and Payment Instruments (CPIA) came into force. The exchange period for banknotes was thus revoked. The banknotes of the sixth series issued in 1976 and all subsequent series can now be exchanged at the SNB without any time limit.

Cashless payment transactions

In 2019, the Swiss Interbank Clearing (SIC) payment system settled a daily average of approximately 2.6 million transactions amounting to CHF 158 billion. Compared to the previous year, the number of transactions increased by 7.8%, while turnover rose by 1.4%. The increase in transactions is primarily due to the fact that PostFinance is gradually migrating its payment transactions with other banks to the SIC system.

Many innovations in the financial industry are connected with cashless payment transactions. The SNB strives to support innovation in this field provided this does not impair the security and efficiency of the SIC system. Since January 2019, the SNB has been prepared to grant SIC system access to companies with the requisite fintech licences issued by FINMA and a business model that is significant in the area of Swiss franc payment transactions. FINMA did not license any fintech company in 2019; the SNB therefore received no applications for admission to the SIC system in the year under review.

In spring 2019, the SNB and SIX initiated a dialogue on the ongoing development of cashless payments in Swiss francs with the aim of maintaining the efficiency, security and future viability of cashless payment transactions. A key focus of this dialogue is the evolution of cashless payment transactions in the direction of 'instant payments' and the central role of the SIC system in this development. With instant payments, account-based payments can be settled by private payment solution providers at any time and within seconds via the SIC system.

In view of growing cyber risks, the SNB and SIX jointly launched a project to develop a network for the Swiss financial centre (Secure Swiss Finance Network) with the aim of improving the security and reliability of internet connections. The network is to be based on an internet routing architecture developed at ETH Zurich.

Asset management

At the end of 2019, the SNB's assets amounted to CHF 861 billion, compared to CHF 817 billion one year earlier. This increase was mainly due to valuation gains on foreign currency investments and gold. Total currency reserves stood at CHF 836 billion at year-end. The majority of these reserves was held in the form of foreign currency investments, the remainder in gold.

The most important risk factor to which the investments are exposed is currency risk, which the SNB cannot hedge for monetary policy reasons. Even minor changes in the Swiss franc exchange rates lead to substantial fluctuations in investment income, which is measured in Swiss francs. In 2019, currency losses due to Swiss franc appreciation were more than offset by high returns on investments in the investment currencies. Measured in Swiss francs, the return on currency reserves was 6.1%. Returns on gold and foreign exchange reserves were positive, at 16.3% and 5.5% respectively.

The SNB invests 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 privately issued securities, 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. Furthermore, the SNB is committed to respecting 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.

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. advantaging or disadvantaging specific economic sectors via positive or negative selections. In order to remain as neutral as possible, the SNB replicates the individual stock markets in their entirety, taking into account the aforementioned exceptions. As a result, the SNB holds equities in the various economic sectors based on market capitalisation.

Financial system stability

Within the context of monitoring the financial system, the SNB analyses developments and risks in the Swiss banking sector. Its assessment is published, in particular, in its annual *Financial Stability Report*.

In its June 2019 report, the SNB noted that the two internationally active Swiss big banks, Credit Suisse Group AG (Credit Suisse) and UBS Group AG (UBS), had made further progress in implementing Switzerland's 'too big to fail' (TBTF) regulations, thereby strengthening both pillars – resilience and resolution. With respect to resolution, the SNB supported the amendments to the Capital Adequacy Ordinance adopted by the Federal Council, which came into effect from 1 January 2020 and included a strengthening of gone-concern loss-absorbing capacity at individual group entity level.

In the case of domestically focused banks, the SNB noted that their exposure to the mortgage and residential real estate markets had risen once again. Growth in these banks' mortgage volumes continued unabated, and affordability risks in newly granted mortgage loans increased further from their already high levels. At the same time, the interest rate risk remained high, and interest rate margins fell further from a low level. Nonetheless, domestically focused banks were able to maintain their resilience and, overall, their capitalisation was appropriate.

The imbalances on the mortgage and real estate markets persisted in 2019. The SNB continued to focus on residential investment property. It emphasised that this segment was particularly exposed to a price correction, given the high prices for apartment buildings. The renewed increase in vacancy rates suggested that brisk construction activity in rental apartments may have led to an oversupply. The SNB noted that affordability risks in newly granted mortgages for residential investment properties have continued to increase. It therefore welcomed the revision of the self-regulation guidelines for banks, which entered into force on 1 January 2020. The revised guidelines tighten the lending and amortisation requirements for new mortgages on residential investment property, which should counter a further build-up in risks.

As part of its ongoing oversight, the SNB called on financial market infrastructures (FMIs) to continue their efforts to improve cybersecurity and business continuity management. In view of the growing cyberthreat, FMIs and their participants must be able to react quickly and appropriately to any disruptions. In particular, the SNB considered it necessary that FMIs should coordinate planned measures with their participants and carry out regular tests. Together with the major banks, FMIs analysed the impact of various cyberattacks.

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 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).

The IMF concluded its work on the 15th General Review of Quotas in February 2020 without adjusting quotas. The IMF members, however, supported the doubling of the New Arrangements to Borrow (NAB) and agreed to renew the bilateral credit lines on a reduced scale. At the end of 2019, Switzerland's maximum commitment to the IMF in respect of financing the latter's regular lending totalled CHF 23.7 billion; the effective outstanding amount was CHF 1.4 billion. The SNB finances these commitments, with loans granted under the bilateral borrowing agreement being guaranteed by the Confederation.

As part of its surveillance activities, the IMF analyses the economic situation of its member countries including the current account and the real exchange rate. In 2019, the IMF deemed Switzerland's external position to be appropriate and supported the continuation of the SNB's monetary policy stance. At the same time, it pointed out the risks, particularly of renewed appreciation pressure on the Swiss franc as a safe haven. In a comprehensive evaluation of Switzerland's financial sector, the IMF welcomed the progress made in bolstering financial stability, particularly the improved capitalisation of banks. It noted that imbalances in the residential investment property segment resulting from low interest rates represented a particular risk for the financial sector.

In its country report on Switzerland, the OECD also deemed that the SNB's expansionary monetary policy is still appropriate. It likewise drew attention to the risks associated with the persistent low interest rate environment, noting that mounting pressure on profitability and returns in the financial sector, particularly at banks and pension funds, could give rise to more risky investment behaviour. In addition, it pointed out that low interest rates can lead to heightened risks in the housing market.

In 2019, the BIS signed an agreement with the SNB to found a Swiss Centre for the BIS Innovation Hub. The aim of the Innovation Hub is to gain in-depth insights into the technological developments that affect central banking. It also serves to develop public goods in the technology space geared towards further improving the functioning of the global financial system. The Swiss Centre will conduct research on two projects. The first of these will examine the integration of central bank digital currency into a distributed ledger technology infrastructure. In its second project, the Swiss Centre will address the rise in requirements placed on central banks to be able to effectively track and monitor fast-paced electronic markets.

The Basel Committee on Banking Supervision of the BIS monitored the progress made in implementing the Basel III reform package and continued work on assessments to review the impact of the standards. On the basis of these assessments, it revised the leverage ratio disclosure requirements and drew up guiding principles for the operationalisation of a sectoral countercyclical capital buffer.

The FSB continued to focus on evaluating the impact of financial system reforms. It also examined the market for leveraged loans and the securitisation of such loans. It determined that the majority of these investments are held by banks, and that the risks have increased.

The SNB became a member of the NGFS in April 2019. The NGFS serves as a forum in which participating institutions can discuss the risks climate change poses to the economy and the financial system. Within the framework of the NGFS, institutions are also examining how best to counter such risks and fund the transition to a more sustainable economy. By joining, Switzerland engages in dialogue and shares knowledge in order to better gauge the potential impact of climate risks on macroeconomics and financial stability.

As part of bilateral monetary cooperation, the SNB collaborates with other central banks and provides them with technical assistance. As in the past, the main recipients in 2019 were the central banks of countries in Central Asia and the Caucasus that are members of the Swiss constituency in the IMF.

Banking services for the Confederation

In 2019, on behalf of and for the account of the Confederation, the SNB issued money market debt register claims amounting to CHF 21.0 billion and Confederation bonds amounting to CHF 2.1 billion. The SNB also carried out roughly 187,000 payments on behalf of the Confederation.

Statistics

The SNB compiles statistical data on banks and financial markets, the balance of payments, the international investment position, direct investment and the Swiss financial accounts. To this end, it collaborates with the relevant federal government bodies and FINMA, and also with the authorities of other countries and international organisations.

In 2019, the SNB continued its work on revising securities statistics. The revision is being undertaken both in connection with Switzerland's planned adoption of the IMF's new Special Data Dissemination Standard Plus from 2020 and in order to take account of changes in user requirements. To comply with the SDDS Plus requirements, the SNB carried out an interim, limited-scope supplementary survey of securities holdings at a small number of banks.

1
Monetary policy

1.1 MANDATE AND MONETARY POLICY STRATEGY

Constitutional and legal 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 means that money retains its value over time, and it is an important prerequisite for growth and prosperity. By seeking to keep prices stable, the SNB creates an environment in which households and companies can make plans on a reliable basis. Inflation (a sustained increase in the price level) and deflation (a sustained decrease in the price level) both impair economic activity. 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.

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 the following elements: a definition of price stability, a conditional inflation forecast over the subsequent three years, and the SNB policy rate, with which the SNB replaced the previously used target range for the three-month Swiss franc Libor (London Interbank Offered Rate) in June 2019. The SNB seeks to keep the secured short-term Swiss franc money market rates close to its policy 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, is also regarded as a breach of the objective of price stability. With its definition of price stability, the SNB takes into account the fact that it cannot steer inflation precisely and that the CPI tends to overstate inflation slightly.

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 relates to the three subsequent years and reflects the medium-term focus of monetary policy. With this approach, the SNB takes account of the fact that output and prices react to monetary policy stimuli with – at times considerable – lags. 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's inflation forecast is based on the assumption that the SNB policy rate communicated at the time of publication will remain constant over the forecast horizon. In other words, it is a conditional forecast and shows how the SNB expects consumer prices to move, assuming an unchanged interest rate. The SNB thus enables the public to gauge the future need for action in monetary policy. The inflation forecast published by the SNB cannot be compared with those provided by commercial banks or research institutions, as these generally factor in the interest rate adjustments they anticipate.

SNB policy rate

The SNB sets the level of the SNB policy rate and uses it to communicate its monetary policy decisions. It seeks to keep the secured short-term Swiss franc money market rates close to the SNB policy rate. The most representative of the secured short-term Swiss franc rates is SARON (Swiss Average Rate Overnight). The SNB policy rate was introduced in June 2019 because, for the first time, the horizon for the conditional inflation forecast extended beyond the probable end of Libor at the beginning of 2022. The UK Financial Conduct Authority announced in 2017 that it would not continue to support Libor after 2021 owing to the very low level of liquidity in the underlying unsecured money market post the financial crisis (cf. chapter 2.2, box 'Transitioning from Libor to SARON').

Influencing interest rate environment

The SNB ensures price stability by using its monetary policy operations to influence the interest rate environment and align it with the prevailing economic situation. Real interest rates, i.e. nominal interest rates minus inflation, play a key role here. Lowering real interest rates generally tends to have a stimulating effect on demand and on prices of goods and services, while raising them tends to have a dampening effect. Although central banks steer only short-term nominal interest rates, they also influence real rates in the short run given that inflation is slow to change.

Role of exchange rate

An independent monetary policy that is geared towards the objective of price stability fundamentally requires flexible exchange rates. This does not mean, however, that the SNB disregards exchange rate developments. In a small open economy such as Switzerland's, with a currency seen as a safe haven in times of uncertainty, changes in the exchange rate have a significant impact on inflation and the economy. They thus influence monetary policy decisions. If the SNB adjusts the interest rate or intervenes in the foreign exchange market, this in turn has an impact on the exchange rate.

From 2008, following the onset of the financial and economic crisis, nominal interest rates in many countries fell to very low levels. This increasingly narrowed the scope for further interest rate reductions. Many central banks thus resorted to unconventional measures in order to be able to maintain an appropriate monetary policy. The most important unconventional measures taken by the SNB in recent years have been foreign exchange market interventions, enforcing a minimum exchange rate against the euro from September 2011 until January 2015, and the introduction of negative interest on sight deposits held by banks and other financial market participants at the SNB.

Unconventional monetary policy measures

The SNB's introduction of negative interest on sight deposits effected a reduction in the general level of interest rates. Having interest rates at a level that is low by international standards makes Swiss franc investments less attractive, thereby easing upward pressure on the currency. Furthermore, negative interest creates an incentive to consume and invest more. In order to limit the burden on banks to what is necessary, the SNB grants them exemption thresholds (cf. chapter 2.3, box 'How negative interest works: revision of exemption threshold regime').

Negative interest on sight deposits at SNB

Like negative interest, the SNB's willingness to intervene in the foreign exchange market as necessary also eases upward pressure on the Swiss franc. Based on market conditions, the SNB decides if and to what extent interventions should be conducted. Foreign exchange market interventions are mainly required in times of high uncertainty, when there is particularly strong demand for Swiss francs.

Willingness to intervene in foreign exchange market

Like price stability, financial stability is a prerequisite for sustainable economic growth. Experience from the financial crisis has shown that achieving price stability does not necessarily ensure the stability of the financial system. The authorities have macroprudential instruments at their disposal that can be applied in a targeted manner to address credit market imbalances which threaten financial stability (cf. chapter 6).

Macroprudential instruments

Federal Council report on central bank digital currency

In December 2019, in response to a postulate submitted from the National Council, the Federal Council published a report entitled 'Central bank digital currency'. The report, on which the SNB also collaborated, addresses the key questions in the area of central bank digital currency (CBDC). The focus of the report is on the form of CBDC that a central bank could make available to the general public as legal tender. It would thus serve as a supplement to existing central bank money (in Switzerland, for example, banknotes and sight deposits of domestic banks held at the SNB). Among the advantages voiced for the introduction of CBDC are improved access for the general public to payment and financial services as well as increases in payment efficiency, monetary policy effectiveness and financial stability.

The SNB shares the Federal Council's view that CBDC would not at present bring any additional benefits to the general public in Switzerland (cf. accountability report for 2017, chapter 4.3, box 'Fintech'). As the report demonstrates, the associated expectations would not be met with CBDC, or if so only partly. The SNB believes the risks posed to monetary policy and financial stability in particular would be considerable. In normal times, CBDC would offer no discernible advantages in terms of monetary policy effectiveness, but could slow lending and thus curb economic growth. During periods in which safe havens are in demand, it would facilitate the flight to the Swiss franc and strengthen upward pressure. CBDC would pose a risk to financial stability in that it would be possible to convert bank deposits into central bank money at the push of a button, which in a crisis situation would increase the risk of a bank run. This would have to be countered with stricter regulations on liquidity or an increase in deposit insurance.

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 important information 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 *SNB Working Papers* and *SNB Economic Studies*, as well as in 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 research seminars for this purpose. In 2019, it held the 13th SNB Research Conference in Zurich, which was devoted to the theme of 'New Normal Monetary Policy Frameworks'.

Communications and information in changing times

Article 7 of the National Bank Act stipulates that the SNB must render account and provide information to the Federal Council, the Federal Assembly and the general public. In particular, the SNB must regularly inform the public about its monetary policy and announce its intentions in this regard. Communications therefore play a key role. They are an important monetary policy instrument, used by central banks to anchor and manage expectations on the financial markets (cf. *Annual Report* 2015, chapter 1.1, box 'Accountability, information and communication').

In a direct democracy such as Switzerland, the provision of information to the general public is also of pivotal importance. The aim is to promote understanding of the SNB's role and the importance of its independence in fulfilling its monetary policy mandate. A further objective is to clearly set out and explain the decisions and measures taken by the SNB, as well as to safeguard and bolster trust in it as an institution.

The SNB has long placed emphasis on expanding the range of information it offers, and on using the latest means and approaches to deliver it. In the 1970s, it began to hold regular press conferences in addition to publishing an annual report and a quarterly report on economic and monetary developments, and to giving speeches at the general meeting of shareholders and other events. In the late 1970s and in the 1980s, the SNB made film material available to the public, presenting the fundamentals of monetary policy. The introduction of the eighth banknote series in 1995 saw the first extensive media campaign, with TV commercials and poster advertising. The SNB website – www.snb.ch – went live in 1998, and in 2002 new forms of dialogue with the public were introduced at the Expo.02 national exhibition under the title 'Money and Value – the Last Taboo'. This coincided with the publication of 'The World of the National Bank' featuring information aimed at the general public (internet, short film, brochures), and from 2007 the provision of educational content on economics via the online platform Iconomix.

In recent years, the communications environment has experienced particularly strong change. The reasons behind this include structural change in the media sector, technological innovations, and changing user behaviour among media consumers. At the same time, the demands placed on central bank communications with regard to content have also increased. Like other central banks, the SNB extended its set of monetary policy instruments in the wake of the financial crisis, and has made use of unconventional measures. It has also been entrusted with new tasks by the political authorities, specifically in the area of financial stability. These developments have brought with them a greater need to provide information to the public.

The SNB has responded to this by bolstering its reporting, including in the accountability report it submits to the Federal Assembly, and by regularly presenting its analysis and assessments in speeches at events across Switzerland. It has also increasingly commented in interviews on current developments and issues important for the performance of its tasks. Furthermore, with a view to meeting the heightened requirements, the SNB decided in 2019 to develop its digital communications channels further, having already set up a Twitter account and YouTube channel when it began issuing the ninth banknote series in 2016. It has also markedly expanded its content in Italian, and it now generally communicates in the three national languages German, French and Italian, as well as in English.

With the aim of making itself more widely accessible as an institution, the SNB established the SNB Forum in Zurich, which opened its doors to the general public in October 2019. Visitors can find out about the SNB using an interactive media wall, while the information centre can provide them with literature from the library, archive material, statistics and publications. Renovation and conversion work has continued for the planned visitor centre at the head office in Berne. The centre, which the SNB will set up and run in conjunction with the Bernisches Historisches Museum, will cover the areas of money, monetary policy and central banks. It is scheduled to open in 2024.

1.2 INTERNATIONAL ECONOMIC DEVELOPMENTS

Weakening in global economy

Global economic growth weakened in 2019. The slowdown affected most large economies, and was particularly pronounced in the industrial sector. The utilisation of production capacity worldwide declined slightly to around its long-term average by the end of the year. Against this backdrop, consumer price inflation remained modest in the advanced economies.

Political risks and uncertainty

The weaker economic momentum was largely related to increasing concerns about the economic outlook, and this was reflected in a clear deterioration in business sentiment. The primary focus was on the trade dispute between the US and China that has seen both countries having successively imposed import tariffs since 2017. Although a further escalation in the dispute was temporarily averted in December 2019, the uncertainty persisted.

The political imponderables in the run-up to the UK's exit from the European Union, which was ultimately completed at the end of January 2020, also had a dampening effect. So, too, did the Italian government's budget plans, which led to tensions with the EU. Tensions eased somewhat in the second half of the year as the threat of a disorderly Brexit abated and Italy's relationship with the EU became more relaxed with the formation of a new government.

Stagnating world trade

Global trade in goods stagnated, curbed above all by sluggish manufacturing output and subdued investment activity. Besides the uncertainty stemming from the trade dispute, further exacerbating factors were the cyclical downturn in the information and communications technology (ICT) sector and the problems in the automotive industry. The latter is facing a period of heightened change stemming from stricter environmental regulations and the shift in focus from petrol and diesel-powered engines to alternative engine systems.

Falling commodity prices

Commodity prices declined over the year as a whole, albeit with marked fluctuations. The price of oil rose in the first half of the year on the back of the temporary decline in oil production by the Organization of the Petroleum Exporting Countries (OPEC). It subsequently eased back again in light of the modest economic growth worldwide. At the end of the year, the price of Brent Crude stood at approximately USD 66 per barrel, with the annual average being around 10% down on 2018. Industrial metals prices were also lower on average year-on-year.

US economic growth waning

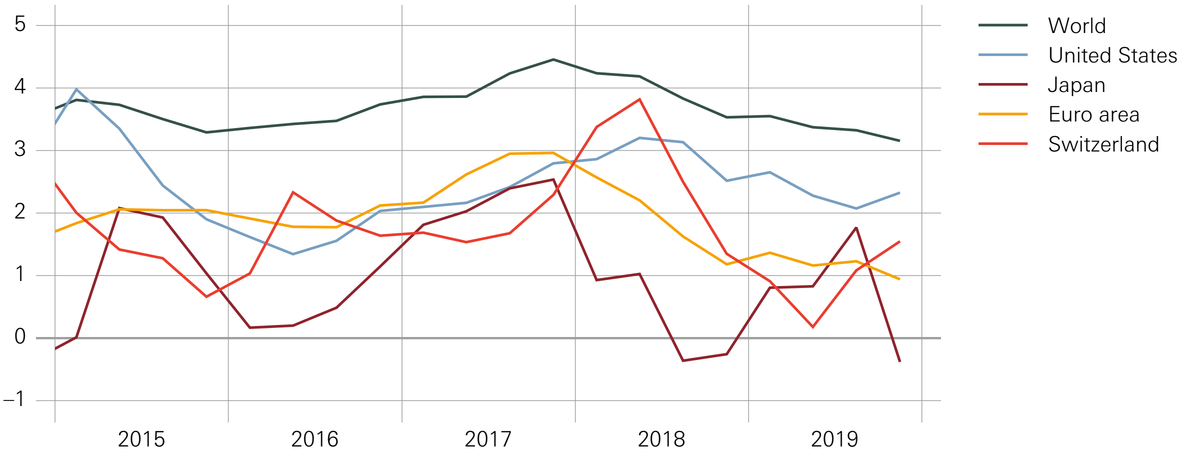
Economic growth slowed in the US in 2019. At 2.3% it was only slightly above potential, after standing at nearly 3% in 2018. Business investment lost momentum. This is likely to have been, to some degree, in response to the trade dispute with China. The lower oil prices also curbed investment activity in the energy sector. However, private consumption benefited from solid disposable income and upbeat consumer confidence. With mortgage rates declining, construction investment also recovered from the contraction in 2018. Overall capacity utilisation remained good. Employment continued to rise, albeit at a slower pace than in 2018, and by the end of the year the unemployment rate had fallen to 3.5%.

Economic slowdown in euro area

Economic activity weakened further in the euro area. Real GDP rose by 1.2% on an annual average basis, this being the lowest value recorded since the end of the sovereign debt crisis in 2013. Overall capacity utilisation thus declined, having previously been significantly above average. As regards equipment investment and exports, the pace of growth was modest. This was above all the case in Germany, where the economy was particularly affected by the global economic slowdown and the problems faced by the automotive industry. Meanwhile, consumption in the euro area remained supportive thanks to a resilient labour market and the pick-up in wage growth. By the end of the year, the unemployment rate had fallen to 7.4%, its lowest level since mid-2008.

GROWTH OF GROSS DOMESTIC PRODUCT

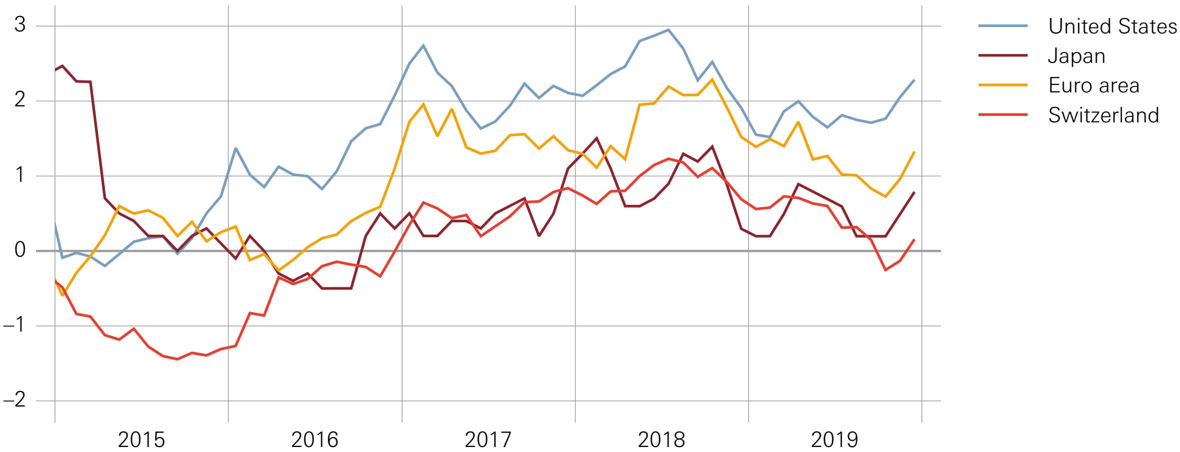
Real, year-on-year change in percent



Sources: SECO, SNB, Thomson Reuters Datastream

INFLATION

Consumer prices, year-on-year change in percent



Sources: IMF, SFSO, Thomson Reuters Datastream

Solid economic activity in Japan

Japan's GDP grew broadly in line with potential at 0.8%, supported by the solid performance of the services sector. Overall production capacity utilisation therefore remained good. The development of GDP growth over the course of the year was influenced by special factors such as exceptional public holidays in May, a powerful typhoon in October and an increase in the consumption tax as of 1 October. Fiscal policy measures partially cushioned the curbing economic impact of the higher consumption tax. Labour market conditions remained favourable overall. Employment rose further slightly and by the end of the year the unemployment rate had declined to its lowest level since the end of 1992 (2.2%).

Slower growth in China

At 6.1%, GDP growth in China was somewhat slower than in 2018, which mainly reflected weaker manufacturing output. The modest domestic demand for vehicles and weaker demand for ICT goods weighed on industrial activity. The trade tensions with the US also had a dampening effect, with the US having imposed additional tariffs on more than two-thirds of imports from China by the end of the year. Growth remained robust in the services sector, however. The government launched a range of fiscal policy measures to support the economy, including tax cuts for households and companies alike and increased infrastructure spending.

Weak economic activity in Brazil, India and Russia

Economic growth remained lacklustre in Brazil, but did not weaken any further compared with 2018, while India and Russia both recorded declines. The Indian economy suffered a pronounced setback, resulting from problems at shadow banks that led to a tightening in credit conditions. GDP growth fell well below potential at 5.3%, and the government lowered the corporate tax rate to provide support to the economy.

Inflation declining in advanced economies

Consumer price inflation declined in most advanced economies compared with 2018, primarily as a result of lower increases in energy and food prices. Core inflation, which excludes volatile categories of goods such as oil products and food, changed only marginally in most countries, however.

US inflation slightly below target

In the US, annual average headline inflation fell to 1.8% in 2019, while the core rate remained steady at 2.2%. The Federal Reserve's preferred price inflation measure for its target of 2%, the personal consumption expenditure (PCE) deflator, weakened in the first half of the year after excluding volatile energy and food prices, before picking up again. In December it stood at 1.6%, slightly below the Fed's target.

Core inflation in euro area and Japan remains modest

Headline inflation in the euro area declined to 1.2%, having at times been pushed above 2% in 2018 by higher energy prices. Core inflation hovered around 1.0%, as it has done for some years.

In Japan, headline inflation decreased to 0.5%, while core inflation rose to 0.4%. The free education programme introduced to stabilise the economy largely offset the inflation effect of the higher consumption tax. Medium-term inflation expectations also persisted significantly below the Bank of Japan's target of 2%.

Mixed inflation trends in emerging economies

In China, headline inflation rose to 2.9%, whereas core inflation fell to 1.6%. In Brazil, the headline figure (3.7%) remained largely unchanged compared with 2018, but slowed over the course of the year. At 3.7%, headline inflation in India was somewhat lower year-on-year, while the core rate was markedly weaker. There was a broad-based rise in headline inflation in Russia (4.5%), driven by the increase in the value added tax and the depreciation of the rouble.

US changes monetary policy stance

The slowdown in economic growth and inflation momentum, coupled with heightened risks, prompted the Federal Reserve to change the course of its monetary policy. In January, the Fed initially signalled a longer pause on interest rate adjustments. In the second half of the year, however, it lowered its policy rate in three steps of 0.25 percentage points, thus bringing its target range to 1.5–1.75% and so largely undoing the increases made in 2018. With this easing, the Fed's aim was to pre-emptively counter the possibility of a more pronounced weakening in growth.

Monetary policy easing in euro area

The European Central Bank lowered its deposit rate by 0.1 percentage points in September, thus taking it further into negative territory (–0.5%). It announced its intention to maintain its key rates at their present or lower levels until inflation dynamics are sufficiently robust. The ECB also decided to restart asset purchases from November, having previously left its holdings unchanged since the end of 2018. Net asset purchases are expected to end shortly before the ECB raises its key rates again.

Expansionary monetary policy in Japan

Since 2016, the Bank of Japan has placed government bond yield curve control at the centre of its monetary policy. In 2019, it maintained the target for 10-year government bond yields at around 0% and its short-term deposit rate at –0.1%. The Bank of Japan intends to maintain interest rates at a low level for as long as progress towards its inflation target of 2% remains uncertain. Additionally, it stressed that it would not hesitate to take further easing action if necessary.

… and in China

The People's Bank of China left its policy rate unchanged. However, it cut commercial banks' reserve requirement ratios in several steps with the aim of reducing financing costs for businesses and boosting lending.

Policy rate cuts in Brazil, India and Russia

Against the backdrop of weak economies, clear policy rate cuts were made by the central banks of India (by 1.35 percentage points to 5.15%), Russia (by 1.25 percentage points to 6.5%), and Brazil (by 2.0 percentage points to 4.5%).

1.3 ECONOMIC DEVELOPMENTS IN SWITZERLAND

Weaker economic growth

Swiss economic growth weakened in 2019. According to the Business Cycle Index, which is calculated by the SNB and offers a comprehensive overview of economic momentum, the pace of growth decreased year-on-year (for information on the methodology behind the Business Cycle Index, cf. *Quarterly Bulletin 1/2018*). Both the purchasing managers' index for the manufacturing sector and the KOF economic barometer also declined markedly over the course of the year and thus indicated modest growth. The favourable development of the labour market continued, however, with employment rising further and unemployment remaining low.

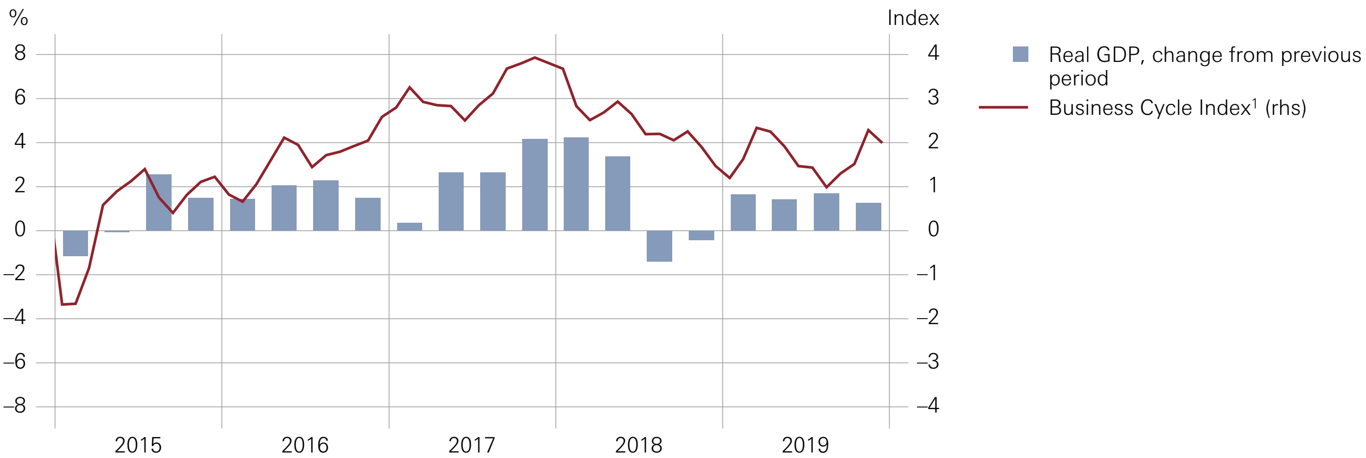
Modest GDP growth

According to the initial estimate by the State Secretariat for Economic Affairs (SECO), GDP increased by 0.9% in 2019; the pace of growth was thus clearly slower than in 2018 (2.8%). However, this contraction is in part attributable to an exceptional factor, namely the strong year-on-year decline in the revenue generated by major international sporting events and booked in Switzerland.

Subdued activity in many industries

Activity growth varied across the manufacturing sector. While the pharmaceuticals industry showed strong growth despite the weaker economic momentum worldwide, activity in the more cyclical industries weakened. The generation of value added in the banking sector, transport and communications, and public administration was also sluggish. The business services sector, healthcare, and wholesale and retail trade supported economic growth, however. Value added also increased in the hospitality industry and in insurance.

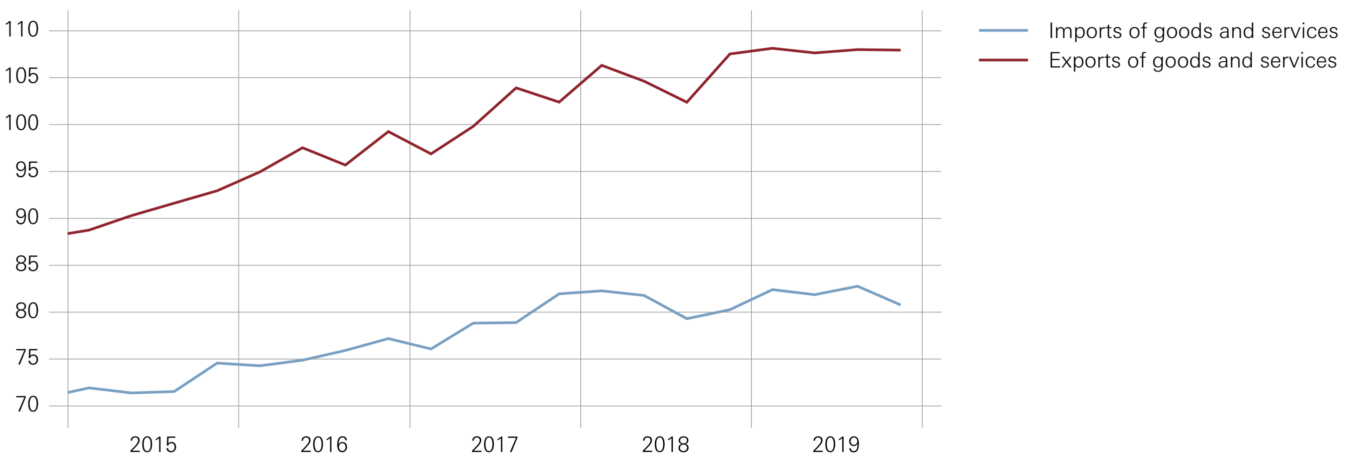
BUSINESS CYCLE INDEX AND GDP GROWTH



1 Normalised to GDP growth since 2002.
Sources: SECO, SNB

FOREIGN TRADE

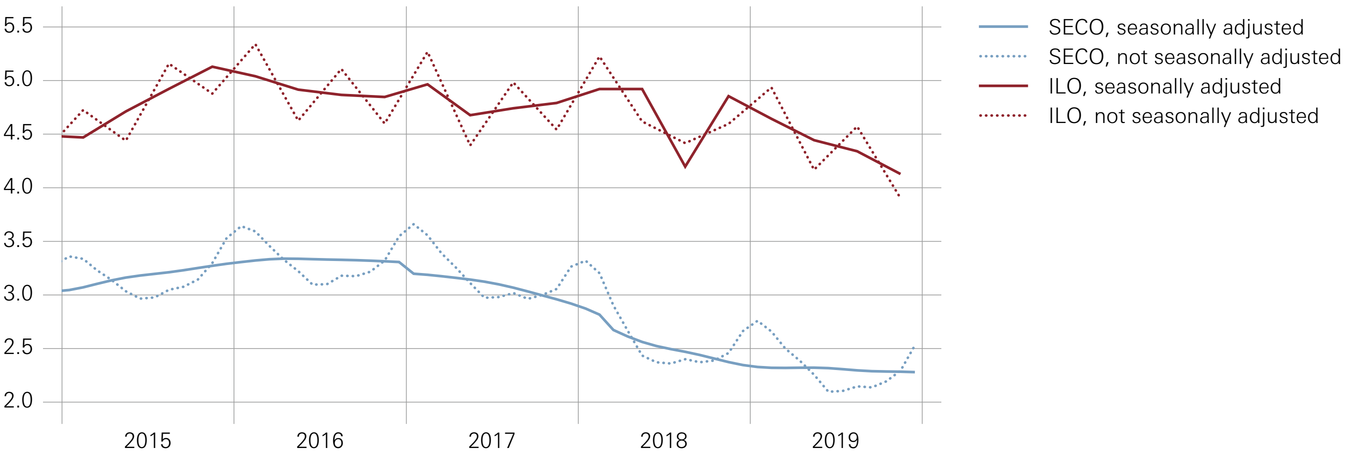
In CHF billions, in real terms, seasonally adjusted



Source: SECO

UNEMPLOYMENT RATE

In percent



Sources: SECO, SFSO

Rising exports

There was a clear increase in the exports of goods in 2019, with support coming in particular from exports of chemical and pharmaceutical products. Exports of railway vehicles and watches also showed a favourable development. By contrast, machinery and metals exports were markedly lower owing to weak global demand for industrial goods. Services exports recorded a slight decline. Overall, exports of goods and services rose by 2.5% year-on-year, following an increase of 4.5% in 2018.

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

The discussions with companies in 2019 presented a picture of solid economic conditions overall, albeit with momentum waning clearly over the course of the year. Turnover growth slowed in the manufacturing industry in particular in the second half of 2019. Although the utilisation of technical capacity and business infrastructure remained normal overall, the development in utilisation levels varied from sector to sector. The recruitment of specialist staff became easier towards the end of the year, with companies in various industries having previously complained of difficulties in this regard. Throughout the year, the companies were upbeat in their assessment of the development of their turnover and staff levels going forward, and also said they planned to increase their expenditure on investment in the coming twelve months. That said, in light of the risk of a further slowdown in the global economy, they were more cautious in their outlook at the end of 2019 than they had been at the start of the year.

In December, the SNB published a study in its *Quarterly Bulletin 4/2019* documenting the methodology used for collecting and evaluating information obtained from the company talks. These one-on-one exchanges of information between the SNB and companies have a long-standing tradition, and the talks have served to complement other available economic data for decades. The methods used to collect, consolidate and evaluate the information obtained from businesses have changed, however. Since 2010, the delegates have used structured guidelines in their discussions, thus facilitating a systematic evaluation of the results.

As a result of lower capacity utilisation in manufacturing, spending on capital goods increased only slightly year-on-year. It was particularly weak in the case of tangible capital goods. However, there was a noticeable rise in intangible investment, for instance in research and development.

Weak growth in equipment investment

Against the backdrop of mixed consumer sentiment, household consumption again grew at only a moderate pace. Expenditure growth was muted in most areas with the exception of healthcare.

Moderate growth in consumption

Construction investment increased only marginally in 2019. This was also the case for residential construction. Building permit figures showed a decline in the construction of owner-occupied residential property. By contrast, the construction of rental apartments continued to increase. However, the rise in the vacancy rate was somewhat less strong than in 2018, and stood at 1.7% at the beginning of June 2019. There was also only slight growth in investment in the other areas of building construction and in civil engineering.

Little momentum in construction investment

REAL GROSS DOMESTIC PRODUCT

Year-on-year change in percent

	2014	2015	2016	2017	2018	2019
Private consumption	1.3	1.7	1.4	1.2	1.0	1.0
Government consumption	2.2	1.1	1.3	1.2	0.3	1.3
Gross fixed capital formation	3.0	2.3	2.5	3.4	1.1	0.6
Construction	3.2	1.6	–0.2	1.5	1.2	0.4
Equipment	2.9	2.7	4.3	4.6	1.1	0.8
Domestic final demand[1]	**1.9**	**1.8**	**1.7**	**1.8**	**0.9**	**0.9**
Exports of goods and services[1]	5.2	2.6	6.5	3.8	4.5	2.5
Aggregate demand[1]	**2.7**	**1.8**	**2.5**	**2.5**	**2.7**	**1.0**
Imports of goods and services[1]	3.3	3.0	4.4	4.4	2.4	1.3
Gross domestic product	**2.4**	**1.3**	**1.7**	**1.8**	**2.8**	**0.9**

1 Excluding valuables (non-monetary gold and other precious metals, precious stones and gems as well as objets d’art and antiques).
Sources: SECO, SFSO

Low unemployment

Labour market developments continued to be positive. The number of people registered as unemployed with regional employment offices remained low. The unemployment rate published by SECO on the basis of the employment office data stood at 2.3% on an annual average basis compared with 2.5% in 2018. The unemployment rate calculated by the Swiss Federal Statistical Office (SFSO) in line with the definition of the International Labour Organization (ILO) declined somewhat; it amounted to an average of 4.4% (2018: 4.7%). The SFSO's figures are based on a quarterly survey of households, and also include unemployed people who are not registered, or are no longer registered, with the regional employment offices. As a result, the figures are normally higher than those calculated by SECO.

Rising employment

At 0.8%, the rise in the number of employed persons was similar in strength to 2018. New jobs were created in services as well as in manufacturing and construction.

Output gap closed

The utilisation of production factors was lower year-on-year, returning to a normal level overall. The output gap, defined as the percentage deviation of GDP from estimated potential output, was essentially closed on an annual average basis. While labour remained tight, utilisation of technical capacity viewed across all sectors was once again at average levels. In manufacturing, however, utilisation of technical capacity was below the long-term average. Meanwhile, company surveys in various service industries and in construction pointed to utilisation being slightly above average.

Higher total wage bill

According to the SECO estimate, the total real wage bill was up by 2.0% following a 1.1% increase in 2018. The higher growth reflected the stronger rise in real wages. The share of labour income in GDP rose slightly year-on-year, and thus remained high by historical standards.

Lower producer and import prices

Producer and import prices rose slightly in the first half of 2019, but fell steadily as the year progressed. On an annual average basis, producer and import prices were 1.4% lower year-on-year.

In 2019, annual inflation as measured by the CPI stood at 0.4%, down from 0.9% the year before. The rate stood at 0.6% in the first half of the year, but then receded to 0.3% in the third quarter and –0.1% in the fourth.

CPI inflation lower than in 2018

The decline in the rate of inflation reflects the generally weak momentum in consumer prices. The inflation rate for imported goods and services fell over the course of the year, from 0.7% in the first quarter to –1.2% in the fourth. The inflation rate for domestic goods and services rose slightly from 0.6% in the first quarter to 0.7% in the second. It then also declined, and stood at 0.3% in the fourth quarter. The slight increase recorded in this category at the beginning of the year was attributable to higher inflation in private services (excluding rents). In the second half of the year, inflation declined in the case of domestic goods and services (excluding rents), whereas rent inflation rose slightly.

Core inflation slightly lower

CPI headline inflation can be significantly affected in the short term by fluctuations in specific price components. In order to analyse the underlying trend of inflation, the SNB therefore calculates core inflation using a trimmed mean. This measure excludes, each month, those goods 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 decreased slightly during 2019; the annual average amounted to 0.4% (2018: 0.6%).

SWISS CONSUMER PRICE INDEX AND COMPONENTS

Year-on-year change in percent

	2018	2019	2019 Q1	Q2	Q3	Q4
Consumer price index, overall	**0.9**	**0.4**	**0.6**	**0.6**	**0.3**	**–0.1**
Domestic goods and services	0.4	0.5	0.6	0.7	0.4	0.3
Goods	0.8	0.6	0.9	0.9	0.5	0.0
Services	0.3	0.5	0.5	0.6	0.4	0.4
Private services (excluding rents)	0.7	0.7	0.7	0.9	0.5	0.5
Rents	0.4	0.5	0.4	0.5	0.5	0.8
Public services	–0.8	–0.3	0.1	–0.1	–0.4	–0.6
Imported goods and services	2.4	0.0	0.7	0.6	–0.1	–1.2
Excluding oil products	1.1	0.4	0.6	0.7	0.4	–0.3
Oil products	11.9	–2.7	1.1	0.1	–4.0	–7.4
Core inflation						
Trimmed mean	0.6	0.4	0.5	0.5	0.3	0.2

Sources: SFSO, SNB

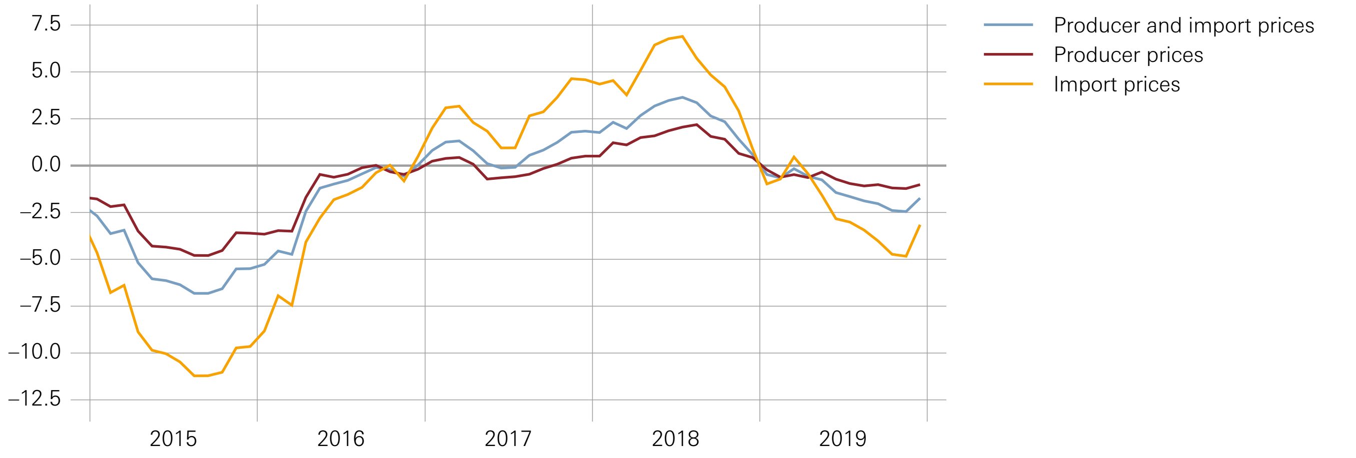
1.4 MONETARY POLICY IN 2019

Continuation of expansionary monetary policy

The SNB maintained its expansionary monetary policy in 2019. This continued to be based on the negative interest that banks and other financial market participants pay on their sight deposits at the SNB, and on the SNB's willingness to intervene in the foreign exchange market as necessary. Both these measures remained essential to ensure appropriate monetary conditions. Annual inflation was still low, and the inflation outlook moderate. Thus the SNB's quarterly inflation forecasts indicated that if interest rates were to remain unchanged over the next three years, the inflation rate would be expected to rise only slightly. At the same time, economic momentum weakened, with the labour market continuing to be a mainstay. The fragile situation on the foreign exchange market persisted, and the Swiss franc remained highly valued overall.

PRODUCER AND IMPORT PRICES

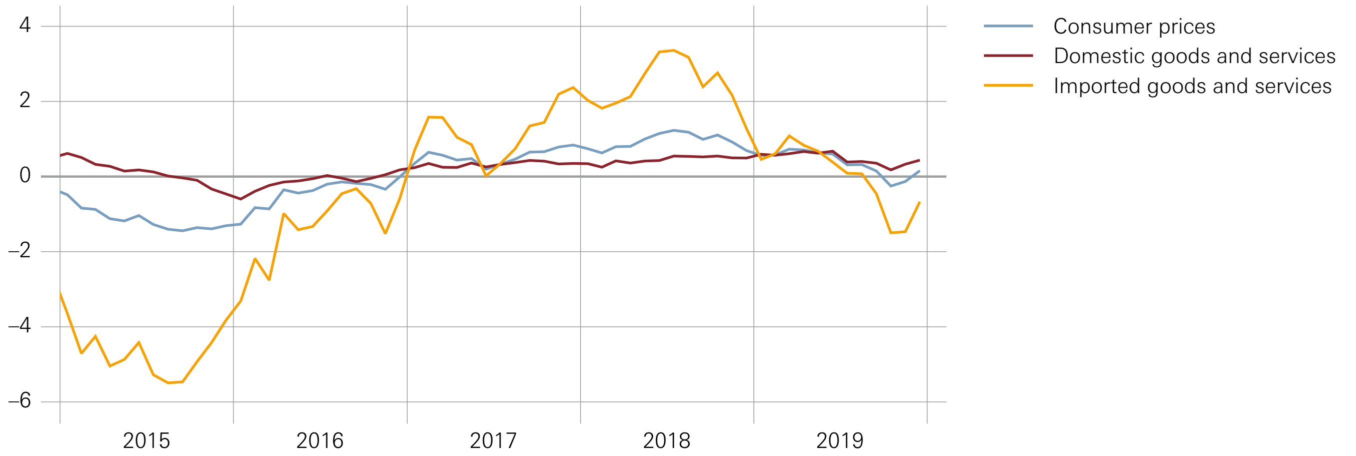
Year-on-year change in percent



Source: SFSO

CONSUMER PRICES

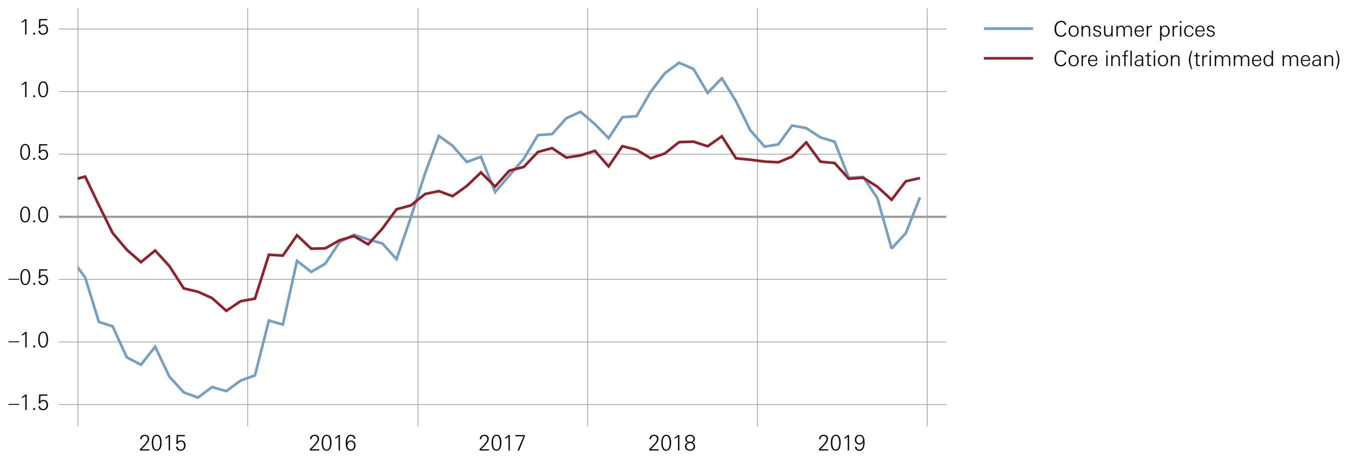
Year-on-year change in percent



Source: SFSO

CORE INFLATION

Year-on-year change in percent



Sources: SFSO, SNB

SNB policy rate replaces Libor target range

The SNB introduced the SNB policy rate on 13 June 2019, and thus replaced the target range for the three-month Swiss franc Libor. In so doing it ensured that the conditional inflation forecast could be based on the same interest rate beyond the probable end of Libor at the beginning of 2022. The SNB has since used the setting of its policy rate in taking and communicating its monetary policy decisions. It also seeks to keep the secured short-term Swiss franc money market rates close to this rate, the most representative of these being SARON. Through to June, the target range for the three-month Libor was left unchanged compared with 2018 at between –1.25% and –0.25%. The SNB set its policy rate at –0.75% in June, this corresponding to the middle of the Libor target range applicable up to that time, and left it at this level for the remainder of the year. The negative interest that the SNB charges above a set exemption threshold on sight deposits held by banks and other financial market participants at the SNB remained unchanged at –0.75%. Moving over to the SNB policy rate did not entail any change in the SNB's monetary policy stance.

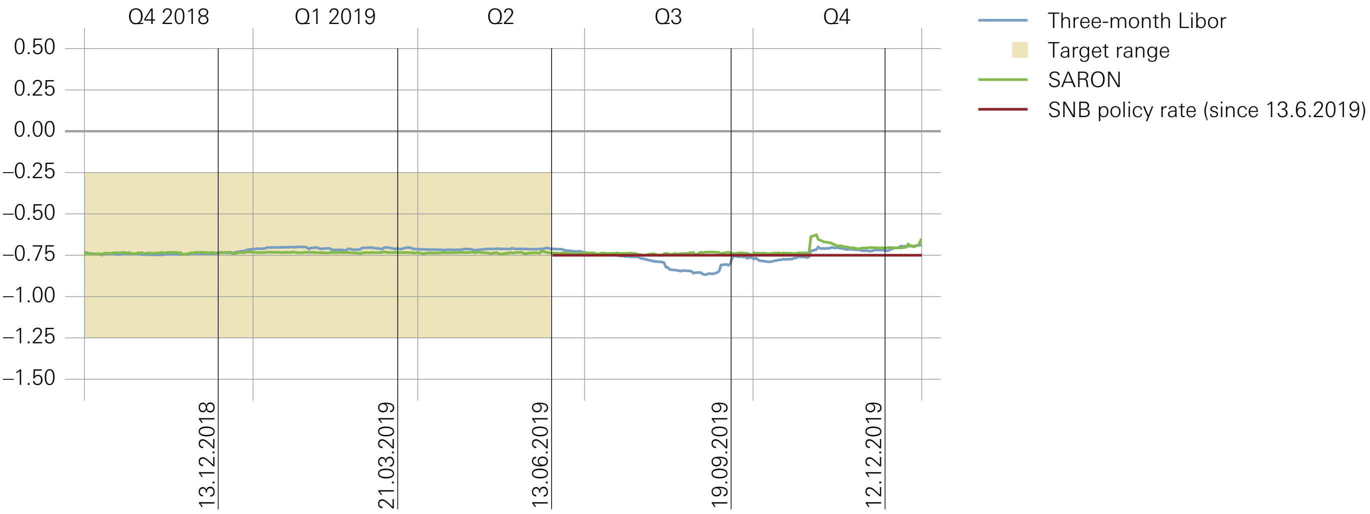
Adjustment to basis for calculating negative interest

At its September monetary policy assessment, the SNB announced an adjustment to the basis for calculating negative interest on sight deposits at the SNB. The changes came into effect on 1 November. Negative interest will continue to be charged on the portion of banks' sight deposits at the SNB that exceeds a certain exemption threshold. The threshold amount is still based on the minimum reserve requirement (cf. chapter 2.4) multiplied by a threshold factor. However, the amount is now calculated dynamically and updated on a monthly basis. The SNB accompanied this move by increasing the threshold factor from 20 to 25 (cf. chapter 2.3, box 'How negative interest works: revision of exemption threshold regime').

The dynamic calculation of the exemption threshold takes into account developments in banks' balance sheets over time. Another reason behind the adjustment was that the low interest rate environment around the world had become more entrenched and could persist for some time yet. The dynamic calculation coupled with the increase in the threshold factor resulted in a reduction in the negative interest burden on the banking system overall, and thus in lower negative interest income for the SNB. The adjustment limits this burden to what is necessary for monetary policy purposes. The SNB regularly reviews the basis for calculating negative interest and adjusts it as appropriate, in order to ensure room for manoeuvre in monetary policy going forward.

MONETARY POLICY INTEREST RATES

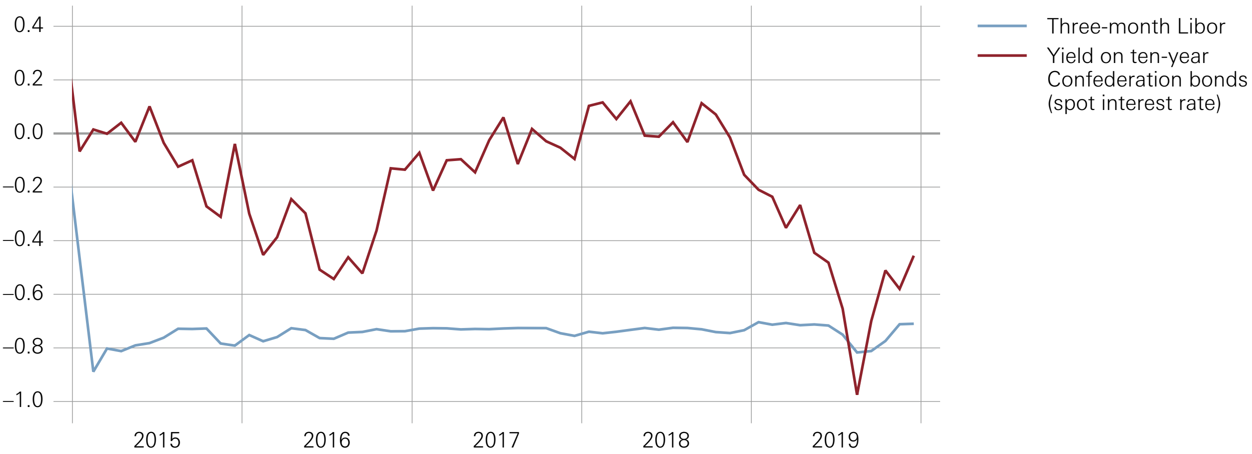
Daily values in percent, dates of monetary policy assessments



Source: SNB

MONEY AND CAPITAL MARKET RATES

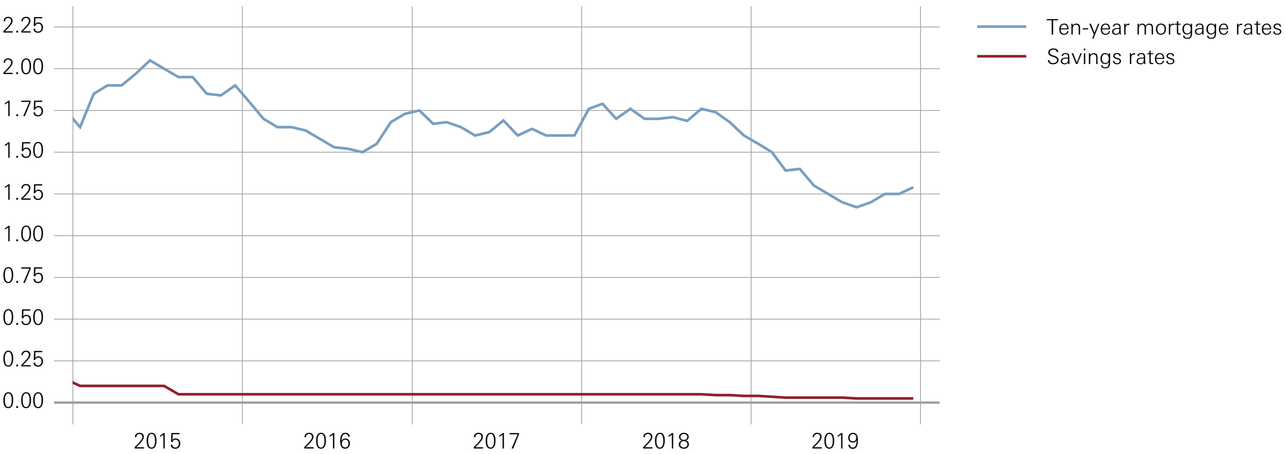
Monthly averages in percent



Source: SNB

BANK INTEREST RATES

Month-end values in percent



Source: SNB

Interest rate differentials narrower

At its monetary policy meeting in September 2019, the European Central Bank lowered the interest rate on its deposit facility by 0.1 percentage points to –0.5%. In terms of the respective three-month Libor, the differential between the short-term euro and Swiss franc interest rates therefore reduced from almost 0.4 percentage points at the end of 2018 to almost 0.3 percentage points at the end of 2019. The US Federal Reserve lowered the target range for its policy rate in successive steps. The spread between short-term US dollar interest rates and their Swiss franc counterparts therefore decreased and stood at around 2.6 percentage points at the end of 2019 (end-2018: 3.5 percentage points).

Lower capital market yields

In 2019, long-term interest rates in all advanced economies were lower on average than in 2018. Having mostly been just over zero in 2018, the yield on ten-year Swiss Confederation bonds was negative throughout 2019 and reached a new historical low of around –1% in August. Even the yields on 30-year Confederation bonds moved into negative territory in the summer, falling as low as –0.7%. The long-term yields subsequently recovered slightly, but were still negative at the end of the year. Given that money market rates remained virtually unchanged over the same period, the yield curve flattened yet further. All in all, this development indicates that the low interest rate environment has become more entrenched.

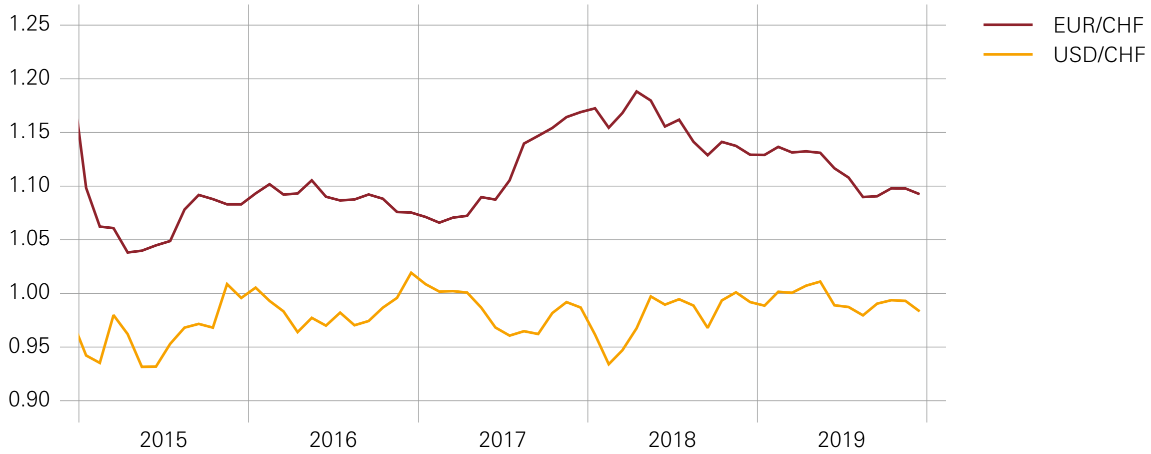
Lending rates lower, deposit rates stable

Published interest rates for new mortgages declined in the first half of the year in particular, and closed 2019 lower year-on-year. However, there was no change in the reference rate relevant for housing rents, which corresponds to the average interest rate of all outstanding mortgages, rounded to a quarter of a percentage point. The average rate of interest on savings deposits remained just above zero. Banks passed negative interest on to specific clients only.

Foreign exchange market interventions

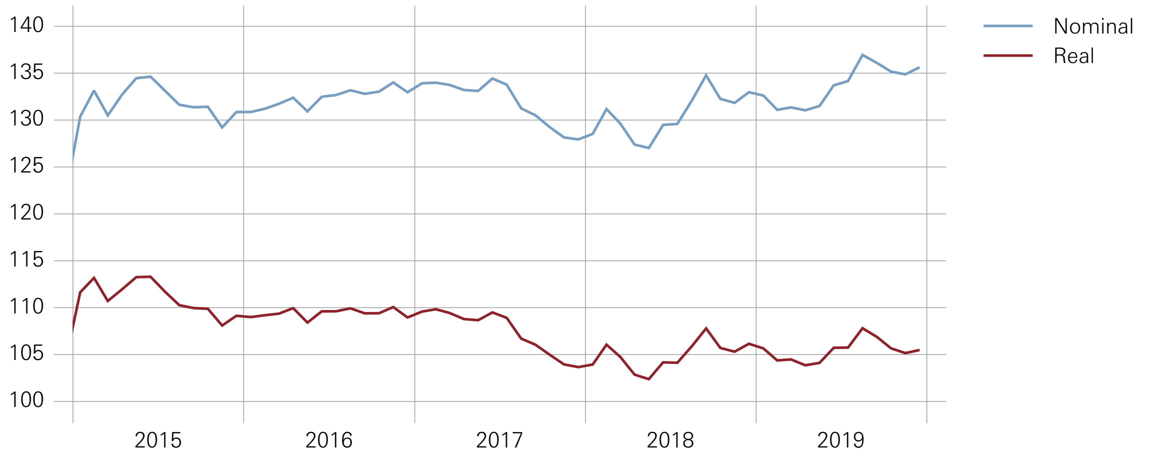
At its quarterly monetary policy assessments in 2019, the SNB again emphasised its willingness to intervene in the foreign exchange market as necessary, stressing both the high valuation of the Swiss franc and the fragility of the situation on the foreign exchange market. The Swiss franc was at times subject to increased upward pressure. To ensure appropriate monetary conditions, the SNB purchased CHF 13.2 billion of foreign currency over the course of the year (2018: CHF 2.3 billion).

EXCHANGE RATES
Monthly averages



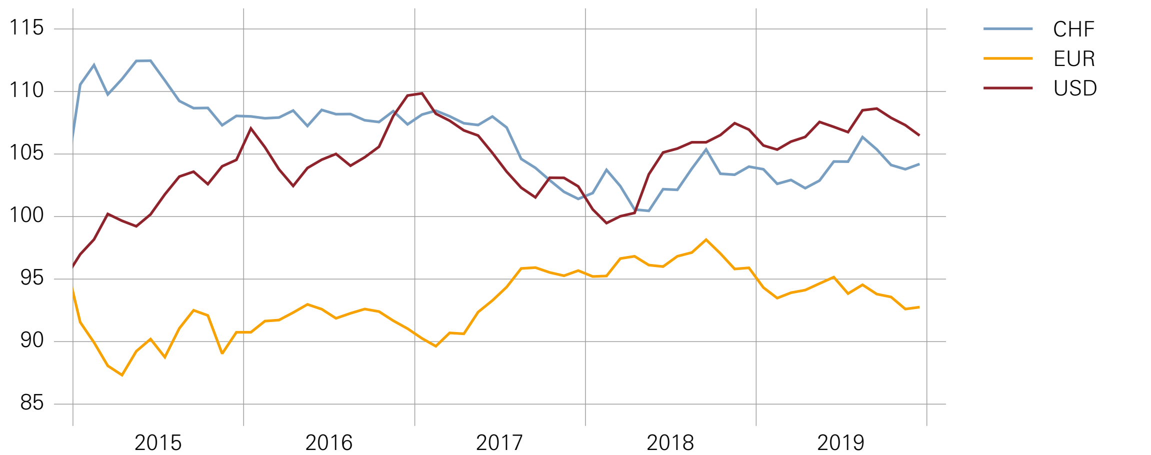
Source: SNB

TRADE-WEIGHTED SWISS FRANC EXCHANGE RATES
Index: average since 1990 = 100



Source: SNB

TRADE-WEIGHTED EXCHANGE RATES IN INTERNATIONAL COMPARISON
Real, 61 countries, index: average since 1990 = 100



Sources: BIS, SNB

Appreciation of Swiss franc

The trade-weighted nominal external value of the Swiss franc, calculated monthly, was higher year-on-year at the end of 2019. It recorded a clear increase between May and August, and reached a new high in August. This reflected the strength of the franc against the euro, the US dollar and the pound sterling. At the end of 2019, the Swiss franc was stronger against the euro than at the start of the year, while remaining essentially flat against the US dollar. On a real trade-weighted basis, the franc closed the year roughly at the same level as at the end of December 2018. This was attributable to inflation in Switzerland being lower than in other countries.

Persistently high monetary base and liquidity surplus

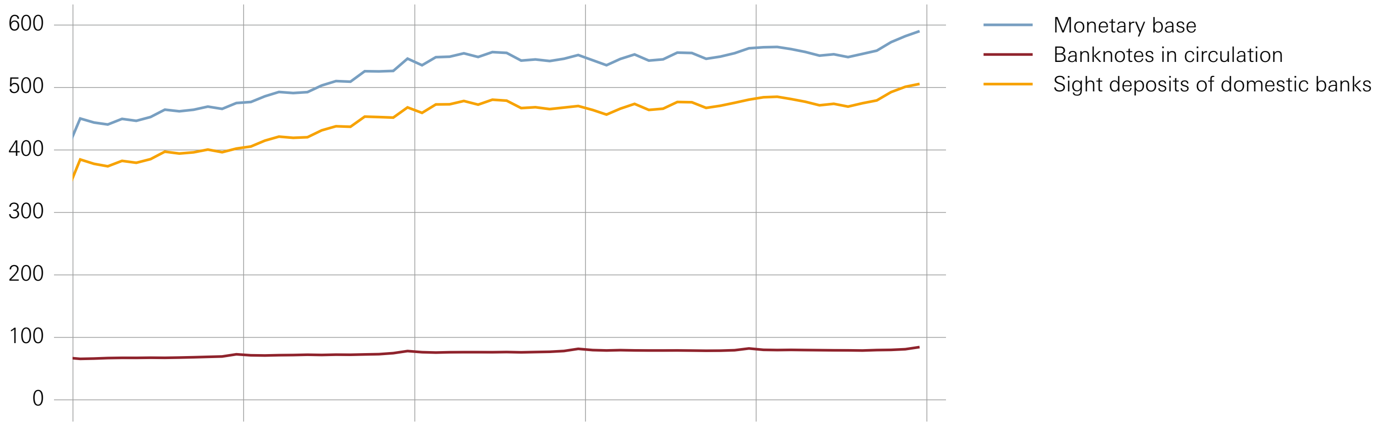
The monetary base, which is made up of banknotes in circulation and domestic banks' sight deposits with the SNB, rose in 2019. This was above all attributable to the increase in sight deposits in the second half of the year, whereas there was virtually no change in banknote circulation. The monetary base remained at a very high level by historical standards as a result of the foreign currency purchases made by the SNB since 2009. This also applied in the case of excess liquidity, which is calculated as the difference between the liquidity held by banks (banknotes, coins and sight deposits at the SNB) and the level of liquidity stipulated under the minimum reserve requirements (cf. chapter 2.4). The banks' surplus reserves do not pose an inflation risk as long as there is not an excessively strong rise in bank loans. Furthermore, the SNB can absorb liquidity as necessary using its monetary policy instruments.

Moderate rise in lending volumes – monetary aggregates stable

Bank lending to domestic customers again registered moderate growth in 2019. The growth in mortgage lending, which makes up 85% of bank loans, showed hardly any change in 2019, despite the fact that mortgage rates were markedly lower. Growth in other loans weakened somewhat over the course of the year. This tallied with the slowdown in economic momentum as the development in other loans tends to be cyclical. The broad monetary aggregates M2 (currency in circulation, sight deposits, deposits in transaction accounts, and savings deposits) and M3 (M2 plus time deposits) closed 2019 slightly higher year-on-year. Growth in M2 and M3 did increase somewhat further in the first six months of the year, but the pace slowed in the second half.

MONETARY BASE AND COMPONENTS

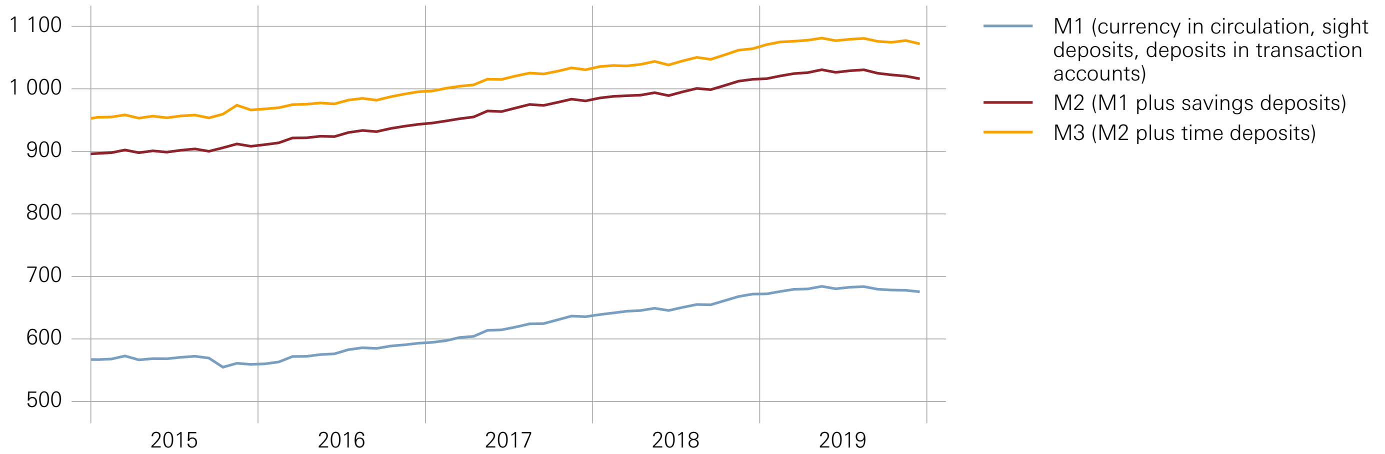
Monthly averages in CHF billions



Source: SNB

LEVEL OF MONETARY AGGREGATES

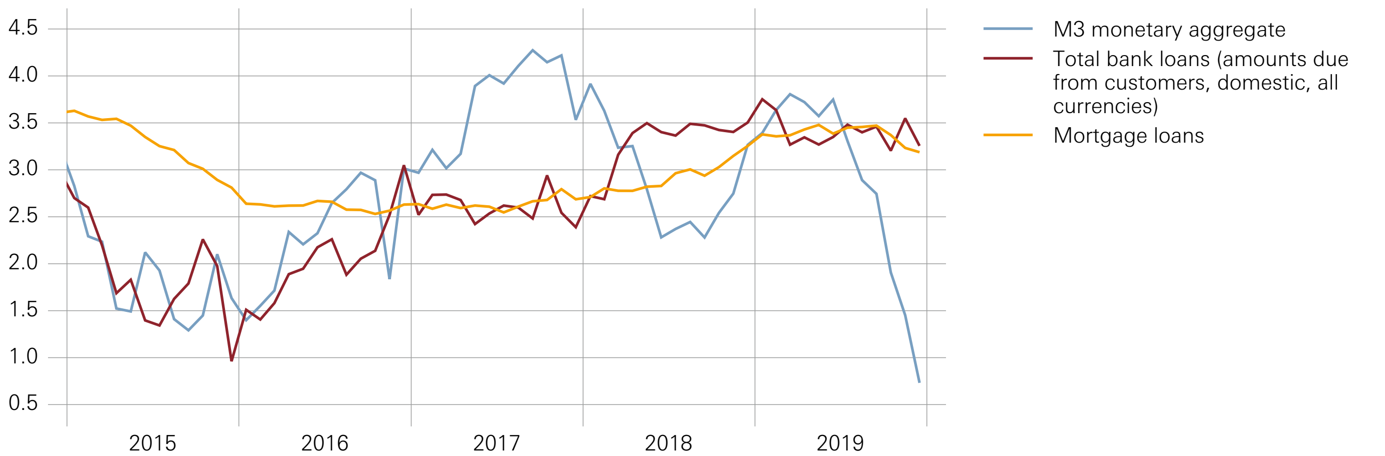
Month-end values in CHF billions



Source: SNB

GROWTH OF MONETARY AND CREDIT AGGREGATES

Year-on-year change in percent



Source: SNB

International scenario for inflation forecasts

The conditional inflation 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, this being based on the market price per barrel of Brent crude at the time a given forecast is made. In December 2018, the SNB had anticipated solid worldwide economic growth of 3.9% for 2019. It lowered this forecast by a total of 0.6 percentage points over the course of the year. The GDP forecasts for both the euro area and the US were lower in December 2019 than they had been twelve months previously. The global economic growth forecast for 2020 was also revised down during the year, although the SNB anticipated a marginal pick-up compared with 2019.

Growth forecast for Switzerland

At the end of 2018, the SNB anticipated GDP growth of around 1.5% for Switzerland in 2019, thus assuming weaker economic expansion compared with 2018. It confirmed this forecast in March and June 2019. In September the SNB lowered its forecast to between 0.5% and 1.0%, after SECO had revised the GDP data for the previous quarters. In December, the SNB's expectation for GDP growth stood at around 1% for 2019 and between 1.5% and 2% for 2020.

Conditional inflation forecast

The published conditional inflation forecasts are based on the assumption that a given interest rate remains unchanged over the entire forecast horizon. As in 2018, the March 2019 forecast was based on a constant three-month Libor of –0.75%. However, following the introduction of the SNB policy rate, the forecasts published in June, September and December were based on that rate remaining unchanged at –0.75% over the three-year period.

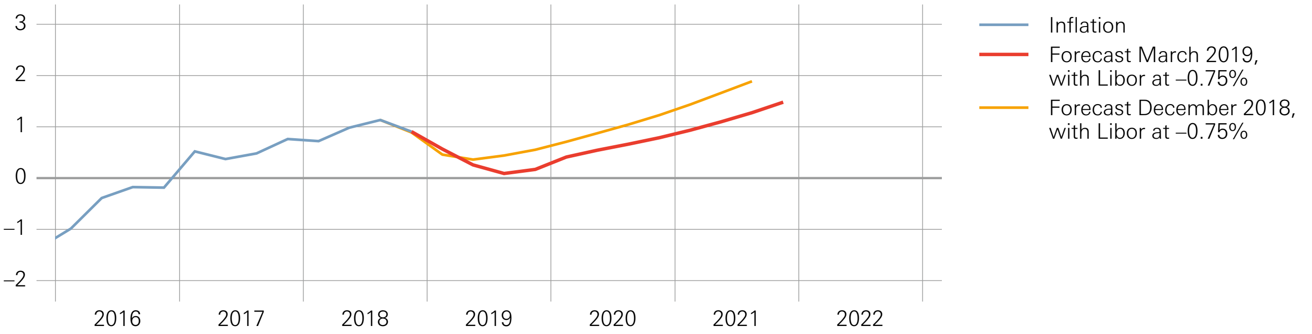
The inflation forecasts published in 2019 were within the range that the SNB equates with price stability, and each showed only a slight rise towards the end of the three-year horizon. All in all, the conditional forecast was revised down over the course of the year. This was primarily attributable to weaker outlooks for growth and inflation abroad and the appreciation of the Swiss franc.

Ongoing uncertainty

The SNB regularly drew attention to risks that could lead to an adjustment in the forecasts and could necessitate a reassessment of the situation. The focus remained on political uncertainty, trade tensions and persistently weak manufacturing, which could have a negative impact on economic growth worldwide.

CONDITIONAL INFLATION FORECAST OF MARCH 2019

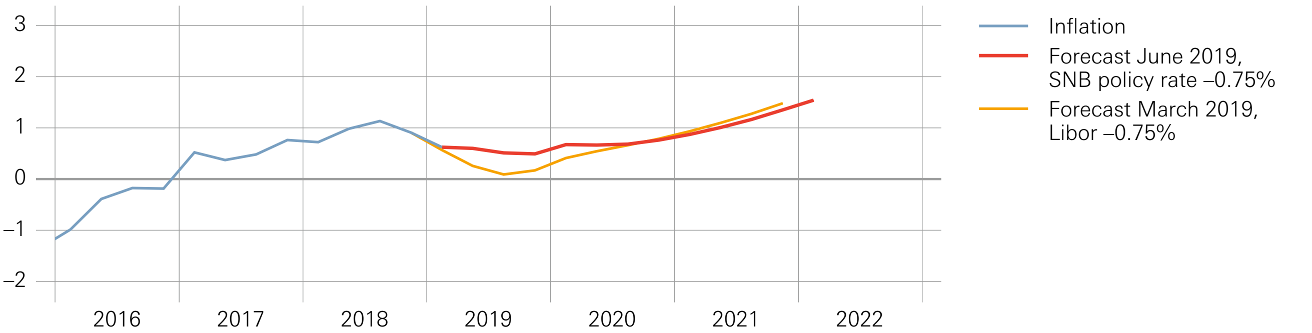
Year-on-year change in Swiss consumer price index in percent



Sources: SFSO, SNB

CONDITIONAL INFLATION FORECAST OF JUNE 2019

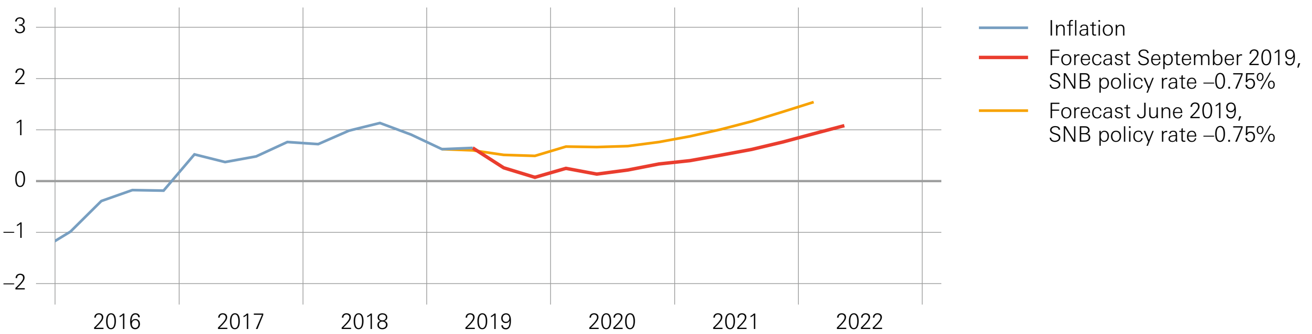
Year-on-year change in Swiss consumer price index in percent



Sources: SFSO, SNB

CONDITIONAL INFLATION FORECAST OF SEPTEMBER 2019

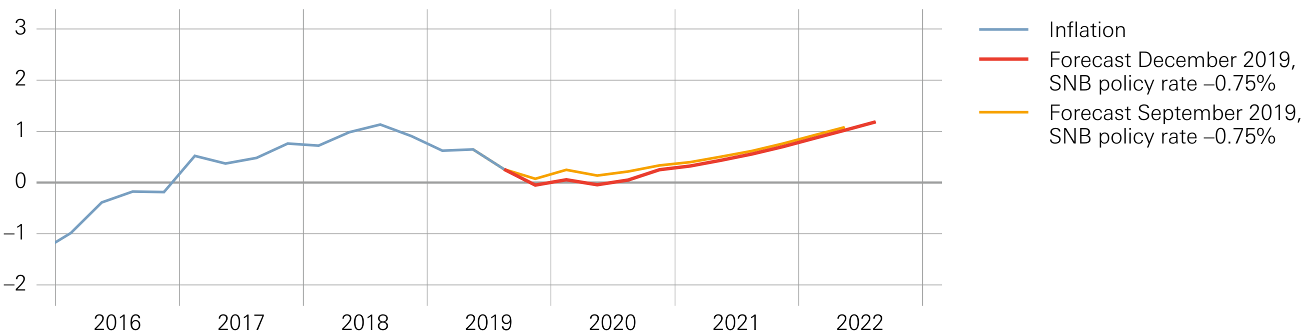
Year-on-year change in Swiss consumer price index in percent



Sources: SFSO, SNB

CONDITIONAL INFLATION FORECAST OF DECEMBER 2019

Year-on-year change in Swiss consumer price index in percent



Sources: SFSO, SNB

Five years of negative interest
Since 22 January 2015, the SNB has been charging negative interest on sight deposits held by banks and other financial market participants at the SNB.

As a rule, Switzerland has lower interest rates than other countries since the franc is considered a safe currency and investors are therefore prepared to accept lower yields on Swiss franc investments. Following the outbreak of the financial crisis in summer 2007, many central banks quickly lowered their policy rates towards zero. This meant Swiss money market rates were practically at the same level as those of other countries, and amid the prevailing uncertainty at that time, the demand for Swiss francs rose sharply. To counter the marked upward pressure, and thus ward off the acute threat to the Swiss economy and deflation, the SNB introduced the minimum exchange rate against the euro in September 2011 and maintained this with foreign exchange market interventions.

Owing to international developments, the pressure on the franc increased again towards the end of 2014. The SNB thus announced in December 2014 that it would from January 2015 charge a negative interest rate of –0.25% on sight deposits held by banks and other financial market participants at the SNB above a certain exemption threshold, in a move aimed at supporting the minimum exchange rate.

The SNB discontinued the minimum exchange rate on 15 January 2015. It was no longer sustainable as it had become apparent that the fast-changing international monetary policy environment was leading to a marked weakness in the euro against key currencies. At the same time, the SNB lowered the negative interest rate to –0.75% to limit the appreciation of the Swiss franc. In doing so it made it clear that it would continue to intervene in the foreign exchange market as necessary in order to influence monetary conditions. Negative interest played a key role in helping stabilise the exchange rate situation. Without it, the Swiss franc would have appreciated much more strongly in recent years, which would have been detrimental to Switzerland's economy and would have jeopardised price stability.

The very low level of interest rates worldwide is only partly attributable to central banks' expansionary monetary policies. The main reasons for the decline in interest rates are that higher life expectancy has led to considerable saving worldwide, while reduced productivity gains mean comparatively little investment is being made. This development has been heightened yet further by the prevailing uncertainty since the onset of the financial crisis. If there is more saving and less investment, the interest rate at which the economy is in equilibrium falls. Switzerland cannot distance itself from this global trend.

Central banks set their policy rates relative to this equilibrium interest rate. For monetary policy to have an expansionary effect, the policy rate must be below the equilibrium interest rate. If the latter is very low, it can be that the policy rate has to be taken below zero. Against the backdrop of low interest rates worldwide, negative interest is necessary if the SNB is to fulfil its mandate of ensuring price stability while taking due account of economic developments. Without it, the franc would appreciate, unemployment would rise and inflation would fall.

The benefits of negative interest do come at a cost, for example low interest income for savers and pension funds. However, were the SNB to raise interest rates in the low interest environment worldwide, this would lead to an appreciation of the franc. Owing to the slowdown in growth and the deflation risk, the SNB would soon have to lower interest rates again. Hence there would be no long-term gains in income for savers and pension funds.

From the banks' perspective, negative interest payments to the SNB are also a cost factor. On 1 November 2019, the SNB raised the exemption thresholds in order to limit the burden on the banking system (cf. chapter 2.3, box 'How negative interest works: revision of exemption threshold regime').

The SNB pursues a monetary policy serving the interests of Switzerland as a whole, and therefore has to assess the impact of negative interest on the economy in its entirety. Negative interest is necessary at present to ensure appropriate monetary conditions. As a complementary measure, the SNB is willing to intervene in the foreign exchange market as necessary. The benefits of negative interest are carefully weighed up against the costs. In the past five years, the former have clearly outweighed the latter.

Climate change – a challenge for monetary policy, financial stability and investment policy

Climate change is an issue that has attracted ever greater public interest in Switzerland in recent years as it poses major challenges for society, the economy and politics.

As a central bank, the SNB's focus when addressing climate change is on the aspects that may be relevant for fulfilling its mandate; this concerns monetary policy, financial stability and investment policy in particular. The SNB participates in the international exchange of experience as a member of the Central Banks and Supervisors Network for Greening the Financial System (NGFS) (cf. chapter 7.2.6), and also engages in other dialogue on climate-related matters.

There are primarily two ways in which climate change can affect monetary policy. First, it could lead to structural change in the economy, which would have to be taken into account in the SNB's analyses and forecasting models. Second, political and regulatory climate protection measures could lead to sudden changes in the prices of important goods. The SNB considers the impact of these changes on economic growth and inflation, and assesses the potential implications for monetary policy.

Climate change can also affect the financial system, on the one hand through an increase in the frequency and severity of natural disasters, and on the other through changes to climate policy and to the corresponding regulations. The SNB's focus has to be on analysing how climate risks could impact on the stability of the Swiss banking system and on systemically important financial market infrastructures. Financial system participants must for their part understand the climate risks relevant to them and assess the potential consequences from a business perspective. At present, the SNB considers the likelihood of climate risks threatening the stability of the banking system as a whole to be low. Given that the significance of these risks may change over time, the SNB is closely monitoring developments and continuously reviewing its assessment.

Finally, climate change also affects the SNB's investment policy. Like other financial risks, climate risks can trigger or amplify market fluctuations and influence the attractiveness of assets. From an investment perspective, they are thus essentially no different from other risks. The SNB therefore takes climate risks into account when managing its assets by avoiding concentration risk as far as possible and replicating individual stock markets in their entirety. As a result, the SNB holds equities from the various economic sectors based on market capitalisation. This approach ensures that the portfolio's exposure to different risks is similar to that of the global universe of listed companies, and that structural changes in the global economy are also reflected in the SNB's portfolio (cf. chapter 5.3, box 'Non-financial aspects of managing privately issued securities').

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. The SNB may also intervene in the foreign exchange market.

SNB policy rate replaces target range for three-month Libor

At its monetary policy assessment in June 2019, the SNB introduced the SNB policy rate. It replaces the target range for the three-month Swiss franc Libor previously used in the SNB's monetary policy strategy. Since then, the SNB has used the policy rate in taking and communicating its monetary policy decisions. Furthermore, it seeks to keep the secured short-term money market rates close to the SNB policy rate. The focus in this regard is the interest rate for secured overnight money, the Swiss Average Rate Overnight (SARON).

The SNB left the target range for the three-month Libor at between –1.25% and –0.25% until it was replaced with the SNB policy rate on 13 June. The SNB policy rate remained at –0.75% until the end of the year, which corresponded to the middle of the Libor target range applicable until mid-June.

Negative interest and foreign exchange market interventions

Since January 2015, monetary policy has been implemented via negative interest rates and, where necessary, foreign exchange market interventions. The interest rate on sight deposits held by banks and other financial market participants at the SNB was –0.75% and thus corresponded to the SNB policy rate. In order to ensure appropriate monetary conditions for the economy, the SNB again made foreign currency purchases in the year under review.

Sight deposits at the SNB

The SNB maintains sight deposit accounts for banks and other financial market participants. The balances on these accounts at the SNB are a financial market participant's most liquid assets, since they can be used immediately to effect payments and are deemed to be legal tender. Domestic banks' sight deposits at the SNB are eligible assets for minimum reserve requirement purposes. Banks also need them for payment transactions and 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. If the supply of liquidity to the financial system is kept tight, the individual financial market participants adjust their liquidity positions on the money market. 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. Under certain circumstances, negative interest on sight deposits, with exemption thresholds granted, stimulates trading. The reason for this is that institutions with sight deposits over and above the exemption threshold conclude money market operations with institutions which have not yet exceeded their threshold.

2.2 DEVELOPMENTS IN THE MONEY AND FOREIGN EXCHANGE MARKETS

Slight increase in sight deposits

Sight deposits held at the SNB came to CHF 590 billion at the end of 2019 and were thus above the year-back level (CHF 574 billion).

Money market rates mostly close to SNB policy rate

The interest rate of –0.75% charged by the SNB on sight deposits contributed to short-term interest rates in Switzerland remaining low. It was thus possible to maintain a certain interest rate differential between Switzerland and other countries and keep the attractiveness of Swiss franc investments low.

The relevant money market rates were close to the SNB policy rate. The adjustment made to the method for calculating the exemption threshold, which took effect on 1 November 2019 (cf. chapter 2.3, box 'How negative interest works: revision of exemption threshold regime'), led to a rise in the aggregated exemption thresholds and, in line with the SNB's expectations, to a temporary increase in short-term interest rates on the secured money market. SARON rose at times to –0.63%, before reverting towards the SNB policy rate, due in part to the SNB selectively providing the repo market with liquidity (cf. chapter 2.3). At the end of 2019, short-term repo rates were temporarily subject to renewed upward pressure, and SARON closed at –0.66%.

Higher turnover on repo market

As in previous years, activity on the repo market was shaped by trade in sight deposits between account holders with balances above or below their respective exemption thresholds. The revision to the method used to calculate the exemption thresholds granted by the SNB, which came into effect on 1 November, meant that certain institutions now had balances which were below the exemption threshold. These institutions increased their sight deposits by various means (e.g. via repo transactions), while those whose sight deposits continued to exceed the threshold made these funds available at a rate which was slightly above the SNB's negative interest rate. Accordingly, the average daily turnover on the repo market was, at CHF 6.4 billion, higher than in the previous year (CHF 4.5 billion).

Reference interest rate reform process

The SNB continued to monitor the reference interest rate reform process in 2019. In Switzerland, the reforms are being coordinated by the national working group on Swiss franc reference rates (cf. box 'Transitioning from Libor to SARON'). Internationally, the reform process is being overseen by the Financial Stability Board's Official Sector Steering Group, which once again published an annual report on the international reform efforts in 2019. The SNB is also represented on this body.

Transitioning from Libor to SARON

In July 2017, the UK's Financial Conduct Authority announced that it would not support the Libor beyond the end of 2021 and that it would no longer oblige banks to participate in the Libor Panel from that point on. This underscored the considerable risk attached to the discontinuation of Libor, and had the effect of accelerating the transition to alternative reference interest rates, both internationally and nationally.

In Switzerland, the National Working Group on Swiss Franc Reference Interest Rates (NWG) is managing the transition. The NWG ensures that all the relevant participants are involved in the reform process and comprises representatives from banks, insurance companies, infrastructure providers, non-financial companies, public institutions and interest groups. The SNB supports the NWG's work, though its primary role is to coordinate. It also provides information on the NWG's activities on its website.

In 2017, the NWG recommended SARON as an alternative to the Swiss franc Libor. SARON is a secured overnight rate based on the most liquid segment of the Swiss franc money market. It has already gained in importance as a reference interest rate in recent years. In 2017, for example, a SARON-based yield curve was created which is derived from corresponding swap transactions. While the outstanding volume of SARON swap transactions has since risen, it remains lower than that of the corresponding Libor-based market. The more SARON is used in cash products such as mortgages, in particular, the more the volume of SARON swap transactions should increase. However, before SARON is able to completely replace the Libor for both loans and swap transactions, further adjustments are required on the part of banks and infrastructure providers.

In Libor-based loan agreements, interest payments are fixed at the beginning of an interest period. Quarterly or six-month periods of interest are generally used. By comparison, SARON is an overnight rate. In 2018, the NWG therefore recommended using a compounded SARON to cover the interest period of loan agreements. The compounded SARON can be calculated using the current interest period or the previous interest period, as is already the case for swap transactions. For the former, the interest payment is not known until the end of the interest period, and for the latter, it is known at the beginning.

In 2019, the NWG proposed various options for structuring interest payments in loan agreements and the first loans applying some of the suggested interest rate calculations were issued. It is up to the banks to perform feasibility checks on these options, and the infrastructure providers to fulfil the technical requirements necessary for implementation.

Principles of collateral policy

The SNB requires that the banks and other financial market participants with whom it conducts credit transactions provide sufficient collateral (art. 9 NBA). In so doing, the SNB protects itself against losses and ensures equal treatment of its counterparties.

The 'Guidelines of the Swiss National Bank on monetary policy instruments' outline the types of securities that are eligible as collateral for SNB transactions. The 'Instruction sheet on collateral eligible for SNB repos' details the criteria which securities must meet in order to be eligible as collateral in repo transactions with the SNB. Only securities included in the 'List of collateral eligible for SNB repos' are accepted. Since the SNB also admits foreign banks to its monetary policy operations and since the portfolio of Swiss franc securities is limited, it also accepts securities in foreign currencies.

Adjustment to criteria for collateral eligible for repos

When the 'Guidelines of the Swiss National Bank on monetary policy instruments' were amended in 2019 following the introduction of the SNB policy rate, the criteria for collateral eligible for SNB repos were also updated. The adjustments were of a technical nature and affected, among other things, the definition of the minimum volume for securities denominated in foreign currency as well as the treatment of securities whose maturity can be extended by the issuer. Furthermore, the securities must now meet a minimum outstanding volume requirement at all times.

The SNB continues to set high minimum requirements with regard to the marketability and credit rating of securities. This prompts banks to hold recoverable and liquid assets. In turn, this is essential if banks are to be able to refinance their operations on the money market, even under difficult conditions.

BIS survey on foreign exchange trading and market structure

The Triennial Central Bank Survey conducted by the Bank for International Settlements (BIS) provides the most comprehensive picture of the global trading patterns and structure of the foreign exchange market. The most recent survey was conducted in April 2019 and covered 53 countries.

The global daily trading volume on the foreign exchange markets rose from USD 5.1 trillion in 2016 to USD 6.6 trillion in 2019. The increase in foreign exchange swaps from USD 2.4 trillion to USD 3.2 trillion was the largest contribution made to growth in the market as a whole. Spot trading increased from USD 1.7 trillion to USD 2.0 trillion and thus rose less strongly than the market as a whole.

The US dollar retained its dominant currency status. While the euro slightly expanded its market share, the Japanese yen lost ground. The currencies of emerging economies posted further gains. At USD 327 billion, the Swiss franc remained the seventh most traded currency; its share of global trading turnover was 5%.

Foreign exchange trading continued to be concentrated in the UK, the US, Singapore, Hong Kong and Japan, which together accounted for 79% of global turnover. In Switzerland, turnover in foreign exchange trading recorded a strong rise from USD 156 billion a day in 2016 to USD 276 billion in 2019. This placed Switzerland sixth in the ranking of the largest foreign exchange trading locations. Almost three-quarters of this increase in turnover is attributable to the fact that, in 2019, for the first time, relevant market participants also reported transactions related to intergroup risk transfers, known as back-to-back (B2B) deals. These enable a group to concentrate risk management at one entity, and also facilitate the netting of various transactions across group entities.

Swiss Foreign Exchange Committee and FX Global Code

The Swiss Foreign Exchange Committee (Swiss FXC) was set up in 2018 and serves as a forum for banks and other foreign exchange market participants in Switzerland and the Principality of Liechtenstein. It is also a member of the Global Foreign Exchange Committee (GFXC), which promotes, maintains and updates the principles of the FX Global Code. The FX Global Code was introduced in 2017 to establish a common set of guidelines to promote the integrity and efficiency of foreign exchange trading.

At its two meetings in 2019, the Swiss FXC prepared the matters to be discussed in the GFXC. It also agreed on measures to lend more emphasis to the FX Global Code in Switzerland and the Principality of Liechtenstein. Finally, the Swiss FXC discussed relevant market developments, including the results from the BIS 2019 survey on foreign exchange trading in Swiss francs globally and in Switzerland.

2.3 USE OF MONETARY POLICY INSTRUMENTS

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.

In 2019, the SNB continued to influence exchange rate developments where necessary, purchasing a total of CHF 13.2 billion in foreign currency. The SNB did not conclude any foreign exchange swaps in order to influence the conditions on the Swiss franc money market.

Interest rate on sight deposits at SNB

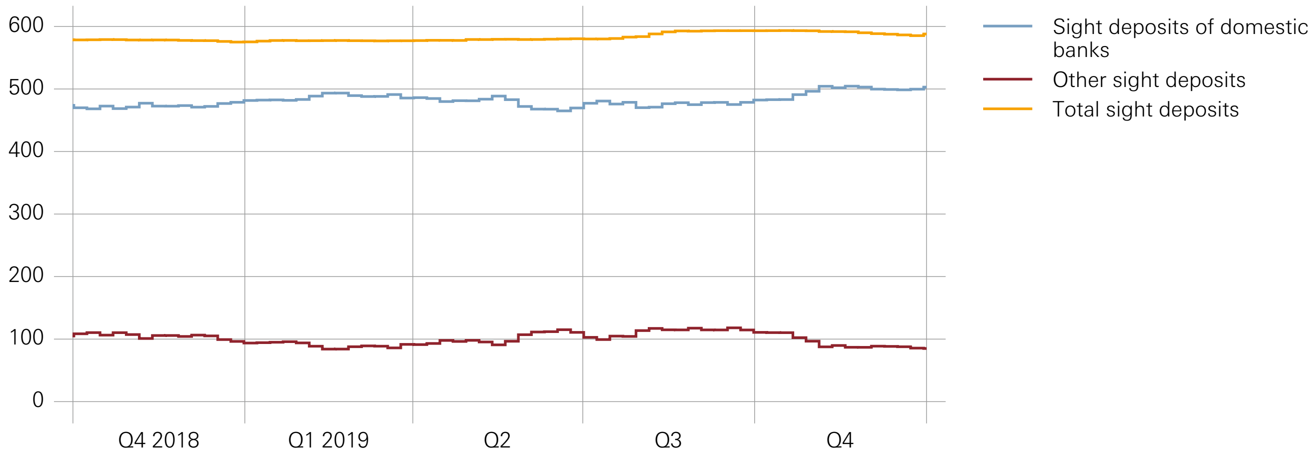
Since 22 January 2015, the SNB has been charging interest of – 0.75% on sight deposits held by banks and other financial market participants at the SNB. By setting the interest rate and defining other conditions, the SNB influences the interest rate level on the money market. To achieve this, it is sufficient if only a portion of sight deposits are subject to negative interest, which is why the SNB grants exemption thresholds.

At the end of December 2019, the sight deposits of institutions required to pay negative interest stood at CHF 566 billion, which was well above the maximum available exemptions of CHF 409 billion, while sight deposits subject to negative interest were down year-on-year from CHF 269 billion to CHF 187 billion. The decline in these balances is due to the revision to the exemption threshold regime, which took effect on 1 November, and which led to a rise in the aggregated exemption thresholds. As a result, the income from negative interest in 2019 decreased slightly to CHF 1.9 billion (2018: CHF 2.0 billion).

Before 1 November 2019, the utilisation of the exemption thresholds amounted to almost 100%. The adjustment of the exemption threshold regime resulted in higher thresholds for certain institutions, which were not immediately used up. As was seen when the negative interest rate was introduced at the beginning of 2015, it will take some time for the sight deposits to be redistributed.

SIGHT DEPOSITS AT THE SNB

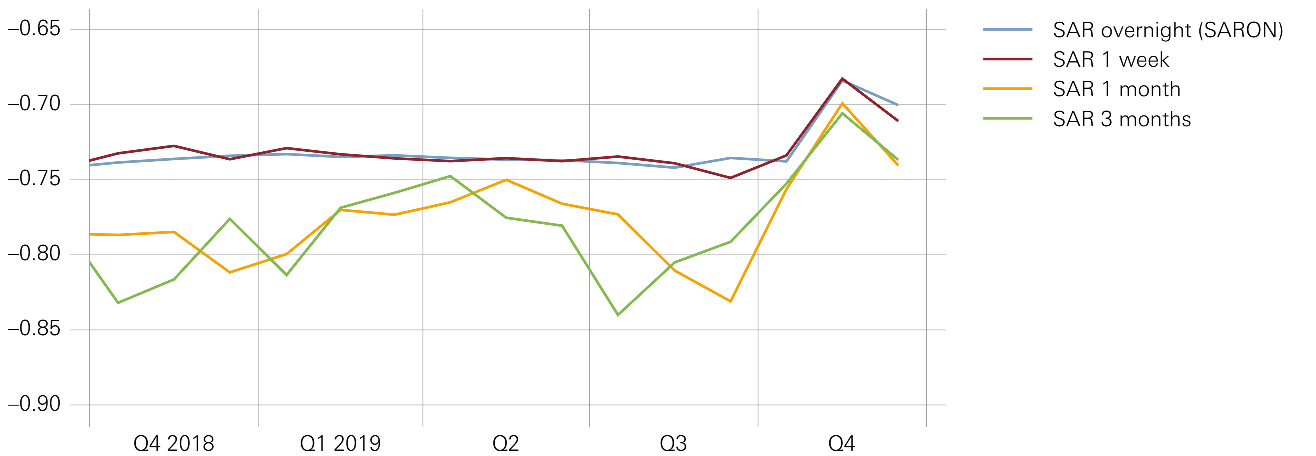
Weekly averages in CHF billions



Source: SNB

SWISS FRANC REFERENCE RATES (SWISS AVERAGE RATES, SAR)

Monthly averages of daily figures in percent



Source: SIX Swiss Exchange Ltd

Repo transactions

In the case of liquidity-providing repo transactions, the SNB purchases securities from a bank (or other financial institution admitted to the repo market) and credits the associated sum in Swiss francs to the counterparty's sight deposit account with the SNB. At the same time, it is agreed that the SNB will resell securities of the same type and quantity at a later date. In the case of a liquidity-absorbing 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.

In connection with the market's response to the adjustment in the calculation of exemption thresholds, the SNB conducted monetary policy repo transactions for the first time since 2012. It provided overnight liquidity on certain days through fine-tuning operations (bilateral repo transactions) in order to counter an excessive rise in SARON. This ensured that the secured short-term money market rates in Swiss francs remained close to the SNB policy rate.

The fine-tuning operations went smoothly, partly because the SNB regularly carries out test operations. This is to ensure that the SNB's counterparties are at all times able to carry out transactions necessary for the implementation of monetary policy. In 2019, for test purposes the SNB conducted repo transactions by way of auction with a term of seven days.

Averaged over the year, the amount outstanding on monetary policy repo transactions was CHF 40 million.

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. These guidelines are supplemented by instruction sheets for the SNB's counterparties. As lender of last resort, the SNB also provides emergency liquidity assistance.

Within its set of monetary policy instruments, the SNB distinguishes between open market operations and standing facilities. In the case of open market operations, the SNB takes the initiative in the transaction. Where standing facilities (i.e. the liquidity-shortage financing facility and the intraday facility) are concerned, it merely sets the conditions under which counterparties can obtain liquidity.

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 mostly conducted via an electronic trading platform.

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 such as insurance companies, 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.

One of the monetary policy instruments of the SNB is the interest rate on sight deposit accounts. Art. 9 NBA authorises the SNB to keep interest-bearing and non-interest-bearing accounts for banks and other financial market participants. Until January 2015, when the SNB charged negative interest for the first time, the sight deposit accounts were non-interest-bearing.

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.

In 2019, no SNB Bills were issued or repurchased for monetary policy reasons. As in the previous year, the SNB transacted a small number of SNB Bills of negligible amounts for test purposes.

How negative interest works: revision of exemption threshold regime
In order for negative interest to have an impact on financial market rates and – as desired from a monetary policy perspective – thus make the Swiss franc less attractive, it is sufficient if only a portion of sight deposits are subject to negative interest. The SNB therefore grants exemption thresholds when calculating negative interest on sight deposits held by banks and other financial market participants. This ensures that the burden imposed on the banking system is kept to the minimum required for monetary policy reasons.

The minimum reserve requirement is the key variable for calculating the exemption threshold for domestic banks (cf. chapter 2.4). When it announced the negative interest rate in December 2014, the SNB set the exemption threshold at 20 times (threshold factor) the minimum reserve requirement. In 2019, it increased the threshold factor to 25 and adjusted the method for calculation. These changes came into effect on 1 November.

The new calculation of the exemption threshold is based on the following rules: For banks subject to minimum reserve requirements, the exemption threshold is calculated by multiplying the moving average of the minimum reserve requirements over the preceding 36 reference periods by the applicable threshold factor (basis component), minus the cash holdings in the last reference period (cash holdings component). Before the adjustment, the exemption threshold was calculated on the basis of the November 2014 reference period. The threshold shall not be less than the basic minimum reserve requirement of the last reference period or, as previously, shall be at least CHF 10 million. For account holders not subject to any minimum reserve requirements, for example foreign banks and other domestic or foreign financial market participants, the exemption threshold remains set at CHF 10 million.

The level of minimum reserves is calculated for each bank according to its short-term liabilities towards third parties in Swiss francs by using a uniform method. Banks holding higher sight deposits in proportion to their minimum reserves are charged more than other banks. The moving average of the minimum reserve requirements over the preceding 36 reference periods multiplied by the applicable threshold factor is now exempt from negative interest. This takes the very high level of liquidity in the banking system into account. Furthermore, this dynamic calculation of the basis component recognises developments in banks' balance sheets over time. The SNB regularly reviews the calculation of the exemption threshold.

Negative interest is applied across the board, with as few exceptions as possible. This respects the principle of equal treatment and increases the monetary policy effectiveness of the instrument. The only sight deposit accounts exempted from negative interest are those of the central Federal Administration and the compensation funds for old age and survivors' insurance, disability insurance and the fund for loss of earned income (compenswiss). However, the SNB will continue to monitor the development of the balances on these accounts.

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 0.4 billion in 2019.

Liquidity-shortage financing facility

To bridge unexpected liquidity bottlenecks, the SNB offers a liquidity-shortage financing facility. 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 liquidity-shortage financing facility is granted in the form of a special-rate repo transaction. Since 13 June 2019, the special rate corresponds to the SNB policy rate plus a surcharge of 0.5 percentage points. The special rate continues to be at least 0.5%.

In 2019, the liquidity-shortage financing facility was hardly used; averaged over the year, volume was close to zero. The limits for the liquidity-shortage financing facility amounted to CHF 39.4 billion; at the end of the year, 76 financial market participants held corresponding limits.

... now also for financial market infrastructures

In 2019, the SNB, together with the systemically important financial market infrastructures domiciled in Switzerland, participated in drawing up an adapted form of the liquidity-shortage financing facility (cf. chapter 6.4.2). Obtaining Swiss franc liquidity up to a specified limit should also be covered at all times by collateral eligible for SNB repos amounting to at least 110%.

SUPPLYING THE MONEY MARKET WITH LIQUIDITY

Liquidity-related operations in CHF millions[1]

	2019	2018
Open market operations		
Repo transactions[2, 3]	+40	0
Foreign exchange swaps[2]	–	–
SNB Bills[2, 4]	–6	–7
Foreign exchange transactions	+13 241	+2 330
Standing facilities		
Intraday facility[5]	+416	+1 061
Liquidity-shortage financing facility[2]	0	0
Other monetary policy instruments		
Interest on sight deposit account balances	–1 938	–2 048

1 A plus sign (+) indicates liquidity-providing; a minus sign (–) indicates liquidity-absorbing.
2 Average level of operations outstanding at the end of the day.
3 Fine-tuning operations and operations for test purposes.
4 Operations for test purposes.
5 Average daily turnover.

2.4 MINIMUM RESERVES

Main features of regulation

The duty to hold minimum reserves (arts. 17, 18, 22 NBA) ensures that banks have a minimum demand for base money; it 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 currently amounts to 2.5% of the relevant short-term 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 have formed the basis for calculating the exemption thresholds for domestic banks since the negative interest rate was introduced in January 2015.

Adjustment to minimum reserve requirements

When adjusting the basis for calculating the negative interest on sight deposits held at the SNB, effective from 1 November 2019, the SNB also reviewed the provisions on minimum reserves in the NBO. Repo transactions with non-banks, e.g. insurance companies, are no longer subject to minimum reserve requirements; previously only repo transactions with banks were exempted. This adjustment takes account of the growing importance of non-banks in the repo market and ensures that the different kinds of repo transactions are treated equally. Besides repo transactions, securities lending transactions are also no longer subject to minimum reserve requirements, as they are very similar to repo transactions in terms of their economic effect. The revised NBO entered into force on 1 January 2020.

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

	2019 Outstanding Average	2018 Outstanding Average
Sight deposits at the SNB	481 079	466 680
Banknotes	6 466	6 205
Coins in circulation	112	114
Eligible assets	487 657	472 999
Requirement	17 399	16 438
Compliance in excess of requirement	470 259	456 561
Compliance in percent	2 803	2 877

In 2019 (between 20 December 2018 and 19 December 2019), statutory average minimum reserves amounted to CHF 17.4 billion. This is a 6% increase year-on-year. Eligible assets rose to CHF 487.7 billion on average, compared with CHF 473.0 billion a year previously. Banks exceeded the requirement by an annual average of CHF 470.3 billion. The statutory minimum reserve requirement was met by all 226 banks.

2.5 LIQUIDITY IN FOREIGN CURRENCIES

Permanent network of swap arrangements

Since 2013, standing bilateral liquidity swap agreements 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 permanent network of swap agreements 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 prudent liquidity backstop.

In 2019, the SNB offered weekly repo transactions in US dollars with a term of one week, for which – as in the previous year – there was no demand. Furthermore, it was not necessary to provide liquidity in the other foreign currencies or in Swiss francs in the context of these agreements.

Further swap agreements

The SNB has further bilateral and temporary swap agreements 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.

2.6 EMERGENCY LIQUIDITY ASSISTANCE

SNB as lender of last resort

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

Conditions

Certain conditions apply in order for emergency liquidity assistance to be granted. The bank or group of banks requesting credit must be important for the stability of the financial system and solvent. Furthermore, the liquidity assistance must be fully covered by sufficient collateral at all times. The SNB determines which securities it will accept as collateral for liquidity assistance. To assess the solvency of a bank or group of banks, the SNB obtains an opinion from the Swiss Financial Market Supervisory Authority (FINMA).

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 payment system. The SNB is also charged by the Confederation with the task of putting coins into circulation.

Role of SNB

Banknotes and coins are supplied to the economy via the two cash offices at the Berne and Zurich head offices, as well as 14 agencies operated by cantonal banks on behalf of the SNB. The National Bank 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 CASH OFFICES, AGENCIES AND CASH DEPOSIT FACILITIES

Turnover at cash offices

In 2019, the turnover (incoming and outgoing) of the cash offices in Berne and Zurich amounted to CHF 105.8 billion (2018: CHF 89.8 billion). They received a total of 382.4 million banknotes (2018: 362.9 million) and 287.6 million coins (2018: 246.5 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 399.7 million banknotes (2018: 375.6 million) and 352.8 million coins (2018: 339.8 million).

Reopening of public counter at head office in Berne

Following the completion of major renovation work, the public counter at the SNB's head office in Berne (Bundesplatz 1) reopened on 26 August 2019. Since then, the counter has again been handling both regular transactions with the public as well as the deposits and withdrawals of larger customers (banks, cash processing operators). During the renovation work, these activities had been relocated to two alternative sites.

The 14 agencies assist the SNB's cash 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 hosting each agency.

Turnover at agencies

The agencies' turnover (incoming and outgoing) amounted to CHF 13.4 billion (2018: CHF 11.2 billion). This constitutes 12.7% (2018: 12.5%) of the turnover at the SNB's cash offices.

Cash distribution services

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

In 2019, banknotes in circulation averaged CHF 79.8 billion. This constituted a 1.0% increase year-on-year, with growth rates fluctuating during the year between 0.3% and 2.7%. In 2019, the total number of notes in circulation averaged 488.1 million, which was 3.6% higher than in 2018.

Issuance and disposal

In 2019, the SNB put 181.1 million (2018: 129.0 million) freshly printed banknotes with a face value of CHF 41.1 billion (2018: CHF 17.4 billion) into circulation. The considerable increase in value terms is attributable to the release of the new 1000-franc note from the ninth banknote series. The SNB destroyed 166.9 million (2018: 101.3 million) damaged or recalled notes with a face value of CHF 45.1 billion (2018: CHF 10.5 billion).

Completion of ninth banknote series

On 13 March 2019, the SNB issued the fifth denomination in the ninth banknote series, the 1000-franc note. The release of the sixth denomination, the 100-franc note, on 12 September 2019, completed the issuance process.

The issuance of the new banknotes via the SNB's cash offices in Berne and Zurich and the 14 agencies to the banks, Swiss Post and specialist companies, as well as to the public, once again went smoothly. The new notes have been received positively by the public and experts alike, and have proved their worth (cf. chapter 3.4, box 'The issuance of the ninth banknote series in retrospect'). In issuing modern and secure banknotes, the SNB takes account of its duty to issue banknotes commensurate with the demand for payment transactions and fulfils its statutory task of ensuring the supply and distribution of cash in Switzerland.

NUMBER OF BANKNOTES IN CIRCULATION

In millions

CHF 10s **79**
CHF 20s **92**
CHF 50s **68**
CHF 100s **135**
CHF 200s **67**
CHF 1000s **47**

Annual average for 2019

In 2019, 982 (2018: 1,201) counterfeit banknotes were confiscated in Switzerland. This corresponds to 2 (2018: 3) counterfeit notes per million Swiss franc notes in circulation – a very low figure by international standards.

Counterfeits

In 2017, the Federal Council launched a consultation procedure for a partial revision of the CPIA aimed at revoking the exchange period for banknote series from the sixth series onwards. The SNB supported these endeavours. Parliament approved the revocation of the 20-year exchange period in 2019, and the Federal Council brought the new regulation into force on 1 January 2020. The legislative amendment does not apply retroactively to older series up to and including the fifth series, which are already worthless.

Partial revision of CPIA

The sixth-series banknotes were recalled on 1 May 2000 and have not been legal tender since. In line with the revised CPIA, they can now be exchanged at the SNB without any time limit at full face value. At the end of 2019, a total of 17.8 million notes (equivalent to CHF 1.1 billion) from the sixth series had still not been exchanged.

Recall and exchange of sixth-series banknotes

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

	2015	2016	2017	2018	2019
Banknotes in circulation					
In value terms (in CHF millions)	67 365	72 201	76 471	78 997	79 809
Year-on-year change (in percent)	7.5	7.2	5.9	3.3	1
Number of notes (in thousands)	406 526	425 876	449 221	471 276	488 060
Year-on-year change (in percent)	4.3	4.8	5.5	4.9	3.6
Coins in circulation					
In value terms (in CHF millions)	3 018	3 062	3 102	3 144	3 180
Year-on-year change (in percent)	1.9	1.5	1.3	1.3	1.2
Number of coins (in millions)	5 352	5 442	5 527	5 617	5 693
Year-on-year change (in percent)	2.1	1.7	1.6	1.6	1.3

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 into circulation the number required for payment purposes. Coins that are surplus to requirements are taken back against reimbursement of their face value. The SNB's coinage services are not remunerated, as they constitute part of its mandate to supply the country with cash. The SNB is supported in this task by Swiss Post and Swiss Federal Railways in accordance with the Coinage Ordinance.

Coin circulation

In 2019, the value of coins in circulation averaged CHF 3.2 billion. This corresponds to 5.7 billion coins (2018: 5.6 billion). The growth rate in value terms, at 1.2%, was slightly lower than in 2018.

The issuance of the ninth banknote series in retrospect

The issuance of the new 100-franc note on 12 September 2019 marked the completion of a significant and ambitious project by the SNB. The ninth banknote series was officially launched on 2 February 2005, when the SNB announced it was planning a new series of banknotes inspired by the theme 'Switzerland open to the world' to replace the eighth banknote series. The results of the design competition were presented in November of that year, and on the basis of further work with the three best-placed candidates, the decision was taken at the beginning of 2007 to commission graphic artist Manuela Pfrunder with the design.

In developing the new banknotes, the SNB was committed to meeting the highest standards of production and design. Improved anti-counterfeiting measures and banknote quality were to ensure a life cycle of at least 15 years for the new series.

The key difference between the eighth and ninth banknote series lies in the material used. The Durasafe substrate made it possible to integrate new and complex security features into the banknote substrate itself. The combination of a new substrate, complex printing technology and innovative security features set new standards when it came to combining security, functionality and aesthetics. Initially, this posed several challenges for the serial production of the notes and necessitated additional development steps. The original issue date for the first denomination (autumn 2010) had to be postponed twice as a result.

The delays gave the SNB time to reconsider the overarching theme of the new series, the selected illustrations and the messaging of the various motifs on the notes. This was done with the aim of ensuring that the new notes would be readily perceived as a thematically coherent series by the public. The discussions culminated in a decision to change the theme to ‘The many facets of Switzerland’. Each note depicts a typically Swiss characteristic, which is then illustrated graphically using a range of elements.

The first of these denominations, the 50-franc note, was put into circulation in April 2016. It focuses on the wealth of experiences Switzerland has to offer – expressed by wind, the note’s key motif. This was followed in May and October of 2017 by the 20-franc and 10-franc notes, which reflect the country’s vibrant cultural scene and organisational prowess, and whose motifs are light and time, respectively. The 200-franc note, which showcases the country’s track record as a research hub, as expressed by matter, entered circulation in August 2018. The 1000-franc note, issued in March 2019, focuses on Switzerland’s communicative flair, with language as the key motif. The final denomination, the 100-franc note, which illustrates the country’s humanitarian side, was released in September 2019.

The public has responded positively to the new designs, which have also been lauded by banknote experts internationally. The ninth banknote series is considered a milestone in banknote development and has earned the SNB a number of awards from various professional organisations.

The new notes are technologically state-of-the-art. They are easy to handle, durable and distinctive, while still being immediately identifiable as belonging to the ninth series, with the same 15 security features appearing on all denominations. These allow the public to quickly check the notes’ authenticity.

On the communications front, the SNB deployed both traditional and cutting-edge channels – for example, an augmented reality app for smartphones, with which users can explore the new banknotes. The security features and the production processes were presented to a wide audience in a range of videos.

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 mandate of facilitating and securing the operation of cashless payment systems in its role as commissioning party of the Swiss Interbank Clearing (SIC) system. SIC is the central payment system for payments in Swiss francs. The SNB determines the admission criteria, provides the system with liquidity and issues settlement rules, thus ensuring a sound and efficient infrastructure for cashless payment transactions. As a systemically important financial market infrastructure, SIC is overseen by the SNB (cf. chapter 6.4).

Main features of SIC

SIC is a real-time gross settlement system. This means that payment orders are settled irrevocably and individually in central bank money in real time. Via SIC, banks and other financial market participants settle interbank payments (payments between financial institutions) as well as a growing share of retail payments (customer payments). Retail payments are mainly initiated by payment instruments such as bank transfers and direct debits. Likewise, some liabilities arising from card payments are bundled and settled among system participants via SIC.

Operation of SIC system

The SNB ensures that there is sufficient liquidity in the SIC system by granting, when necessary, intraday loans to banks against collateral (cf. chapter 2.3). It transfers liquidity from the SIC participants' sight deposit accounts at the SNB to their settlement accounts in SIC at the beginning of each settlement day and transfers the turnover balances from the individual settlement accounts back to the respective sight deposit accounts at the SNB at the end of the settlement day. Legally, the two accounts form a unit.

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 laid down in the SIC agreement 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 giro agreement.

Eligibility for SIC

As a general rule, the SNB grants domestic banks access to the SIC system. Under certain conditions, access is also granted to other categories of domestic participants operating commercially on the financial markets. They include securities dealers, insurance companies, fund managers and institutions such as cash processing operators, financial market infrastructures and, since January 2019, fintech companies (cf. chapter 4.3). The SNB may also grant foreign financial market participants access to SIC. The participants in the SIC system play a significant role either in implementing monetary policy, settling payments or maintaining the stability of the financial system.

SIC as part of Swiss financial market infrastructure

The SIC system is a key element of the Swiss financial market infrastructure, which originated as a joint enterprise among Swiss banks. The Swiss financial market infrastructure is operated by SIX, a company owned by around 125 financial institutions who are also the main users of the services provided by SIX. A well-functioning, secure and efficient financial market infrastructure is of crucial importance to the SNB for the fulfilment of its statutory mandate, particularly with regard to providing the money market with liquidity and facilitating and securing the operation of cashless payment systems. The SNB regularly exchanges information with SIX and the banking sector with the aim of strengthening Switzerland's financial market infrastructure.

4.2 THE SIC SYSTEM IN 2019

Transactions and turnover

In 2019, SIC settled a daily average of approximately 2.6 million transactions amounting to CHF 158 billion. Compared to the previous year, the number of transactions increased by 7.8% on average, while turnover rose by 1.4%. Peak days saw up to 7.5 million transactions, with turnover of up to CHF 240 billion. The increase in transactions is primarily due to the fact that, in 2017, PostFinance began to gradually migrate its payment transactions with other banks to the SIC system.

In 2019, around 97.6% of the transactions in the SIC system were accounted for by retail payments (11.4% of turnover) and 2.4% (88.6% of turnover) by interbank payments. 91.0% of the payment transactions involved an amount of less than CHF 5,000, 8.7% an amount between CHF 5,000 and CHF 1 million, and 0.2% an amount of over CHF 1 million.

KEY FIGURES ON SIC

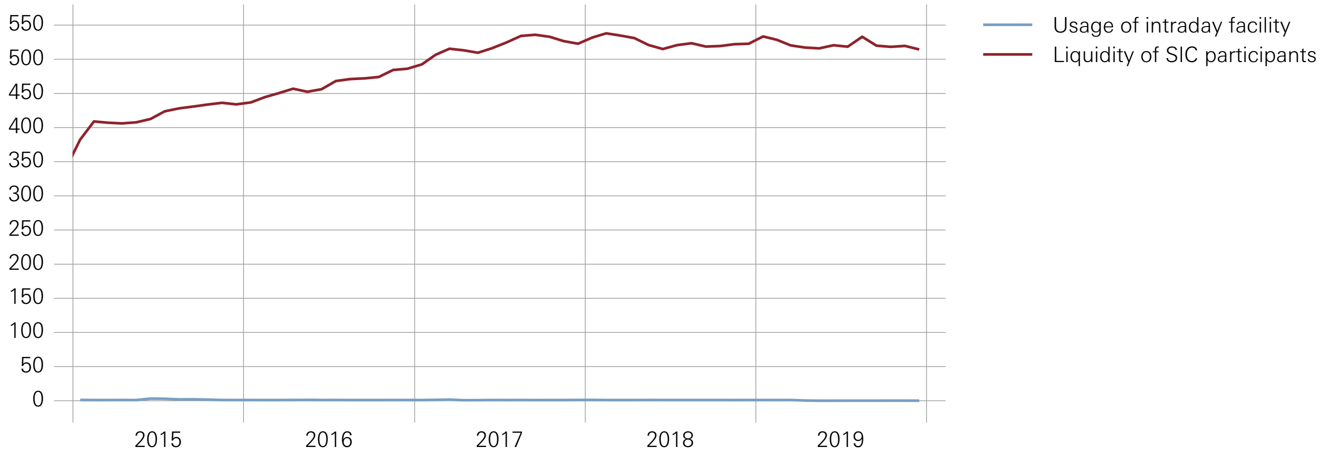
	2015	2016	2017	2018	2019
Number of transactions					
Daily average (in thousands)	1 742	1 765	2 035	2 432	2 623
Peak daily value for year (in thousands)	5 302	5 670	7 025	7 436	7 484
Value of transactions					
Average daily turnover (in CHF billions)	154	153	173	156	158
Peak daily turnover for year (in CHF billions)	293	266	227	249	240
Average value per transaction (in CHF thousands)	88	87	85	64	60
Average liquidity					
Sight deposits at end of day (in CHF millions)	418 144	463 038	519 433	524 801	521 595
Intraday facility (in CHF millions)	1 629	1 060	1 086	1 061	416

Participants in SIC

As at 31 December 2019, the SNB had 403 holders of sight deposit accounts (2018: 409). Of these, 323 participated in SIC (2018: 325). The majority of SIC participants (234) are domiciled in Switzerland (2018: 234).

LIQUIDITY IN SIC

Monthly averages of daily figures in CHF billions



Source: SNB

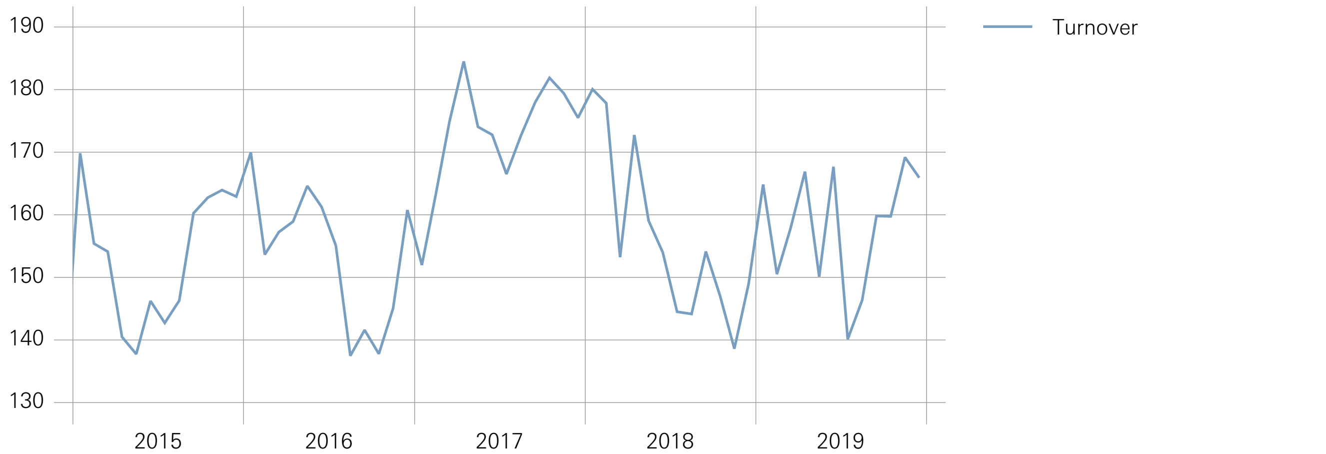
TRANSACTIONS IN SIC

Monthly averages of daily figures, transactions in millions

Source: SNB

TURNOVER IN SIC

Monthly averages of daily figures in CHF billions



Source: SNB

4.3 DEVELOPMENTS REGARDING THE SIC SYSTEM

Innovation in payment transactions

Innovations in the financial industry have an especially strong impact on cashless retail payment transactions. Based on its mandate regarding cashless payment transactions, the SNB as commissioning party of SIC ensures appropriate conditions for the further development of cashless payment transactions in Swiss francs. The SNB strives to support innovation provided this does not impair SIC's security and efficiency.

Eligibility of fintech companies

On 1 January 2019, the revised Ordinance on Banks and Savings Banks ('Banking Ordinance') entered into force; it provides details on the new licensing category of fintech companies, as set down by parliament in the Banking Act. In January, the SNB decided to grant SIC system access to companies with the requisite fintech licences issued by FINMA and a business model that is significant in the area of Swiss franc payment transactions. FINMA did not license any fintech company in 2019; the SNB therefore received no applications for admission to the SIC system in the year under review.

Dialogue on cashless payment transactions

In spring 2019, the SNB and SIX initiated a dialogue on the ongoing development of cashless payment transactions. The dialogue brings together suppliers and users of payment solutions with the aim of maintaining the efficiency, security and future viability of cashless payment transactions in Swiss francs. A key focus of this dialogue is the evolution of cashless payment transactions in the direction of 'instant payments' and the central role of the SIC system in this development. With instant payments, account-based payments can be settled by private payment solution providers at any time and within seconds via the SIC system.

Secure Swiss Finance Network

The Swiss financial centre's resilience to cyber risks is an issue that has continued to grow in importance. In 2019, the SNB and SIX jointly launched a project to develop a network for the Swiss financial centre (Secure Swiss Finance Network) with a view to improving the security and reliability of internet connections in the SIC system. The project envisages internet service providers setting up a secure network on the basis of SCION (Scalability, Control and Isolation on Next-Generation Networks), the routing architecture developed at ETH Zurich. Pilot banks will test initial use cases in the SIC system environment during 2020.

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 international payment instruments and the reserve position in the International Monetary Fund (IMF).

Currency reserves ensure that the SNB has 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. Since the onset of the financial and debt crisis in 2008, the level of currency reserves has risen by more than CHF 750 billion to CHF 836 billion (2019). The increase is mainly due to foreign currency purchases aimed at curbing the appreciation of the Swiss franc.

Financial assets in Swiss francs

The financial assets in Swiss francs are made up of Swiss franc bonds and claims from repo transactions.

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 investment policy is to preserve the value of currency reserves in the long term. In order to achieve these objectives, the SNB's investment policy must be oriented towards high liquidity and broad diversification.

The primacy of monetary policy means that there are restrictions on investment policy. The SNB does not hedge currency risks from its investments against the Swiss franc as this would constitute demand for Swiss francs, thereby generating upward pressure on the currency (cf. chapter 5.4). 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 acquired within the SNB can influence investment activity and that no unintentional signal effects are created. For this reason, the SNB does not invest in the shares of any systemically important banks. Equally, it does not invest in Swiss shares or in bonds issued by Swiss companies, and the Swiss franc bond portfolio is managed passively.

A high degree of asset liquidity, in particular, is required to ensure 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 criterion of security is taken into account by structuring investments so that at least the real value is preserved over the long term. This is achieved 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 a sufficiently positive return 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 contribution of these asset classes. At the same time, it retains the flexibility to adjust its monetary and investment policy to changing requirements.

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 integral 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.

The Governing Board defines the principles of 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 active management at operational level.

Governing Board responsibilities

The Investment Committee, an internal body, decides on the tactical allocation of the foreign currency investments at operational level. Within the strategically prescribed ranges set by the Governing Board, it adjusts currency weightings, bond durations and allocations to the different asset classes, to take account of changed market conditions.

Investment Committee responsibilities

Portfolio Management manages the individual portfolios. The majority of the foreign currency investments (97%) 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 are organised in such a way as to avoid conflicts of interest.

Portfolio Management responsibilities

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

Risk Management 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 associated with investments are identified, assessed and monitored continuously. Risk measurement is based on standard risk indicators and procedures. In addition to these procedures, 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 all of these risk analyses.

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 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 management activities are submitted to the Governing Board and the Bank Council's Risk Committee in quarterly risk reports. In addition, the annual risk management report is submitted to the Bank Council.

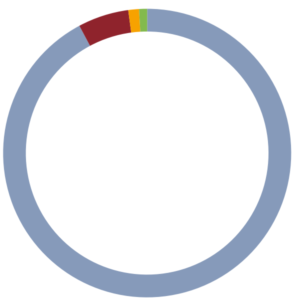
5.3 CHANGES IN AND BREAKDOWN OF ASSETS

Changes in assets

At the end of 2019, the SNB's assets amounted to CHF 861 billion, which was CHF 44 billion higher than a year earlier. They consisted of foreign currency investments (CHF 794 billion), gold (CHF 49 billion), Special Drawing Rights (CHF 6 billion), Swiss franc bonds (CHF 4 billion), claims from repo transactions in Swiss francs (CHF 7 billion) and other assets (CHF 1 billion).

The rise in the balance sheet total was mainly attributable to higher foreign currency investments, which were up CHF 30 billion year-on-year. The increase was principally due to valuation gains and investment income; inflows from foreign currency purchases also contributed to the rise.

BREAKDOWN OF SNB ASSETS



- Foreign currency investments **92.2%**
- Gold holdings **5.7%**
- Financial assets in CHF **1.2%**
- Sundry **0.9%**

Total: CHF 861 billion
At year-end 2019

There were fewer outstanding foreign currency repo transactions on the balance sheet at the end of 2019 than one year previously. Such repo transactions are performed as part of portfolio management; foreign-issued securities are transferred for a given term in exchange for 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 commitment to repay them at maturity are also reported in the balance sheet. Since these instruments are not freely disposable, they are deducted from the foreign currency investments for the calculation of the foreign exchange reserves and currency reserves.

Currency reserves

The value of gold holdings rose by CHF 7 billion. At the end of 2019, total currency reserves amounted to CHF 836 billion, an increase of CHF 60 billion compared to the previous year.

COMPOSITION OF CURRENCY RESERVES

In CHF billions

	31.12.2019	31.12.2018
Gold reserves	49	42
Foreign currency investments	794	764
Less: associated liabilities[1]	–13	–35
Derivatives (replacement values, net)	0	0
Total foreign exchange reserves	781	729
Reserve position in the IMF	1	1
International payment instruments	4	4
Total currency reserves	**836**	**776**

1 Liabilities from foreign currency repo transactions.

Bond portfolios

The SNB's bond portfolios chiefly comprise government bonds (approximately 85% 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 2019, and stood at 4.7 years at year-end. Almost 50% of the bonds had a negative yield to maturity.

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. The principle of replicating broad indices ensures that the SNB operates as neutrally as possible in the individual stock markets. The SNB does not actively engage in stock picking, nor does it overweight or underweight particular sectors, in order to avoid concentrations in specific companies and sectors.

At the end of 2019, 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 6,800 individual shares (just under 1,500 shares of mid-cap and large-cap companies and about 4,300 shares of small-cap companies in advanced economies, as well as approximately 1,000 shares of companies in emerging economies).

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. In 2019, the average duration of the portfolio increased slightly to 8.5 years. At the end of 2019, over 80% of the SNB's Swiss franc bond holdings, which were worth more than CHF 4 billion, had a negative yield to maturity.

Non-financial aspects of managing privately issued securities

The SNB holds part of its foreign exchange reserves in the form of 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 privately issued securities, 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 is also committed to respecting 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 values that are broadly accepted at a political and societal level. 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. Condemned weapons include B grade and C grade weapons, cluster munitions and anti-personnel mines. In addition, companies involved in the production of nuclear weapons for countries that are not among the five legitimate nuclear-weapon states defined under the Nuclear Non-Proliferation Treaty (China, France, Russia, United Kingdom, United States) are excluded.

To identify the companies concerned, the SNB defines the exclusion criteria and reviews the whole investment universe in a two-phase process. The first phase consists of examining and processing public information in order to identify companies whose activities are very likely to fall under the exclusion criteria. During the second phase, a detailed assessment is performed on each identified company to ascertain whether it should be excluded or not. The SNB relies on the recommendations made by specialised external service providers in deciding on the exclusion of companies, and reviews its decisions on a regular basis.

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. advantaging or disadvantaging specific economic sectors via positive or negative selections, or inhibiting or promoting economic, political or social change. Calls for the SNB to cease investing in certain sectors must be assessed against this backdrop.

Taking into account the aforementioned exceptions, the SNB replicates the individual stock markets in their entirety in order to remain as neutral as possible. As a result, the SNB holds equities in the various economic sectors based on market capitalisation. This approach ensures that the portfolio's exposure to different risks is similar to that of the global universe of listed companies, and that structural changes in the global economy are also reflected in the SNB's portfolio.

The process of exercising voting rights is another non-financial aspect of managing privately issued securities. Here, the SNB restricts itself to issues of good 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 also works with external service providers to this end. The voting procedure is based on the SNB's internal guidelines for exercising voting rights. The external service providers are tasked with interpreting the guidelines for exercising voting rights and applying them to the proposals being put forward at the shareholders' meetings. The SNB is in regular contact with the external service providers and monitors the correct interpretation of the guidelines for voting rights.

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

	2019 Foreign exchange reserves	2019 CHF bonds	2018 Foreign exchange reserves	2018 CHF bonds
Currency allocation (in percent, incl. derivatives positions)				
CHF		100		100
EUR	39		39	
USD	35		36	
JPY	9		8	
GBP	7		7	
CAD	3		3	
Other[1]	7		7	
Asset classes (in percent)				
Investments with banks	0		0	
Government bonds[2]	69	39	69	40
Other bonds[3]	11	61	12	60
Shares	20		19	
Breakdown of interest-bearing investments (in percent)				
AAA-rated[4]	58	79	57	78
AA-rated[4]	22	21	23	22
A-rated[4]	16	0	15	0
Other	4	0	5	0
Investment duration (years)	4.7	8.5	4.4	8.2

1 Mainly AUD, CNY, DKK, 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 US dollar share declined slightly in favour of the Japanese yen; the shares of the other currencies remained unchanged. The ratings distribution changed slightly due to adjustments in country weightings and in the sector breakdown in the case of corporate bonds. The proportions of AAA-rated and A-rated investments increased at the expense of AA-rated investments and other investments by one percentage point respectively. The share of equities in the foreign exchange reserves stood at 20% at end-2019, slightly above the previous year's level (19%).

Popular initiative on war material

In 2018, the federal popular initiative calling for a ban on the financing of war material producers, launched by the Group for a Switzerland without an Army (GSoA) and the youth wing of the Green Party, attracted enough signatures to be put to a popular vote. The aim of the initiative is to limit the SNB's investment universe, and that of foundations and pension funds, by prohibiting them from holding securities issued by companies that derive more than 5% of their annual turnover from the production of war material. In its dispatch of 14 June 2019, the Federal Council recommended that the initiative be rejected. It considers the approach being pursued by the initiative and the envisaged measures to be unconstructive and draws attention to its negative consequences for Switzerland. The SNB shares the view of the Federal Council.

5.4 INVESTMENT RISK

Risk profile

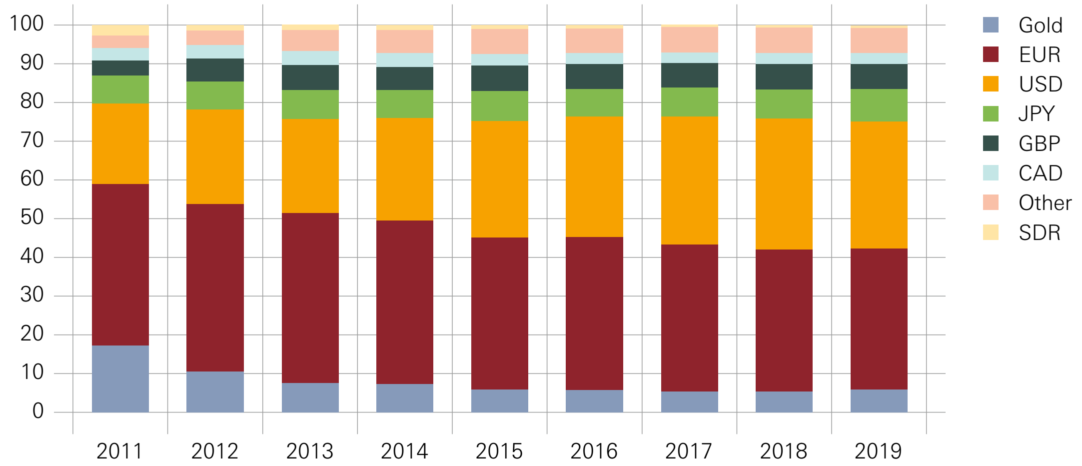
The risk profile of assets is determined by the currency reserves. The main risk to the currency reserves is market risk, in particular risks related to exchange rates, the gold price, share prices and interest rates. In addition, there is liquidity risk as well as credit and country risk, although these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

Market risk

Exchange rates are the most important risk factor for the currency reserves. As currency risk is not hedged against the Swiss franc, 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 currency risk, fluctuations in the gold price and stock prices as well as interest rate risk are relevant. 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 also be used to manage currency exposure.

BREAKDOWN OF CURRENCY RESERVES AT YEAR-END

In percent, excluding investments and liabilities from foreign exchange swaps against CHF



Source: SNB

The SNB does not hedge currency risk against the Swiss franc, as hedging would have an undesirable impact on monetary policy. Hedging operations, for example selling foreign exchange forwards against Swiss francs, would create additional demand and increase upward pressure on the Swiss franc. Therefore, hedging would de facto have the same effect as a foreign exchange market intervention to strengthen the Swiss franc. For this reason, currency risk must be accepted as an inherent component of currency reserves.

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 2019. 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 issuers of 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 2019. 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. On the one hand, this facilitates netting of offsetting positions. On the other, efficiency gains are made in the daily management of the securities used as collateral.

In 2019, too, investments mainly took the form of government bonds; the bulk of these were in highly liquid bonds issued by European countries with very good credit ratings and by the US. At the end of 2019, outstanding balances at central banks and the Bank for International Settlements amounted to CHF 38 billion. Overall, almost 80% of bonds were rated AA or higher.

Country risk arises 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. In order to avoid entering into any unbalanced country risk, the SNB endeavours to distribute assets across a number of different depositories and countries.

Country risk

Gold holdings are stored according to this principle as well. In choosing a location, attention is paid to both appropriate regional diversification and easy market access. 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 stemming from monetary policy in recent years has led to corresponding growth in the SNB's balance sheet. This has caused loss risk to rise in absolute terms. The SNB aims for a robust balance sheet with sufficient equity capital, to ensure that it can absorb potential losses. With the expansion of the balance sheet from 2008 onwards, the ratio of equity capital to currency reserves has decreased significantly. This lengthening of the balance sheet has made it necessary to strengthen equity capital.

Allocation to provisions

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 for this purpose, while taking into account the development of the Swiss economy. The provisions for currency reserves form the core of the SNB's equity capital and serve in particular to absorb losses. The loss-absorbing equity capital also includes the distribution reserve, which is intended to help smooth the SNB's annual profit distribution.

Annual allocations to the provisions are necessary to ensure a solid equity base. The annual allocation is determined on the basis of double the average nominal GDP growth rate over the previous five years. Since 2016, there has been a requirement in place specifying a minimum annual allocation of 8% of the provisions at the end of the previous year. This is aimed at ensuring that sufficient allocations are made to the provisions and the balance sheet is strengthened even in periods of low nominal GDP growth. The minimum allocation applied in 2019 and amounted to CHF 5.9 billion. After the allocation, the provisions totalled CHF 79.1 billion.

Agreement on profit distribution 2016–2020

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 (FDF) and the SNB. According to the agreement the FDF and the SNB concluded in November 2016 for the financial years 2016 to 2020, a profit distribution of CHF 1 billion will be paid to the Confederation and the cantons, provided the balance of the distribution reserve is positive. Furthermore, a supplementary distribution of up to CHF 1 billion will be made if the distribution reserve exceeds CHF 20 billion.

Supplementary agreement on profit distribution 2019–2020

In February 2020, given the high level of the distribution reserve, the FDF and the SNB concluded a supplementary agreement for the financial years 2019 and 2020. This agreement provides for the distribution of an additional CHF 2 billion for each of these years. The total distribution to the Confederation and the cantons for 2019 will therefore be CHF 4 billion. The supplementary distribution for 2020 is subject to conditions regarding the level of the distribution reserve.

Changes in equity

In 2019, the SNB recorded a profit of CHF 49 billion, having reported a loss of CHF 15 billion the previous year. This high profit and the positive distribution reserve allow for the ordinary distribution of CHF 1 billion as well as a supplementary distribution of CHF 1 billion. Added to this is the distribution of CHF 2 billion as per the supplementary agreement. After allocation to the provisions for currency reserves of approximately CHF 5.9 billion and taking account of the profit distribution to the Confederation and the cantons totalling CHF 4 billion for the 2019 financial year, the SNB's equity amounted to CHF 163 billion (provisions of CHF 79 billion plus a distribution reserve of CHF 84 billion). This was CHF 45 billion higher than one year earlier; the share of equity in the balance sheet total rose from 14% to 19%.

5.5 INVESTMENT PERFORMANCE

Investment performance

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

In 2019, the return on currency reserves was 6.1%. Returns on gold and foreign exchange reserves were positive, at 16.3% and 5.5% respectively. In local currency, the return on foreign exchange reserves was 8.1%. Owing to the slight appreciation of the Swiss franc, the exchange rate return was negative (–2.4%). In Swiss franc terms, the annual return on the currency reserves has averaged 3.7% over the last 15 years.

RETURN ON INVESTMENTS

Returns in percent

	Total	Gold	Currency reserves[1] Foreign exchange reserves Total	Exchange rate return	Return in local currency	CHF bonds Total
2005	18.9	35.0	10.8	5.2	5.5	3.1
2006	6.9	15.0	1.9	–1.1	3.0	0.0
2007	10.1	21.6	3.0	–1.3	4.4	–0.1
2008	–6.0	–2.2	–8.7	–8.9	0.3	5.4
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
2015–2019[2]	2.0	4.4	1.8	–1.4	3.3	1.4
2010–2019[2]	1.6	2.6	1.2	–2.4	3.7	2.5
2005–2019[2]	3.7	7.5	1.5	–2.0	3.6	2.5

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.

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 equities' 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 this magnitude – this disadvantage is offset by the asset class's favourable diversification effects relative to bonds and gold.

The share of equity holdings stood at 20% at the end of 2019. Equity exposure on this scale 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 0.9%. Earnings on the bonds component of the foreign exchange reserves totalled CHF 17.8 billion between 2005 and 2019. The equity holdings generated earnings of CHF 85.3 billion over this period. In recent years, equities have thus played a major role in enabling the SNB to 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
2005–2019[1]	1.5	0.9	4.5

1 Average annual return over 15 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 mandate of contributing to the stability of the financial system. Financial stability means that financial system participants, i.e. financial intermediaries (especially banks) and financial market infrastructures (FMIs), can perform their functions and are able to withstand potential disruptions. It is an important prerequisite for economic development and effective monetary policy implementation.

In the area of financial stability, the SNB fulfils this mandate by analysing sources of risk to the financial system and identifying areas where action may be needed. In addition, it helps to create and implement a regulatory framework for the financial sector, and oversees systemically important FMIs.

Focus on crisis prevention

In recent years, there has been a shift in the focus of central banks' activities in the area of financial stability, away from crisis management and towards crisis prevention. To counteract the risks that threaten the stability of the financial system, the SNB has two macroprudential regulatory powers at its disposal, namely the authority to designate banks as systemically important and the authority to propose the activation, adjustment or deactivation of the countercyclical capital buffer (CCyB). While the designation of systemically important banks is focused on combating structural risks, the CCyB is geared towards addressing cyclical risks.

In a crisis, the SNB fulfils its mandate by acting as lender of last resort where necessary. It provides emergency liquidity assistance to domestic banks whose insolvency would have a severe impact on financial system stability in cases where such banks are no longer able to refinance themselves on the market (cf. 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 addresses the issue mainly from a systemic perspective, and its focus is therefore 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. The principles for this collaboration are 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 MONITORING THE FINANCIAL SYSTEM

Within the context of monitoring the financial system, the SNB analyses developments and risks in the Swiss banking sector. Its assessment is published, in particular, in its annual *Financial Stability Report*.

6.2.1 BIG BANKS

Implementation of revised TBTF regulation

In 2019, the SNB noted that the two internationally active Swiss big banks, Credit Suisse Group AG (Credit Suisse) and UBS Group AG (UBS), had made further progress in implementing Switzerland's 'too big to fail' (TBTF) regulations. This was true with regard to both pillars of the regulations: resilience and resolution.

Resilience requirements met

With respect to resilience, the SNB noted that the two big banks had increased their regulatory capital to the target levels. They thus met all look-through going-concern capital requirements on a consolidated basis. Compliance with the requirements is necessary to ensure adequate resilience of both big banks. This is confirmed by the SNB's loss potential analyses of the two banks as well as by actual loss experience in the last financial crisis.

Developments in resolution

The second pillar of the TBTF regulations covers the recovery and orderly wind-down (resolution) of a bank in a crisis, where the institution can no longer continue to operate as a going concern (and is thus a 'gone-concern'). FINMA is responsible for bank resolution planning and implementation. Key developments in 2019 in the area of resolution concerned gone-concern loss-absorbing capacity, funding in resolution and emergency plans.

In relation to gone-concern loss-absorbing capacity, the SNB noted on the one hand that both big banks fully meet the requirements on a consolidated basis. On the other hand, it supported the amendment to the Capital Adequacy Ordinance adopted by the Federal Council in November 2019. This came into effect on 1 January 2020 and included a strengthening of gone-concern loss-absorbing capacity at individual group entity level.

It is crucial to the success of any resolution that big banks have sufficient liquidity (funding in resolution), both before and immediately after a bail-in. As part of its TBTF evaluation report of July 2019, the Federal Council instructed the FDF, together with FINMA and the SNB, to examine whether current liquidity requirements for systemically important banks are adequate to cover the funding needs in resolution or whether regulatory adjustments are necessary.

The regulator set the big banks a deadline of the end of 2019 for submitting effective emergency plans, in which they must prove that they would be able to maintain their systemically important functions without interruption in a crisis. As FINMA announced in February 2020, the emergency plans submitted by the big banks in August 2019 meet the statutory requirements for an effective emergency plan. In relation to UBS, however, FINMA qualified its assessment, noting that the financial dependency of the Swiss entity on the parent company in the form of temporary contingent liabilities (joint and several liability) remains excessive. Full compliance is conditional on the liability either being eliminated or covered by UBS Switzerland AG's loss-absorbing capital by the end of 2021.

6.2.2 DOMESTICALLY FOCUSED BANKS

Higher exposure to mortgage and residential real estate markets

The SNB noted that the exposure of domestically focused banks – whose main activity is deposit and lending business – to the mortgage and residential real estate markets had risen once again. Growth in these banks' mortgage volumes continued unabated, and affordability risks in newly granted mortgage loans increased further from their already high levels. At the same time, interest rate risk exposure from maturity transformation remained high, and the interest rate margins of these banks fell further from a low level. Nonetheless, domestically focused banks were able to maintain their resilience compared to the previous year. Their average capitalisation was significantly above regulatory minimum requirements, and was appropriate overall according to SNB stress tests.

In 2019, the SNB once again underlined its concerns about the residential investment property segment. It therefore welcomed the revision of the self-regulation guidelines for banks, which entered into force on 1 January 2020 (cf. chapter 6.3).

Domestically focused systemically important banks: emergency plans not yet effective

No later than three years after being designated as systemically important, domestically focused systemically important banks, which comprise Zürcher Kantonalbank, the Raiffeisen Group and PostFinance, must have drawn up effective emergency plans to ensure the uninterrupted operation of systemically important functions in the event of impending insolvency. FINMA is responsible for the definitive assessment of emergency plans. The gone-concern requirements have already been defined. The aforementioned emergency plans are another prerequisite for ensuring an orderly resolution. In February 2020, FINMA noted that the emergency plans of the domestically focused systemically important banks were at different stages of maturity, although none of them was yet deemed effective.

Survey on digitalisation and fintech at banks

The SNB published the results of its survey on digitalisation and fintech in the banking sector in August 2019. The aim of this exercise was to gain a representative picture of how digitalisation and fintech are influencing banks operating in the deposits and lending business.

The results indicate that the banks expect a strong level of digitalisation in financial intermediation. In this connection they identify opportunities with regard to cutting costs and improving service quality. On the other hand, they consider the increasing competition associated with digitalisation to be a risk. For instance, they believe that bank customers are less likely to maintain a permanent relationship with a single financial institution in the future, and will instead increasingly turn to different intermediaries from the banking and non-banking sectors.

At the strategic level, banks are primarily responding to the new challenges by further digitalising their existing business areas. Two main thrusts can be identified: First, banks are offering digital customer interfaces; these will, for example, enable clients to apply for and close mortgage contracts online. Second, they are aiming to further automate internal processes – for instance, credit checks and the ongoing monitoring of mortgages. However, the banks wish to maintain personal contact with customers, as they regard these relationships as a key competitive advantage over new market participants such as big techs.

In the implementation of their digitalisation strategy, the larger banks are focusing on deploying their own innovations and offering proprietary solutions. Smaller banks are less focused on innovation and are seeking, in particular, to engage in cooperation with other market participants.

The various business segments are at different stages of digitalisation. One of the leading areas is cashless payment. At the same time, banks are keen to enhance existing solutions and make them more customer friendly in order to compete effectively with the new market participants. Digitalisation is less advanced in the field of mortgages. The larger banks have set themselves more ambitious targets here than the smaller banks. As a result, some of the larger banks, in particular, have a considerable way to go before achieving their targets.

6.3 RISKS AND MEASURES RELATING TO MORTGAGE AND REAL ESTATE MARKETS

Developments up to end-2018 …

In the years following the global financial crisis up until 2012, strong growth in lending volumes and real estate prices led to considerable imbalances on the mortgage and real estate markets, which posed a threat to the stability of the banking system. Various measures were therefore implemented between 2012 and 2014. Between 2014 and 2018, they helped to counter the further build-up of imbalances on the mortgage market and on the market for single-family houses and privately owned apartments. By contrast, in the residential investment property segment, imbalances continued to build up as a result of sharply rising prices, and affordability risks in newly granted mortgage loans increased from their already high levels.

… and in 2019

The imbalances on the mortgage and real estate markets persisted in 2019. Both mortgage lending and transaction prices for single-family houses and privately owned apartments continued to rise at a moderate rate. The SNB continued to focus on residential investment property. It emphasised that this segment was particularly exposed to a price correction, given the high prices for apartment buildings. On the one hand, this is due to strong price increases in previous years. On the other, higher vacancy rates suggest that brisk construction activity in rental apartments may have led to an oversupply. Furthermore, the SNB noted that affordability risks in newly granted mortgages for residential investment properties have continued to increase from already high levels.

Revision of self-regulation guidelines

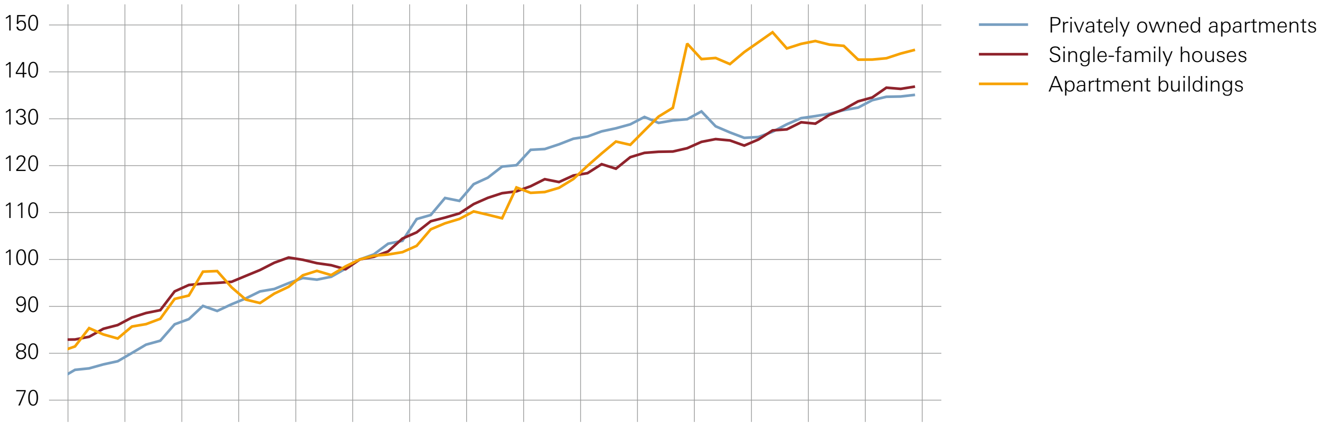
In view of this risk assessment, the SNB welcomed FINMA's decision to recognise the Swiss Bankers Association's revised self-regulation guidelines for mortgage lending as a minimum regulatory standard. The revised guidelines tighten the lending and amortisation requirements for new mortgages on residential investment properties. The SNB noted that these measures could help to counter a further build-up in lending risks in the investment property segment. The revised self-regulation guidelines came into effect on 1 January 2020.

No proposal for sectoral CCyB adjustment

The SNB monitors the situation on the mortgage and real estate markets closely, and regularly reassesses the need for an adjustment of the CCyB. In 2019, following an in-depth analysis, the SNB decided not to submit a proposal to the Federal Council for an adjustment of the sectoral CCyB on mortgage lending to finance residential property in Switzerland. The CCyB thus remained unchanged, at 2% of the corresponding risk-weighted positions. In light of the existing imbalances on the Swiss mortgage and real estate markets, this level was still considered appropriate.

REAL ESTATE PRICE INDICES

Transaction prices, nominal, index: Q1 2010 = 100



Source: Wüest Partner

6.4. OVERSIGHT OF FINANCIAL MARKET INFRASTRUCTURES

6.4.1 BACKGROUND

Mandate

The NBA (art. 5 and arts. 19–21) requires the SNB to oversee systemically important central counterparties, central securities depositories and payment systems 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

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

Other systems 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 payment 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 (ESMA), authorities in the Netherlands and Norway, 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. The SNB 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.

6.4.2 ONGOING OVERSIGHT

Assessing compliance with special requirements

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.

In its statements for 2019, the SNB concluded that, with one exception, the systemically important FMIs were all complying with the special requirements. The exception concerned the requirement for liquidity risk management at SIX SIS and SIX x-clear. In order for SIX SIS and SIX x-clear to fulfil their payment obligations even in stress situations, the SNB called for them to have access to an adapted form of the liquidity-shortage financing facility in Swiss francs. The two FMIs subsequently took appropriate measures for the SNB to be able to grant them this access and thereby ensure that they would also be able to meet the NBO requirement for liquidity risk management in future.

Furthermore, the SNB formulated several expectations – that is to say, aspects that it would like to see factored into ongoing development of FMIs in order to ensure compliance with the special requirements in the future. For instance, the SNB called on the FMIs to continue their efforts to improve cybersecurity and business continuity management (BCM). At SIX x-clear, the procedure to be followed in the event of a participant defaulting should be improved so that the resulting open positions can be closed out quickly. In the case of SIX SIS, the SNB called for an improvement in the operational capacity to obtain liquidity via the interbank market if necessary. Finally, the SNB requested that SIX SIS and SIX Interbank Clearing verify the enforceability of certain rules in their contractual framework.

Coordination of business continuity management

Systemically important FMIs are central hubs in the financial system. They perform business processes which are vital for the proper functioning of the financial system and for individual financial market participants, e.g. the settlement of interbank payments via the SIC system. FMI processes are closely connected with upstream and downstream processes at participants who, for instance, initiate payments or process settled payments. To enable them to react quickly and appropriately to any disruptions, FMIs and participants must therefore properly coordinate their BCM. This is especially true against the backdrop of increasing cyber risks.

Precautions against cyberattacks

A successful cyberattack – whether against an FMI or against a participant – can compromise the integrity of data which is processed by the FMI. This leads to an interruption in business processes which can only be resumed after the FMI has reconciled the data with its participants and verified the data's accuracy. The SNB therefore believes it is necessary for FMIs to coordinate their BCM plans and the measures contained therein with their participants and regularly test them on a cross-institutional basis. Together with the major banks, FMIs took the first steps in this direction in 2019 and analysed the impact of various cyberattacks, including disruption of FMI services caused by decentralised attacks (distributed denial-of-service attacks).

The SNB maintains a regular dialogue with the operators of the FMIs subject to oversight in which it discusses projects and initiatives that could impact the FMIs' business activities or risk profile – and hence their ability to meet the special requirements. In 2019 the SNB addressed the planned introduction of a new clearing platform and its impact on SIX x-clear's compliance with the special requirements. In addition, it issued statements on intragroup outsourcing of various SIX SIS and SIX x-clear services. Furthermore, the SNB commented on changes made by SIX SIS and SIX x-clear to their credit and liquidity risk management models.

Monitoring major projects and statements on significant changes

The SNB explored the consequences for SIX x-clear of the UK's departure from the EU. It looked particularly closely at potential implications of this development for the interoperability agreement between SIX x-clear, LCH and the European Central Counterparty N.V., domiciled in the Netherlands. The set of contingency measures for avoiding major stability risks announced by the European Commission in December 2018 had included, among other things, an assurance that, in a no-deal scenario, ESMA would continue to recognise UK central counterparties until 30 March 2020. In December 2019, the European Commission declared that it would extend the temporary recognition of UK central counterparties for one further year from the date of a no-deal Brexit. The interoperability arrangement can thus remain in place for the time being.

Implications of Brexit for SIX x-clear

Central counterparties

Central counterparties clear financial market transactions by interposing themselves between the two counterparties to a trade, becoming the buyer to every seller and the seller to every buyer. In doing so, they take on counterparty risk from the counterparties to the trade and ensure the fulfilment of the relevant obligations in the event that one of the counterparties defaults in the period between trade initiation and settlement. In addition, central counterparties keep account of, set values for, and perform netting of the trading positions and, on the settlement date, initiate the settlement of the payment and delivery obligations.

In order for a central counterparty to contribute to financial system stability, it must appropriately manage the risks it assumes, and have reliable procedures for dealing with a default by a participant. The aim of a central counterparty's risk management is to ensure the availability at all times of sufficient financial resources to cover the losses that could arise from the default of the two largest counterparties under extreme but plausible market conditions. For this purpose, it requires the counterparties to a trade to provide collateral in the form of margin payments and default fund contributions. If a participant defaults, the central counterparty attempts to minimise its losses by selling the defaulting participant's open positions, either in the market or through auction. Should losses nevertheless arise, it can cover these by, first, drawing on the margin payments and default fund contributions made by the defaulting participant. If these are not sufficient, it uses default fund contributions from other participants.

There are more than 50 central counterparties worldwide. Some of them are globally active, clearing a wide range of products, while others specialise in a few local financial markets. SIX x-clear, the central counterparty domiciled in Switzerland, predominantly clears equities traded on SIX Swiss Exchange, the London Stock Exchange, the Oslo Stock Exchange and the Nasdaq Nordic exchanges. To a lesser extent, it also clears exchange-traded funds, bonds, securities lending transactions and selected derivatives.

7
Participation in international monetary cooperation

7.1 BACKGROUND

Mandate

The Swiss National Bank participates in international monetary cooperation. For this purpose, it works jointly 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 a major financial centre and its own currency, Switzerland derives particular benefit from a stable international monetary and financial system.

Forms of international monetary cooperation

The SNB is involved in international monetary cooperation through its participation in multilateral institutions and forums, namely the International Monetary Fund (IMF), the Bank for International Settlements (BIS), the Financial Stability Board (FSB), the Organisation for Economic Co-operation and Development (OECD), the Central Banks and Supervisors Network for Greening the Financial System (NGFS), and the G20 Finance Track, the latter at the invitation of the G20 presidency. Participation in the IMF, FSB, OECD and the Finance Track is in cooperation with the Confederation and, in the case of the FSB, also with the Swiss Financial Market Supervisory Authority (FINMA). Furthermore, the SNB cooperates with the Confederation in providing international monetary assistance. It also 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 in the IMF.

7.2 MULTILATERAL COOPERATION

7.2.1 INTERNATIONAL MONETARY FUND

Participation in IMF

The SNB contributes to IMF activities and decisions in collaboration with the Confederation. The IMF is the central institution for international monetary cooperation. It promotes the stability of the global monetary and financial system as well the economic stability of its 189 member countries. Its main fields of activity are economic policy surveillance, the provision of financial support to countries facing balance of payments difficulties, and technical assistance. Switzerland exercises its influence through its representation on the Board of Governors, in the International Monetary and Financial Committee (IMFC), and on the Executive Board.

Challenges for global economic policy

At the October 2019 annual meetings of the IMF and the World Bank, finance ministers and central bank governors deliberated as usual on the challenges for global economic policy. Global growth projections having deteriorated in the course of the year, IMFC members judged that the economic outlook was subject to elevated downside risks. Against this backdrop, Switzerland called, in particular, for trade tensions to be resolved as well as for growth-enhancing reforms. The completion of the 15th quota review remained a focus.

Slight decrease in IMF loan commitments

Low interest rates in the advanced economies favoured capital flows to emerging economies in 2019. In this context, the IMF's loan commitments under its regular lending programmes, i.e. those financed via its General Resources Account, decreased slightly. At year-end, there were regular programmes in 22 countries, totalling SDR 115.3 billion (2018: SDR 129.1 billion). Of this amount, SDR 54.6 billion were accounted for by what are referred to as precautionary arrangements, which allow countries to access the IMF's resources on a precautionary basis. Outstanding loans, on the other hand, increased to SDR 66.9 billion (2018: SDR 55.4 billion). Argentina accounted for the bulk of the outstanding loans; in July it received a further disbursement under the lending programme of June 2018.

Switzerland in the IMF

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 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 constituency's executive director, for two years each time, the latter representing the group as one of the 24 members on the Executive Board, the IMF's most important operational body. The post of Swiss executive director is held alternately by a representative of the FDF and the SNB. The FDF and the SNB determine Switzerland's policy in the IMF and support the constituency's executive director in their activities.

Special Drawing Right

The Special Drawing Right (SDR) is an international reserve currency which the IMF introduced in 1969. The IMF uses the SDR as a means of payment and unit of account for its financial transactions with member countries. It creates SDRs as needed and allocates them to member countries in proportion to their quotas. Through voluntary trading arrangements with a number of member countries, including Switzerland, the IMF ensures that the exchange of SDRs for currency reserves functions smoothly. The value of the SDR is based on a basket of currencies, which the IMF regularly reviews. The currencies in the basket are the US dollar, the euro, the renminbi, the yen and the pound sterling. At the end of 2019, one SDR was equivalent to CHF 1.34 or USD 1.38.

IMF financing and lending capacity

The IMF mainly finances its lending through member country quotas (cf. box 'Quota'). Only the unused parts of quotas from countries that are not facing balance of payments difficulties are available for new loans. At end-2019, the IMF had SDR 195 billion of resources available for new loan commitments over the next twelve months. If required, a further SDR 182 billion could be activated as a second line of defence under the New Arrangements to Borrow (NAB), in which 38 countries participate, including Switzerland via the SNB. Temporary bilateral borrowing agreements serve as a third line of defence for the IMF. The 40 agreements, amounting to a total of SDR 317 billion, were all extended by a year in 2019 and now end on 31 December 2020.

Quota

When a country joins the IMF, it is assigned a quota based broadly on its relative position in the world economy. 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 a member's quota. Members' quotas are reviewed at regular intervals and adjusted as required. 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.

Review of quotas and doubling of NAB

The IMF Board of Governors concluded the 15th General Review of Quotas on 7 February 2020 with no quota adjustment, since at the 2019 annual meetings, it became apparent that support for a quota increase would fall short of the required majority of 85% of the voting rights. However, the IMF members supported a doubling of the NAB and agreed to renew the bilateral credit lines on a reduced scale. This will ensure that the available IMF resources do not fall below current levels when the bilateral credit lines expire at the end of December 2020. The key issues, namely the size of a quota increase and its distribution among the members, will be re-examined as part of the 16th General Review of Quotas.

Switzerland reaffirmed its commitment to a strong, quota-based, adequately resourced IMF, and signalled its willingness to participate in the doubling of the NAB.

Swiss contribution to IMF financing

At the end of 2019, Switzerland's commitment to financing the IMF's regular lending amounted to a maximum of CHF 23.7 billion. This commitment took three forms: first under the framework of Switzerland's quota, second under the NAB, and third under a bilateral borrowing agreement (cf. table 'The SNB's financial commitment to the IMF'). The SNB finances these amounts, with loans granted under the bilateral borrowing agreement being guaranteed by the Confederation. The SNB's maximum commitment amounted to CHF 7.8 billion under the quota, CHF 7.4 billion under the NAB, and CHF 8.5 billion under the bilateral credit line. At the end of 2019, the IMF had drawn a total of CHF 1.37 billion under the quota and NAB. It has yet to draw on the bilateral credit line, which came into effect in January 2018.

Concessional lending arrangements and Switzerland's contribution

In low-income countries, the IMF provides concessional lending arrangements, which it finances via the Poverty Reduction and Growth Trust (PRGT). At year-end, there were concessional lending programmes in 21 countries, totalling CHF 5.8 billion. Switzerland contributes to the financing of the PRGT through loans and interest subsidies. The loans to the PRGT are granted by the SNB and guaranteed by the Confederation. The interest subsidies are financed by the Confederation. At the end of 2019, the SNB had three borrowing agreements in force. The maximum amount available under these agreements was CHF 1,347 million, of which CHF 179 million had been drawn.

THE SNB'S FINANCIAL COMMITMENT TO THE IMF

In CHF billions

		End-2019
	Maximum	Drawn down
Reserve position[1]		1.367
Quota	7.754	0.948
NAB	7.445	0.419
Bilateral borrowing agreement[2]	8.500	0.000
PRGT[2]	1.347	0.179
SDR[3]	2.209	–0.037

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 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 1.644 billion (CHF 2.209 billion).

Article IV consultation

As part of its Article IV consultations, the IMF regularly reviews the economic policies of its member countries. In June 2019, the IMF Executive Board concluded the annual Article IV consultation with Switzerland. It continued to view Switzerland's economic prospects as favourable. Nevertheless, it identified risks particularly from international trade tensions, the possibility of renewed appreciation pressure on the Swiss franc as a safe haven, and imbalances in the real estate market. Against this backdrop, the IMF supported the continuation of the SNB's monetary policy stance. It agreed that the SNB's expansionary policy helps to prevent excessive appreciation of the Swiss franc and ensure price stability.

Assessment of Swiss financial sector

In addition to the Article IV consultation, the IMF Executive Board discussed and approved the findings of a comprehensive evaluation of Switzerland's financial sector, which was completed at the beginning of 2019. The IMF welcomed the progress made by Switzerland in bolstering financial stability in recent years, particularly the stronger capitalisation of banks. It noted that imbalances on the real estate market (particularly the residential investment property segment) resulting from low interest rates represented a particular risk for the financial sector. The IMF recommended the use of additional macroprudential instruments to reduce the risks on the real estate and mortgage markets. It also called for a wide-ranging overhaul of deposit insurance.

Conference on international monetary system

In May 2019, the SNB and the IMF jointly hosted a conference on the international monetary system for the ninth time. The event brought together high-level central bank representatives, financial experts and leading economists, and covered the past, present and future of the international monetary system.

7.2.2 BANK FOR INTERNATIONAL SETTLEMENTS

BIS as bank and forum for central banks

The Bank for International Settlements (BIS) is an international organisation headquartered in Basel. It fosters international 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 also 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.

SNB participation in the BIS Innovation Hub

The BIS announced on 30 June 2019 that it was establishing an Innovation Hub to foster collaboration on innovative financial technology within the central banking community. The Hub's aim is to gain in-depth insights into the relevant technological developments affecting central banking, while also developing public goods in the technology space geared towards further improving the functioning of the global financial system. The BIS announced that three Hub Centres would be set up in an initial phase in Hong Kong, Singapore, and Switzerland, in close collaboration and with the support of the respective monetary policy authorities.

On 8 October, the SNB and the BIS signed an operational agreement marking the foundation of the BIS Innovation Hub Centre in Switzerland. The Swiss Centre will initially conduct research on two projects. The first of these will examine the integration of central bank digital currency (CBDC) into a distributed ledger technology infrastructure. This new form of CBDC would be aimed at facilitating the settlement of tokenised assets between financial institutions. Tokens are digital assets that can be transferred from one party to another. The project will be carried out as part of a collaboration between the SNB and the SIX Group in the form of a proof of concept.

The second project at the Swiss Hub Centre will address the rise in requirements placed on central banks to be able to effectively track and monitor fast-paced electronic markets. These requirements have risen in particular from the greater automation and fragmentation of the financial markets, but also from the increased use of new technologies.

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.

As in the previous year, the Basel Committee's focus was on implementing and reviewing the effectiveness of the standards. To this end, it monitored the progress made by individual member countries in implementing the Basel III reform package. The Committee also continued work on assessments to review the impact of the standards and to enable it to identify any unintended consequences at an early stage. In 2018, one of these assessments had revealed that certain banks were engaging in window dressing, i.e. making deliberate transactions to flatter their leverage ratio on reference dates. The Committee responded in 2019 by revising the leverage ratio disclosure requirements. It also drew up guiding principles for the operationalisation of a sectoral countercyclical capital buffer with the aim of supporting its implementation on a consistent basis across jurisdictions. Furthermore, the Committee initiated a consultation on the regulatory treatment of cryptoassets, the importance and diversity of which have increased considerably.

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.

The CPMI set itself three key focus areas for 2019: first, it examined a range of innovations in payments and financial market infrastructures; second, it continued its work on strengthening the financial resilience of central counterparties; and third, it continued its efforts to increase the operational resilience of financial market infrastructures to mounting cyber risks.

Committee on the Global Financial System

The Committee on the Global Financial System (CGFS) monitors developments in international financial markets and analyses their impact on financial stability.

In 2019, the CGFS addressed the influence of political uncertainty and trade disputes on financial markets. It also discussed developments in the emerging economies, and examined the increase in global debt levels in both the public and private sectors. In addition to this, the Committee published two reports. The first report examines the establishment of viable capital markets, highlighting the importance of macroeconomic stability and strong legal frameworks in this process. The second report focuses on unconventional monetary policy tools and concludes that they have helped central banks to tackle the challenges presented by the financial crisis.

Markets Committee

The Markets Committee examines current developments in money, foreign exchange, capital and commodity markets, as well as the functioning of these markets.

In 2019, the Markets Committee once again addressed the effects of unconventional monetary policy measures, paying particular attention to the question of how these measures affect the functioning of financial markets. In October, the Committee published the associated working group report. The reform of reference interest rates remained a key issue. The Committee discussed in particular the implications for the functioning of those market segments that would be affected by the replacement of Libor.

7.2.3 FINANCIAL STABILITY BOARD

Swiss representation on FSB

The 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.

Risks in financial system

The FSB addresses risks in the financial system and coordinates measures to counter such risks. As in the previous year, one focus of its work in 2019 was on evaluating the impact of financial system reforms. The FSB also investigated the potential consequences for financial stability of cryptoassets and stablecoins. In addition, it looked into the risks associated with leveraged loans.

Effects of regulatory reforms

In 2017, the FSB approved a framework for evaluating the benefits and possible unintended consequences of regulatory reforms. On the basis of this, it issued a final report in 2019 entitled 'Evaluation of the effects of financial regulatory reforms on small and medium-sized enterprise (SME) financing'. This report concludes that the reforms have had no material and persistent negative effects on SME financing. The FSB commenced a new evaluation study, which will examine the effects of the 'too big to fail' reforms.

Implications of cryptoassets and stablecoins for financial stability

The FSB continued to study the possible implications of cryptoassets for the financial sector and published a report on the subject, detailing regulatory approaches and potential gaps. The FSB will continue to monitor developments in this area. In the second half of the year, it also considered the possible effects of stablecoins (privately issued digital money that is stable relative to state currencies), as well as regulatory approaches in this field. The FSB set up a working group to address the issue.

Leveraged loans and CLOs

The FSB published a report on developments in the leveraged loan and collateralised loan obligation (CLO) markets, which assesses vulnerabilities and identifies data gaps. The report concludes that vulnerabilities have grown since the financial crisis and that banks have the largest exposures to leveraged loans and CLOs. At the same time, it emphasises that a comprehensive assessment is difficult due to data gaps.

7.2.4 OECD

Participation

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 36 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). The EPC and its working groups deal with developments in the global economy as well as with structural policy. The CMF analyses developments in the international financial markets and examines regulatory issues. The CSSP drafts standards for the national accounts in coordination with other international organisations.

Every two years, the OECD performs a detailed analysis of the economy of every member country. The results are published in country reports. The Swiss economy was evaluated in 2019, as ever in close cooperation with the Confederation and the SNB. In the report, which was published in November, the OECD deems that Switzerland's expansionary monetary policy is still appropriate. It recommends that the country begin gradually withdrawing monetary stimulus if inflation begins to rise firmly, and notes that communications accompanying any such move need to be clear in order to avoid undesirable fluctuations in the Swiss franc. In its report, the OECD once again draws attention to the risks associated with the persistent low interest rate environment. It recognises that profitability and returns in the financial sector, particularly at banks and pension funds, are under mounting pressure, which could give rise to more risky investment behaviour. In addition, it points out that low interest rates can lead to heightened risks on the housing market.

OECD recommendations for Switzerland

7.2.5 G20

The G20 comprises the 20 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. It has also been involved in the preparatory meetings at deputy level and in the working groups. Swiss interests are represented jointly by the Confederation and the SNB.

Switzerland's participation in Finance Track

Switzerland was invited to participate in the 2019 Finance Track by the Japanese G20 presidency. Japan's priorities for its presidency included the impact of ageing on monetary and fiscal policy, investments in high-quality infrastructure, and the economic policy response to structural changes caused by innovation and globalisation. Switzerland supported this agenda, and participated in the corresponding working groups. In 2020, Saudi Arabia will take up the presidency of the G20. Switzerland has been invited for the first time to take part in all G20 activities, including the G20 Leaders Summit to be held in Riyadh on 21 and 22 November 2020.

Priorities in 2019 and invitation in 2020

7.2.6 NETWORK FOR GREENING THE FINANCIAL SYSTEM

Climate and environment-related risks for financial system

The Network for Greening the Financial System (NGFS) is a network of central banks and supervisory authorities launched in December 2017 during the Paris One Planet Summit. It serves as a forum in which participating institutions can discuss the risks climate change poses to the economy and the financial system. Within the framework of the NGFS, institutions are examining how best to counter such risks and fund the transition to more sustainable economic activity.

SNB membership and participation

The SNB became a member of the NGFS in April 2019. Its aim in joining is to engage in dialogue in order to better gauge the potential impact of climate risks on macroeconomics and financial stability. The SNB and FINMA are both represented in the NGFS Plenary.

7.2.7 GOLD AGREEMENT

No renewal of Gold Agreement

The fourth Central Bank Gold Agreement (CBGA), signed by the SNB and 21 other central banks in 2014, was not renewed following its expiration in September 2019, due to changes in market conditions. The first CBGA was concluded in 1999 to coordinate the gold sales of individual central banks, including those of the SNB. The signatories to the fourth agreement confirmed that gold remains an important element of global monetary reserves, as it continues to provide asset diversification benefits. They also stated that they have no plans to sell significant amounts of gold.

7.3 BILATERAL COOPERATION

7.3.1 MONETARY ASSISTANCE

Principles

The division of responsibilities between the SNB and the Confederation regarding the granting of monetary assistance loans is specified in the Monetary Assistance Act of 19 March 2004. The Federal Council may instruct the SNB to grant loans or guarantees aimed at preventing or remedying serious disruptions in the international monetary system. A credit line amounting to CHF 10 billion has been established for such an eventuality. The SNB can also contribute to special funds or other IMF facilities, or grant bilateral monetary assistance loans to individual countries. The Confederation can request that the SNB grant a loan. In return, the Confederation guarantees the SNB the interest payments and principal repayment on the loan in all of the above cases.

In April 2016, at the instruction of the Confederation, the SNB concluded a loan agreement with the National Bank of Ukraine for a maximum amount of USD 200 million. The Confederation guarantees the SNB timely reimbursement and interest payments on the loan. Under the terms of the loan agreement, the disbursement is to be made in stages based on the payout of tranches under the IMF Extended Fund Facility of 2015, to whose implementation the loan is tied. The first tranche was disbursed at the beginning of March 2017. Following the replacement of the facility with a Stand-by Arrangement at the end of December 2018, no further tranches have been disbursed.

Lending to National Bank of Ukraine

7.3.2 COOPERATION WITH OTHER CENTRAL BANKS AND FOREIGN AUTHORITIES

The SNB cultivates regular bilateral contacts with other central banks and foreign authorities. This includes the SNB's exchanges with other central banks on matters relating to international monetary cooperation and the financial dialogues it engages in with other countries. These dialogues serve to strengthen the contacts with key partner countries and provide a platform for sharing views on financial topics. They are led by the State Secretariat for International Finance (SIF) in liaison with various federal institutions and associated enterprises.

7.3.3 LIECHTENSTEIN

Currency treaty and cooperation

Switzerland and the Principality of Liechtenstein concluded a Currency Treaty in 1980. Prior to this, there had already been a de facto currency union between the two countries for nearly 60 years, albeit not based on a treaty. 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. It cooperates closely with the relevant authorities in Liechtenstein.

7.3.4 TECHNICAL ASSISTANCE

Principles

The SNB provides technical assistance to other central banks upon request. This assistance comprises the transfer of central bank know-how, generally via individual consultations with SNB experts, either at the central bank concerned or in Switzerland. 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 2019

Most technical assistance in 2019 was provided as part of bilateral projects with the central banks of Azerbaijan, Kazakhstan, the Kyrgyz Republic, Tajikistan and Turkmenistan. For example, SNB economists advised the Central Bank of Azerbaijan on managing currency reserves, in close cooperation with the State Secretariat for Economic Affairs (SECO) and the Geneva-based Graduate Institute of International and Development Studies. Furthermore, the SNB supported the National Bank of Georgia in monetary policy analysis, and the Central Bank of Mongolia on issues relating to trading system infrastructure.

In addition to these projects, the SNB organised three events for central bank economists from the constituency as well as from other countries in Eastern Europe, the Caucasus and Central Asia.

Central bank 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. Six central bank courses were held in 2019, with a total of 161 participants from 86 countries.

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).

Remuneration for banking services

The SNB provides these banking services to the Confederation in return for adequate remuneration. However, they are offered free of charge if they facilitate the implementation of monetary policy. Services subject to remuneration comprise account management, payment transactions, liquidity management, the custody of securities, and the issuance of money market debt register claims (MMDRCs) and Confederation bonds. Details of the services to be provided and the remuneration are laid down in an agreement concluded between the Confederation and the SNB.

Issuing activities

In 2019, the SNB issued both MMDRCs and Confederation bonds on behalf of and for the account of the Confederation. MMDRCs amounting to CHF 106.5 billion were subscribed (2018: CHF 84.8 billion), of which CHF 21.0 billion was allocated (2018: CHF 19.0 billion). The corresponding figures for Confederation bonds were CHF 3.4 billion (2018: CHF 4.8 billion) and CHF 2.1 billion (2018: CHF 2.2 billion) respectively. MMDRCs and Confederation bonds were issued by auction on the SIX Repo Ltd CO:RE trading platform.

Negative MMDRC yields

In an environment of persistently low interest rates, money market rates remained low. Yields on MMDRCs thus stayed in negative territory. Taken over the whole year, yields on three-month issues ranged from –0.75% to –1.00%. The lowest yield was thus slightly less negative than in the previous year (–1.02%).

Direct access for Confederation to repo market

In 2019, the Federal Treasury, which is responsible for obtaining liquidity for the Confederation, joined the CO:RE electronic trading platform and thus received direct access to the repo market in Swiss francs. This direct access permits the Federal Treasury to obtain and invest liquidity on a collateralised basis as part of its liquidity management. The Swiss National Bank had previously performed the Confederation's liquidity management transactions on its behalf. The change does not affect issues of MMDRCs and Confederation bonds, which will continue to be carried out by the SNB on behalf of and for the account of the Federal Treasury.

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 amounted to CHF 23.5 billion, compared to CHF 15.6 billion at the end of 2018. The SNB carried out roughly 158,000 payments in Swiss francs (2018: 121,000) and approximately 29,000 payments in foreign currencies (2018: 25,000) on behalf of the Confederation.

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 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 dealers 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 on business activities 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

Under art. 16 NBA, the SNB is required to ensure the confidentiality of the data it collects and may only publish them in aggregated form. However, the data may be supplied to the relevant Swiss financial market supervisory authorities.

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 16 million time series in the fields of banking, financial markets and economics.

Statistical publications

The SNB releases its statistics on its website (www.snb.ch) and via its online data portal (data.snb.ch) and, in some cases, also in the form of printed publications (*Banks in Switzerland* and *Direct Investment*). The annual publication *Swiss Financial Accounts* appeared in printed form for the last time in 2019. From the end of 2020, it will be replaced by a quarterly online publication. In addition, a new online series of focus articles exploring topics closely related to the published data was launched on the SNB's data portal in 2019. The May edition illustrates how the activities of multinational enterprises are recorded in the balance of payments. September's focus article looks at the SNB's extension of data on the international investment position and describes the methodology used for the breakdown of changes in stocks.

SNB data portal

The data portal was further expanded in 2019. It now includes more detailed data on the Swiss franc exchange rate index as well as the results from the global triennial survey of turnover in the foreign exchange and derivatives markets. In addition, under the title 'Breakdown of changes in stocks' the SNB now publishes information on the factors behind changes in the international investment position over time. Furthermore, the 'Resources' section contains supplementary information on the published data.

Special Data Dissemination Standard

The SNB publishes monthly data on its website in line with the International Monetary Fund's Special Data Dissemination Standard (SDDS). The data include information on the monetary aggregates and the reserve assets.

9.3 PROJECTS

Revision of securities statistics

The work that began in 2016 on the revision of securities statistics (i.e. statistics on the stocks and turnover of securities) continued in 2019. The revision is being undertaken both in connection with Switzerland's adoption of the IMF's new Special Data Dissemination Standard Plus (SDDS Plus) planned from autumn 2020 and in order to take account of changes in user requirements. The analysis of various possible survey methods has been completed. As the prerequisites for implementing the SNB's preferred option have not yet been fully met, the SNB has been carrying out an interim, limited-scope supplementary survey at a small number of banks since 2019 in order to comply with the SDDS Plus requirements.

… and other surveys

The SNB raised the survey thresholds for the comprehensive monthly balance sheet statistics and for the monetary aggregate statistics. As a result, fewer banks will be required to report data for these surveys in future. In addition, conceptual work was carried out for a revision of the customer payments statistics.

Quarterly Swiss financial accounts

Also in connection with Switzerland's planned adoption of SDDS Plus from 2020, work has been ongoing with a view to publishing sectoral balance sheets, i.e. data on the financial assets and liabilities of non-financial and financial corporations, of general government and of households on a quarterly basis from October 2020. The Swiss financial accounts are also to be published quarterly from then (cf. chapter 9.4, box 'Swiss financial accounts').

Global production processes

Work has been underway since 2017 on improving the recording of global production processes in Switzerland's balance of payments statistics. The internal project team is focusing on the activities of multinational enterprises whose production and trade processes are distributed across various countries. This distribution leads to a separation of the finance and goods flows, which poses problems with regard to measurement, definition and data collection.

Expansion of eSurvey reporting platform

eSurvey provides reporting institutions with an easy and secure means of delivering their statistical data to the SNB online. In 2019, preparations continued towards enabling reporting institutions to manage their own access rights for the balance of payments surveys, too.

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 the Swiss Financial Market Supervisory Authority (FINMA). In 2019, the banking statistics committee dealt in particular with the revision of the lending rate statistics survey. 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 Swiss Federal Statistical Office (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; this agreement also covers the collaboration between the two authorities in drawing up the Swiss financial accounts. Moreover, the SNB belongs to a number of bodies that work with Swiss federal statistics. These include the Federal Statistics Committee and the group of experts for economic statistics (Expertengruppe für Wirtschaftsstatistik/Groupe d’experts de statistique économique).

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. The sole responsibility for the contents of this survey lies with the FOH, which also publishes the reference rate.

FINMA

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 dealers. In 2019, the interest rate risk survey was conducted for the first time on the basis of the revised reporting procedure. Preparations were subsequently made for forthcoming revisions triggered by changes to the banking regulations. Amendments were also made in capital adequacy reporting (Basel III) and supervisory reporting.

Principality of Liechtenstein

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).

EU

The SNB's collaboration with the EU is based on the bilateral statistical agreement that came into effect in 2007. It covers the financial accounts, parts of the banking statistics, the balance of payments and the international investment position. The SNB participates in various bodies of the EU statistical office (Eurostat).

Other international organisations

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.

Swiss financial accounts

The SNB has drawn up and published the Swiss financial accounts since 2005. The financial accounts capture the financial linkages of an economy and thus complement the national accounts, which reflect the real part of the economy. The SNB works closely with the SFSO when drawing up the Swiss financial accounts. This ensures that a uniform methodology is applied in the Swiss financial accounts and the other areas of the national accounts.

The financial accounts are a set of secondary statistics, based on data from various internal and external sources. Key sources are data collected by the SNB on banking statistics and on cross-border capital linkages. The SNB's close association with these data sources is one of the main reasons why it draws up the Swiss financial accounts. Another reason is that the questions the financial accounts answer are directly connected with the SNB's statutory mandate.

The financial accounts capture the financial linkages of an economy by systematically reflecting the financial assets and liabilities of the institutional sectors within the country and vis-à-vis other countries. The institutional sectors are non-financial and financial corporations, general government, and households. The financial assets and liabilities are broken down by financial instrument into – for instance – currency, deposits, debt securities and shares. Stocks are shown for these instruments as at the end of a given period. Transactions as well as capital gains and losses during a period explain the changes in stocks over time.

In order to gain a comprehensive picture of household wealth, the SNB publishes an estimate of real estate assets held by households as a supplement to the Swiss financial accounts. This estimate, together with the financial assets and liabilities according to the Swiss financial accounts, is used by the SNB to draw up and publish a balance sheet of households annually.

Data in the financial accounts serve as the basis for a wide range of macroeconomic analyses: for instance, they can be used to identify what proportion of changes in household wealth is attributable to savings and what proportion to price developments (e.g. on real estate and stock markets). In addition, the financial accounts provide insight into the stability of the financial system and the impact of monetary policy on the financial assets and liabilities of the various sectors. The data in the Swiss financial accounts thus not only support the SNB in implementing its statutory mandate, but also provide the general public with important information on the financial linkages between the institutional sectors of the Swiss economy.