Accountability report

On 21 March 2019, the Governing Board of the Swiss National Bank submitted its accountability report for 2018 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. The SNB's monetary policy strategy consists of the following elements: a definition of price stability, a medium-term conditional inflation forecast, and a target range for the benchmark interest rate – the three-month Swiss franc Libor (London Interbank Offered Rate).

The global economy recorded robust growth in 2018, supported by the ongoing expansionary monetary policies in the major currency areas and favourable financing conditions. While the economic upswing in the US gathered pace compared to 2017, growth in Europe slowed slightly. The Chinese economy likewise lost some momentum, whereas the other large emerging economies continued their recovery. During the course of the year, however, the global economic outlook was overshadowed by trade tensions between the US and China as well as several other countries, and political uncertainty in various European countries.

Switzerland's broad-based economic expansion continued. Capacity utilisation increased and the labour market improved further. Employment rose and the unemployment rate fell significantly through to the end of the year. Despite losing momentum in the second half of the year, largely due to special factors, the economy remained solid. On an annual average basis, GDP was up 2.5%, following growth of 1.6% in 2017.

Inflation, as measured by the Swiss consumer price index, averaged 0.9% in 2018. The slight rise in inflation compared with the previous year was primarily attributable to higher prices for imported goods and services. In the case of domestic goods and services, inflation remained low.

The SNB maintained its expansionary monetary policy. This continued to be based on the negative interest rate 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. On the one hand, inflation remained low. On the other, the Swiss franc was highly valued and the situation on the foreign exchange market still fragile. Over the course of the year, the Swiss franc once again appreciated against the euro, and its trade-weighted real external value at the end of the year was slightly higher than at the beginning. The SNB's inflation forecasts indicated that even if interest rates were to remain unchanged over the next three years, the inflation rate would be expected to rise only slightly.

Implementation of monetary policy

The interest rate of –0.75% charged by the SNB on sight deposits continued to help keep the attractiveness of Swiss franc investments low by maintaining the interest rate differential between Switzerland and foreign countries. The target range for the three-month Libor in Swiss francs was also left unchanged at between –1.25% and –0.25%. The three-month Libor and other relevant Swiss franc money market rates remained close to the negative interest rate on sight deposits over the whole year. At the end of 2018, the three-month Swiss franc Libor stood at –0.71%. The interest rate for secured overnight money, the Swiss Average Rate Overnight (SARON), was –0.73%. Long-term interest rates also remained low. Yields on ten-year Confederation bonds were once again slightly negative at the end of the year. In 2018, the SNB purchased a total of CHF 2.3 billion in foreign currency. Aside from these foreign currency purchases, it conducted no other open market operations for monetary policy purposes. The money market remained amply supplied with Swiss franc liquidity.

Cash supply and distribution

Banknotes in circulation in 2018 averaged CHF 79.0 billion. This constituted a year-on-year increase of 3.3%, a significantly lower growth rate than the previous year's figure of 5.9%.

In August, the SNB began issuing the new 200-franc note, the fourth denomination in the ninth banknote series. The fifth denomination, the 1000-franc note, followed in March 2019. The sixth and final denomination of the new banknote series, the 100-franc note, will be released in September 2019. The new notes have proved their worth and been received positively by the public and experts alike.

In May 2018, the SNB published the results of the 2017 survey on payment methods. The results indicate that cash and cashless payment methods coexist well together, and that households are satisfied with the existing payment options. According to the survey results, cash is the most common method of non-recurring payment for households in Switzerland, followed by debit cards. By contrast, the figures for usage of innovative payment procedures such as payment apps and contactless card payment are very modest. Cash is a particularly popular payment method for small amounts, although it also often used for the payment of larger amounts.

Cashless payment transactions

In 2018, the Swiss Interbank Clearing (SIC) payment system settled a daily average of approximately 2.4 million transactions amounting to CHF 156 billion. Compared to the previous year, the number of transactions rose by 19.5%, whereas turnover declined by 9.8%. 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.

SIC is the central system for payments in Swiss francs, via which banks and other financial market participants settle interbank payments as well as a significant share of retail payments (customer payments). The SNB determines the admission criteria, provides the system with liquidity and issues settlement rules. Since January 2019, the SNB has also granted access to SIC to fintech companies provided they have the requisite licence from the Swiss Financial Market Supervisory Authority (FINMA) and their business model makes them a significant participant in the area of Swiss franc payment transactions.

Asset management

At the end of 2018, the SNB's assets amounted to CHF 817 billion, compared to CHF 843 billion one year earlier. The decline in assets was mainly due to valuation losses on foreign currency investments and gold. Total currency reserves amounted to CHF 776 billion at year-end. The return on currency reserves was –2.1%. Returns on gold and foreign exchange reserves were negative, at –0.6% and –2.2% respectively.

The share of equities in the foreign exchange reserves amounted to 19% at end-2018. By replicating individual equity markets in their entirety, thereby diversifying its investments as broadly as possible, the SNB pursues as neutral and passive an investment approach as possible. Its investment policy is thus shielded from political considerations. The principle of full market coverage is not applied in a few cases. The SNB does not invest in the shares of any systemically important banks worldwide nor does it invest in the shares of any mid-cap and large-cap banks or bank-like institutions from advanced economies; this avoids possible conflicts of interest. Moreover, it does not purchase equities issued by companies that seriously violate fundamental human rights, systematically cause severe environmental damage or are involved in the production of internationally condemned weapons. 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 are excluded.

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 2018, the SNB noted that, since the financial crisis ten years ago, the two internationally active Swiss big banks, Credit Suisse and UBS, have implemented a number of measures relating to Switzerland's 'too big to fail' (TBTF) regulations. These measures have strengthened both pillars of the TBTF regulations – resilience and resolution. At the same time, the SNB identified areas where further action is needed in relation to both pillars. With respect to resilience, for instance, neither of the big banks has yet fully met the leverage ratio requirements. As regards resolution, the SNB highlighted financial and operational dependencies within the respective group which need to be further reduced. Given the significance of both big banks to the Swiss economy, the SNB stressed that full implementation of the TBTF regulations is necessary.

In reference to domestically focused commercial banks, the SNB noted that their exposure to the mortgage and residential real estate markets had risen once again. These banks' mortgage volumes have continued to grow, affordability risks in newly granted mortgage loans have increased, interest rate exposure has remained historically high, and interest rate margins have fallen. Nonetheless, domestically focused banks were able to maintain their resilience and, overall, their capitalisation was appropriate. In November 2018 the Federal Council decided that domestically focused systemically important banks must also meet requirements on loss-absorbing instruments in the event of resolution. Together with the emergency plans, these requirements on loss-absorbing instruments form the basis for the orderly resolution of a systemically important bank.

The imbalances on the mortgage and real estate markets persisted. The SNB emphasised that, given the high prices of apartment buildings, especially in the residential investment property segment, there is the risk of a price correction. The renewed increase in vacancy rates indicates that the robust activity in rental apartment construction may have led to oversupply in this segment. The SNB noted that affordability risks in newly granted mortgages for residential investment properties continued to increase. In light of these risks, the SNB suggested that targeted measures should be considered for residential investment property lending.

Oversight of systemically important financial market infrastructures (FMIs) continued to focus on the implementation of the Financial Market Infrastructure Act (FMIA). SIX x-clear was granted authorisation by the Swiss Financial Supervisory Authority (FINMA) to operate as a central counterparty. The SNB had previously confirmed that SIX x-clear complied with the special requirements applicable to it as a systemically important Swiss FMI. The SNB also assessed foreign central counterparties as to their systemic importance for Switzerland. In the case of Eurex Clearing and LCH, the SNB confirmed in 2018 the assessment it had made prior to the introduction of the duty to obtain recognition – namely, that both central counterparties are important for the stability of the financial system.

In 2018, the SNB considered the effects of SIX's strategic reorientation on the FMIs subject to oversight. It also explored the implications of the UK's departure from the EU for SIX x-clear.

International monetary cooperation

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

Lending by the IMF increased in 2018, this being in particular attributable to a new loan agreement concluded with Argentina.

The IMF continued its work on the 15th General Review of Quotas. Agreement has still to be reached on the two key issues, namely the size of the quota increase and its distribution among the members. The IMF reaffirmed its intention to conclude the review of quotas by 2019 at the latest. The quota determines a member's voting rights, the financing it can obtain from the IMF, and the amount it is obliged to provide to the IMF where necessary. In crisis situations, the IMF can borrow funds under the New Arrangements to Borrow (NAB) and bilateral borrowing arrangements. At the end of 2018, Switzerland's maximum commitment to the IMF in respect of financing the latter's regular lending totalled CHF 24.0 billion; the effective outstanding amount was CHF 1.2 billion. The SNB finances these amounts, with loans granted under the bilateral credit line being guaranteed by the Confederation.

As part of its surveillance activities, the IMF analyses the external position of its member countries including the current account and the real exchange rate. In 2018, the IMF deemed Switzerland's external position to be appropriate, supported the continuation of the SNB's monetary policy stance, and welcomed the progress made in bolstering financial stability.

As a member of the BIS and the FSB, the SNB participated in the implementation of the reforms to strengthen the global financial system. Following the finalisation of the last elements of the Basel III reform package, in 2018 the Basel Committee on Banking Supervision at the BIS worked on the implementation of the new regulatory standards in member countries. It also carried out assessments to review the impact of the standards and to enable it to identify and react to any unintended consequences at an early stage.

The focus of the FSB's activities turned to the implementation of financial system reforms and the evaluation of their effects. The Board also published a report which found that cryptoassets do not currently pose a risk to financial stability.

In the autumn 2018 edition of its *Economic Outlook* report, the OECD found that the negative interest rate has been an effective monetary policy instrument in Switzerland with regard to stabilising prices and limiting capital inflows associated with the Swiss franc's safe-haven status.

The SNB provides technical assistance to central banks as part of bilateral monetary cooperation. It updated its strategy in this regard at the beginning of 2018, bolstering the focus of technical assistance on Switzerland's strategic interests. The effectiveness of these efforts is also to be enhanced by strengthening coordination and collaboration with other key providers. In February 2018, the SNB and the Bank of Korea concluded a swap agreement that enables both central banks to purchase and repurchase Korean won and Swiss francs.

Banking services for the Confederation

The SNB provides banking services to the Confederation. Details of the services and the remuneration are laid down in a joint agreement between the Confederation and the SNB.

In 2018, on behalf of and for the account of the Confederation, the SNB issued money market debt register claims amounting to CHF 19.0 billion and Confederation bonds amounting to CHF 2.2 billion. They were issued by auction on the SIX Repo Ltd trading platform. The SNB also carried out roughly 146,000 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. In so doing, it collaborates with federal government bodies and FINMA as well as with authorities of other countries and international organisations.

In 2018, the SNB continued its work on revising securities statistics. The revision is being undertaken both in connection with Switzerland's planned participation in the IMF's new Special Data Dissemination Standard Plus (SDDS Plus) as of 2020 and in order to take changed user requirements into account. In order to comply with the SDDS Plus requirements, from 2019 the SNB will carry out a supplementary survey, limited in time and content, 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 is an important prerequisite for growth and prosperity. 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 three elements: a definition of price stability, a conditional inflation forecast over the subsequent three years, and a target range for the reference interest rate – the three-month Swiss franc Libor (London Interbank Offered 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 communication. 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 sometimes react to monetary policy stimuli with a considerable time lag. 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 reference interest rate communicated at the time of publishing 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.

Target range for three-month Libor

The SNB defines a target range for its reference interest rate, the three-month Swiss franc Libor. The range usually spans 1 percentage point. As a rule, the SNB aims to keep the three-month Libor in the middle of this range. The Libor rates correspond to the average current interest rate conditions at major international banks operating in London. Against the background of the international reform efforts in the area of interest rate benchmarks for financial contracts, the UK's Financial Conduct Authority announced in July 2017 that it would only support Libor until the end of 2021. The SNB will provide information in good time on resulting adjustments to the formulation of its monetary policy strategy. Such changes will have no impact on the SNB's monetary policy stance.

Influencing the 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 respond to any adjustments they make.

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. Changes to the exchange rate significantly influence inflation and the economy and thus have an effect on the SNB's monetary policy decisions. If it 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 maintain an appropriate monetary policy. The most important unconventional measures taken by the SNB in recent years have been interventions in the foreign exchange market, enforcing a minimum exchange rate against the euro from September 2011 until January 2015, and the introduction of negative interest on sight deposits at the SNB (cf. chapter 1.4, box 'Economic developments and monetary policy since the onset of the global financial crisis').

Unconventional monetary policy measures

The SNB's introduction of negative interest on sight deposits held by banks and other financial market participants reduced the general level of interest rates. This makes Swiss franc investments less attractive, thereby easing upward pressure on the currency. Furthermore, it creates an incentive to consume and invest more. However, the SNB cannot lower the interest rate on sight deposit accounts endlessly into negative territory since the balances can also be converted into banknotes. In addition, negative interest can potentially put the banking system under considerable strain, which is why the SNB grants banks exemption thresholds (cf. chapter 2.3, box 'How negative interest works').

Negative interest on sight deposits at SNB

Like the negative interest rate, 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 therefore need macroprudential instruments that can be applied in a targeted manner to address credit market imbalances which threaten financial stability (cf. chapter 6).

Macroprudential instruments

Popular vote on Swiss sovereign money initiative

On 10 June 2018, the Swiss electorate rejected the popular initiative ‘For crisis-resistant money: end fractional-reserve banking’ by a large majority. The so-called sovereign money initiative would have led to a profound change in the monetary order. Its rejection means that the SNB’s constitutional mandate and the institutional framework for its monetary policy remain unchanged.

Research

In order to fulfil its mandate, the SNB conducts research in relevant fields. This enhances the understanding of complex interrelationships, promotes the further development of analytical methods and provides important information for monetary policy decisions.

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 and research institutes in order to promote knowledge-sharing. It regularly holds conferences and research seminars for this purpose. In 2018, it held the twelfth SNB Research Conference in Zurich on the theme of ‘Current Monetary Policy Challenges’.

Since 2014, the SNB has sponsored a prize for excellence in research in monetary macroeconomics together with the Deutsche Bundesbank and the Oesterreichische Nationalbank. Named after the Austrian economist Carl Menger, the prize is awarded every two years at the annual meeting of the Verein für Socialpolitik. The 2018 Carl Menger Award was presented to Silvana Tenreyro, Professor of Economics at the London School of Economics and Political Science.

As part of its Karl Brunner Distinguished Lecture Series launched in 2016, the SNB welcomed Otmar Issing, former Chief Economist and member of the Executive Board of the ECB, as its guest speaker for 2018. His lecture was entitled ‘Central Bank Communication – A Panacea?’.

1.2 INTERNATIONAL ECONOMIC DEVELOPMENTS

Solid global economy

The global economy continued to grow in 2018 and remained above the long-term average, supported by the ongoing expansionary monetary policies in the major currency areas and favourable financing conditions. Business and consumer confidence thus remained healthy, although they did ease back as the year progressed. Employment rose further in the advanced economies, and in some countries (US, Japan, Germany) unemployment fell to its lowest level in decades. Developments varied across the emerging economies. Growth slowed in China, while economic conditions in Brazil, India and Russia continued to improve. The utilisation of production capacity increased worldwide. Against this background, wage growth picked up in various advanced economies. By contrast, consumer price inflation remained subdued overall.

Greater political risks

In the second half of the year, the positive economic momentum was overshadowed by concerns regarding the global economic outlook. One major concern was the trade tensions between the US and China as well as several other countries. In Europe, a number of political imponderables dampened prospects, including the UK's imminent exit from the EU, the fiscal policy of the new Italian government and the protest movement in France. Volatility on the financial markets increased markedly from October. Most stock markets closed the year with a clear loss.

Slight cooling in global trade

At 3.8%, global trade in goods grew at a slightly slower pace than in 2017. The ongoing dynamism in the information and communications technology sector boosted foreign trade in emerging Asia in particular. In the advanced economies, on the other hand, foreign trade weakened somewhat.

Volatile commodity prices

Commodity prices fluctuated strongly. Buoyed by the solid global economy and the oil output restrictions agreed by major oil-producing countries, by autumn the price of Brent crude had risen to USD 86 per barrel. However, the expansion in global oil production and concerns regarding a global economic slowdown subsequently led to a price correction. At the end of 2018, the oil price stood at approximately USD 55 per barrel, slightly lower than at the beginning of the year. Industrial metal prices also initially maintained their upward trend before declining in the second half of the year.

Strong US economy

The US economy gained further momentum in 2018. Average annual GDP grew by 2.9%, once again at a faster rate than in the year before (2.2%). Growth was stimulated by extensive tax cuts and higher public spending. Furthermore, companies continued to benefit from favourable financing conditions. Private consumption remained a driving force on the back of robust disposable income growth and upbeat consumer confidence. By contrast, higher mortgage rates led to a decline in construction investment. The labour market improved further, and the unemployment rate had fallen to 3.9% by the end of the year.

Modest economic slowdown in euro area

Economic growth in the euro area was unable to match the strong momentum of 2017. This was partly attributable to special factors, including adverse weather conditions, strikes and a reduction in vehicle production in Germany in connection with new emission standards. Furthermore, business and consumer sentiment cooled during the course of the year. Nevertheless, domestic demand held up well overall and GDP grew by 1.8% in 2018 (2017: 2.5%). The labour market continued to improve. By the end of the year the unemployment rate had fallen to 7.9%, its lowest level since October 2008. Against this backdrop, wage growth picked up.

Weather-related volatility in Japan

In Japan, GDP grew at around potential in 2018 (0.8%), with overall production capacity remaining well utilised. Favourable financing conditions, solid global manufacturing activity and infrastructure investment in the run-up to the 2020 Olympic Games in Tokyo provided some support. However, extreme weather events caused some volatility over the year, negatively affecting supply chains and private consumption, in particular, and leading to a drop in GDP in both the first and third quarters. The labour market improved further; the unemployment rate stood at 2.4% at year-end, its lowest level since 1993.

Gradual economic slowdown in China

Economic growth in China remained solid at 6.6%. Nevertheless, momentum slowed in the course of the year, mainly as a result of more modest investment growth. The gradual softening in growth observed over recent years thus continued in step with the decline in growth potential. Higher capital market interest rates and macroprudential measures taken by the government dampened the demand for loans, stabilising household and business debt relative to GDP. The escalation of trade tensions with the US over the course of the year constituted a further risk to the Chinese economy. From September, the US imposed an additional 10% tariff on selected Chinese products with an annual trade value of around USD 200 billion.

Recovery in Brazil, India and Russia

The economic recovery in Brazil and Russia continued in 2018, buoyed by favourable monetary conditions, rising real wages and brisk demand from abroad. However, the Brazilian economy grew at a slower pace than expected, partly due to political uncertainty. The Indian economy also picked up in 2018 after growth in the previous year had been dampened by the impact of currency and VAT reforms. GDP growth was slightly above potential at 7.3%. Moreover, the recapitalisation plans for ailing credit institutions began to bear fruit.

Inflation higher in most advanced economies

Inflation, as measured by the CPI, rose in most advanced economies compared with 2017, primarily driven by higher energy and food prices. Core inflation, which excludes volatile categories of goods such as oil products and food, thus changed only marginally in many countries.

US inflation on target

In the US, annual average headline inflation rose to 2.5% and core inflation to 2.1%. The Federal Reserve's preferred price inflation measure, the personal consumption expenditure (PCE) deflator, which excludes volatile energy and food prices, was back in line with the Fed's target of 2% for the first time since 2012.

Modest core inflation in euro area and Japan

Headline inflation in the euro area increased to 1.7%. However, core inflation remained at around 1%, as it has done for some years.

In Japan, headline inflation rose to 1.0% while core inflation continued to fluctuate around 0% over the course of the year. Despite the highly expansionary monetary policy, medium-term inflation expectations persisted significantly below the Bank of Japan's inflation target of 2%.

Mixed inflation trends in emerging economies

Inflation trends differed across the emerging economies. Headline inflation in China rose to 2.1% because of higher food and energy prices, while core inflation remained virtually unchanged. In Brazil, while the headline figure remained largely stable (3.7%), core inflation receded against the background of persistently weak overall capacity utilisation. Headline inflation in India rose to 4.0% and there was also a marked increase in the core number, while in Russia headline inflation continued to fall (2.9%).

Further normalisation of US monetary policy

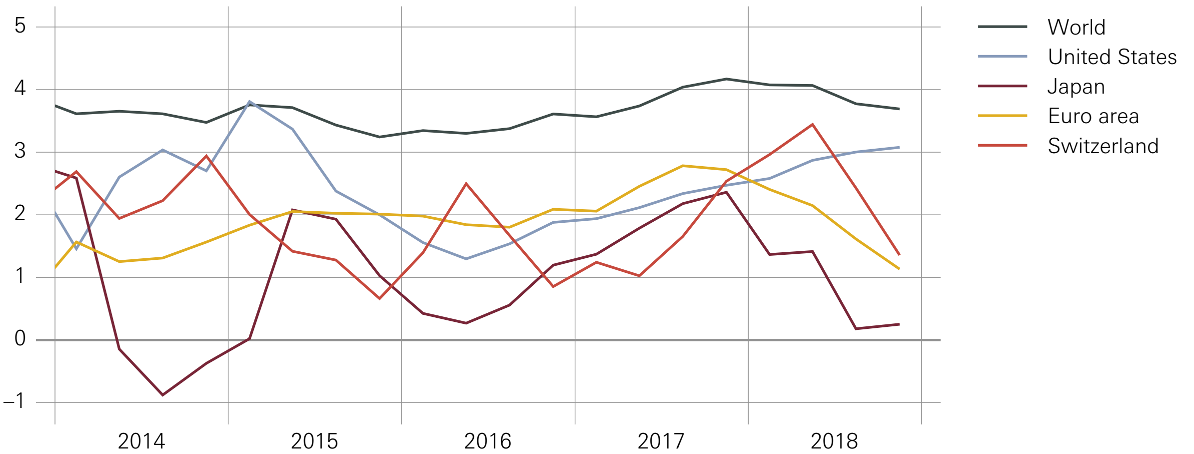
In light of solid inflation momentum and the improved labour market conditions, the Fed continued to tighten its monetary policy. It increased the target range for its policy rate in four steps by a total of 1 percentage point to 2.25–2.5%. At the same time, it carried on reducing its balance sheet, and emphasised in December that further interest rate rises would be dependent on economic developments.

ECB ends asset purchase programme

The European Central Bank left its deposit rate at –0.4% and the main refinancing rate at 0.0%, and said it intended to leave its key rates unchanged at least through the summer of 2019. The ECB remained confident that inflation would move towards its target level of just under 2%. Against this backdrop, it ended its programme of net asset purchases at the end of 2018, having already reduced it from EUR 60 billion per month to EUR 30 billion in January, and again in October to EUR 15 billion. It intends to continue reinvesting maturing bonds for an extended period of time, however.

GROWTH OF GROSS DOMESTIC PRODUCT

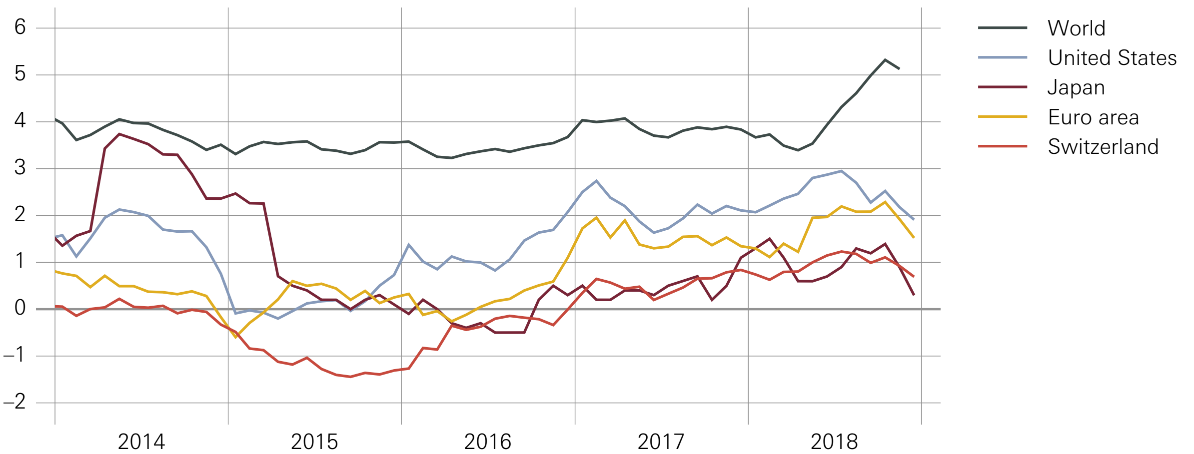
Real, year-on-year change in percent



Sources: SECO, SNB, Thomson Reuters Datastream

INFLATION

Consumer prices, year-on-year change in percent



Sources: IMF, SFSO, Thomson Reuters Datastream

Expansionary monetary policy in Japan unchanged

Since September 2016, the Bank of Japan has placed yield curve control at the centre of its monetary policy. It maintained the target for 10-year government bonds at around 0% in 2018, but decided at the end of July to allow wider fluctuations in this rate. In light of the weak inflation momentum, it plans to maintain the low level of interest rates for an extended period.

Targeted easing in China

The People's Bank of China left its policy rate unchanged in 2018. However, it cut commercial banks' reserve requirement ratios in several steps, leading to a decline in money market interest rates. This move was aimed at reducing financing costs, boosting lending to small businesses and improving the liquidity structure in the interbank market.

Different monetary policies in Brazil, India and Russia

The Brazilian central bank lowered its policy rate further at the beginning of 2018, from 7.0% to 6.5%, and thereafter left it unchanged. India's central bank had cut its policy rate in 2017, but raised it in two steps from 6.0% to 6.5% in 2018 in response to the marked increase in inflation. The Bank of Russia initially cut its key rate from 7.75% to 7.25%, but had reversed this move by the end of the year to limit inflation risks associated with rouble depreciation.

1.3 ECONOMIC DEVELOPMENTS IN SWITZERLAND

Positive economic development

The Swiss economy continued its favourable development in 2018. The Business Cycle Index, calculated by the SNB and offering a comprehensive overview of economic momentum, points to the positive tendency having weakened somewhat over the year, but remaining solid nonetheless. Both the purchasing managers' index for the manufacturing sector and the KOF economic barometer also indicated solid economic growth through to the end of the year. The favourable development in the labour market also continued; the number of unemployed people declined once again and employment rose further.

Strongest GDP growth since 2010

According to preliminary estimates by the State Secretariat for Economic Affairs (SECO), GDP increased by 2.5% in 2018. This marked the strongest growth since 2010 and was considerably higher than the previous year's figure (1.6%). Following a period of strong expansion since the beginning of 2017, GDP stagnated in the second half of 2018. This was primarily attributable to special factors. For instance, there was a strong decline in the revenue generated by major international sporting events and booked in Switzerland. Moreover, the long, hot summer curbed consumer spending while the exceptionally dry spell adversely affected energy production.

Broad-based growth across sectors

The favourable global economic environment was a significant factor in the positive economic development. This was reflected primarily in manufacturing, where value added increased substantially for the second year running, making the biggest contribution to GDP growth. The expansion was also bolstered by business-related services, healthcare and the entertainment industry. Value added also rose noticeably in hospitality, financial services, and energy and water supply. By contrast, wholesale and retail trade remained lacklustre.

Rising exports

There was a broad-based expansion in exports of goods in 2018, albeit the increase was a little less strong than in 2017. Exports of chemical and pharmaceutical products showed the highest growth, while exports of precision instruments, watches, machinery and metals also registered an increase. In contrast to goods exports, there was a slight decline in the case of services exports. Overall exports of goods and services rose by 3.4%, following an increase of 3.6% in 2017.

Economic picture derived from discussions with companies
The SNB bases its economic assessment on a broad array of analyses and information. This includes information gathered every quarter by the SNB's delegates for regional economic relations during some 240 discussions with companies from a range of 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 2018 presented a picture of stable economic conditions, with a steady increase in turnover. Economic momentum was strong at the beginning of the year and slowed slightly in the second half. Production capacities were well utilised in most sectors although some bottlenecks were evident in manufacturing. Margins continued to improve, but remained slightly below the level considered normal by the company representatives until the end of the year, particularly in the services sector. Expectations regarding staffing developments and planned investment showed a slight upward tendency thanks to the propitious economic environment internationally and the relatively stable exchange rate. At the end of 2018, company representatives still viewed the outlook as favourable, although they perceived greater risks than at the beginning of the year. Retailing, banking and certain lines of manufacturing continued to face major structural change.

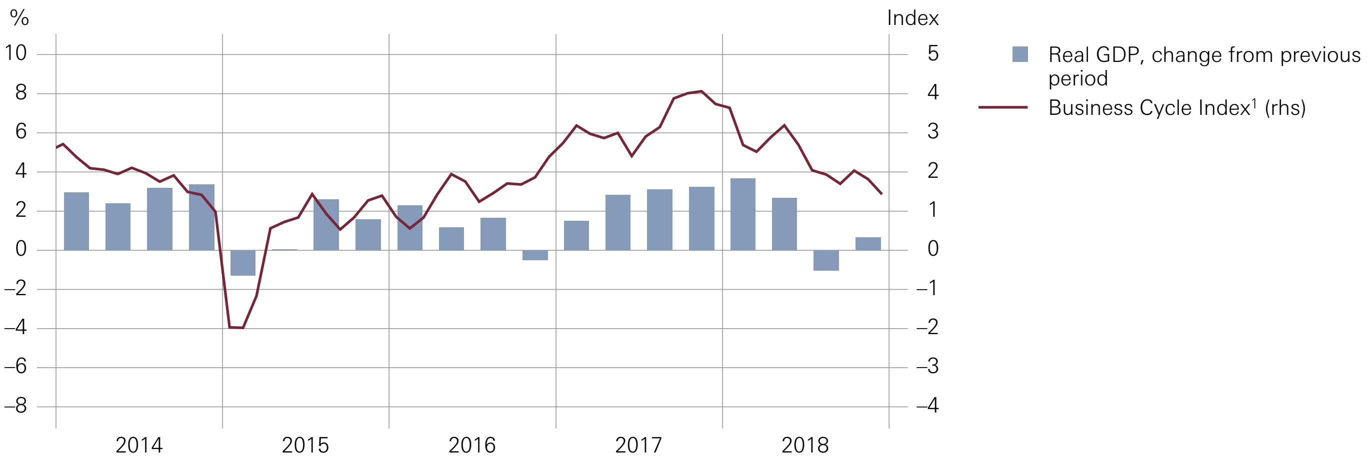
Rise in equipment investment

On the back of favourable economic developments abroad and low interest rates, coupled with capacity being well utilised, spending on capital goods continued to increase, albeit at a slightly slower rate than in the two preceding years, when there was an above-average rise in equipment investment.

Moderate growth in consumption

Household consumption again grew at only a moderate pace. Expenditure growth was muted in most areas with the exception of healthcare.

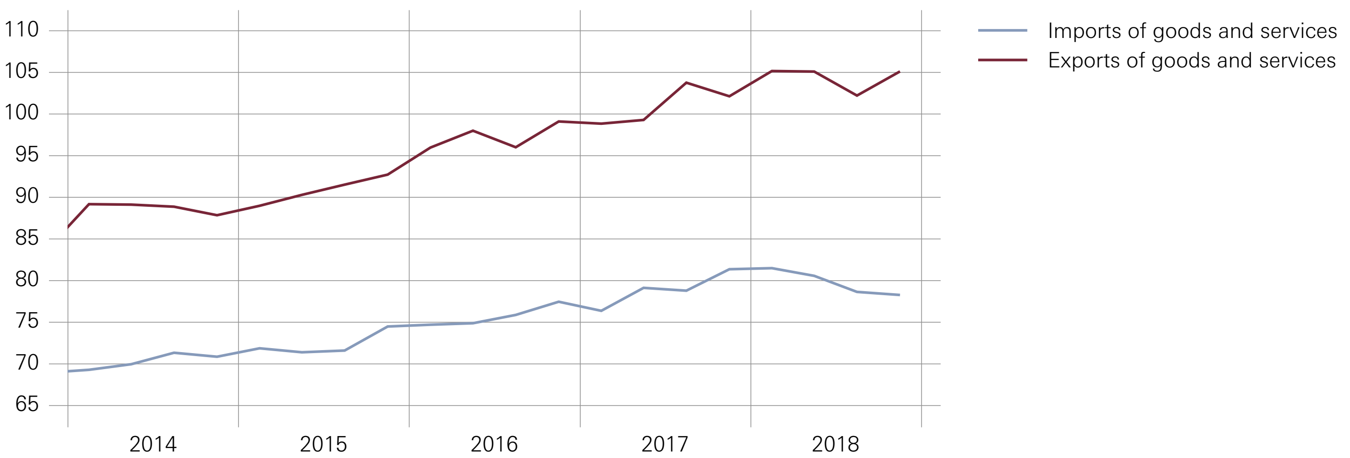
BUSINESS CYCLE INDEX AND GDP GROWTH



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

FOREIGN TRADE

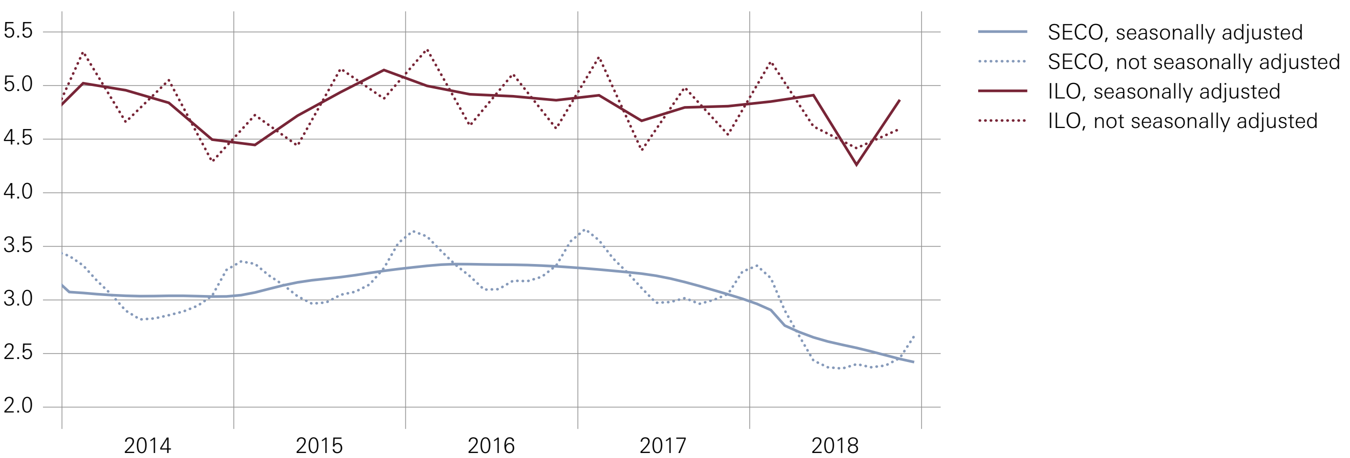
In CHF billions, in real terms, seasonally adjusted



Source: SECO

UNEMPLOYMENT RATE

In percent



Sources: SECO, SFSO

Slight increase in construction investment

After a lengthy phase of strong growth, residential construction investment declined slightly. At the same time, the vacancy rate rose further, reaching 1.6% at the beginning of June 2018. Investment in residential construction was primarily in rental apartments. The other areas of structural engineering continued to show solid investment growth, and investment in civil engineering expanded once again following decreases in the previous two years.

REAL GROSS DOMESTIC PRODUCT

Year-on-year change in percent

	2013	2014	2015	2016	2017	2018
Private consumption	2.6	1.3	1.7	1.5	1.1	1.0
Government consumption	2.3	2.2	1.1	1.2	0.9	1.0
Investment	0.6	3.0	2.3	3.4	3.3	1.8
Construction	3.1	3.2	1.6	0.5	1.4	0.7
Equipment	–1.0	2.9	2.7	5.4	4.5	2.4
Domestic final demand[1]	**2.0**	**1.9**	**1.8**	**2.0**	**1.7**	**1.2**
Exports of goods and services[1]	–0.1	5.2	2.6	7.0	3.6	3.4
Aggregate demand[1]	**1.7**	**2.7**	**1.8**	**2.5**	**2.3**	**2.1**
Imports of goods and services[1]	1.4	3.3	3.0	4.7	4.1	1.0
Gross domestic product	**1.9**	**2.4**	**1.3**	**1.6**	**1.6**	**2.5**

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

Decline in unemployment

The favourable development in the labour market continued. Excluding seasonal fluctuations, the number of people registered as unemployed with regional employment offices declined steadily. In December, the seasonally adjusted unemployment rate published by SECO stood at 2.6%, compared with 3.2% a year earlier. The unemployment rate calculated by the Swiss Federal Statistical Office (SFSO) in line with the definition of the International Labour Organization (ILO) likewise declined, albeit only slightly; it amounted to an average of 4.7% (2017: 4.8%). The SFSO's figures are based on a quarterly survey of households, and include unemployed people who are not registered, or no longer registered, with the regional employment offices. As a result, the figures are normally higher than those calculated by SECO.

At 0.9%, the rise in the number of employed persons was a little less pronounced than in 2017. New jobs were created in services, manufacturing and construction.

Employment on the rise

The utilisation of production factors improved further. The output gap, defined as the percentage deviation of GDP from estimated potential output, was back in positive territory on an annual average basis for the first time since the financial crisis. Besides labour, utilisation of technical capacity was also high. In manufacturing, utilisation of technical capacity at the end of the year was close to the long-term average. Company surveys in the various service industries and in construction pointed to utilisation overall being slightly above average.

Slightly positive output gap

According to the GDP estimate by SECO, the total real wage bill was up by 1.5% following a 0.7% increase in the previous year. The higher growth reflected the stronger rise in real wages. The share of labour income in GDP declined slightly year-on-year, but remained high by historical standards.

Higher total wage bill

Producer and import prices increased significantly in the first half of 2018, but inflation slowed down again as the year progressed. On an annual average basis, producer and import prices were 2.4% higher year-on-year.

Volatile producer and import price inflation

In 2018, the annual inflation rate as measured by the CPI stood at 0.9%, up from 0.5% the year before. It reached a high for the year in the third quarter (1.1%) before declining to 0.9%. This was mainly attributable to the price development of imported goods and services, particularly oil prices. The inflation rate for imported goods and services increased from 1.9% in the first quarter to 3.0% in the third, and fell in the fourth quarter to 2.1%.

CPI inflation somewhat higher than in 2017

The inflation rate for domestic goods and services rose slightly from 0.3% in 2017 to 0.4% in 2018. Developments varied between the categories, however: Inflation rates for domestic goods and private services (excluding rents) rose, while those for domestic public services and rents fell.

Slight rise in core inflation

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 and services with the most pronounced price changes compared to the same month one year earlier. Specifically, it factors out the 15% of items in the CPI basket with the highest price inflation and the 15% with the lowest. The core inflation rate calculated using the trimmed mean rose slightly in 2018 to an annual average of 0.6% (2017: 0.3%).

SWISS CONSUMER PRICE INDEX AND COMPONENTS

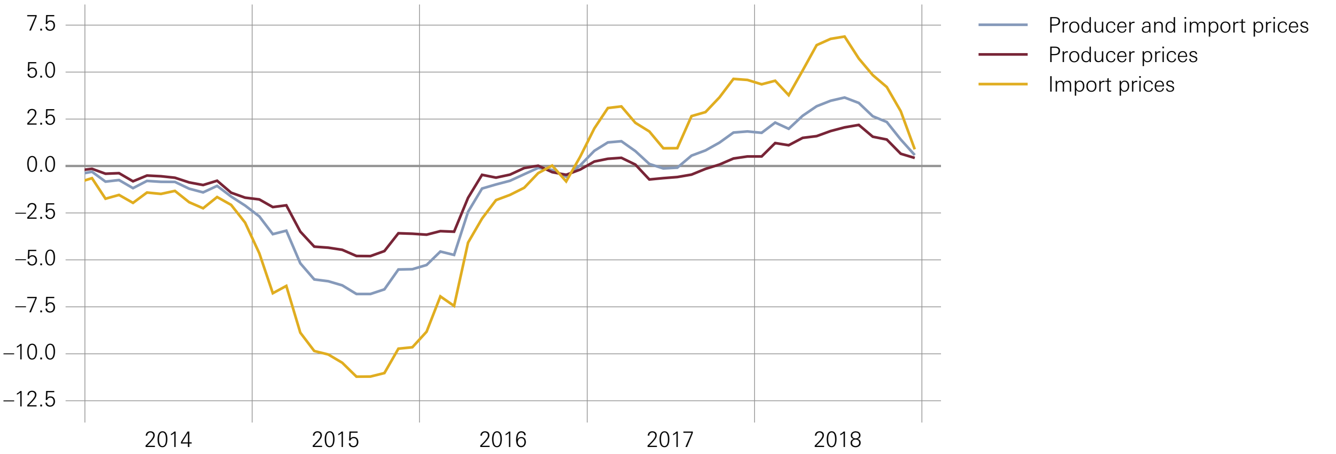
Year-on-year change in percent

	2017	2018	2018 Q 1	Q 2	Q 3	Q 4
Consumer price index, overall	**0.5**	**0.9**	**0.7**	**1.0**	**1.1**	**0.9**
Domestic goods and services	0.3	0.4	0.3	0.4	0.5	0.5
Goods	–0.2	0.8	0.3	0.8	1.0	1.2
Services	0.5	0.3	0.3	0.3	0.4	0.3
Private services (excluding rents)	0.3	0.7	0.6	0.6	0.9	0.7
Rents	1.1	0.4	0.6	0.4	0.3	0.4
Public services	–0.1	–0.8	–0.9	–0.9	–0.8	–0.7
Imported goods and services	1.2	2.4	1.9	2.7	3.0	2.1
Excluding oil products	0.2	1.1	1.5	1.2	1.1	0.6
Oil products	8.8	11.9	4.9	13.9	16.6	12.5
Core inflation						
Trimmed mean	0.3	0.6	0.5	0.5	0.6	0.5

Sources: SFSO, SNB

PRODUCER AND IMPORT PRICES

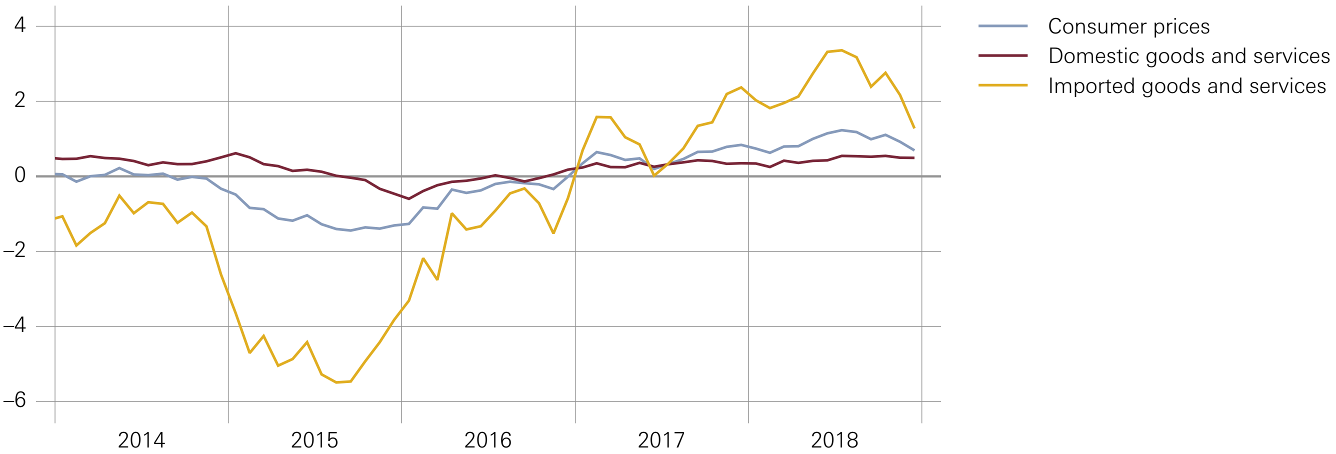
Year-on-year change in percent



Source: SFSO

CONSUMER PRICES

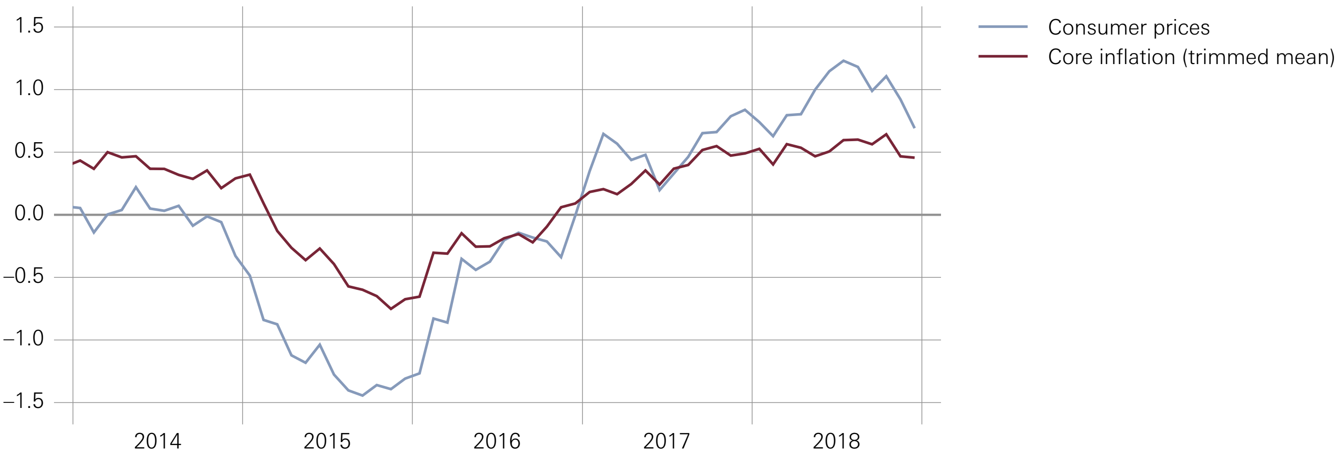
Year-on-year change in percent



Source: SFSO

CORE INFLATION

Year-on-year change in percent



Sources: SFSO, SNB

1.4 MONETARY POLICY IN 2018

Continuation of expansionary monetary policy

The SNB maintained its expansionary monetary policy in 2018. This continued to be based on the negative interest rate 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. On the one hand, inflation remained low. On the other hand, the Swiss franc was highly valued and the situation on the foreign exchange market still fragile. Over the course of the year, the Swiss franc appreciated once again against the euro, and its trade-weighted real external value at the end of the year was slightly higher than at the beginning. The SNB's inflation forecasts, published on a quarterly basis, indicated that even if interest rates were to remain unchanged over the next three years, the inflation rate would be expected to rise only slightly.

Negative interest on SNB sight deposits unchanged

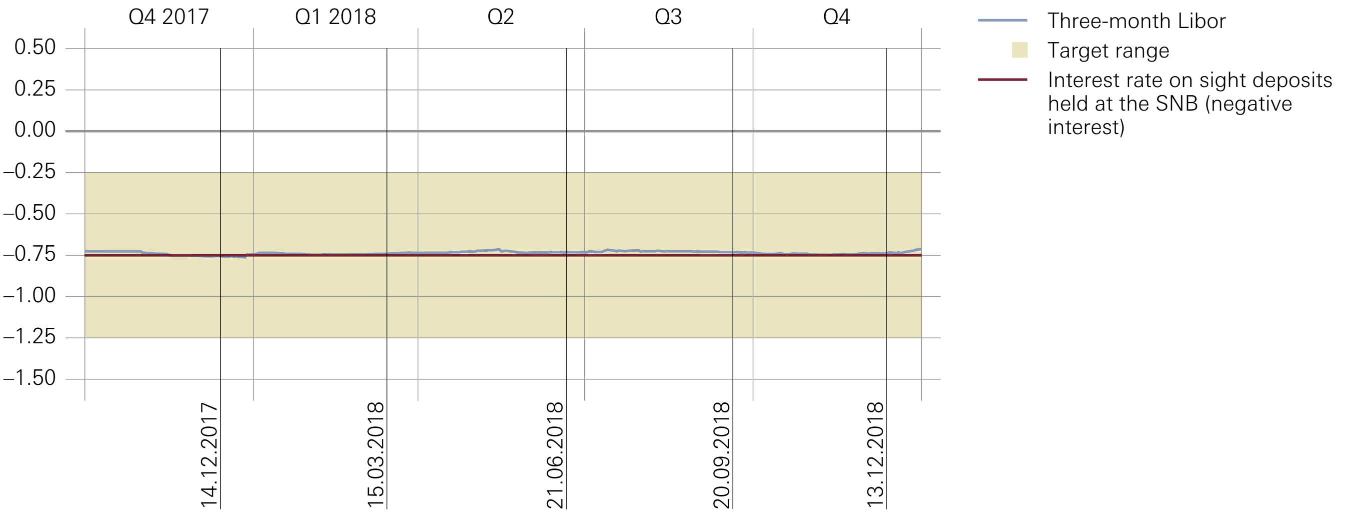
Banks and other financial market participants are charged negative interest on sight deposits they hold at the SNB (above a set exemption threshold). The SNB left this rate unchanged in 2018 at –0.75% and its target range for the three-month Libor at between –1.25% and –0.25%. The Libor remained close to the negative interest rate, and thus in the middle of the range, throughout the year.

Constant interest rate differential to euro

Like the SNB, the ECB also left its key rates unchanged. In terms of the respective three-month Libor, the differential between the short-term euro and Swiss franc interest rates therefore amounted to almost 0.4 percentage points, as in 2017. Meanwhile, the Fed continued the gradual raising of the federal funds target range that it had begun at the end of 2016. The spread between short-term US dollar interest rates and their Swiss franc counterparts therefore increased further and stood at around 3.5 percentage points at the end of 2018. The low level of Swiss interest rates compared to those in other countries continued to counter the upward pressure on the Swiss franc in 2018.

MONETARY POLICY INTEREST RATES

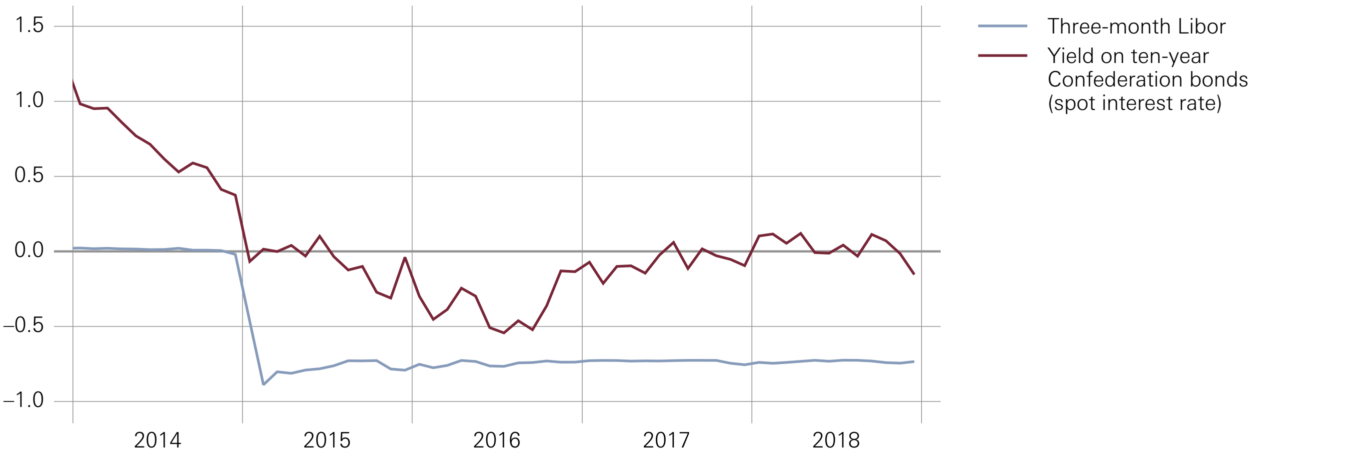
Daily values in percent, dates of monetary policy assessments



Source: SNB

MONEY AND CAPITAL MARKET RATES

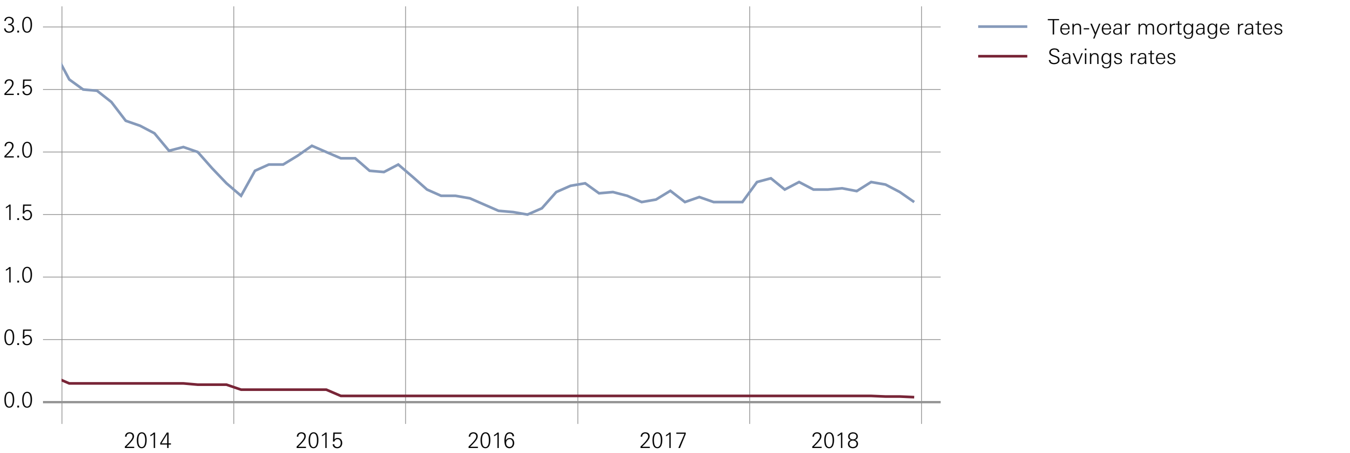
Monthly averages in percent



Source: SNB

BANK INTEREST RATES

Month-end values in percent



Source: SNB

Slightly higher capital market yields

In 2018, long-term interest rates in all advanced economies were slightly higher than in 2017. The yield on ten-year Swiss Confederation bonds had generally been slightly negative in 2017, but edged back into positive territory on an annual average basis in 2018. However, yields on Confederation bonds with maturities up to seven years remained negative throughout the year. Long-term interest rates therefore persisted at very low levels. Overall this indicates that investors expect short-term interest rates and inflation rates to remain low.

Stable deposit and lending rates

Published interest rates for new mortgages were also slightly higher on an annual average basis than in 2017. However, the increase was so modest that the mortgage reference rate relevant for housing rents, which corresponds to the average of bank mortgage interest rates rounded to a quarter of a percentage point, remained at its mid-2017 level. Interest paid by banks on sight and savings deposits was unchanged at close to zero.

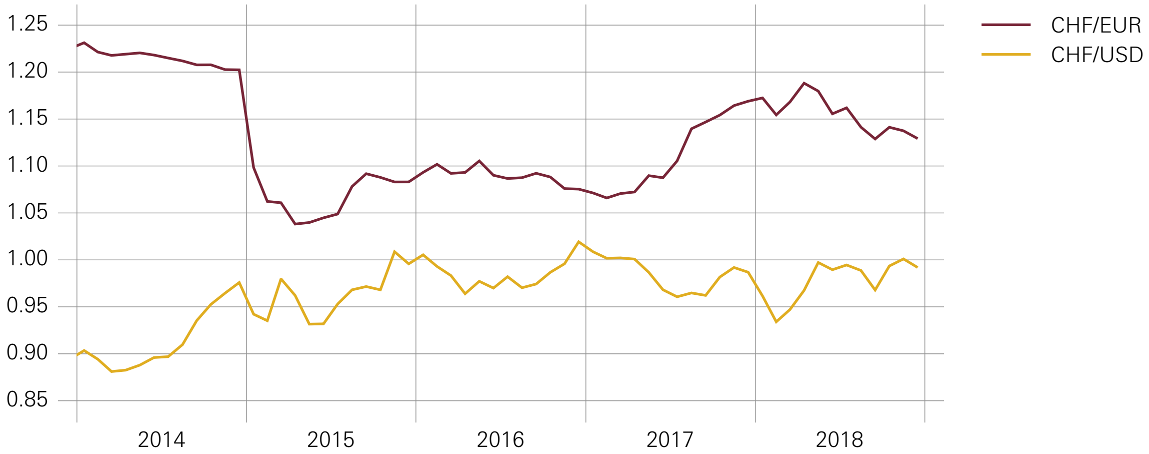
Foreign exchange market interventions

In 2018, the SNB's willingness to intervene in the foreign exchange market as necessary remained its second measure for ensuring appropriate monetary policy conditions, complementing the negative interest rate. In its press releases on its quarterly monetary policy assessments, the SNB regularly emphasised that it was willing to make such interventions, stressing both the high value of the Swiss franc and the fragility of the situation on the foreign exchange market. In 2018, it had to acquire only modest amounts of foreign currency compared with previous years, the total amounting to CHF 2.3 billion.

Appreciation of Swiss franc

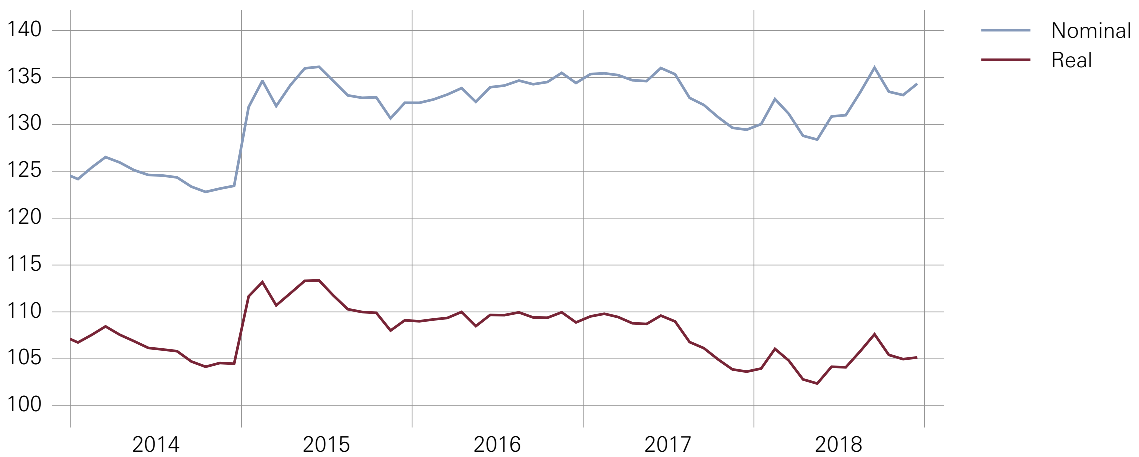
The Swiss franc was stronger at the end of 2018 than at the beginning of the year. The trade-weighted nominal external value of the Swiss franc continued to fall slightly through to the beginning of May and then climbed significantly until September, before weakening again slightly in the last few months of the year. This reflected the development of the Swiss franc against the euro. At the end of 2018, the Swiss franc was stronger against the euro than at the start of the year, while remaining essentially flat against the US dollar. At 1.5%, the trade-weighted real appreciation of the Swiss franc between December 2017 and December 2018 was somewhat lower than the nominal appreciation given that price levels in Switzerland rose less sharply than in other countries over this period.

EXCHANGE RATES
Monthly averages



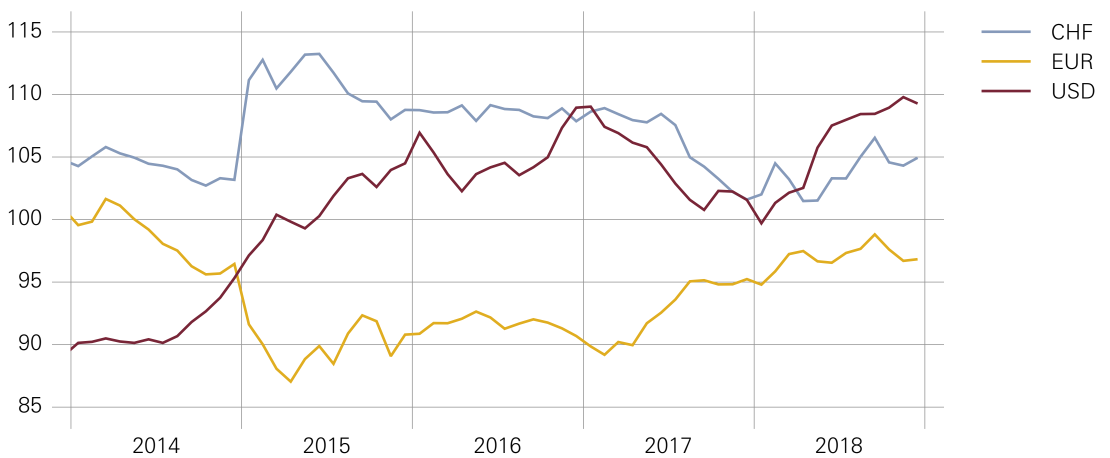
Source: SNB

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

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, remained largely stable in 2018. As a result of the SNB's foreign currency purchases since 2009, the level was still very high by historical standards. The same applies to the 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. Provided there is not an exceptionally strong rise in bank loans, this excess liquidity does not pose an inflation risk. Furthermore, the SNB has instruments at its disposal to absorb it should the need arise.

Moderate growth in monetary and credit aggregates

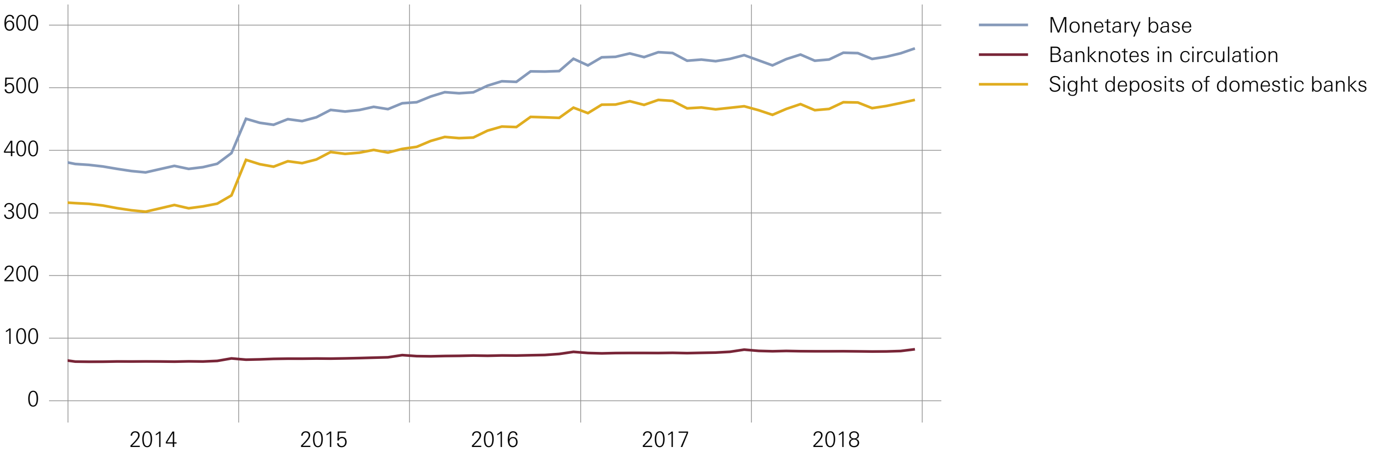
Monetary aggregates and bank lending to domestic customers again registered moderate growth in 2018. In the case of bank lending, while slight growth was recorded in mortgage loans, the more volatile growth rate of other loans increased markedly by comparison. The expansion in the M3 monetary aggregate largely corresponded to growth in lending. Since savings and time deposits declined slightly year-on-year, M2 and M3 grew less strongly than M1. The very modest amount of time deposits is due to the small interest rate differential to sight deposits associated with the low interest rate level, which is why M2 and M3 have exhibited similar growth rates for years.

International scenario for inflation forecasts

The inflation forecasts published by the SNB as part of its quarterly monetary policy assessments are based on scenarios for the global economy and on an oil price assumption. In December 2017, the SNB had assumed that the global economic recovery would continue in 2018 and that growth would be somewhat higher worldwide than in 2017. The forecast for 2018 and the estimate for 2017 were each raised by 0.1 of a percentage point in March 2018 and then confirmed in June, September and December 2018. The SNB raised the GDP forecast for the US over the course of the year. In the case of the euro area, however, it initially raised the forecast in March but thereafter successively reduced it at the three subsequent assessment meetings. Its global economic growth forecast for 2019 remained largely unchanged throughout the year, its expectation being that the pace would be slightly slower than in 2018.

MONETARY BASE AND COMPONENTS

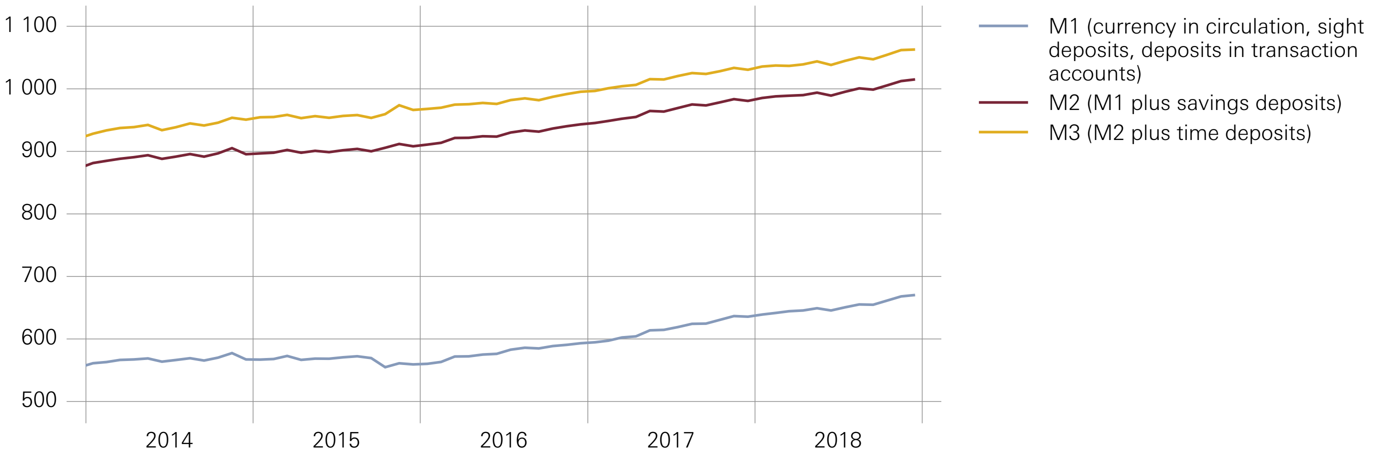
Monthly averages in CHF billions



Source: SNB

LEVEL OF MONETARY AGGREGATES

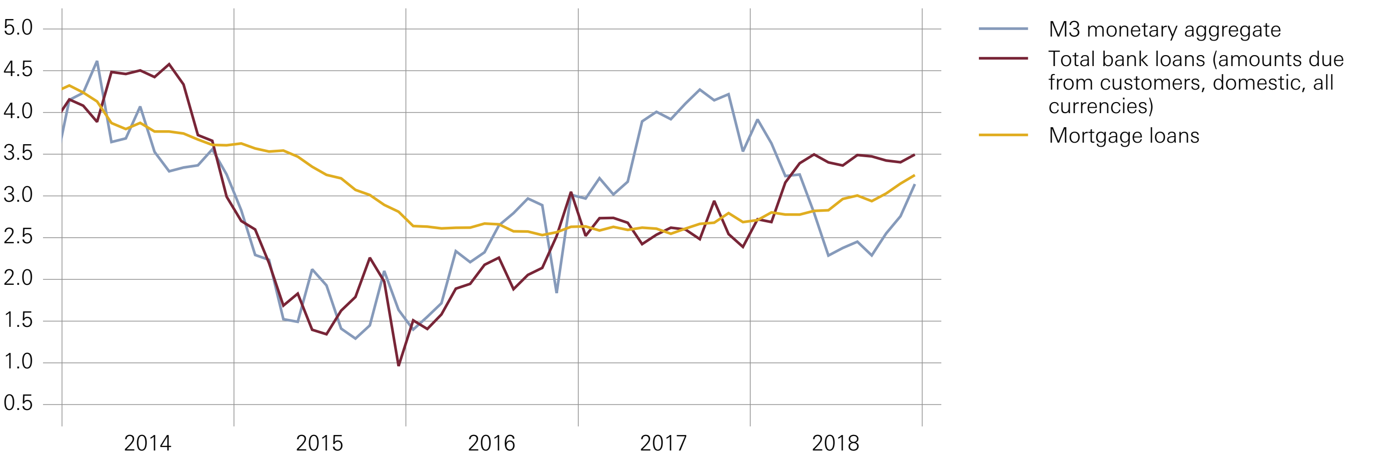
Month-end values in CHF billions



Source: SNB

GROWTH OF MONETARY AND CREDIT AGGREGATES

Year-on-year change in percent



Source: SNB

Growth forecast for Switzerland

At the end of 2017, the SNB forecast real GDP growth of 2% for Switzerland in 2018, thus assuming stronger economic growth compared with 2017. It confirmed this forecast in March and June 2018. Against the background of SECO's upward revision of GDP growth for the previous quarters, the SNB raised its forecast in September to between 2.5% and 3%. In December, it projected GDP growth of around 2.5% for 2018 and around 1.5% for 2019.

Conditional inflation forecast

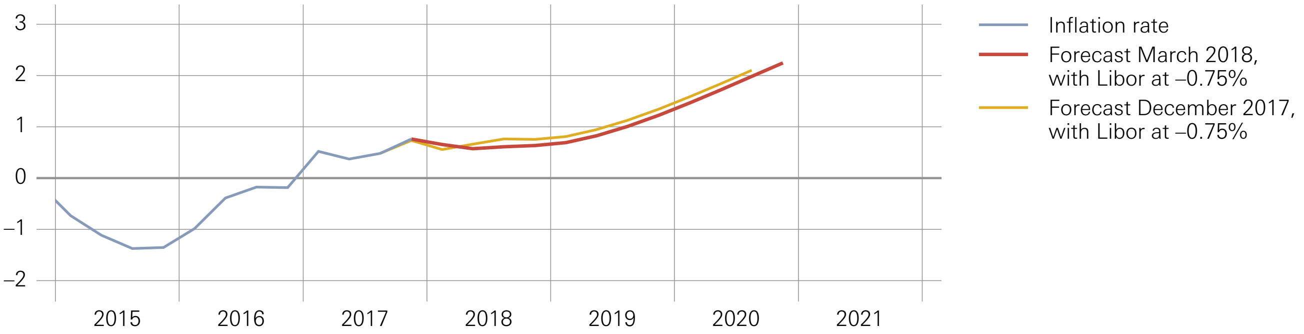
The conditional inflation forecasts published as a result of the monetary policy assessments are based on the assumption that the three-month Libor stays constant over the three-year forecast horizon. As the three-month Libor remained at –0.75% throughout the year, this served as the assumption for all of the forecasts in 2018.

In 2018, the published conditional inflation forecasts showed inflation rising slightly over the forecast horizon. The projection was that, with the interest rate unchanged at –0.75%, monetary policy during the subsequent three years would be expansionary; the predicted rise in inflation remained modest, however. Only at the very end of the forecast horizon did the conditional inflation forecast in certain instances slightly overshoot the range that is consistent with the SNB's definition of price stability.

Only minor adjustments were made to the conditional inflation forecast during the year. In the second and third quarters of 2018, the forecasts at the short end were adjusted upwards slightly and those at the end of the horizon downwards. The adjustment in the second quarter was based on the higher oil price assumption and muted growth prospects for the euro area. The adjustment in the third quarter was mainly due to the higher-than-expected rise in prices in the preceding months and the stronger Swiss franc. In the fourth quarter, the inflation forecast was revised downwards; as regards the initial quarters of the forecast period this was based on the drop in oil prices, and over the medium term on the more modest growth prospects.

CONDITIONAL INFLATION FORECAST OF MARCH 2018

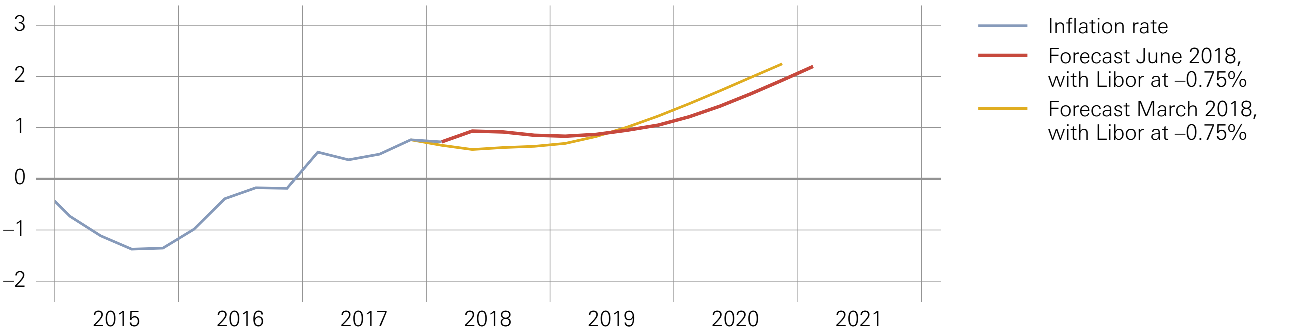
Year-on-year change in Swiss consumer price index in percent



Source: SNB

CONDITIONAL INFLATION FORECAST OF JUNE 2018

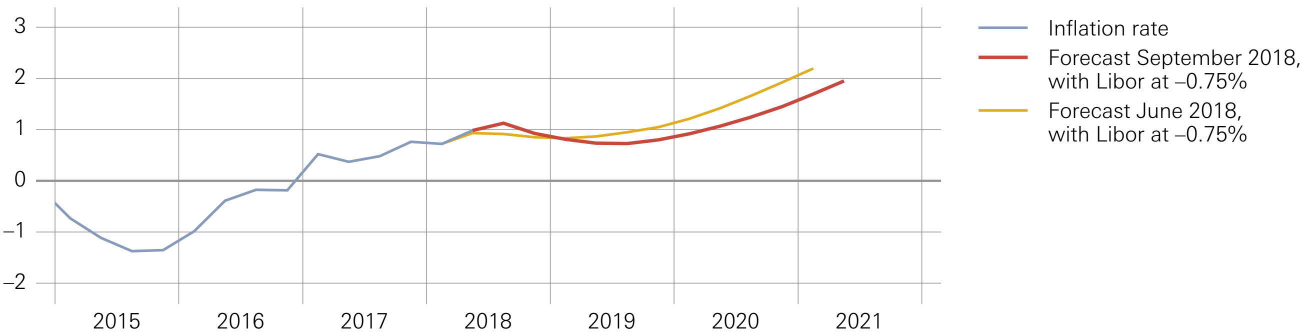
Year-on-year change in Swiss consumer price index in percent



Source: SNB

CONDITIONAL INFLATION FORECAST OF SEPTEMBER 2018

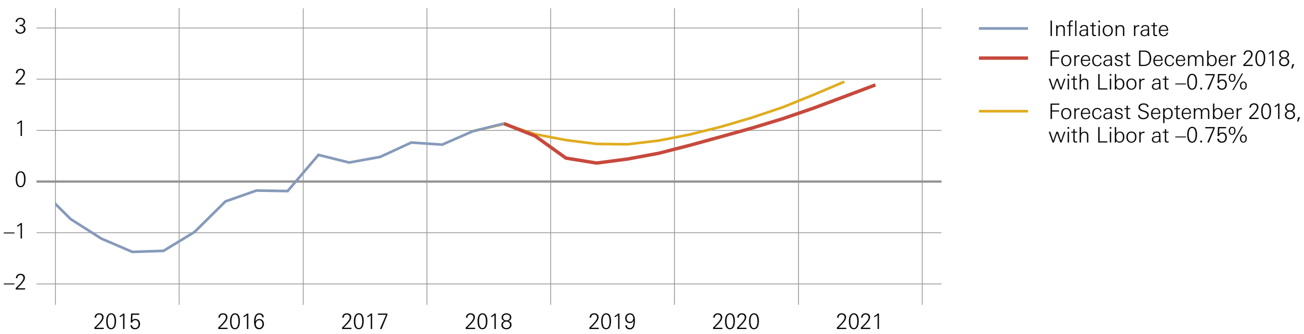
Year-on-year change in Swiss consumer price index in percent



Source: SNB

CONDITIONAL INFLATION FORECAST OF DECEMBER 2018

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



Source: SNB

Continued 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 key factors contributing to uncertainty included the trade disputes between the US and China as well as a number of other countries, and the arrangements for the UK's exit from the EU. A further source of uncertainty in the second half of the year came in the form of the Italian government's expansionary budget plans and their impact on the euro.

Economic developments and monetary policy since the onset of the global financial crisis

For the Swiss economy, as for many others, the past ten years have been an exceptionally challenging period. Following the outbreak of the global financial crisis, Switzerland experienced its sharpest downturn in economic output since the 1970s, while its key trading partners suffered even more pronounced declines.

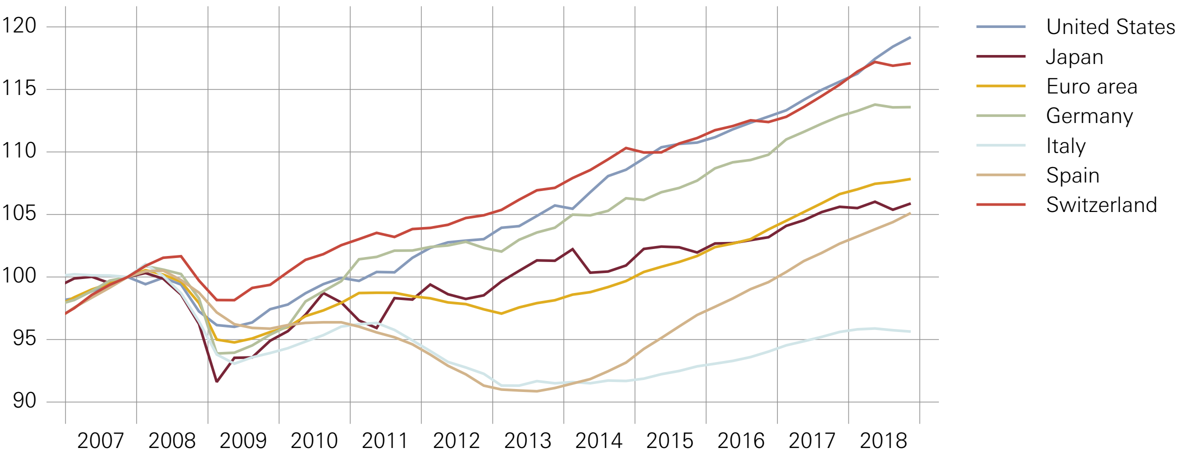
On the heels of the Great Recession came the European sovereign debt crisis from 2010 until 2012, which was accompanied by a banking crisis. Both of these put the European Monetary Union (EMU) under strain, compelling the ECB in 2012 to announce a programme to purchase short-term government bonds of member countries. Although this helped to hold the EMU together, it was unable to prevent the euro area from falling into a second and persistent recession. The ECB reacted with unconventional monetary policy measures, in particular in January 2015 with an expanded asset purchasing programme covering both the public and private sectors. Subsequent political changes in several member states, including the UK's decision to leave the EU, caused additional uncertainty. The repercussions were felt in Switzerland not only in relation to foreign demand but also in the resulting persistent and at times massive upward pressure on the Swiss franc which was highly sought after as a safe haven, as ever during times of heightened global uncertainty.

Over the past ten years, the SNB has reacted to the difficult conditions with various – and in some cases unconventional – monetary policy measures. Chief among these was the initial rapid reduction in interest rates, which was followed from 2009 by foreign exchange market interventions. In September 2011, the SNB introduced a minimum exchange rate of CHF 1.20 to the euro and announced its willingness to buy foreign currency in unlimited quantities to enforce this. In this way, the SNB halted the sharp appreciation of the Swiss franc and mitigated the effects of its lone strength. These measures stopped a dangerous tightening of monetary policy conditions and averted a deep recession as well as a sustained decline in prices. The minimum exchange rate then also helped to restrict the impact on Switzerland of fresh problems arising in the euro area.

The SNB discontinued the minimum exchange rate in January 2015. It took this decision against the backdrop of a fast-changing international monetary policy environment, which led to a marked weakness in the euro against key currencies and meant that the minimum exchange rate was no longer sustainable. Continuing to enforce it would have required constant interventions of rapidly increasing magnitude with no prospect of the situation stabilising. Had the SNB persisted nonetheless, it would have lost control over monetary policy. The timely discontinuation allowed it to preserve its capacity to act in the future.

GROSS DOMESTIC PRODUCT IN INTERNATIONAL COMPARISON

Real, index: Q4 2007 = 100



Sources: SECO, SNB, Thomson Reuters Datastream

Following the discontinuation of the minimum exchange rate, the Swiss franc initially appreciated significantly. This temporarily curbed economic growth and demanded a high degree of flexibility of many companies. Overall, however, the appreciation remained limited and the situation gradually improved from mid-2015. The SNB's monetary policy played a significant role in this regard. With the negative interest rate and its willingness to intervene in the foreign exchange market as necessary, the SNB reduced the attractiveness of the Swiss franc as an investment currency and cushioned Switzerland from the impact of the persistently difficult international environment.

Looking back at the past decade following the outbreak of financial crisis, the development of Swiss economy can be seen as pleasing when compared with many other advanced economies. At the end of 2018, GDP was 15% above its pre-crisis level, compared with 7% in the euro area. At the same time, the price level over the last ten years has remained virtually stable overall. The SNB's monetary policy made a key contribution to this relatively favourable development. During a period of extreme international turmoil, it prevented an uncontrolled appreciation of the Swiss franc that would have had a serious impact on growth and the structure of the economy. However, to do this the SNB also had to acquire large quantities of foreign currencies, entailing a corresponding expansion in its balance sheet.

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. The three-month Swiss franc Libor serves as its reference interest 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.

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. In 2018, the target range for the three-month Libor remained unchanged at between –1.25% and –0.25%. The interest rate on sight deposits held by banks and other financial market participants at the SNB was –0.75%. In order to maintain 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 on the money market. 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 MARKET

Minor increase in sight deposits

Sight deposits held at the SNB came to CHF 574 billion at the end of the year and were thus only marginally above the year-back level.

Money market rates close to negative interest rate

The interest rate of –0.75% charged by the SNB on sight deposits helped to keep interest rates in Switzerland low. It was thus possible to maintain the interest rate differential between Switzerland and foreign countries and keep the attractiveness of Swiss franc investments low.

In 2018, the relevant money market rates remained close to the interest rate on sight deposits. At the end of 2018, the Swiss Average Rate Overnight (SARON) was –0.73% and the three-month Swiss franc Libor was –0.71%.

Slightly higher turnover on repo market

When calculating negative interest on sight deposits, the SNB grants account holders exemption thresholds (cf. chapter 2.3, box 'How negative interest works'). 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. Institutions whose sight deposits at the SNB were above the relevant exemption threshold reduced their account balances (e.g. via repo transactions), while other institutions which had not yet exhausted their exemption threshold increased their balances. At around CHF 4.5 billion, the average daily turnover on the repo market was slightly higher than in the previous year (CHF 4 billion).

Reference interest rate reform process

The SNB continued to participate in interest rate reform in 2018. At national level, the discussion is being spearheaded by the national working group on Swiss franc reference rates (cf. box 'The transition from Libor to SARON'). Internationally, the SNB is represented in the Financial Stability Board's Official Sector Steering Group, which once again published an annual report on the international reform efforts in 2018. This subject is also a regular topic of discussion in the Markets Committee at the Bank for International Settlements (cf. chapter 7.2). The work being undertaken by both of these bodies serves to promote the exchange of views and coordination between the various currency areas.

The transition from Libor to SARON

The announcement by the UK's Financial Conduct Authority in July 2017 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, highlighted that there is a risk that Libor will no longer exist. This in turn had the effect of accelerating the transition to alternative reference interest rates, both internationally and nationally.

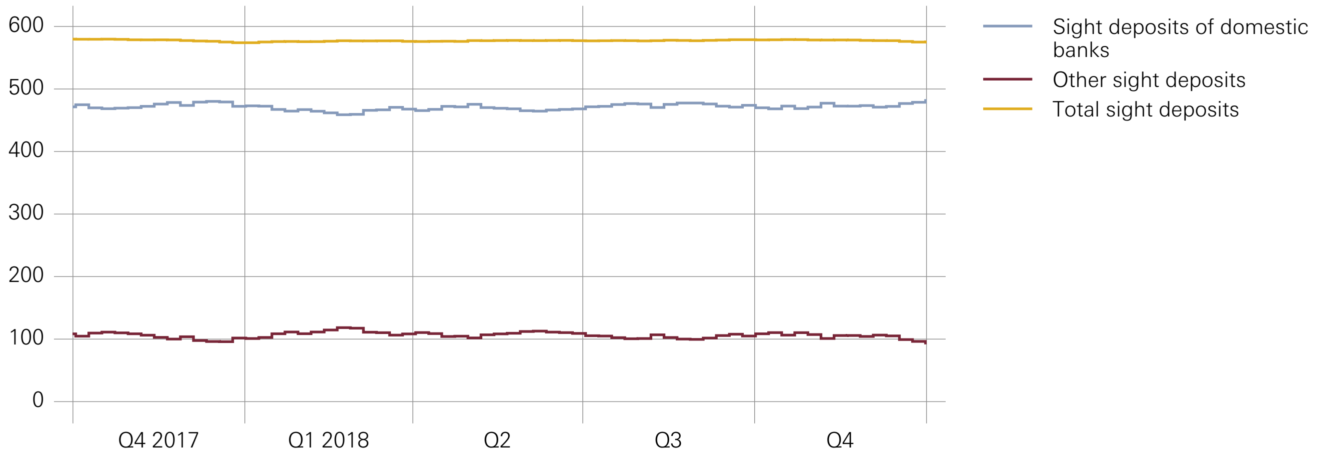
In Switzerland, the National Working Group on Swiss Franc Reference Interest Rates (NWG) is managing the transition. The NWG ensures that all the relevant participants are involved in the reform process and is comprised of representatives from banks, insurance companies, infrastructure providers, non-financial 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.

As an alternative to the Swiss franc Libor, in 2017 the NWG recommended SARON, which 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 yield curve was created which is derived from swap transactions based on SARON. The outstanding volume of SARON swap transactions rose in 2018, but remained significantly lower than that of the corresponding Libor-based market. Furthermore, the derivatives exchange Eurex launched a further hedging instrument in October 2018 with its new three-month SARON futures contract. With the growing use of SARON in credit products, the need for appropriate interest rate hedging will continue to rise, and the SARON-based curve is therefore set to become increasingly important. This interaction between loan products and interest rate hedging transactions is highly significant for the transition from Libor to SARON.

In 2018, the NWG addressed the transition from Libor to SARON. One key issue under consideration is how the SARON, an overnight rate, can be used as a benchmark for longer-term loan agreements. In October, the NWG recommended using the average of realised SARON values for the relevant interest period (e.g. three months) as the reference rate. In contrast to the Libor, the amount of the interest payment would only be known at the end of an interest period. In 2019, the NWG will develop proposals on how these averages can be used in financial products and, in particular, credit agreements.

SIGHT DEPOSITS AT THE SNB

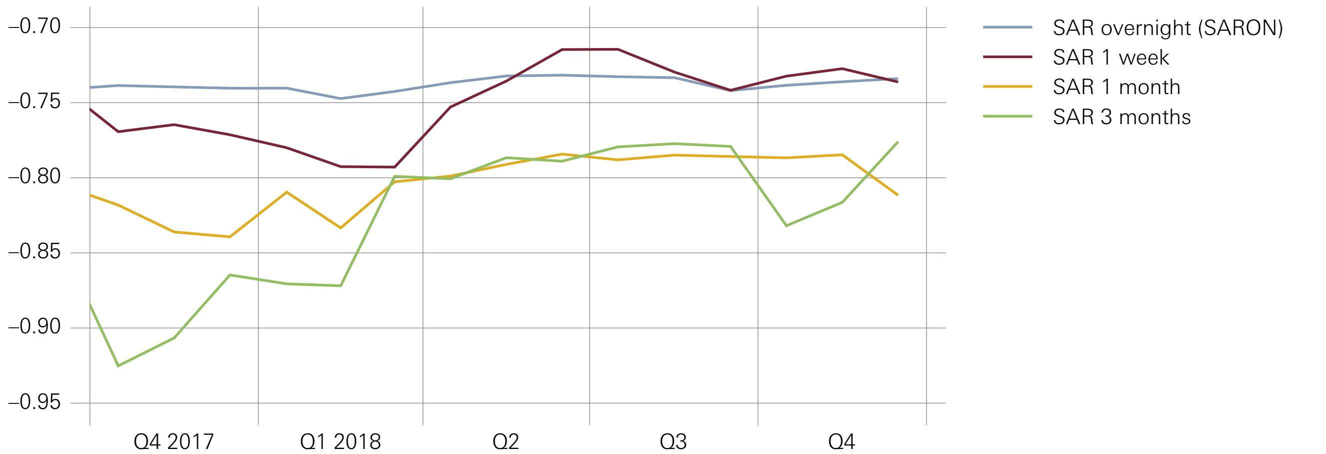
Weekly averages in CHF billions



Source: SNB

SWISS FRANC REFERENCE RATES (SWISS AVERAGE RATES, SAR)

Monthly averages of daily figures in percent



Source: SIX Swiss Exchange Ltd

Principles of collateral policy

The SNB requires that the banks and other financial market participants with which 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 banks headquartered abroad to its monetary policy operations, and since the stocks of Swiss franc securities are limited, it also accepts securities in foreign currencies. The SNB sets high minimum requirements with regard to the marketability and credit rating of securities. This obliges 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.

FX Global Code and Swiss Foreign Exchange Committee

The SNB signed the Statement of Commitment to the FX Global Code in June 2018. In doing so, it undertakes to maintain its internal processes in line with the principles of the FX Global Code. It also expects its regular counterparties to adhere to the Code and comply with the agreed rules of conduct. The Code was published in May 2017 and sets out principles of good practice in the foreign exchange market that were developed by central banks and market participants from the main foreign exchange trading centres between 2015 and 2017. At the same time as signing the declaration, the SNB also announced its support for the establishment of a foreign exchange committee in Switzerland. The Swiss Foreign Exchange Committee met for the first time in November 2018. It serves as a forum for banks and other foreign exchange market participants in Switzerland and the Principality of Liechtenstein, as well as the SNB. It is also a member of the Global Foreign Exchange Committee, which promotes, maintains and updates the principles of the FX Global Code.

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 2018, the SNB continued to influence exchange rate developments where necessary, purchasing a total of CHF 2.3 billion in foreign currency. The need to intervene was thus only minor compared with the previous year (CHF 48.2 billion). The SNB did not conclude any foreign exchange swaps for monetary policy purposes.

Interest rate on sight deposits at the 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. At the end of December 2018, the institutions' total sight deposits stood at CHF 574 billion, well above the maximum exempted amount of CHF 291 billion, while sight deposits of CHF 269 billion were subject to negative interest. Income from negative interest remained unchanged year-on-year at CHF 2.0 billion. Due to account holders' efforts to 'trade' sight deposits among themselves via the money market, the exempted amounts have been almost entirely used up for some time now.

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.

There was no need to conduct repo transactions as part of open market operations in 2018. As in the previous year, for test purposes the SNB conducted a small number of repo transactions with negligible amounts to ensure that its business partners were ready at all times to carry out transactions necessary for the implementation of monetary policy.

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 and foreign exchange swaps. 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 banks headquartered abroad, 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 introduced negative interest rates, the sight deposit accounts were non-interest-bearing. By setting the interest rate on sight deposit accounts and defining other conditions, the SNB influences the interest rate level on the money market.

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.

SNB debt certificates

In 2018, 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

When calculating negative interest on sight deposits held by banks and other financial market participants, the SNB grants account holders exemption thresholds according to the following rules. For banks subject to minimum reserve requirements, the exemption threshold, based on the reference period of November 2014, is 20 times the minimum reserve requirement, and at least CHF 10 million. For account holders not subject to any minimum reserve requirements, for example foreign banks, the exemption threshold has also been set at a minimum of CHF 10 million. In the case of an increase or decrease in the amount of cash held by a bank subject to minimum reserve requirements, the exemption threshold is reduced or increased accordingly.

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 (cf. chapter 2.4). Banks holding higher sight deposits in proportion to their minimum reserves are charged more than other banks. Using minimum reserves as the basis for calculating the exemption thresholds ensures that sight deposits being held to comply with the duty to hold minimum reserves are not subject to negative interest. The fact that 20 times the minimum reserve requirement is exempt from negative interest takes the very high level of liquidity in the banking system into account. This measure ensures that the banking system does not have to carry the full interest burden on all of its sight deposits.

Negative interest is applied across the board, with as few exceptions as possible. This approach respects the principle of equal treatment and ensures that the instrument remains effective. 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 liquidity) 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 payment 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 1.1 billion in 2018, and was thus unchanged year-on-year.

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. The special rate lies 0.5 percentage points above the overnight rate and is no less than 0.5%. The basis for the rate is the SARON of the current bank working day. The special rate is valid until 12.00 noon on the following bank working day.

In 2018, 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, 79 financial market participants held corresponding limits.

SUPPLYING THE MONEY MARKET WITH LIQUIDITY

Liquidity-related operations in CHF millions[1]

Terms	2018	2017
Open market operations		
Repo transactions[2]	–	–
Up to 3 days	–	–
4 to 11 days	+20	+11
12 to 35 days	–	–
36 days to 1 year	–	–
Foreign exchange swaps[2]	–	–
Up to 7 days	–	–
8 to 28 days	–	–
29 to 94 days	–	–
SNB Bills[2]	–	–
Up to 7 days	–351	–230
8 to 28 days	–	–
29 to 84 days	–	–
85 to 168 days	–	–
169 to 336 days	–	–
Foreign exchange transactions	+2 330	+48 154
Total	**+1 999**	**+47 935**
Standing facilities		
Intraday facility[3]	+1 061	+1 086
Liquidity-shortage financing facility[2]	0	0
Other monetary policy instruments		
Interest on sight deposit account balances	–2 048	–2 021

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. Repo transactions were conducted and SNB Bills issued for test purposes.
3 Average daily turnover.

2.4 MINIMUM RESERVES

Main features of the 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.

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

	2018 Outstanding Average	2017 Outstanding Average
Sight deposits at the SNB	466 680	473 456
Banknotes	6 205	6 364
Coins in circulation	114	118
Eligible assets	472 999	479 938
Requirement	16 438	15 884
Compliance in excess of requirement	456 561	464 054
Compliance in percent	2 877	3 021

In 2018 (between 20 December 2017 and 19 December 2018), statutory average minimum reserves amounted to CHF 16.4 billion. This is a 3.5% increase year-on-year. Eligible assets receded to CHF 473.0 billion on average, compared with CHF 479.9 billion a year previously. Banks exceeded the requirement by an annual average of CHF 456.5 billion; the average degree of compliance was 2,877% (2017: 3,021%). The statutory minimum reserve requirement was met by all 230 banks.

2.5 LIQUIDITY IN FOREIGN CURRENCIES

Permanent network of swap arrangements

Since October 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 2018, 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: Bank of Korea

In February 2018, the SNB concluded a temporary swap agreement with the South Korean central bank (Bank of Korea). The agreement enables Korean won (KRW) and Swiss francs to be purchased and repurchased between the two central banks, up to a limit of KRW 11.2 trillion, or CHF 10 billion. This bilateral swap agreement will further strengthen the collaboration between the two institutions (cf. chapter 7.3.2).

The SNB has further swap agreements with the National Bank of Poland and the People's Bank of China, in place since 2012 and 2014, 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 the 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 2018, the turnover (incoming and outgoing) of the cash offices in Berne and Zurich amounted to CHF 89.8 billion (2017: CHF 91.4 billion). They received a total of 362.9 million banknotes (2017: 410.1 million) and 246.5 million coins (2017: 234.4 million). The SNB examined the quantity, quality and authenticity of the notes and coins. The incoming banknotes and coins were offset by an outflow of 375.6 million banknotes (2017: 439.9 million) and 339.8 million coins (2017: 336.0 million).

Temporary relocation of public counter

Due to the extensive alterations carried out at the SNB head office in Berne, the public counter normally located within the building remained closed in 2018. The bank counter open to the public is currently located at Bank EEK on Amthausgasse 14 / Marktgasse 19. Cash deliveries and withdrawals by larger customers, such as commercial banks and cash processing operators, take place at a separate location. The bank counter at the SNB head office in Berne will resume service in the second half of 2019.

Turnover at agencies

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.

The agencies' turnover (incoming and outgoing) amounted to CHF 11.2 billion (2017: CHF 11.3 billion). This constitutes 12.5% (2017: 12.4%) 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 banknotes and withdraw them 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. In 2018, there were three cash deposit facilities in operation.

3.3 BANKNOTES

Mandate

Pursuant to art. 7 CPIA, the SNB issues banknotes commensurate with demand for payment purposes 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 2018, banknotes in circulation averaged CHF 79.0 billion. This constituted a 3.3% increase year-on-year, with growth rates receding from 4.5% in January to 1.0% in December. The higher level of demand for banknotes that followed the introduction of the negative interest rate at the beginning of 2015 thus continued to decline. In 2018, the total number of notes in circulation averaged 471.3 million, which was 4.9% higher than in 2017.

Issuance and disposal

In 2018, the SNB put 129.0 million freshly printed banknotes (2017: 206.9 million) with a face value of CHF 17.4 billion into circulation (2017: CHF 13.7 billion). The considerable increase in value terms is attributable to the release of the new 200-franc note from the ninth banknote series. The SNB destroyed 101.3 million damaged or recalled notes (2017: 172.8 million) with a face value of CHF 10.5 billion (2017: CHF 7.1 billion).

Measures taken at Landqart AG

Following the SNB's acquisition of a majority stake (90%) in Landqart AG in December 2017, the year under review saw the implementation of restructuring measures and the appointment of a new Board of Directors. A core part of Landqart's business model is the production of Durasafe, a banknote substrate used for the new Swiss banknote series.

Counterfeits

In 2018, 1,201 counterfeit banknotes were confiscated in Switzerland (2017: 1,988). This corresponds to 3 counterfeit notes per million Swiss franc notes in circulation (2017: 4); a very low figure by international standards.

New banknote series

The inspiration behind the new banknote series, which the SNB has been phasing in since 2016, is 'The many facets of Switzerland'. The various denominations reflect the diversity of Switzerland – a country which is known for its organisational prowess (10-franc note), for its vibrant cultural scene (20-franc note), for the wealth of experiences it offers (50-franc note), for its humanitarian tradition (100-franc note), as well as for its reputation as a research hub (200-franc note) and as a place of dialogue (1000-franc note).

On 22 August 2018, the SNB began issuing the new 200-franc note, the fourth denomination in the ninth banknote series. The new notes have proved their worth and been received positively by the public and experts alike. The fifth denomination, the 1000-franc note, followed on 13 March 2019. The sixth and final denomination of the ninth banknote series, the 100-franc note, will be released on 12 September 2019.

NUMBER OF BANKNOTES IN CIRCULATION

In millions

CHF 10s **77**
CHF 20s **89**
CHF 50s **64**
CHF 100s **134**
CHF 200s **59**
CHF 1000s **48**

Annual average for 2018

Banknote recall and exchange

The recall and exchange of banknotes are governed by art. 9 CPIA. Pursuant to art. 9 para. 3, recalled notes will be exchanged at the SNB at their nominal value for a period of 20 years following the first notice of recall. The countervalue of the banknotes not submitted for exchange by then is remitted to the Swiss fund for non-insurable emergency losses at fondssuisse.

Sixth banknote series

The sixth-series banknotes were recalled on 1 May 2000 and have not been legal tender since. According to current regulation, they can be exchanged at the SNB at full face value until 30 April 2020. At the end of 2018, a total of 18.0 million notes from the sixth series had still not been exchanged, which corresponds to CHF 1.1 billion.

Partial revision of CPIA

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. In November 2018, the Council of States called for the current exchange period of 20 years to be maintained and rejected the Federal Council's proposal. The National Council is expected to address the issue in 2019.

Survey on the use of payment methods

In May 2018, the SNB published the results of the survey on the use of different payment methods in Switzerland, which it conducted for the first time in 2017 (cf. box 'Results of the 2017 survey on payment methods'). The payment behaviour and cash usage of 2,000 randomly selected Swiss residents were surveyed with a questionnaire and a payment diary.

KEY FIGURES ON BANKNOTES AND COINS IN CIRCULATION

Annual averages

	2014	2015	2016	2017	2018
Banknotes in circulation					
In value terms (in CHF millions)	62 678	67 365	72 201	76 471	78 997
Year-on-year change (in percent)	5.0	7.5	7.2	5.9	3.3
Number of notes (in thousands)	389 798	406 526	425 876	449 221	471 276
Year-on-year change (in percent)	3.4	4.3	4.8	5.5	4.9
Coins in circulation					
In value terms (in CHF millions)	2 962	3 018	3 062	3 102	3 144
Year-on-year change (in percent)	1.9	1.9	1.5	1.3	1.3
Number of coins (in millions)	5 243	5 352	5 442	5 527	5 617
Year-on-year change (in percent)	2.3	2.1	1.7	1.6	1.6

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 2018, the value of coins in circulation averaged CHF 3.1 billion. This corresponds to 5.6 billion coins (2017: 5.5 billion). The growth rate in value terms, at 1.3%, was the same as in 2017.

Results of the 2017 survey on payment methods

The results of the 2017 survey on payment methods, which were published in May 2018, indicate a multifaceted use of payment methods by households in Switzerland. The coexistence of cash and cashless payment methods works well, and the level of satisfaction with existing payment options on the part of households is high. As most places of payment offer freedom of choice when it comes to the method of payment, residents in Switzerland can choose the method that is most suitable from an individual perspective.

According to the survey results, cash is the most common method of payment for households in Switzerland. Respondents recorded all payments made over seven consecutive days, excluding recurring payments such as rent and insurance premiums. Of the payments, 70% were settled in cash. In terms of value, however, cash accounted for 45% of expenditure. This difference is attributable to the fact that cash is a particularly popular payment method for small amounts. That said, cash is also often used when larger sums are involved: 35% of non-recurring payments that involve amounts of more than CHF 1,000 are settled with cash. The two largest denominations are widespread in Switzerland: 40% of respondents indicated that they had had at least one 1000-franc note in their possession in the last two years, a figure that rises to 66% for the 200-franc note. These two highest-value banknotes are primarily used for expensive acquisitions of an infrequent nature – such as the purchase of cars, electronic goods and furniture – as well as for paying bills at post office counters.

The debit card (Maestro/EC card, PostFinance card) is by far the most commonly used cashless payment method in Switzerland. Of the transactions recorded in the survey, 22% were processed in this form, whereas credit card payments accounted for 5%. By contrast, the figures for usage of innovative payment procedures such as payment apps and contactless card payment are very modest. Since these payment options are used above all for small amounts, they may develop into an interesting alternative to cash in time. Notwithstanding this, around half of the respondents indicated that they intended to pay in cash over the next few years just as often as they did today.

The features of both cash and debit cards as methods of payment are perceived as good to very good, while credit cards are rated significantly worse than the other means of payment in terms of cost. Cash is highly valued from the perspective of acceptance and costs in particular, while the debit card fares well in the area of security – i.e. the protection it offers against the financial consequences of loss or theft. These two payment methods are considered equally easy and quick to use.

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 operated by SIX Interbank Clearing Ltd. 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 the 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 operation of the SIC system has been entrusted 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). Subject to certain conditions, banks and financial market infrastructures domiciled abroad can also gain 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.

4.2 THE SIC SYSTEM IN 2018

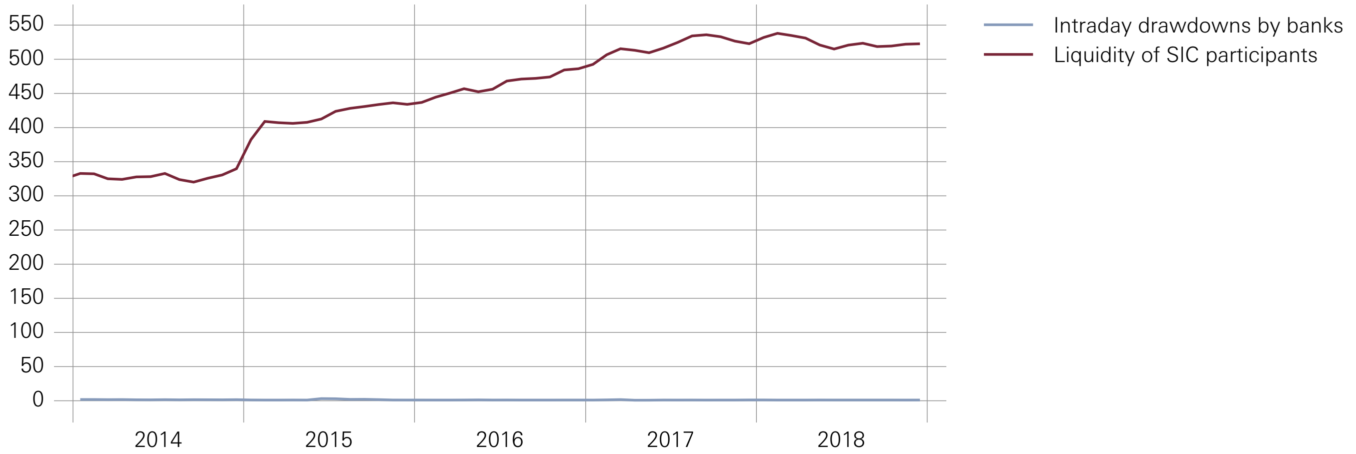
Transactions and turnover

In 2018, SIC settled a daily average of approximately 2.4 million transactions amounting to CHF 156 billion. Compared to the previous year, the number of transactions rose by 19.5% on average, whereas turnover declined by 9.8%. Peak days saw up to 7.4 million transactions, with turnover of up to CHF 249 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 2018, around 97% of the transactions in the SIC system were accounted for by retail payments (11% of turnover) and 3% (89% of turnover) by interbank payments. 90.7% of the transactions involved an amount of less than CHF 5,000, 9.1% an amount between CHF 5,000 and CHF 1 million, and 0.2% an amount of over CHF 1 million.

LIQUIDITY IN SIC

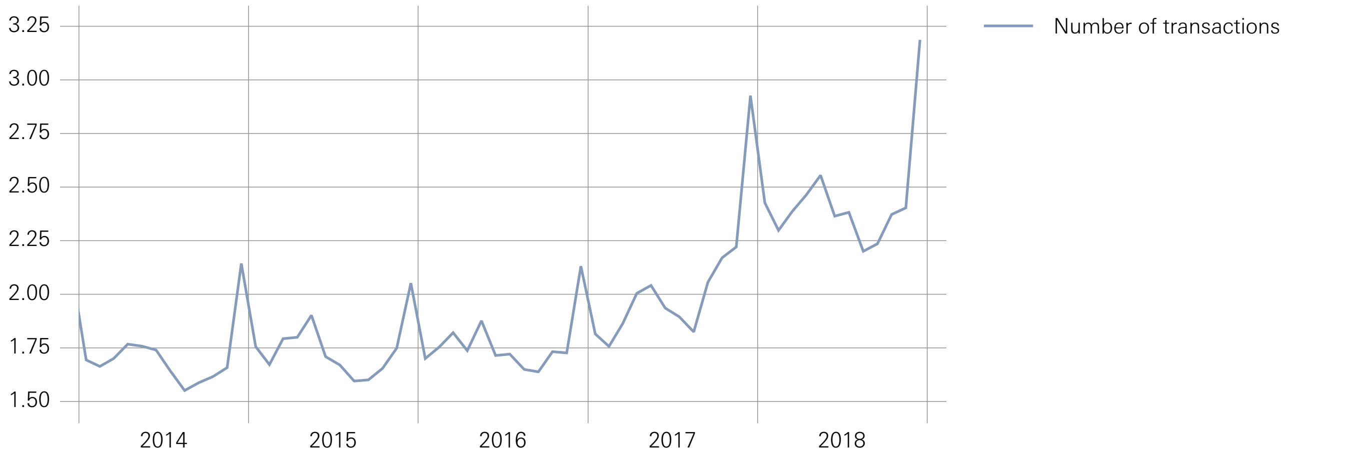
Monthly averages of daily figures in CHF billions



Source: SNB

TRANSACTIONS IN SIC

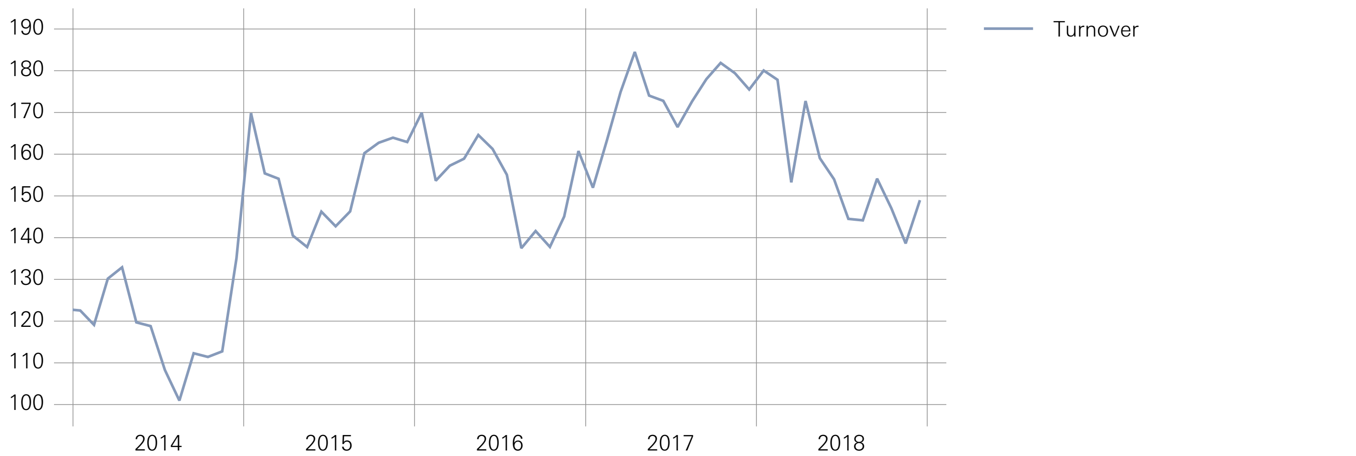
Monthly averages of daily figures, transactions in millions



Source: SNB

TURNOVER IN SIC

Monthly averages of daily figures in CHF billions



Source: SNB

KEY FIGURES ON SIC

	2014	2015	2016	2017	2018
Number of transactions					
Daily average (in thousands)	1 708	1 742	1 765	2 035	2 432
Peak daily value for year (in thousands)	5 123	5 302	5 670	7 025	7 436
Value of transactions					
Average daily turnover (in CHF billions)	119	154	153	173	156
Peak daily turnover for year (in CHF billions)	208	293	266	227	249
Average value per transaction (in CHF thousands)	69	88	87	85	64
Average liquidity					
Sight deposits at end of day (in CHF millions)	328 597	418 144	463 038	519 433	524 801
Intraday facility (in CHF millions)	1 547	1 629	1 060	1 086	1 061

Participants in SIC

As at 31 December 2018, the SNB had 409 holders of sight deposit accounts (2017: 422). Of these, 325 participated in SIC (2017: 333). The majority of SIC participants (234) are domiciled in Switzerland (2017: 237).

4.3 DEVELOPMENTS IN THE SIC AREA

Developments in SIC

Innovations in the financial industry have an especially strong impact on cashless retail payment transactions. Since both interbank and retail payments are settled via the SIC system, these developments are also relevant to SIC (cf. box 'The SNB's role in retail payment transactions'). In its capacity as commissioning party of SIC, 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. On 11 January 2019, the SNB published the criteria according to which it grants such a company the right to participate in SIC and maintain a sight deposit account at the SNB. The SNB grants access to those applicants who make a significant contribution to the fulfilment of its mandate and do not bring with them any major risks. The SNB's statutory mandate includes ensuring and facilitating the functioning of cashless payment systems. Therefore, fintech licence holders whose business model makes them a significant participant in the area of Swiss franc payment transactions are now granted access to the SIC system by the SNB.

Harmonisation of payment transactions with ISO 20022

Moreover, efforts remain under way in Switzerland to harmonise the historically evolved diversity of standards, procedures and formats with regard to cashless payment transactions. The harmonisation is to be founded on the internationally recognised ISO 20022 standard, which aims to standardise messages in the electronic exchange of data between participants and thus serve as a basis for a more comprehensive digitalisation of payment processes.

The technical foundation for the migration of SIC participants to ISO 20022 was laid by the renewal of the SIC system (SIC4) in 2016. In 2017, the SIC participants introduced the new standard for the settlement of payment transactions. In 2018, the SIC participants' corporate customers also made the transition to ISO 20022. This was, in addition, one of the prerequisites for replacing payment slips by QR-bills, which can be used from June 2020 onwards. The QR code on each bill will contain all the payment information and enable more efficient payment settlement.

The SNB's role in retail payment transactions

Retail payment transactions are understood to mean the exchange of money executed by financial institutions on behalf of households, companies and government administration agencies. A well-functioning system of payment transactions for these end customers is a key pillar in an economy. In connection with ongoing digitalisation and the ensuing new possibilities for customers, banks and other providers, the significance of cashless retail payment transactions is on the increase.

One of the special features of the Swiss Interbank Clearing (SIC) payment system in an international comparison is that it is used not only for the settlement of interbank payments, but also to individually settle a significant share of Swiss retail payments. In terms of the number of transactions, retail payments (bank transfers, direct debits) are predominant, making up around 97% of all transactions (cf. chapter 4.2). The integrated settlement of interbank and retail payments in SIC is based on a number of security and efficiency considerations. The security of payment settlements will thus be raised once retail payments are also settled in central bank money. Efficiency is enhanced as economies of scale lead to lower transaction costs. In addition, SIC participants will be able to optimise their liquidity management and reduce technical interfaces, since all payments are settled on the same system.

Against this backdrop, the SNB, as commissioning party of the SIC system, aims to develop the payment system in such a way that it remains attractive for the settlement of retail payments, too. Examples for this include the introduction of the ISO 20022 standard as a basis for the harmonisation of retail payment transactions and for the introduction of QR-bills (cf. chapter 4.3), the adjustment of SIC's operating hours, extending the window in which customers can submit retail payments with same-day value date by two hours, and the SNB's contribution in the setting of favourable transaction charges for retail payments. The measures implemented in SIC on the basis of requirements from retail payment transactions must not bring with them any substantial risks, as the SIC system is vital for the implementation of monetary policy as well as for financial stability.

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 130 financial institutions who are also the main users of the services provided by SIX.

Significance of financial market infrastructure

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. In 2018, too, the SNB maintained an active dialogue with SIX and the banking sector with the aim of strengthening Switzerland's financial market infrastructure.

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. The level of currency reserves has risen by CHF 700 billion to almost CHF 800 billion since the onset of the financial and debt crisis in 2008. 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 largely made up of Swiss franc bonds and sometimes also 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 the 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.

The primacy of monetary policy means that there are restrictions on investment policy. The SNB does not hedge currency risks 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.

Governing Board responsibilities

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 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.

Investment Committee 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.

Portfolio Management responsibilities

Portfolio Management manages the individual portfolios. The majority of assets 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.

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

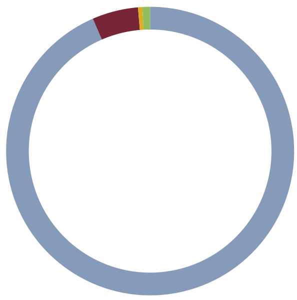
Singapore office responsibilities

The most important element for managing absolute risk is broad diversification of investments. Risk is managed and mitigated by means of a system of reference portfolios (benchmarks), guidelines and limits. All relevant financial risks 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.

Risk Management responsibilities

To assess and manage credit risk, information from major rating agencies, market indicators and in-house analyses are used. Credit limits are set on the basis of this information, and adjusted whenever the risk assessment changes. To mitigate counterparty risk, the replacement values of derivatives are usually 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.

BREAKDOWN OF SNB ASSETS



Foreign currency investments **93.5%**
Gold holdings **5.2%**
Swiss franc securities **0.5%**
Sundry **0.9%**

Total: CHF 817 billion
At year-end 2018

5.3 CHANGES IN AND BREAKDOWN OF ASSETS

Changes in assets

At the end of 2018, the SNB's assets amounted to CHF 817 billion, which was CHF 26 billion lower than a year earlier. They consisted of foreign currency investments (CHF 764 billion), gold (CHF 42 billion), Special Drawing Rights (CHF 6 billion), Swiss franc bonds (CHF 4 billion) and other assets (CHF 1 billion).

Currency reserves

The decline in the balance sheet total was mainly attributable to the decrease in foreign currency investments, which was itself principally due to valuation losses. In addition, there were fewer outstanding foreign currency repo transactions on the balance sheet at the end of 2018 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.

Foreign exchange reserves were CHF 15 billion lower year-on-year. The value of gold holdings was largely unchanged. At the end of 2018, total currency reserves amounted to CHF 776 billion, a decrease of CHF 15 billion compared to the previous year.

COMPOSITION OF CURRENCY RESERVES

In CHF billions

	31.12.2018	31.12.2017
Gold reserves	42	42
Foreign currency investments	764	790
Less: associated liabilities[1]	–35	–46
Derivatives (replacement values, net)	0	0
Total foreign exchange reserves	729	744
Reserve position in the IMF	1	1
International payment instruments	4	4
Total currency reserves	**776**	**791**

1 Liabilities from foreign currency repo transactions.

Bond portfolios

At the end of 2018, the bond portfolios in the foreign exchange reserves contained government and quasi-government bonds as well as bonds issued by supranational organisations, local authorities, financial institutions (mainly covered bonds and comparable securities) and other companies. The average duration of the portfolio decreased slightly, to 4.4 years.

Equity portfolios

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. 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. This results in a globally well-diversified equity portfolio of around 6,700 individual shares (just under 1,500 shares of mid-cap and large-cap companies and about 4,350 shares of small-cap companies in advanced economies, as well as approximately 850 shares of companies in emerging economies). The principle of index replication ensures that the SNB operates as neutrally as possible in the individual stock markets.

Non-financial aspects of asset management

When managing its assets, the SNB does not pursue any strategic or structural objectives with respect to companies or industries. By replicating individual equity markets in their entirety, thereby diversifying its investments as broadly as possible, it pursues as neutral and passive an investment approach as possible. The SNB does not actively engage in stock picking, nor does it overweight or underweight particular sectors. Its investment policy is thus shielded from political considerations.

As a result of this broad and neutral market coverage, the SNB holds equities in a variety of economic sectors according to the latter's market share. This approach ensures that the portfolio's exposure to different risk factors is similar to that of the global universe of listed companies, and that structural changes on individual equity markets are also reflected in the SNB's portfolio.

As regards equities, the principle of full market coverage is not applied in a few cases. The SNB does not invest in the shares of any systemically important banks worldwide nor does it invest in the shares of any mid-cap and large-cap banks or bank-like institutions from advanced economies. This avoids possible conflicts of interest which could arise if, in the context of the SNB's participation in international cooperation between central banks, it were to receive non-public information about problems in individual banking systems or at systemically important banks. Moreover, it 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 done on each identified company to ascertain whether it should be excluded or not. Both tasks are carried out by specialised service providers. The SNB relies on the recommendations made by these external service providers in deciding on the exclusion of companies and reviews its decisions on a regular basis.

Since 2015, the SNB has exercised its voting rights at annual general meetings. For this purpose, it also works with external service providers. In exercising its voting rights, the SNB focuses on mid-cap and large-cap companies in Europe and confines itself to aspects of good corporate governance. In the long term, good corporate governance helps companies – and hence the SNB's investments in them – to perform favourably. 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.

Swiss franc bonds

The passively managed Swiss franc bond portfolio amounted to around CHF 4 billion and primarily contained bonds issued by the Confederation, the cantons, municipalities and foreign borrowers, as well as Swiss Pfandbriefe. In 2018, the average duration of the portfolio declined slightly to just over eight years.

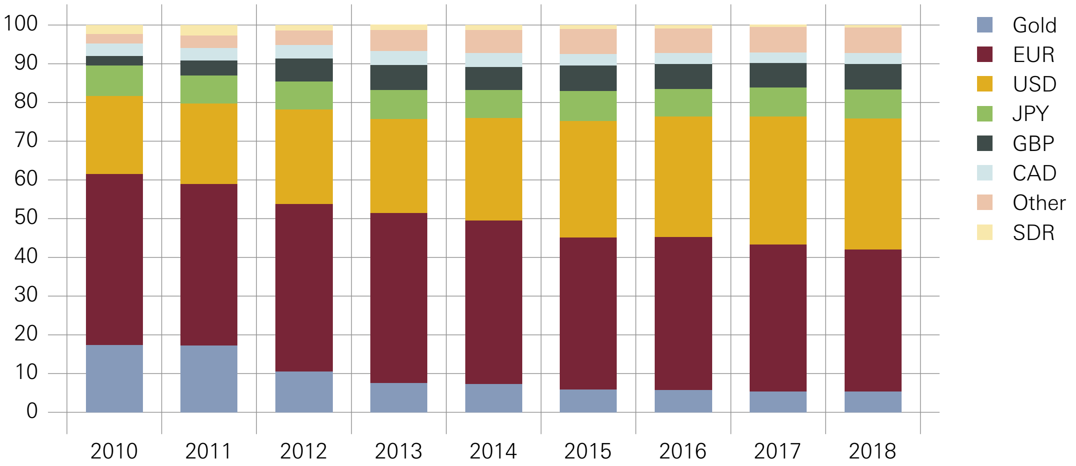
BREAKDOWN OF FOREIGN EXCHANGE RESERVES AND SWISS FRANC BOND INVESTMENTS AT YEAR-END

	2018 Foreign exchange reserves	2018 CHF bond investments	2017 Foreign exchange reserves	2017 CHF bond investments
Currency allocation (in percent, incl. derivatives positions)				
CHF		100		100
EUR	39		40	
USD	36		35	
JPY	8		8	
GBP	7		7	
CAD	3		3	
Other[1]	7		7	
Asset classes (in percent)				
Investments with banks	0		0	–
Government bonds[2]	69	40	68	42
Other bonds[3]	12	60	11	58
Shares	19		21	–
Breakdown of fixed income investments (in percent)				
AAA-rated[4]	57	78	59	78
AA-rated[4]	23	22	24	22
A-rated[4]	15	0	12	0
Other	5	0	5	0
Investment duration (years)	4.4	8.2	4.7	8.5

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.

BREAKDOWN OF CURRENCY RESERVES AT YEAR-END

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



Source: SNB

Changes in asset structure

There was little year-on-year change in the structure of the foreign exchange reserves and Swiss franc bonds. The euro share declined slightly in favour of the US dollar; the shares of the other currencies remained unchanged. The ratings distribution changed slightly due to adjustments in country weightings and rating downgrades of individual borrowers. The proportion of A-rated investments increased by 3 percentage points at the expense of higher-rated investments. The share of equities in the foreign exchange reserves amounted to 19% at end-2018, slightly below the previous year's level (21%).

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. The Federal Council rejects the initiative without a counterproposal. The SNB shares the view of the Federal Council and, in due course, will comment on the repercussions for its investment policy should the initiative be accepted.

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.

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 the most liquid government bonds in the major currencies – euros and US dollars – the SNB continued to ensure a high level of liquidity in its foreign exchange reserves in 2018. 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 2018. 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 2018, 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 2018, outstanding balances at central banks and the Bank for International Settlements amounted to almost CHF 32 billion. In all, 80% of bonds were rated AA or higher.

Country risk

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 among a number of different depositories and countries. 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 its gold reserves at its disposal even in the event of a crisis.

Allocation to provisions

The Swiss National Bank 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, which is built up from retained profits and serves in particular to absorb losses. The loss-absorbing equity capital also includes the distribution reserve. This reserve is intended to help smooth the SNB's annual profit distribution. The increase in currency reserves stemming from monetary policy in recent years has led to corresponding growth in the SNB's balance sheet. This, in turn, has caused the ratio of provisions to currency reserves to fall and the loss risk to rise in absolute terms. Any such losses would reduce equity capital. Annual allocations to the provisions are necessary to ensure a healthy capital 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 for 2018 and amounted to CHF 5.4 billion.

Agreement on profit distribution

In accordance with art. 31 para. 2 NBA, one-third of the SNB's net profit – to the extent that it exceeds the dividend requirement – is distributed 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. Omitted or reduced distributions will be compensated for in subsequent years if the distribution reserve allows this. Furthermore, a supplementary distribution of up to CHF 1 billion will be made if the distribution reserve exceeds CHF 20 billion. The supplementary distribution will be reduced appropriately if its payment causes the distribution reserve to fall below CHF 20 billion.

Changes in equity

In 2018, the SNB recorded a loss of CHF 15 billion; owing to the high profit of CHF 54 billion in the previous year, the distribution reserve amounted to just over CHF 67 billion. This allows for the ordinary distribution of CHF 1 billion as well as a supplementary distribution of CHF 1 billion, despite the reported loss. After allocation to the provisions for currency reserves of around CHF 5.4 billion and the profit distribution to the Confederation and the cantons of CHF 2 billion for the 2018 financial year, the SNB's equity amounted to CHF 118 billion (provisions of CHF 73 billion plus a distribution reserve of CHF 45 billion). This was CHF 17 billion lower than one year earlier; the share of equity in the balance sheet total fell from 16% to 14%.

5.5 INVESTMENT PERFORMANCE

Investment performance

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

In 2018, the return on currency reserves was –2.1%. Returns on gold and foreign exchange reserves were negative, at –0.6% and –2.2% respectively. In local currency, the return on foreign exchange reserves was –0.7%. Owing to the appreciation of the Swiss franc, the exchange rate return was also negative (–1.5%). In Swiss franc terms, the annual return on the currency reserves has averaged 3.3% 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
2004	0.5	–3.1	2.3	–3.2	5.7	3.8
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
2014–2018[2]	2.3	3.5	2.2	–0.4	2.7	2.3
2009–2018[2]	2.1	3.2	1.1	–2.2	3.4	2.6
2004–2018[2]	3.3	6.2	1.3	–2.1	3.5	2.6

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, since 2005, shares. The diversification effects achieved by adding shares to a portfolio of bonds and gold, 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 this disadvantage is offset by their favourable diversification effects relative to bonds and gold.

The share of equity holdings stood at 19% at the end of 2018. 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 has been 3.2%. 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 amounted to CHF 11.3 billion between 2005 and 2018. The equity holdings generated returns of CHF 51.7 billion over this period. In recent years, equities have thus been a significant factor in the increase in the SNB's capital base.

RETURNS ON FOREIGN EXCHANGE RESERVES, IN SWISS FRANCS

Returns in percent

	Total	Bonds	Shares
2005	10.8	10.6	24.6
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
2005–2018[1]	1.2	0.9	3.2

1 Average annual return over 14 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 disturbances. 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 had two macroprudential regulatory powers at its disposal since 2012, 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 is responsible, among other things, for the monitoring of individual institutions, i.e. microprudential supervision. 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 2018, the SNB noted that, since the financial crisis ten years ago, the two internationally active Swiss big banks, Credit Suisse and UBS, have implemented a number of measures relating to capital, liquidity and resolvability in line with Switzerland's 'too big to fail' (TBTF) regulations and revised international standards. This has strengthened their resilience and reduced risks to the Swiss economy, were they to get into financial distress. At the same time, the SNB emphasised the importance of concluding the implementation of the revised TBTF regulations (TBTF2) as planned. Given the significance of both big banks to the Swiss economy, full implementation is necessary in order to resolve the 'too big to fail' issue; the state should not find itself in the position of having to use government funds to bail out a bank again in the future.

Resilience requirements

With respect to resilience – the first pillar of the TBTF regulations – the SNB noted that there had been a further improvement at the big banks overall since the publication of the last *Financial Stability Report*. Credit Suisse and UBS are thus on track to meet the capital requirements that will apply once all the transitional phases have ended. Both banks already meet all risk-weighted capital requirements for going-concern loss-absorbing capacity. They have not yet fully met the leverage ratio requirements.

Progress on 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.

The big banks have made significant progress in recent years in the area of resolution. First, they have issued additional loss-absorbing instruments, which can be converted into equity in the event of impending insolvency. Second, they have taken precautions at organisational level: they have set up Swiss subsidiaries to which they have transferred systemically important functions, including – in particular – domestic deposit and lending business; moreover, they have established separate service companies to strengthen operational independence within the respective group.

The SNB noted that the resolution of a bank – especially a large, globally active bank – is a highly complex undertaking. Resolution planning therefore needs to be carried out very thoroughly and prudently. The big banks must demonstrate to FINMA by the end of 2019 that they have credible and workable emergency plans.

The SNB believes further progress is necessary in three areas in particular: First, it is important that a bank has sufficient liquidity to implement a resolution. FINMA, as the competent authority, was engaged in drawing up appropriate resolution funding plans in 2018. Second, steps must be taken to ensure that big banks' loss-absorbing capacity is adequate, not only at a consolidated group level, but also at the level of each individual group entity. Third, both banks must further reduce financial and operational dependencies within the respective group.

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. At the same time, interest rate risk exposure from maturity transformation remained historically 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 still significantly above regulatory minimum requirements, and was appropriate overall according to SNB stress tests.

In 2018, however, the SNB expressed its growing concern about residential investment property, suggesting that targeted measures should be considered for this segment (cf. chapter 6.3).

Domestically focused systemically important banks: gone-concern requirements defined …

In November 2018 the Federal Council decided that, from January 2019 onwards, domestically focused systemically important banks must also meet requirements on loss-absorbing instruments in the event of resolution (gone concern). In case of impending insolvency, these instruments can be written off or converted into equity, providing the basis for the orderly resolution of a bank. The SNB, which was involved in developing the relevant parameters, noted that it considers these requirements to be necessary.

… but emergency plans not yet approved

In addition, within a maximum period of three years following their designation as systemically important, such domestically focused banks must have drawn up workable 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 definition of gone-concern requirements and the approval of emergency plans are key prerequisites for improving the resolvability of banks. As of the end of 2018, none of the domestically focused systemically important banks had an approved emergency plan.

6.3 RISKS AND MEASURES RELATING TO MORTGAGE AND REAL ESTATE MARKETS

Developments up to end-2017 …

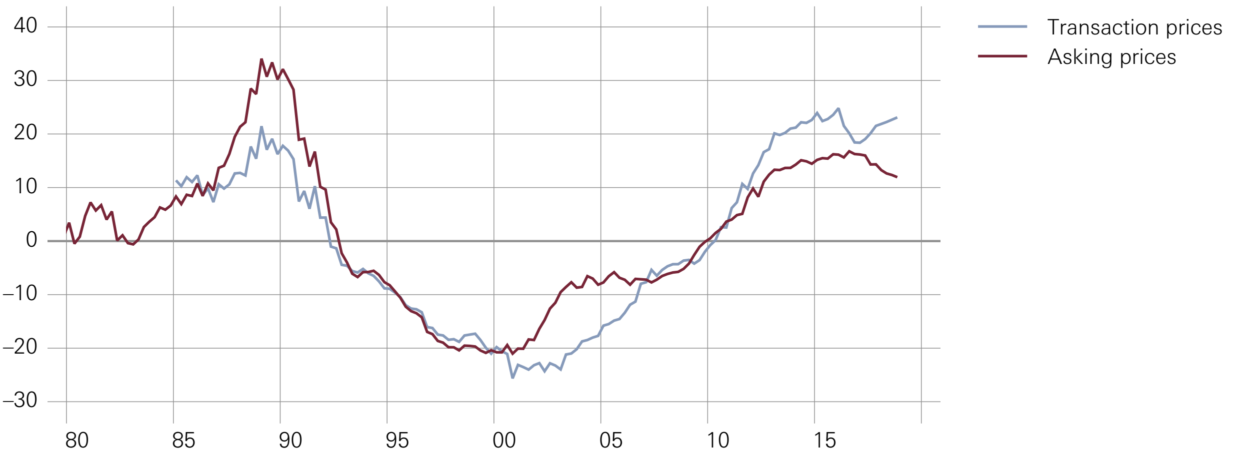
Imbalances build up on the mortgage and real estate markets when mortgage volumes or residential property prices exhibit stronger growth than fundamentals such as income or rents, over a long period of time. In the SNB's view, owing to strong growth in lending volumes and real estate prices, by 2012 imbalances had become so large that they posed a threat to the stability of the banking system and hence to the Swiss economy. Various measures were therefore implemented between 2012 and 2014. For instance, the self-regulation rules for banks in the area of mortgage lending were revised and, at the proposal of the SNB, the CCyB on mortgage lending to finance residential real estate in Switzerland was first activated, then increased. In addition, the risk weights specified in the Capital Adequacy Ordinance for mortgage loans with a high loan-to-value ratio were raised. These measures helped to curb the imbalances on the mortgage market as well as the market for single-family houses and privately owned apartments between 2014 and 2017. By contrast, there was a build-up of risks in the residential investment property segment, as a result of sharply rising prices, and affordability risks in newly granted mortgage loans increased.

… and in 2018

The imbalances on the mortgage and real estate markets persisted in 2018. Both mortgage lending and prices for single-family houses and privately owned apartments continued to rise at a moderate rate. The SNB emphasised that, given the high prices of apartment buildings, especially in the residential investment property segment, there was the risk of a price correction. The renewed increase in vacancy rates indicated that the robust activity in rental apartment construction may have led to oversupply. Furthermore, the SNB noted that affordability risks in newly granted mortgages for residential investment properties have continued to increase. Given this risk situation, the SNB suggested that targeted measures in the area of residential investment property lending should be considered.

PRIVATELY OWNED APARTMENTS: PRICE-TO-RENT RATIO

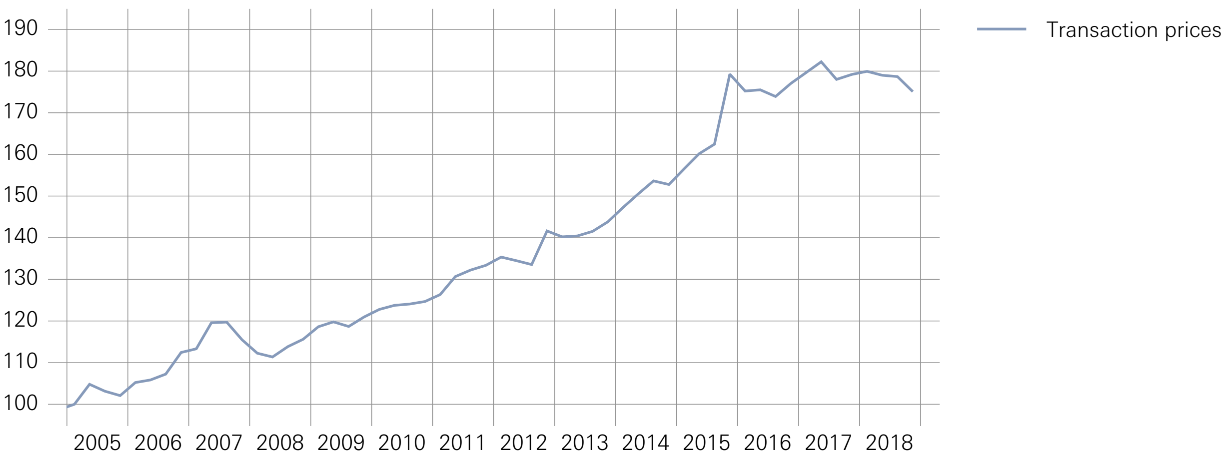
Deviation from average 1970–2018, in percent



Sources: SFSO, SNB, Wüest Partner

PRICE INDEX FOR APARTMENT BUILDINGS

Nominal, index: Q1 2005 = 100



Source: Wüest Partner

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 2018, 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.

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 (FMIA). 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 Swiss Interbank Clearing (SIC) payment system. 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 LCH Limited (LCH) and Eurex Clearing. The operators of these FMIs are domiciled in the US, the UK and Germany.

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.

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.

… and with foreign authorities

6.4.2 IMPLEMENTATION OF THE FINANCIAL MARKET INFRASTRUCTURE ACT

Completion of authorisation procedures for systemically important Swiss FMIs

The FMIA, which entered into force on 1 January 2016, included a new regulatory and supervisory framework for FMIs in Switzerland. Under this framework, SIX x-clear and SIX SIS, which until then had been regulated as banks, had to apply for new authorisation as a central counterparty and central securities depository respectively. In 2017, FINMA had already authorised SIX SIS to operate a central securities depository and a securities settlement system according to art. 61 FMIA. In March 2018, FINMA authorised SIX x-clear to operate as a central counterparty as per art. 48 FMIA. In both cases, the SNB confirmed in advance via orders that SIX x-clear and SIX SIS complied with the applicable special requirements.

Designation of systemically important foreign central counterparties

Under the provisions of the FMIA, foreign central counterparties must obtain FINMA recognition if they provide services for Swiss participants or Swiss FMIs or if they provide clearing services jointly with a central counterparty in Switzerland for one or more markets (art. 60 FMIA). As part of this process, the SNB assesses whether the foreign central counterparty is systemically important. A total of 14 central counterparties had submitted requests for recognition to FINMA by end-2018. In the case of Eurex Clearing and LCH, the SNB confirmed the assessment it had made prior to the introduction of the duty to obtain recognition – namely, that both central counterparties are important for the stability of the financial system. In the case of the other twelve central counterparties, the SNB concluded that they are not systemically important.

6.4.3 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 FMIA, the SNB's statements address compliance with the special requirements of the NBO.

In the statements transmitted to the operators of the systemically important FMIs in August 2018, the SNB did not mention any special requirements with which they had not complied. The SNB did, however, list various points that it expects to see addressed in the ongoing development of the FMIs. For instance, it urged them to continue their efforts to improve cybersecurity. With respect to SIX x-clear and SIX SIS, it also highlighted issues relating to the management of credit and liquidity risks as well as operational risks and procedures in the event of a participant's default. As regards the SIC system, the SNB's points concerned management of operational risks, whereas in the case of SIX Interbank Clearing Ltd, they concerned governance and organisational matters.

Response to SIX Interbank Clearing Ltd's recovery plan

Every systemically important FMI must draw up a recovery plan in which it sets out the measures it would take in a crisis to ensure the continuation of its systemically important business processes. The SNB responded to the updated recovery plan submitted by SIX Interbank Clearing Ltd, noting that it largely met requirements with respect to structure and content. The SNB listed various points it expects to see addressed in the future development of the recovery plan, specifically concerning the underlying risk scenarios.

Monitoring major projects

The SNB maintains a regular dialogue with the operators of the FMIs subject to oversight in which it discusses projects and plans that could impact the FMIs' business activities or risk profile – and hence their fulfilment of the special requirements. In 2018, the SNB dealt with the effects of SIX's strategic reorientation on the FMIs subject to oversight, and with various changes to credit risk management at SIX x-clear and SIX SIS. It also monitored a project launched by SIX x-clear to introduce a new clearing platform.

Implications of Brexit for SIX x-clear

The SNB explored the consequences for SIX x-clear of the UK's departure from the EU. It looked particularly closely at any possible 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 published by the European Commission in December 2018 includes an assurance that ESMA will continue – at least temporarily – to recognise UK central counterparties in the event of a no-deal scenario. The interoperability arrangement can thus remain in place in its current form.

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. On the settlement date, they 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, which is 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 such as 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), 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. Finally, it cooperates on a bilateral level with other central banks and authorities. As part of this 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 the 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 faced with 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 2018 annual meetings of the IMF and the World Bank in Indonesia, finance ministers and central bank governors deliberated as usual on the challenges for global economic policy. The members of the IMFC stressed that risks, such as mounting trade tensions, will increasingly cast a shadow over global growth, and said they would act to mitigate risks and enhance the resilience of the global economy. Switzerland supported the IMF's calls for greater resilience of the global economy and reforms to lift growth. It stated that rebuilding fiscal buffers remains an urgent priority in particular. It also called for consistent implementation and finalisation of global financial market reforms, and stressed the value of a multilateral framework in resolving trade disputes.

Increase in IMF loan commitments

Against the backdrop of the risks to global economic growth, and the ongoing normalisation of US monetary policy, capital flows to emerging economies became more volatile. This resulted in an increase in the IMF's regular lending programmes in 2018, i.e. those financed via its General Resources Account. This was in particular attributable to a new loan agreement with Argentina. At year-end, there were regular programmes in 19 countries, totalling SDR 129.1 billion (2017: SDR 106.3 billion). Of this amount, SDR 61.3 billion (2017: SDR 73.1 billion) was accounted for by what are referred to as insurance facilities (mainly the Flexible Credit Line), which allow countries to access the IMF's resources as a precautionary tool. Outstanding loans increased to SDR 55.4 billion (2017: SDR 39.6 billion).

Developments in Argentina, Greece and Ukraine

Argentina, Greece and Ukraine accounted for the bulk of the outstanding loans at the end of 2018. In June 2018, the IMF agreed a three-year Stand-By Arrangement (SBA) with Argentina in the amount of around SDR 35 billion. The programme aims to stabilise the country's public finances and return them to a solid footing over the medium term, while protecting the most vulnerable in society during the reform process, and restoring the credibility of the central bank's efforts to combat inflation. It was augmented to around SDR 40 billion in October as the situation in the country had deteriorated. By the end of 2018, a total of around SDR 20 billion had been disbursed to Argentina in three tranches.

The SBA agreed with Greece in 2017 expired in August 2018 without having been activated. Owing to its drawdowns under the 2012 lending arrangement, Greece is still the IMF's second-largest borrower.

In December, the IMF concluded a new 14-month SBA with Ukraine in the amount of SDR 2.8 billion, this replacing the March 2015 arrangement under the Extended Fund Facility. The aim of this new programme is to support the Ukrainian authorities' economic policy stance and thus to maintain the progress made under the previous programme in reducing macroeconomic weaknesses.

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 is a member of the IMF's highest decision-making body, the Board of Governors, which consists of a representative from each member country. The Head of the FDF is one of the 24 members of the IMFC, the IMF's steering committee.

Switzerland has been a member of the IMF since 1992 and is part of a voting group (constituency) whose other members are Azerbaijan, Kazakhstan, the Kyrgyz Republic, Poland, Serbia, Tajikistan, Turkmenistan and Uzbekistan, with the latter having rejoined the Swiss constituency in November 2018 after an eight-year absence.

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 of 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 his or her activities.

Special Drawing Right

The Special Drawing Right (SDR) is an international reserve currency which the IMF introduced in 1969 to supplement member countries' existing reserve assets. The Fund 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. Member countries may use these SDRs directly as a means of payment for their transactions with the IMF. SDRs also represent a claim on currency reserves of other IMF member countries. 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 2018, one SDR was equivalent to CHF 1.36 or USD 1.39.

IMF financing and lending capacity

The IMF mainly finances its lending through member country quotas (cf. box 'Quota'). Only the unused parts of quotas of countries that are not facing balance of payments difficulties are available for new loans. At end-2018, the IMF had SDR 189 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) (cf. box 'NAB and GAB'). Temporary bilateral borrowing agreements serve as a third line of defence for the IMF. As of September 2018, all 40 agreements in the total amount of SDR 316 billion under the framework established by the IMF in 2016 were effective, including that with the SNB. The term of all these borrowing agreements expires on 31 December 2019. However, it may be extended for a further year with the creditors' consent.

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 reserve positions are all used in the formula to calculate a member's quota.

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. Second, the quota largely determines 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.

Members' quotas are reviewed at regular intervals and adjusted as required. The last reform came into force in January 2016. Work on the next quota review is under way and is due to be completed in 2019.

Review of quotas

The IMF continued its work on the 15th General Review of Quotas in 2018. Agreement has still to be reached on the two key issues, namely the size of the quota increase and its distribution among the members. In autumn 2018, the IMFC reaffirmed its intention to conclude the review of quotas by the 2019 annual meetings. Switzerland, too, supports the completion of the review within this timeframe, with the aim of maintaining a strong, quota-based and adequately resourced IMF that is able to continue to perform its stabilising function at the centre of the international monetary and financial system. Switzerland also stressed that the various elements of the review should continue to be treated as an integrated package with a view to finding a compromise that enjoys broad support among members.

NAB and GAB

The New Arrangements to Borrow (NAB) form a financial safety net for the IMF. In addition to its regular resources, activation of the NAB can provide the IMF with up to SDR 182 billion. The NAB are activated for a specified period (six months at most), their amount being based on an estimate by the IMF of the expected contingent liabilities. There are now 38 member countries participating in the NAB. The SNB is the institution representing Switzerland.

The General Arrangements to Borrow (GAB) lapsed when their term ended on 25 December 2018, and were not renewed given that their importance had declined. In an exceptional crisis and in the event of a shortage of funds, the GAB permitted the IMF to borrow funds to a maximum of SDR 17 billion from the G10 countries according to an agreed distribution key. The GAB had not been used since the NAB came into effect in November 1998.

Swiss contribution to IMF financing

At the end of 2018, Switzerland was committed to providing the IMF with a maximum of CHF 24.0 billion for the latter to finance its regular lending. This commitment took three forms: first under the framework of its quota, second under the NAB, and third under a bilateral credit line (cf. table 'The SNB's financial commitment to the IMF'). The SNB finances these amounts, with loans granted under the bilateral credit line being guaranteed by the Confederation. The SNB's maximum contribution amounted to CHF 7.9 billion under the framework of the quota, CHF 7.6 billion under the NAB and CHF 8.5 billion under the bilateral credit line. As at the end of 2018, the IMF had drawn a total of CHF 1.2 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 17 countries, totalling SDR 3.0 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 2018, the SNB had three loan agreements in force. The maximum amount available under these agreements was CHF 1,384 million, of which CHF 160 million had been drawn.

THE SNB'S FINANCIAL COMMITMENT TO THE IMF

In CHF billions

	End-2018	
	Maximum	Drawn down
Reserve position[1]		1.186
Quota	7.875	0.546
NAB	7.560	0.641
Bilateral credit line[2]	8.500	0.000
PRGT[2]	1.384	0.160
SDR[3]	2.243	–0.046

1 The used portion of the Swiss quota and the amount drawn by the IMF under the NAB and the bilateral credit line 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 purchase (+) or sell (–) SDRs against foreign currencies (USD, EUR) up to the agreed maximum of SDR 1.644 billion (CHF 2.243 billion).

Article IV consultation

Within the context of its Article IV consultations, the IMF regularly reviews the economic policies of its member countries and issues recommendations. In June 2018, the IMF Executive Board concluded the annual Article IV consultation with Switzerland. According to the IMF, the Swiss economy has successfully managed the exchange rate-related challenges of recent years thanks to its ability to adapt. Although the economic upswing has strengthened yet further, the IMF sees risks from international trade tensions, the possibility of renewed appreciation pressure on the Swiss franc as a safe haven, and imbalances in the domestic real estate and mortgage markets. Switzerland's external position was again deemed to be appropriate. Against this backdrop, the IMF supported the continuation of the SNB's monetary policy stance. In its selected issues report of May 2018, the IMF noted that the SNB's approach – with the negative interest rate and interventions on the foreign exchange market to prevent excessive appreciation of the Swiss franc and to ensure price stability – has proved effective. The IMF also welcomed the progress Switzerland has made in bolstering financial stability. In connection with the low interest rate environment, it recommended continued monitoring of risks on the real estate and mortgage markets, as well as further measures to mitigate these risks.

Assessment of Switzerland's financial sector

The IMF began a comprehensive evaluation of Switzerland's financial sector in 2018. Participation in the IMF's Financial Sector Assessment Program (FSAP) is mandatory for countries with global systemically important financial sectors and the assessment is conducted every five years. The IMF's FSAP examines and assesses the stability of a country's financial sector and the associated regulatory and supervisory issues. The results of the assessment will be available in spring 2019. The report on the Swiss FSAP is to be presented to the IMF Executive Board for approval together with the Article IV consultation report in June 2019.

Conference on international monetary system

In May 2018, the SNB and the IMF jointly hosted a conference on the international monetary system for the eighth time. The event brought together high-level representatives of central banks and finance ministries, as well as leading economists and economic commentators. The topic of the 2018 conference was 'Challenges for Monetary Policy and the Global Financial Safety Net in an Evolving Global Economy'.

7.2.2 BANK FOR INTERNATIONAL SETTLEMENTS

The 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 occupied one of the seats on the Board of Directors since the BIS was founded in 1930.

In June 2017, the Annual General Meeting of the BIS decided to allow for greater flexibility in the composition of the Board of Directors, and the corresponding changes took effect from 1 January 2019. The Board now comprises 18 directors, compared with 21 previously. The number of elected directors was increased from 9 to 11. The SNB has retained its seat on the Board of Directors.

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. These bimonthly meetings include the Economic Consultative Committee, the Global Economy Meeting and the All Governors' Meeting.

The SNB participates in the four standing committees of the BIS: the Basel Committee on Banking Supervision, the Committee on Payments and Market Infrastructures, the Committee on the Global Financial System and the Markets Committee. Additionally, it participates in various groups of experts.

Basel Committee on Banking Supervision

The Basel Committee on Banking Supervision brings together high-ranking representatives of banking supervisory authorities and central banks from 28 jurisdictions, including Switzerland. It issues recommendations and sets international standards in the area of banking supervision.

Completion and implementation of Basel III

Following the finalisation of the last elements of the Basel III reform package, the focus of the Basel Committee's work shifted in 2018 from the drafting of new standards to their implementation. It monitored the efforts in the individual member countries with regard to the full, timely and consistent implementation of the new regulatory standards. It also launched an array of assessments to review the impact of the standards and to enable it to identify any unintended consequences at an early stage. One of these assessments revealed that certain banks were engaging in window dressing, i.e. making deliberate transactions to flatter their leverage ratio around reference dates. The Committee initiated a consultation process to determine measures to counter such behaviour. It also clarified the last remaining open issues with regard to the revision of minimum capital requirements for market risk.

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 Committee comprises high-ranking representatives from 28 central banks.

In 2018, the CPMI focused on three key areas. Together with the Markets Committee, it published a report on the possible issuance of digital currencies by central banks, and the implications for payments, monetary policy and financial stability. The CPMI also maintained its efforts to increase the operational resilience of financial market infrastructures to the mounting cyberthreats. To this end, it published a strategy aimed at reducing the risk of wholesale payments fraud. Finally, it continued its work on strengthening the financial resilience of central counterparties.

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. The members of the Committee include Deputy Governors and other high-ranking representatives from 23 central banks.

In 2018, the CGFS addressed the influence of political uncertainty and trade disputes on the financial markets. It also discussed developments in the emerging economies, and examined the impact of monetary policy on financing conditions. In addition to this, the Committee published two reports. The first examined the structural changes in the banking sector since the financial crisis. It shows that large banks in advanced economies have moved away from trading and cross-border activities while at the same time enhancing their resilience. The second report looked at the financial stability implications of the prolonged period of low interest rates. It finds indications that such 'low-for-long' phases can engender risks to financial stability.

Markets Committee

The Markets Committee examines current developments in money, foreign exchange, capital and commodity markets, as well as the functioning of these markets. The Committee comprises high-ranking representatives from 22 central banks.

In 2018, the Markets Committee once again addressed the effects of unconventional monetary policy measures. Another topic of discussion was the normalisation of monetary policy conditions and the impact on the financial markets, particularly in light of the US Federal Reserve's ongoing interest rate increases and balance sheet reduction. Reform of reference interest rates also remained a key issue. The Committee discussed in particular the implications on the functioning of those market segments that would be affected by the replacement of Libor. Following the publication of the report on central bank digital currencies (cf. section on the Committee on Payments and Market Infrastructures), in September the Markets Committee issued the report submitted by a study group on the monitoring of fast-paced electronic markets.

7.2.3 FINANCIAL STABILITY BOARD

Swiss representation on the FSB

The FSB brings together national authorities responsible for financial stability (central banks, supervisory authorities, finance ministries), international organisations and standard-setting bodies. Switzerland is represented in the Plenary by the SNB and the FDF. The SNB is also a member of the Steering Committee and the Standing Committee on Assessment of Vulnerabilities. Representation in other committees and working groups is shared between FINMA, the FDF and the SNB, who collaborate closely to formulate Switzerland's position.

Risks in financial system

The FSB assesses risks in the financial system and the measures to address such risks. In this connection, the FSB has been involved in a number of financial system reforms. With the bulk of these reforms having been concluded, the FSB's attention turned in 2018 to implementation and the evaluation of their effects. The FSB also examined the possible financial stability implications of cryptoassets and the resolution of systemically important banks.

Effects of regulatory reforms

In 2017, the FSB approved a framework for evaluating the benefits and possible unintended consequences of regulatory reforms. Based on this, it drew up a report in 2018 on the evaluation of the effects of such reforms on infrastructure finance. The study concludes that the effect of other aspects such as the macroeconomic and political environment, as well as institutional factors, have had greater impact.

Implications of cryptoassets on financial stability

The FSB continued to examine the effect of digitalisation in the financial sector, with one focal point being the potential impact of cryptoassets on financial stability. It published a report which found that cryptoassets do not currently pose a risk to financial stability, but called for continued monitoring of the market given the speed of developments. The report did not cover the risks of cryptoassets with regard to money laundering, terrorism financing and consumer protection.

Resolution of systemically important banks

The FSB has been working for some years on clarifying resolution plans for global systemically important banks. In this regard, an FSB working group developed guiding principles for the consideration of liquidity aspects in resolution plans developed for banks by the supervisory authorities. These resolution funding plans should ensure that a bank has sufficient liquidity to implement a resolution without recourse to state aid. The guiding principles were finalised and published in 2018.

7.2.4 OECD

Participation

Switzerland is a founding member of the OECD. It works in the organisation's intergovernmental committees to promote the development of 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.

OECD recommendations for Switzerland

The OECD's *Economic Outlook* report, which is published biannually, contains updated economic policy recommendations and macroeconomic assessments for every member country. In the autumn 2018 edition, the OECD finds that the negative interest rate has been an effective instrument in ensuring price stability and limiting capital inflows associated with the Swiss franc's safe-haven status.

Every two years, the OECD performs a detailed analysis of the economy of each member country. This will be the case for Switzerland at the end of 2019. Preparations began in 2018, as usual in close cooperation with the Confederation and the SNB.

7.2.5 G20

Switzerland's participation in Finance Track

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. 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.

Focus in 2018

Switzerland was invited to participate in the 2018 Finance Track by the Argentinian G20 presidency, which placed the focus on technological change in the labour market and on the financing of infrastructure projects. The Confederation and the SNB supported this agenda. They spoke in favour of tackling structural reforms, strengthening the international financial architecture, and enhancing financial market regulation. Japan will hold the G20 presidency in 2019, and Switzerland has again been invited to the Finance Track.

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. In both of these cases, 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.

Lending to National Bank of Ukraine

On the instruction of the Confederation, the SNB concluded a borrowing agreement with the National Bank of Ukraine in April 2016 for a maximum amount of USD 200 million. This bilateral loan is part of an internationally coordinated assistance package to achieve financial stability in Ukraine, comprising an IMF programme and bilateral agreements with other countries. The legal basis for the loan between the SNB and the National Bank of Ukraine is the Monetary Assistance Act. The Confederation has given the SNB a guarantee for timely reimbursement and interest payments. The loan is tied to the implementation of the 2015 arrangement under the IMF's Extended Fund Facility (EFF) and must not be used to finance the military budget. The borrowing agreement provides for the disbursement to be made in stages based on the payout of tranches under the extended arrangement with the IMF. A first tranche was disbursed at the beginning of March 2017. Following the replacement of the EFF arrangement with a new arrangement at the end of December 2018, no further tranches will be disbursed (cf. chapter 7.2.1).

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.

Cooperation with the PBC ...

The SNB has been strengthening its cooperation with the Chinese central bank, the People's Bank of China, for some years, the main focus being the establishment of a renminbi market in Switzerland. An important step in this regard was the bilateral swap agreement signed in 2014.

In January 2018, the Industrial and Commercial Bank of China became the second Chinese bank after the China Construction Bank to commence business operations in Zurich.

... and with the BOK

The SNB and South Korea's central bank, the Bank of Korea, have enjoyed a good working relationship for many years. In February 2018, the two institutions concluded a bilateral swap agreement that enables both central banks to purchase and repurchase Korean won and Swiss francs up to a limit of KRW 11.2 trillion, or CHF 10 billion.

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 Switzerland, while these have the same rights and obligations as their Swiss-domiciled counterparts. The SNB cooperates closely with the relevant authorities in Liechtenstein. The Liechtenstein government and the Governing Board of the SNB meet regularly for an exchange of views.

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.

Revision of strategy

The SNB updated its technical assistance strategy at the beginning of 2018 to bring it into line with current developments. Particular emphasis was placed on strengthening coordination and collaboration with other providers of technical assistance such as the State Secretariat for Economic Affairs (SECO) and the IMF. The existing orientation towards countries from the Swiss constituency was bolstered yet further.

Activities in 2018

A particular focal point was Uzbekistan, which rejoined Switzerland's IMF constituency in 2018 after an eight-year absence. This included a visit by a delegation from the Central Bank of Uzbekistan to the SNB to seek advice regarding monetary policy analysis and implementation. In addition, economists from the SNB advised the Central Bank of Azerbaijan on the implementation of monetary policy, and the National Bank of Kazakhstan on procurement. Cooperation with the National Bank of the Kyrgyz Republic continued in the areas of monetary policy and cash.

International events

In addition to the bilateral projects, the SNB organised two events for central bank economists from the constituency as well as other countries of Eastern Europe, the Caucasus and Central Asia. In March 2018, the SNB and the IMF together hosted the fifth Caucasus and Central Asia Central Bank Practitioners Peer-To-Peer Workshop at the Joint Vienna Institute. The focus was on conducting monetary policy in the transition from fixed to flexible exchange rates. In June, the SNB organised the 15th annual joint seminar with the National Bank of Poland. Held in Warsaw, the event addressed the topic of macroprudential stress testing.

Central bank courses at the Study Center Gerzensee

The SNB has been running the Study Center Gerzensee since 1984. Besides being a centre for academic research, it serves as a training centre for central bankers. Six central bank courses were held in 2018, and were attended by a total of 148 people from 80 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 2018, the SNB issued both MMDRCs and Confederation bonds on behalf of and for the account of the Confederation. MMDRCs amounting to CHF 84.8 billion were subscribed (2017: CHF 126.2 billion), of which CHF 19.0 billion was allocated (2017: CHF 24.7 billion). The corresponding figures for Confederation bonds were CHF 4.8 billion (2017: CHF 7.6 billion) and CHF 2.2 billion (2017: CHF 3.9 billion) respectively. MMDRCs and Confederation bonds were issued by auction on the SIX Repo Ltd 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 –0.84% to –1.02%. The lowest yield was thus less negative than in the previous year (–1.2%).

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 15.6 billion, compared to CHF 14.8 billion at the end of 2017. The SNB carried out roughly 121,000 (2017: 89,000) payments in Swiss francs and approximately 25,000 (2017: 21,000) payments in foreign currencies 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 a 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 some 12 million time series in the fields of banking, financial markets and economics.

Statistical publications

The SNB releases its statistics through various channels – in the form of printed publications, on its website and via its online data portal (data.snb.ch). The printed publications are *Banks in Switzerland*, *Direct Investment* and *Swiss Financial Accounts*. The SNB's statistical releases and publications are available in English, French and German.

SNB data portal

The data portal was expanded at the beginning of 2018 with the option to display contents in the form of charts, which can be downloaded by the user for their own use.

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

Work began in 2016 on the revision of securities statistics (i.e. statistics on the stocks and turnover of securities) and this continued in 2018. The revision is being undertaken both in connection with Switzerland's planned participation in the IMF's new Special Data Dissemination Standard Plus (SDDS Plus) as of 2020 and in order to take changed user requirements into account. The analysis of various possible survey methods has been completed. Their implementation will take some time. In order to comply with the SDDS Plus requirements nonetheless, from 2019 the SNB will carry out a supplementary survey, limited in time and content, at a small number of banks.

Expansion of the eSurvey reporting platform

eSurvey provides reporting institutions with an easy and secure means of delivering their statistical data to the SNB online. Since 2018, it has also been possible to complete all banking surveys via this platform.

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 2018, the banking statistics committee mainly dealt with the revision of the lending rate statistics survey and the survey on published interest rates for new transactions. 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 with the Swiss Federal Statistical Office (SFSO), with FINMA, as well as 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. The Memorandum was concluded in November 2018 and replaced the previous agreement with FINMA on the exchange of data in the financial sector. The focus in 2018 was on the total revision of the interest rate risk report, the planned introduction of large exposure reporting (LER), and the revision of reporting with regard to liquidity monitoring tools (LMTs).

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 as well as, since 2010, 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.

Direct investment

The SNB collects data on Switzerland's direct investment linkages with other countries as part of its statutory mandate to compile statistics on the balance of payments and the international investment position. Data on direct investment are an important part of these statistics. Switzerland has also undertaken to provide direct investment data to institutions such as the OECD and the IMF.

Direct investment refers to cross-border capital linkages where investors have a lasting direct or indirect influence on the operations of companies in another country. This can take different forms in both directions. Swiss direct investment abroad includes examples such as a domestic company setting up a foreign subsidiary to facilitate the distribution of goods or to manufacture such goods locally. Meanwhile, foreign direct investment in Switzerland can take the form of a foreign-domiciled company granting a loan to a Swiss subsidiary, for instance.

Direct investment is an important facet of economic globalisation. As one of the ten largest direct investors worldwide, Switzerland is highly integrated in the global economy. This is due in particular to the fact that numerous large multinationals are headquartered here and the country is also an attractive location for foreign-controlled finance and holding companies.

The SNB has been publishing data on Swiss direct investment abroad and foreign direct investment in Switzerland annually since the 1980s. The publication in question sets out the various types of capital transactions associated with direct investment, reports on capital stocks and investment income, and provides information on the breakdown of direct investment by country and economic activity.

Foreign direct investors often opt to invest in Switzerland via an intermediate company abroad rather than directly. To cover these investment chains, the SNB publishes data on foreign direct investment in Switzerland not only by the country where the direct investor is domiciled but also by the country where the ultimate beneficial owner is located. The SNB also reports separately on foreign-controlled finance and holding companies and special purpose entities. Furthermore, it supplements the information on capital linkages with operational data pertaining to multinational companies, such as staff numbers.

The direct investment data are derived from quarterly and annual surveys carried out by the SNB at around 1,100 companies and groups in Switzerland and the Principality of Liechtenstein. The SNB endeavours to ensure that the reporting population is kept as up-to-date as possible, and to properly reflect the often highly complex corporate structures in its statistics. However, it also seeks to minimise the demands placed on reporting institutions. Companies are therefore only required to report to the SNB if their group-wide cross-border capital stocks exceed CHF 10 million.

In compiling these statistics, the SNB is guided by the standards set by the OECD (Benchmark Definition of Foreign Direct Investment, 4th edition) and the IMF (Balance of Payments Manual, 6th edition). It presents its views on the ongoing conceptual development of direct investment statistics within the relevant committees of the OECD, the IMF, the European Central Bank and the EU statistical office. The work of these committees feeds into any updates of the aforementioned manuals.