Accountability report

On 22 March 2018, the Governing Board of the Swiss National Bank (SNB) submitted its accountability report for 2017 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 a benchmark interest rate – the three-month Libor (London Interbank Offered Rate).

In 2017, the SNB pursued its monetary policy against the background of a global economy that picked up pace and had a favourable impact on the growth of the economy in Switzerland. Continued expansionary monetary policy in the larger currency areas and favourable financing conditions had a positive influence on investment activity, which rose globally. Although annual inflation was up slightly in many countries as a result of higher energy prices, movements in both wages and inflation remained subdued overall.

The Swiss economy improved continuously in the course of 2017. The recovery was driven primarily by the upturn in international economic activity and the depreciation of the Swiss franc, which boosted the price competitiveness of export-oriented industries. An improvement was recorded both in capacity utilisation and the situation on the labour market. Real GDP in the fourth quarter was up 1.9% year-on-year. Owing to weaker growth in the second half of 2016 and the first quarter of 2017, however, the annual average GDP growth of 1.0% was slightly lower than in 2016 (1.4%).

The annual inflation rate as measured by the Swiss consumer price index averaged 0.5%, up from –0.4% in 2016. The inflation rate for foreign goods and services increased considerably in the course of the year, mainly due to the weakening of the Swiss franc. By contrast, the inflation rate for domestic goods and services remained largely unchanged.

The depreciation of the Swiss franc against the euro set in at the end of July. The trade-weighted nominal external value of the Swiss franc fell by around 5% in the second half of the year. As inflation was lower in Switzerland than abroad, the trade-weighted real external value even fell slightly further. In December, it was back at roughly the same level as it had been prior to the discontinuation of the minimum exchange rate against the euro in January 2015. The weakening of the Swiss franc thus helped to reduce the significant overvaluation of the currency. The franc nonetheless remained highly valued.

The SNB continued to pursue an expansionary monetary policy in 2017. Although inflation rose slightly and stayed within the range that the SNB equates with price stability throughout the year, capacity utilisation in the economy remained below the long-term average.

As in the previous year, monetary policy was 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 instruments remained essential in 2017 to ensure appropriate monetary conditions. The first half-year in particular was dominated by political uncertainty in Europe and upward pressure on the Swiss franc. But even during the second half of the year, when the franc weakened, the situation on the foreign exchange market remained fragile.

Implementation of monetary policy

The interest rate of –0.75% charged by the SNB on sight deposits continued to help maintain the traditional interest rate differential between Switzerland and foreign countries and to make investments in Swiss francs less attractive. 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 the year, the interest rate for secured overnight money – the Swiss Average Rate Overnight (SARON) – and the three-month Swiss franc Libor stood at –0.75%. Long-term interest rates also remained very low, with yields on ten-year Confederation bonds mainly in negative territory. In 2017, the SNB purchased a total of CHF 48.2 billion in foreign currency; aside from these foreign currency purchases, it conducted no other monetary policy related open market operations. The money market remained amply supplied with Swiss franc liquidity.

Cash supply and distribution

Banknote circulation in 2017 amounted to an average of CHF 76.5 billion. Compared to the previous year, it grew by 5.9%. Growth in banknote circulation was thus slightly less strong than in 2016. Following the issuance of the 50-franc note in April 2016 – the first denomination in the new banknote series to be released – the 20-franc and the 10-franc notes followed this year in May and October. The new notes have proved their worth, and their reception among both the public and experts has been positive. The next one to be released is the 200-franc note; it will be issued in August 2018. The 1000-franc and 100-franc notes will follow in the course of 2019. The eighth banknote series will remain legal tender until further notice.

In December 2017, the SNB acquired a majority stake (90%) in Landqart AG and in the patent-holding company, landqart management and services. The remaining 10% of the share capital in both companies was purchased by Orell Füssli Holding Ltd. The purchase price came to a total of CHF 21.5 million, with the SNB's portion amounting to CHF 19.4 million. By taking this step, the SNB is ensuring the continued supply of cash and, hence, the fulfilment of its own statutory mandate.

Cashless payment transactions

In 2017, the Swiss Interbank Clearing (SIC) payment system settled a daily average of approximately 2 million transactions amounting to CHF 173 billion. Compared to the previous year, this represents a 15.3% increase in the number of transactions and a 13.1% increase in the value of transactions. The strong rise is due to the fact that PostFinance began – in a gradual process – to settle its bilateral payment transactions with other banks via the SIC system in 2017. In May, the SIC operating hours were extended. SIC has thus addressed the requirement for extended settlement times for retail payments.

The Swiss financial market infrastructure, with SIC as a key element, is operated by SIX Interbank Clearing Ltd. In November, SIX decided to adjust its business strategy and to simplify its organisation in order to enhance its competitiveness and, as a result, that of the Swiss financial centre. A well-functioning, secure and efficient financial market infrastructure is of crucial importance to the SNB for the fulfilment of its statutory mandate. The SNB thus welcomes measures aimed at strengthening the Swiss financial infrastructure and continued the dialogue on this matter with SIX and the banking sector in 2017.

Asset management

At the end of 2017, the SNB's assets amounted to CHF 843 billion, which was CHF 97 billion higher than a year earlier. The rise in the balance sheet total was mainly attributable to the higher foreign currency investments. The latter rose by CHF 94 billion year-on-year. This was due to foreign currency purchases and investment performance. In addition, the value of gold holdings increased by CHF 3 billion. At the end of 2017, currency reserves amounted to CHF 791 billion.

The return on currency reserves was 7.2%. Returns on gold and foreign exchange reserves were 7.9% and 7.2% respectively. The positive performance of foreign exchange reserves was mainly the result of the favourable stock market environment and the exchange rate gains resulting from the weakening of the Swiss franc.

The share of equities in the foreign exchange reserves amounted to 21% at the end of 2017. The SNB is a purely financial investor. By replicating individual markets in their entirety, thereby diversifying its placements as broadly as possible, it pursues as neutral and passive an investment approach as possible. In a few cases, the SNB does not apply the principle of full market coverage. For example, it does not invest in equities of mid-cap and large-cap banks and bank-like institutions, to avoid possible conflicts of interest. In addition, it does not purchase shares of companies that seriously violate fundamental human rights, systematically cause severe environmental damage or are involved in the production of internationally condemned weapons.

Financial system stability

In the area of financial stability, the focus was on strengthening the loss-absorbing capacity of domestically focused systemically important banks in the event of resolution (gone concern), and on the oversight of financial market infrastructures. The SNB was involved in preparing an evaluation report from the second review of the 'too big to fail' (TBTF) regulations. In February 2018, the Federal Department of Finance launched the consultation procedure to set the requirements on gone-concern loss-absorbing instruments for domestically focused systemically important banks. Together with the emergency plans, these instruments form the basis for the recovery or orderly wind-down of a bank. The emergency plans, which must be drawn up by the banks, ensure that a bank's systemically important functions can be maintained without interruption, even in the event of impending insolvency. For the two Swiss big banks, these requirements have already been in force since mid-2016.

In its *Financial Stability Report* of June 2017, the SNB noted a further improvement by the two big banks as regards the first pillar of the TBTF regulations – resilience. With respect to the second pillar of recovery and orderly wind-down (resolution), too, Credit Suisse and UBS had made progress. Nonetheless, the SNB considered that more progress was necessary, in particular on resolution plans and gone-concern loss-absorbing capacity. With respect 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 continued to grow, affordability risks in newly granted mortgage loans increased, interest rate exposure remained historically high, and interest rate margins fell. Nonetheless, domestically focused banks were able to maintain their resilience; overall, their capitalisation was appropriate. However, the SNB emphasised that, in the prevailing low interest rate environment, there were strong incentives for banks to increase affordability risk or interest rate risk exposure in mortgage lending.

The imbalances on the mortgage and real estate markets persisted. Although growth in total mortgage lending volumes was modest, the SNB emphasised that, given the marked price rises for apartment buildings since 2013, especially in the residential investment property segment, there was the risk of a substantial price correction.

In the oversight of systemically important financial market infrastructures, the focus was on efforts in connection with the implementation of the Financial Market Infrastructure Act, which came into force at the beginning of 2016. For example, the SNB stipulated which special requirements would be imposed on SIX x-clear and SIX SIS as systemically important financial infrastructures, and issued orders confirming their compliance. Subsequently, the Swiss Financial Market Supervisory Authority (FINMA) granted authorisation to SIX SIS; the authorisation procedure for SIX x-clear was still ongoing at end-2017. Moreover, the SNB determined which business processes at SIX SIS are systemically important and, as part of the FINMA recognition process, assessed whether foreign central counterparties are systemically important. The SNB concluded that, of the twelve central counterparties which had submitted requests for recognition by end-2017, seven were not systemically important. For the remaining five counterparties, assessments were still ongoing at end-2017. In addition, SIC Ltd has submitted its revised recovery plans to the SNB, which will provide its opinion in 2018.

International monetary cooperation

The SNB is involved in international monetary cooperation through its participation in the corresponding multilateral institutions and bodies, such as the International Monetary Fund (IMF), the Bank for International Settlements (BIS), the Financial Stability Board (FSB) and the Organisation for Economic Co-operation and Development (OECD).

Lending by the IMF declined slightly in 2017. Once again, a large proportion of the financial support provided by the IMF went to Ukraine.

The IMF continued its work on the 15th General Review of Quotas. No agreement was reached on the extent or distribution of an increase in quotas among members. However, the IMF affirmed its intention to conclude the review of quotas by 2019 at the latest. The quota determines a member's voting rights, the loan it can obtain from the IMF, and the amount it is obliged to provide to the IMF where necessary. In addition to these regular resources, in crisis situations the IMF can borrow funds under the New Arrangements to Borrow (NAB) and bilateral borrowing arrangements. The General Arrangements to Borrow (GAB), on the other hand, have declined in importance. Therefore, the decision was made in 2017 to let the GAB lapse at the end of 2018. The third loan agreement concluded between the SNB and the IMF under the Poverty Reduction and Growth Trust (PRGT) came into force in August; the loan amounts to just under CHF 700 million and is guaranteed by the Confederation. The IMF uses the PRGT to finance concessional loans to low-income countries.

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 2017, the IMF assessed Switzerland's external position as broadly consistent with fundamentals and recognised the appropriateness of the SNB's monetary policy strategy based on the negative interest rate and the willingness to intervene in the foreign exchange market.

As a member of the BIS and the FSB, the SNB participated in reforms to strengthen the global financial system. In 2017, the Basel Committee on Banking Supervision finalised the last elements of the Basel III reform package, which was agreed upon in the wake of the 2008 global financial crisis. The aim is to restore the credibility and effectiveness of the risk-weighted capital requirements. The Markets Committee of the BIS published the FX Global Code, a new global code of conduct for the foreign exchange market.

From the perspective of the SNB, work at the FSB on the recovery or orderly wind-down (resolution) of systemically important banks was crucial. The FSB published guiding principles on total loss-absorbing capacity at the material sub-group level. It also developed guidance on ensuring liquidity in resolution. These guiding principles were submitted for consultation, together with a document on the principles for recapitalising banks through the conversion of special bonds into equity (bail-in). Furthermore, the FSB developed a concept which can be used to compare the benefits of reforms against potential negative consequences.

In 2017, the OECD recorded in its country report that the SNB's expansionary monetary policy remains appropriate. It also noted that the time to begin normalising monetary policy was approaching and drew attention to heightened risks to financial stability. Moreover, the OECD called for vigilance in relation to developments in the Swiss real estate market.

The revised Monetary Assistance Act came into effect in November 2017. This created the conditions for Switzerland to grant the IMF a bilateral credit line according to the new lending practices. As a result, the Federal Council instructed the SNB to open a credit line for the IMF of CHF 8.5 billion. The SNB concluded an agreement with the IMF to this end, which came into effect at the beginning of 2018.

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 2017, on behalf of and for the account of the Confederation, the SNB issued money market debt register claims by auction amounting to CHF 24.7 billion and Confederation bonds amounting to CHF 3.9 billion. The issues were carried out on the SIX Repo Ltd trading platform. The SNB also carried out roughly 110,000 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 2017, for the first time, the SNB conducted the revised survey on new mortgage lending, which replaces the previous supplementary survey on mortgage lending. It also carried out the revised interest rate survey for the first time. In connection with the FSB's Data Gaps Initiative, the SNB collected an expanded data set from Credit Suisse and UBS, also for the first time, and transmitted these data to the central data hub hosted by the BIS. The aim of the exchange of data on global systemically important banks is to enable better assessment of international financial stability issues.

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 (SNB), 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 intends to fulfil 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 anticipated interest rate adjustments.

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 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 no longer require banks to contribute to the Libor panel after 2021. Consequently, there are doubts about the future of the Libor. The SNB will provide information on any adjustments that may be necessary for its monetary policy strategy in good time. Such changes will have no impact on the 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 it is short-term nominal interest rates which are managed by central banks, they also have an impact on real rates because changes in inflation are slow.

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 considerably influence the inflation and economic outlook and thus have an effect on the SNB's monetary policy decisions. If the SNB adjusts the interest rate or intervenes in the foreign exchange market, this in turn has an impact on the exchange rate.

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

Unconventional monetary policy measures

With the introduction of negative interest on sight deposits held by banks and other financial market participants at the SNB, the National Bank reduced the general level of interest rates. Assuming unchanged interest rates abroad, negative interest 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 interest rate on SNB sight deposit balances cannot be lowered endlessly into negative territory by the SNB, as these balances can also be converted into banknotes. In addition, negative interest could 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 the SNB

The SNB's willingness to intervene in the foreign exchange market as necessary also eases upward pressure on the Swiss franc because it influences market expectations and because the exchange rate is determined by supply and demand in the foreign exchange market. The SNB decides if and to what extent interventions should be conducted, while taking market conditions into consideration. Foreign exchange market interventions are mainly required in times of greater uncertainty, when the Swiss franc is particularly sought after as a safe investment.

Willingness to intervene in foreign exchange market

As with 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. In addition to monetary policy instruments, central banks 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

Swiss sovereign money initiative

In 2017, the National Council and the Council of States followed the Federal Council in recommending that the electorate reject the Swiss sovereign money initiative. The popular initiative, which was submitted in 2015, would prohibit commercial banks from creating deposits through lending. As is already the case with coins and banknotes, the SNB alone would be authorised to create deposits through lending. The Swiss sovereign money initiative will be put to a popular vote in June 2018, with no counterproposal.

Swiss sovereign money initiative

The popular initiative 'For crisis-resistant money: end fractional-reserve banking' (*Vollgeldinitiative*) calls for banks to be barred from creating deposits through lending, and for customer sight deposits held at banks to be replaced by central bank money. These sight deposits, together with the cash put into circulation by the SNB, currently constitute the liquidity held by households and companies. As such, the sight deposits held at banks are not actually central bank money, they only represent a claim on central bank money. If they were to be replaced by central bank money, all money that can be used as a direct means of payment would become central bank money, and thus sovereign money. The initiative also calls for money put into circulation by the SNB to be 'debt-free'; the SNB would thus have no corresponding foreign currency investments or repo claims on its assets side to balance newly created central bank money. The initiators believe that their proposed reform would create safer money, a more stable banking sector and higher money creation profits (or 'seigniorage') for the general public. The Federal Council and parliament have recommended that the electorate reject the initiative, and have not offered a counterproposal. The SNB also opposes the Swiss sovereign money initiative.

A switch to sovereign money would involve making fundamental and untested changes to the current monetary system and would make it more difficult to implement monetary policy. In the existing two-tier banking system, the central bank acts as the bank for commercial banks, while the commercial banks supply the public with liquidity and credit. The initiative calls for the SNB to guarantee the supply of credit to the economy through commercial banks. In doing so, however, the SNB would play a central role in lending and take on more credit risk than under the current system. This would entail the risk of political manipulation for the SNB, false incentives for participants and an absence of competition among banks. Moreover, Switzerland would be the only country with a sovereign money system. This would give rise to new uncertainties which would have a negative impact, not merely on the financial sector, but also on the economy as a whole.

The expectations the initiators have placed in their proposed reform are, in the SNB's view, unrealistic. Excesses in lending or in the valuation of investments would not be prevented by sovereign money, and neither would panic scenarios in the markets and the financial sector. In the global financial crisis of 2008/2009, not just banks, but also financial institutions with no customer deposits contributed to the escalation of the crisis. The latter would be unaffected by the sovereign money initiative. Furthermore, the governments and central banks which bailed out various systemically-important financial institutions during the crisis were concerned with protecting not only sight deposits and hence payment transactions, but also the supply of credit to the economy. As the sovereign money system only targets public sight deposits held at banks, it would not shield governments and central banks from having to rescue financial institutions that are critical to a country's credit supply; in other words, it would not solve the 'too big to fail' (TBTF) problem.

There are alternative ways of tackling the risks that may arise from a two-tier monetary system than switching to sovereign money. More stringent capital and liquidity requirements, as prescribed in the TBTF regulations, are considerably more effective in making banks safer and more robust.

Research and economic education

In order to fulfil its mandate, the SNB conducts research in relevant fields. This enhances understanding of complex interrelationships, promotes the further development of analytical methods and provides important information for monetary policy decisions. The SNB exchanges knowledge with other central banks and research institutes, and holds regular conferences and research seminars. Research work and studies by SNB employees are published in *SNB Working Papers* and *SNB Economic Studies*, as well as in specialist journals. The *SNB Research Report*, which is published on an annual basis, provides an overview of current research activities at the SNB.

The Study Center Gerzensee, an SNB foundation, fosters academic research and acts as a training centre for SNB employees, employees of other central banks, bankers and economists from Switzerland and abroad. The main points of focus are the doctoral programmes for economists and two to three-week courses for employees of foreign central banks (cf. chapter 7.3.3).

The SNB's web-based teaching programme, iconomix, is intended for use by teachers of economics and humanities in Swiss upper secondary schools. The programme also enhances economic knowledge through various educational and training events. Iconomix is intended to support teachers in conveying the knowledge and skills required for an understanding of economic processes and to provide input for modern and attractive forms of instruction. In 2017, to mark iconomix's tenth anniversary, the website was refreshed visually and upgraded to the latest technical standards.

In 2017, the SNB held a second event in the 'Karl Brunner Distinguished Lecture Series', launched in 2016. John B. Taylor, Professor of Economics at Stanford and a Fellow of the university's Hoover Institution, was invited as guest speaker. On 21 September he gave a lecture entitled 'Ideas and Institutions for Monetary Policy Making'. John B. Taylor devised, among other things, the eponymous rule for setting a central bank's policy interest rate.

The SNB published a Festschrift entitled *Monetary Economic Issues Today* to mark the 75th birthday of internationally renowned Swiss economist Ernst Baltensperger, containing articles by 27 experts in the fields of macroeconomics, monetary economics, banking and financial market economics. The volume commemorated Professor Baltensperger's achievements as a researcher, teacher of economics, and advisor in economic and monetary policy issues. The articles – submitted in German, French and English – are intended for a wider audience. They provide an insight into current research topics and show a cross-section of the discipline of monetary economics.

1.2 INTERNATIONAL ECONOMIC DEVELOPMENTS

Global economic recovery

The global economy gained further momentum in 2017. Global GDP and global trade both recorded their strongest growth since 2011. Monetary policies in the major currency areas were still very expansionary and financing conditions favourable. This encouraged investment activity, which further buoyed the broad-based recovery. In the advanced economies, employment continued to grow and unemployment declined. Economic conditions also developed favourably in the emerging economies. The utilisation of production capacity increased worldwide. Nevertheless, movements in wages and prices remained subdued.

Upturn in global trade

Global trade in goods rose by 4.5%, driven by the upswing in manufacturing and the recovery in information and communications technology. Greater demand from China played a significant role in fostering global trade.

Continued increase in commodity prices

Commodity prices continued to recover in 2017. The price for Brent crude briefly dipped below USD 50 per barrel in the first half of the year. However, a reduction in high inventory levels, the favourable global economic situation and the agreement among the major oil-producing countries to limit production saw the price rise continuously from mid-year, reaching approximately USD 65 per barrel at year-end. Prices for industrial metals also increased in the wake of the global economic upturn.

Favourable outlook

Consumer and business confidence remained healthy until the end of the year, suggesting that the upturn can be expected to continue. Financing conditions, which remain favourable, are also likely to contribute to this. Moreover, in 2017, several countries saw structural reforms implemented that should boost economic growth in the medium term. Political risks in certain countries, as well as potential international tensions, remain a source of uncertainty.

Upswing in the euro area …

The economic upswing in the euro area firmed. Annual GDP growth averaged 2.5% in 2017, compared with 1.8% the previous year. The economy picked up in all euro area countries, with Germany remaining a driving force. Employment continued to gain momentum in most member states, and at year-end, the unemployment rate in the euro area was below 9% for the first time since 2009. Against this backdrop, consumer and business confidence continued to improve; the last comparable boost in confidence was observed in 2000.

… but many challenges remain

However, the situation in the individual member states presented an uneven picture with regard to the level of unemployment, public debt levels and structural reform. While some countries, such as France, initiated reforms, other countries only made tentative progress. Moreover, the number of non-performing loans remained high in some EU countries, despite an improvement on the previous year. The future economic relationship between the EU and the UK following the UK's decision to leave the union also presents a challenge.

Broad-based growth in US …

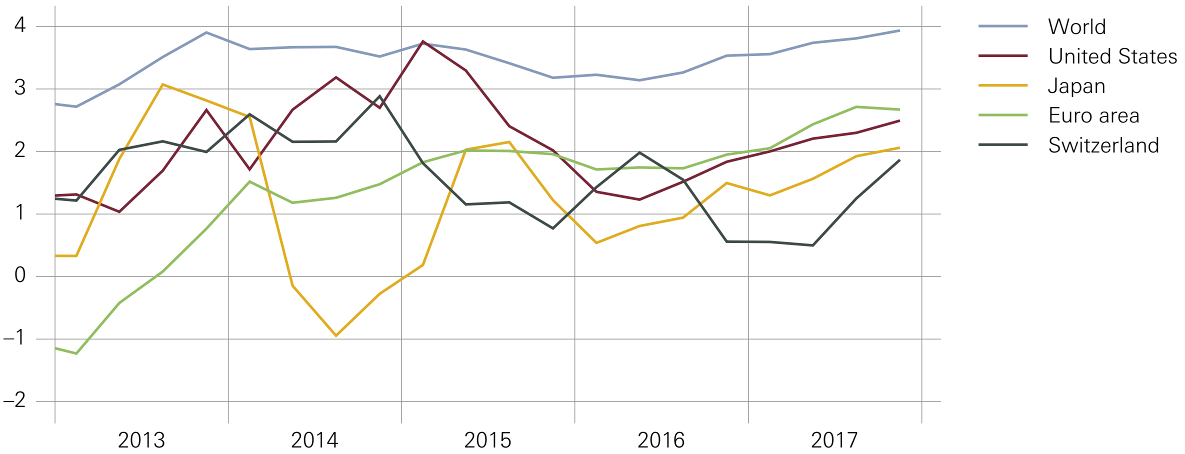
Economic growth in the US was considerably stronger at 2.3% in 2017 than in the previous year (1.5%). After weak growth at the beginning of the year, which was partly weather-related, the economy gained broad-based momentum. The labour market was close to full employment, which also contributed to consumer confidence; the unemployment rate fell to 4.1% by the end of the year. Furthermore, Congress approved substantial tax cuts in December, thus fulfilling market participants' expectations in this regard, which had been raised when the new president was elected in November 2016. These tax cuts are likely to provide slight growth stimuli as early as 2018.

… and also in Japan

In Japan, GDP grew by 1.7% in 2017, which is the strongest growth since 2013. The upswing in exports and favourable financing conditions contributed to robust corporate earnings. The economic stimulus package launched in summer 2016 also provided some support. Economic capacity utilisation improved, and the rate of unemployment fell to its lowest level since 1993 (2.7% at year-end).

GROWTH OF GROSS DOMESTIC PRODUCT

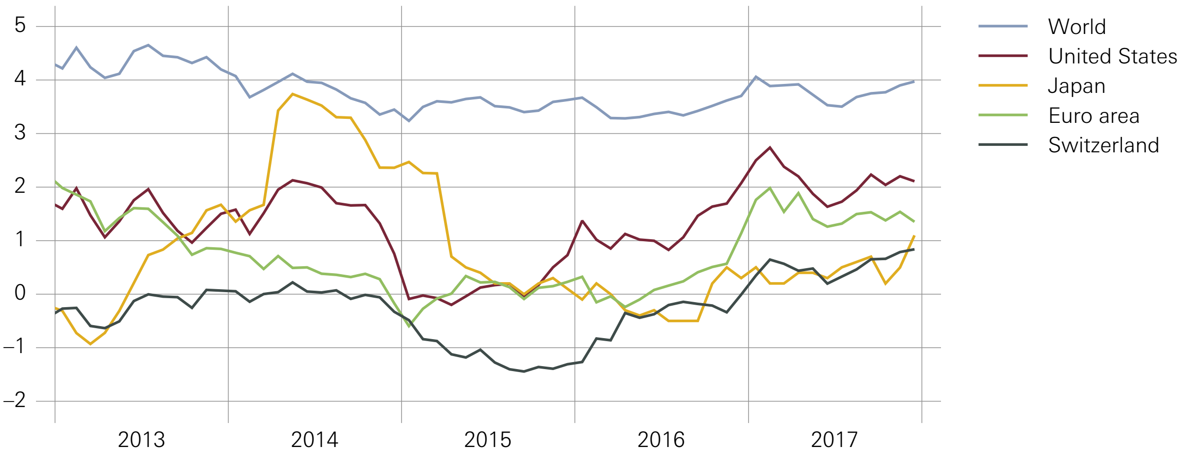
Year-on-year change in percent, in real terms



Sources: SECO, SNB, Thomson Reuters Datastream

INFLATION

Consumer prices, year-on-year change in percent



Sources: IMF, SFSO, Thomson Reuters Datastream

Sound growth in China

At 6.9%, the pace of GDP growth in China was similar to 2016 (6.7%). Consumption was one of the main drivers. Manufacturing improved, which was reflected in rising corporate profits. Moreover, excess capacity in coal and steel continued to decline. Higher capital market interest rates as well as macroprudential measures taken by the government, including stricter regulation of investment funds, dampened the demand for loans. Despite this, the ratio of debt to GDP increased again, thus continuing to pose a considerable risk.

Slightly lower growth in India

GDP growth in India receded to 6.4%, from 7.9% in the previous year. The currency reform carried out in 2016 and the goods and services tax reform in July 2017 had a temporary dampening effect on growth.

Revival in Brazil and Russia

The economies of Brazil and Russia both picked up after a two-year recession. In both countries, more favourable monetary conditions and robust demand from abroad bolstered economic growth. Substantial structural problems continue to cloud the investment environment in Brazil, however.

Modest inflation in advanced economies

Inflation, as measured by the CPI, remained below central bank targets in most advanced economies. Compared to 2016, however, annual inflation recorded an increase in most cases, predominantly due to higher energy prices.

In the euro area, inflation rose to 1.5% from almost zero in the previous year. Core inflation, which excludes volatile categories of goods such as oil products and food, remained at around 1%.

US inflation averaged 2.1% and was thus considerably higher than in the year before (1.3%). Core inflation, however, receded slightly to 1.8%, primarily due to a decline in prices for communication services.

In Japan, inflation moved back into positive territory (0.4%) as a result of higher energy prices. The appreciation of the yen in the previous year and a further drop in prices for mobile communications had a dampening effect on core inflation (0.0%), however. Despite highly expansionary monetary policy, medium-term inflation expectations persisted significantly below the Bank of Japan's inflation target of 2%.

Rates of inflation declined in the large emerging economies; there, too, falling short of the respective central banks' targets. One reason for the decrease in inflation was lower food prices. In China, annual inflation dropped to 1.6%, while core inflation, driven by prices for services, increased to 2.2%. Inflation decreased to 3.3% in India, while core inflation remained almost unchanged at 4.5%. Inflation also declined in Brazil and Russia, although the weak utilisation of aggregate economic capacity also contributed in both cases.

Inflation rate declines in emerging economies

In view of the moderate inflation rates, many central banks maintained their expansionary monetary policy. One exception was the US Federal Reserve, which continued to pursue a cautious normalisation of its monetary policy after US inflation had approached its target and the economy was close to full employment. The Federal Reserve increased the target range for its policy rate in three steps by a total of 0.75 percentage points to 1.25–1.50%. In October, it also began to reduce its balance sheet by no longer reinvesting a portion of its matured government bonds and mortgage-backed securities. The Federal Reserve emphasised that economic developments and inflation in the US would warrant only a gradual increase in the policy rate.

Gradual normalisation of monetary policy in US

The European Central Bank (ECB) left its deposit rate at –0.4% and the main refinancing rate at 0.0%. It also continued its asset purchase programme, albeit reducing the purchase volume by EUR 20 billion to EUR 60 billion per month in April. Since developments in inflation were regarded as disappointing, the ECB decided in October to further extend the asset purchase programme until at least September 2018, but to halve its monthly purchase volume to EUR 30 billion from January 2018. Key rates are expected to remain unchanged for an extended period of time and well past the horizon of its net asset purchases. The ECB also decided, as part of its regular refinancing operations, to continue supplying banks with unlimited liquidity until at least the end of 2019.

Continuation of expansionary monetary policy in euro area

Expansive monetary policy unchanged in Japan

Since September 2016, the Bank of Japan has placed yield curve control at the centre of its quantitative and qualitative monetary easing policy. It maintained the target for ten-year Japanese government bond yields at around 0% in 2017. In addition, asset purchases are to be continued until inflation surpasses the 2% mark. Furthermore, in an environment of persistently low inflation, the Japanese central bank reiterated its willingness to ease monetary policy further if necessary.

Targeted easing in China

The People's Bank of China left the policy rate unchanged in 2017. It decided in autumn to grant a reduction in its minimum reserve requirement ratio of up to 150 basis points as of the beginning of 2018 to commercial banks which increase their lending to small companies or agricultural enterprises. In doing so, the central bank stressed that this measure did not indicate any general easing of monetary policy; rather, the aim was to provide support to companies which had previously received insufficient loans.

Policy rate cuts in Brazil, Russia and India

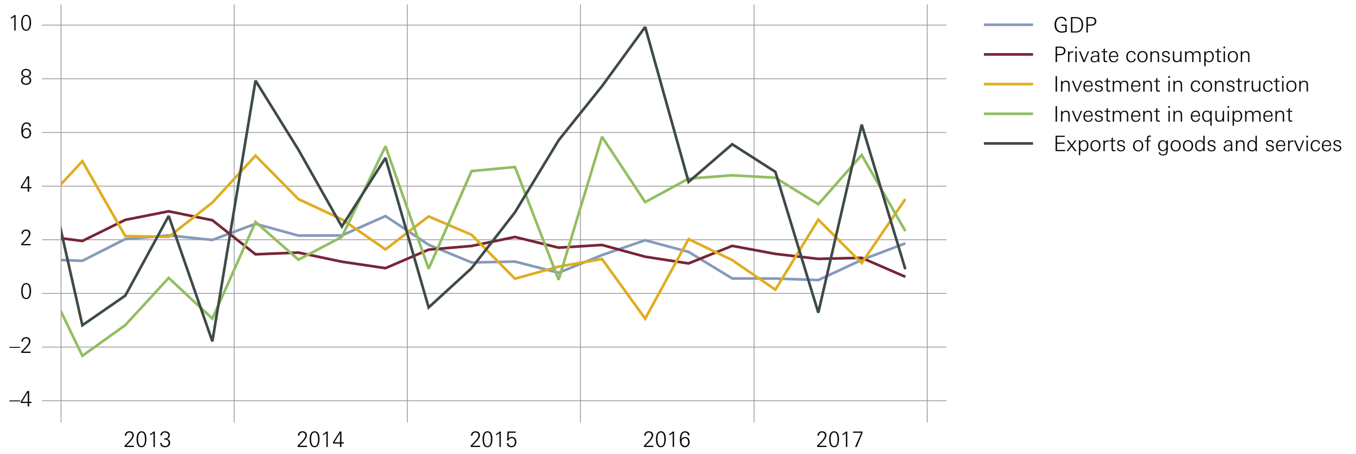
Monetary policy was eased in Brazil and Russia, after their inflation rates had clearly declined during the recession. The Brazilian central bank lowered its policy rate from 13.75% to 7.0% and Bank of Russia made a cut from 10.0% to 7.75%. The Reserve Bank of India made a slight reduction to its policy rate, from 6.25% to 6.0%.

1.3 ECONOMIC DEVELOPMENTS IN SWITZERLAND

Continued economic recovery in Switzerland

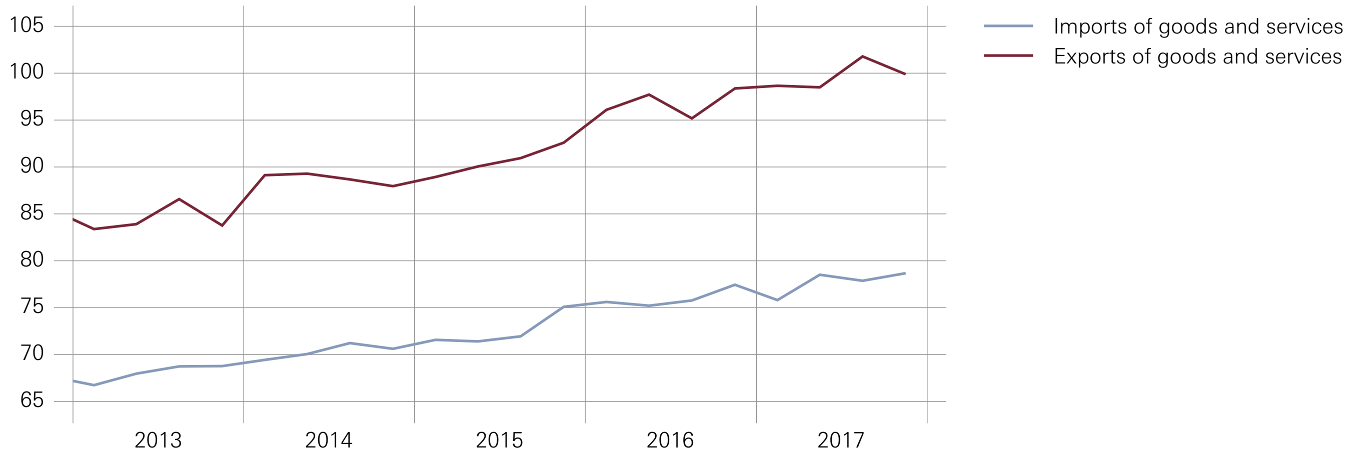
Switzerland's economy gained increasing momentum in the course of 2017, following only modest performance in the year before and at the beginning of the year. The purchasing managers' index for the manufacturing sector and the KOF economic barometer both recorded a further improvement, with their annual average clearly exceeding the previous year's level. The situation in the labour market also picked up, as unemployment declined in the course of the year. Real GDP in the fourth quarter was up 1.9% year-on-year. According to initial estimates by the State Secretariat for Economic Affairs (SECO), however, the annual average GDP growth of 1.0% was lower than in 2016 (1.4%). This was due to weak growth in the second half of 2016 and the first quarter of 2017.

GROSS DOMESTIC PRODUCT AND COMPONENTS
Year-on-year change in percent, in real terms



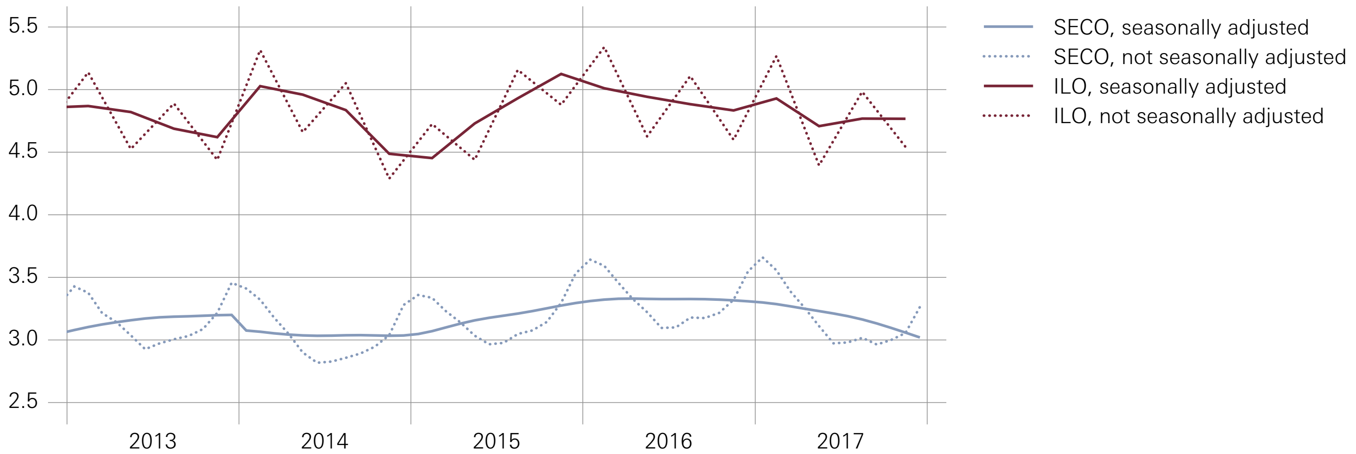
Source: SECO

FOREIGN TRADE
In CHF billions, in real terms, seasonally adjusted



Source: SECO

UNEMPLOYMENT RATE
In percent



Sources: SECO, SFSO

Strong growth in manufacturing

A major factor in the economic recovery was the favourable international environment. Export-oriented industries also benefited from the Swiss franc's depreciation in the second half of the year. Value added in manufacturing rose strongly, making the largest contribution to GDP growth. Healthcare and financial services also added noticeably to the increase in GDP. The hospitality industry saw an upturn in value added, following a decline in the two previous years. In other industries, such as wholesale and retail trade, developments remained lacklustre.

Positive developments in exports

The increase in goods exports was more broadly based than in previous years. Not only chemical and pharmaceutical products, but also metals, machinery and vehicles registered a vigorous rise in exports. Watch exports also recovered after shrinking in the two previous years. Exports of services, by contrast, stagnated, and merchanting contracted. Overall, growth of goods and services exports was less strong than in 2016.

Economic picture derived from discussions with companies

The SNB bases its economic assessment on a wide range of information sources. This includes information gathered by the SNB's delegates for regional economic relations during regular discussions with companies from all parts of the country. The results of these discussions are summarised in the 'Business cycle signals' section of the SNB's *Quarterly Bulletin*.

Overall, the discussions with companies in 2017 indicated a steady firming of the economic situation, with turnover gaining momentum. Capacity utilisation and margins were also seen to be improving. All in all, by the end of the year, they nonetheless remained slightly below the level considered normal by the company representatives. Expectations regarding staff numbers and planned investments also showed a slight upward tendency. Two key factors contributing to these positive developments were the steady improvement of the international economic environment and the depreciation of the Swiss franc.

Developments varied from one industry to another, partly for structural reasons. Retailing, banking and certain lines of manufacturing in particular have been facing ongoing structural change, driven by online trading, automation and digitalisation.

Favourable economic developments abroad, low interest rates and increasing capacity utilisation had a positive impact on equipment investment, which exhibited broad-based growth in 2017. In previous years, this investment had been concentrated on vehicle purchases, software, and research and development. Investment in machinery and IT equipment in particular recorded a noticeable increase.

Rise in equipment investment

Consumer expenditure by private households advanced somewhat less strongly than in the year before, with a marked increase being registered only in spending on healthcare. In most other areas, expenditure growth was muted, however. One reason for this was the slightly weaker growth in real income compared to the previous year, due in part to inflation returning to positive territory.

Moderate growth in consumption

According to the quarterly survey of the Swiss Contractors' Association, residential construction investment continued to grow. An increasing oversupply made itself especially felt in the market for rental apartments. The vacancy rate rose again, reaching 1.5% as at 1 June 2017, the highest level since June 1999. Investment in other areas of structural and civil engineering also registered an increase.

Growth in construction investment

REAL GROSS DOMESTIC PRODUCT

Year-on-year change in percent

	2012	2013	2014	2015	2016	2017
Private consumption	2.3	2.6	1.3	1.8	1.5	1.2
Government consumption	1.5	2.3	2.2	1.2	1.6	0.9
Investment	3.3	0.6	3.0	2.2	3.1	3.0
Construction	2.9	3.1	3.2	1.6	0.9	1.9
Equipment	3.5	–1.0	2.9	2.6	4.5	3.8
Domestic final demand[1]	**2.5**	**2.0**	**1.9**	**1.8**	**1.9**	**1.6**
Exports of goods and services[1]	3.0	–0.1	5.2	2.3	6.8	2.7
Aggregate demand[1]	**2.7**	**1.3**	**3.1**	**2.0**	**3.7**	**2.0**
Imports of goods and services[1]	4.4	1.4	3.3	3.2	4.7	2.2
Gross domestic product	**1.0**	**1.9**	**2.4**	**1.2**	**1.4**	**1.0**

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 situation in the labour market improved in 2017. Excluding seasonal fluctuations, the number of people registered as unemployed with regional employment offices declined steadily. In the course of the year, the seasonally adjusted unemployment rate published by SECO receded from 3.3% to 3.0% in December 2017.

The unemployment rate calculated by the Swiss Federal Statistical Office (SFSO) in line with the definition of the International Labour Organization (ILO) revealed a similar picture. In the fourth quarter of 2017, unemployment stood at 4.8%, as against 5.1% at the end of 2015, the highest recorded rate since the financial crisis. 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.

Employment on the rise

The number of employed persons rose by 0.9% year-on-year, exceeding the 5 million mark for the first time. Employment was up in services and manufacturing, while in construction it fell. In the second half of the year, however, the number of full-time positions was up for the first time in two years.

Higher capacity utilisation, but output gap still slightly negative

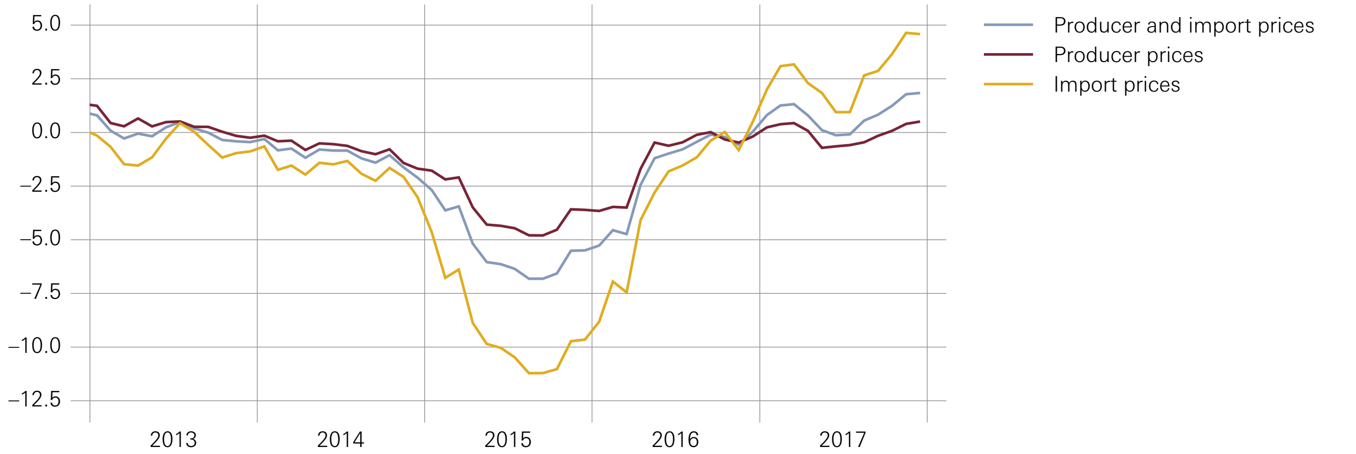
The utilisation of production capacity improved. The output gap, which is defined as the percentage deviation of GDP from estimated aggregate potential output, remained negative, but narrowed in the course of the year. In manufacturing, at the end of the year, utilisation of technical capacity was slightly above the long-term average. Business surveys suggested average capacity utilisation overall in the various services industries. In construction, by contrast, capacity utilisation remained above the long-term average.

Higher total wage bill

According to the System of National Accounts (SNA), the total real wage bill was up by 0.7%. This was a smaller increase than in the year before (1.3%) and primarily reflected the reduced growth in real wages. The share of labour income in GDP also declined in parallel, but remained very high by historical standards.

PRODUCER AND IMPORT PRICES

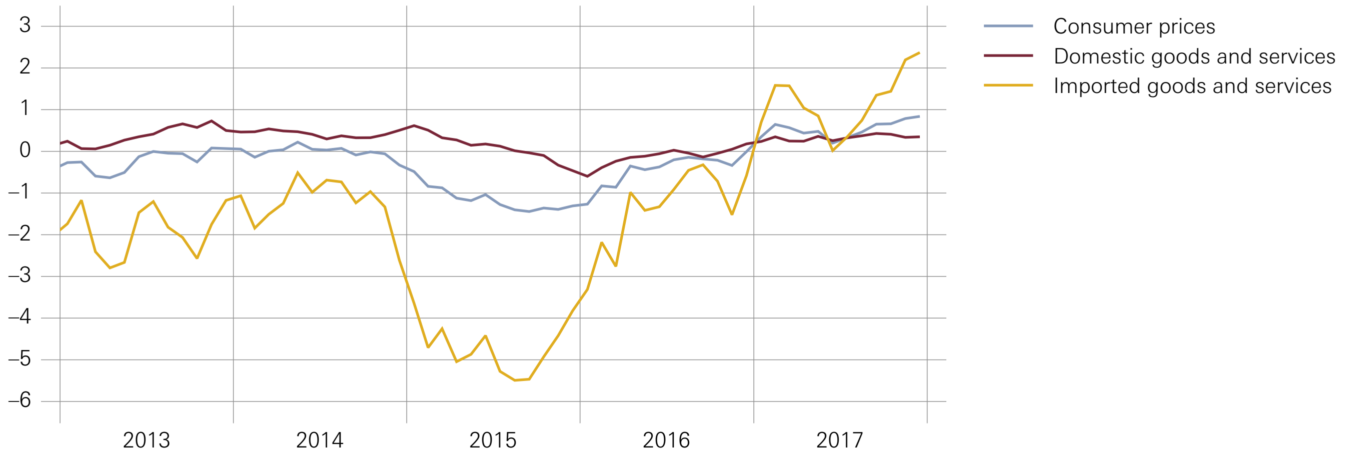
Year-on-year change in percent



Source: SFSO

CONSUMER PRICES

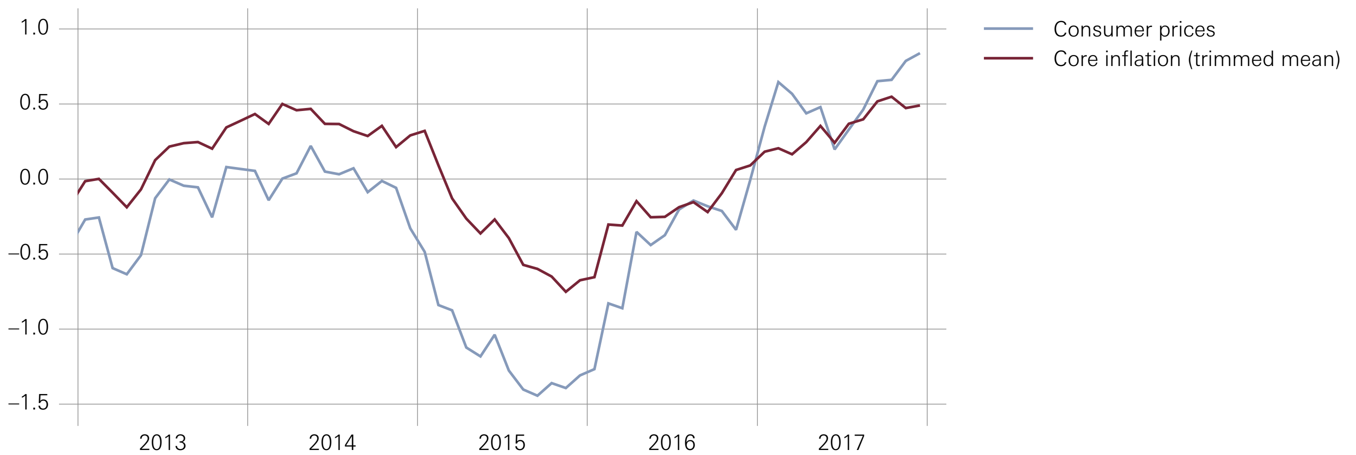
Year-on-year change in percent



Source: SFSO

CORE INFLATION

Year-on-year change in percent



Sources: SFSO, SNB

Rising producer and import prices in second half of year

After remaining stable in 2016, producer and import prices were up 0.9% year-on-year on average in 2017. The increase occurred in the second half of the year and was mainly due to the depreciation of the Swiss franc, which set in at the end of July. While import prices registered a considerable increase from August onwards, the rise in producer prices was somewhat less marked and occurred with a slight lag.

CPI inflation back in positive territory

In 2017, the annual inflation rate as measured by the CPI averaged 0.5%, up from –0.4% the year before. After remaining largely stable at around 0.5% in the first three quarters, it climbed to 0.8% in the fourth due to rising prices for imported goods and services. Influenced by the weakening of the Swiss franc, the inflation rate for foreign goods and services advanced from 0.8% in the third quarter to 2.0% in the fourth. By contrast, the inflation rate for domestic goods and services was largely unchanged at around 0.3%. While back in positive territory after registering –0.1% in 2016, it nevertheless persisted at a low level by historical standards.

Slight rise in core inflation rate

CPI headline inflation may be significantly affected by fluctuations in specific price components. In order to analyse the underlying trend of inflation, the SNB therefore calculates the core inflation rate using a trimmed mean. This measure excludes, each month, those goods with the largest and the smallest price changes compared to the same month one year earlier. Specifically, this applies to those 15% of goods in the CPI basket with the highest and those 15% with the lowest price inflation. The core inflation rate calculated using the trimmed mean method rose slightly in 2017, reaching 0.5% in the fourth quarter. Over the year as a whole, core inflation averaged 0.3%, after having been slightly negative the year before.

SWISS CONSUMER PRICE INDEX AND COMPONENTS

Year-on-year change in percent

	2016	2017	2017 Q 1	Q 2	Q 3	Q 4
Consumer price index, overall	**–0.4**	**0.5**	**0.5**	**0.4**	**0.5**	**0.8**
Domestic goods and services	–0.1	0.3	0.3	0.3	0.4	0.4
Goods	–0.6	–0.2	0.0	–0.3	–0.3	–0.1
Services	0.0	0.5	0.4	0.4	0.6	0.5
Private services (excluding rents)	0.0	0.3	0.2	0.4	0.3	0.4
Rents	0.3	1.1	1.1	1.1	1.3	0.9
Public services	–0.5	–0.1	–0.4	–0.4	0.1	0.1
Imported goods and services	–1.4	1.2	1.3	0.6	0.8	2.0
Excluding oil products	–0.7	0.2	–0.7	–0.1	0.2	1.3
Oil products	–6.1	8.8	17.3	6.1	5.5	6.8
Core inflation						
Trimmed mean	–0.2	0.3	0.2	0.3	0.4	0.5

Sources: SFSO, SNB

1.4 MONETARY POLICY IN 2017

Expansionary monetary policy

The SNB continued to pursue an expansionary monetary policy in 2017. Although inflation rose slightly and stayed within the range that the SNB equates with price stability throughout the year, capacity utilisation in the economy remained below the long-term average; the SNB therefore left monetary policy unchanged. As in the previous year, this was 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.

Negative interest on SNB sight deposits and target range unchanged

The SNB left the interest rate on sight deposits unchanged throughout 2017. It began charging negative interest on sight deposits on 22 January 2015, and the rate has been held at –0.75% ever since. Negative interest continued to help keep interest rates low and reduce upward pressure on the Swiss franc, thereby ensuring appropriate monetary conditions. The SNB also left the target range for the three-month Libor unchanged, at between –1.25% and –0.25%.

Constant interest rate differential to euro

The three-month Libor hovered close to the middle of the target range, at around –0.75%, throughout the year. As the ECB also left its key rates unchanged, the differential to the corresponding interest rate on euro investments (Euribor) remained largely constant. Dollar rates, on the other hand, rose significantly in response to monetary policy tightening by the Federal Reserve; this led to a widening of the interest rate differential vis-à-vis the dollar area.

Higher capital market yields than in 2016

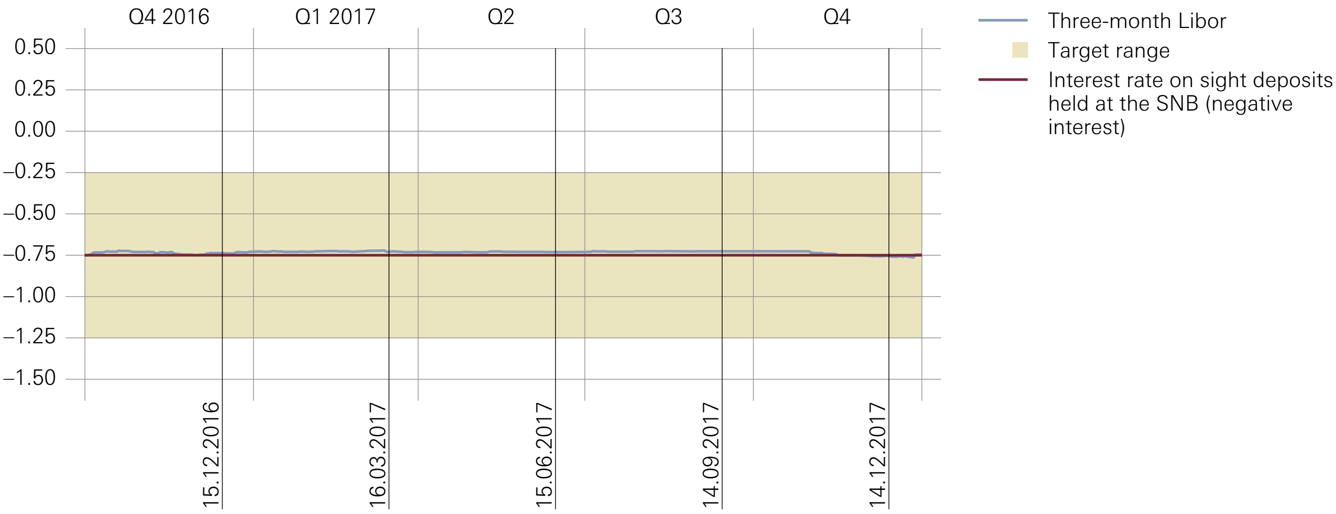
In 2017, average yields on long-term bonds were higher than during the previous year. Yields had already risen in the last quarter of 2016 following the US presidential elections, however. During 2017, bond yields moved sideways amid moderate fluctuations; they thus followed a broadly similar trajectory to bonds in the euro area and the US, where yields likewise changed only marginally. Long-term interest rates remained very low by historical standards. Ten-year Confederation bonds were mostly negative-yielding, while yields on corporate bonds were in low positive territory.

Largely stable deposit and lending rates

Banks' deposit and lending rates remained largely stable, in line with interest rates on money market investments and long-term Confederation bonds. Unlike rates on these money market investments and bonds, however, deposit and lending rates were not generally negative. Banks only passed on negative interest charges to specific categories of customer deposits. Banks' savings rates remained close to zero, while mortgage rates averaged around 1.6%.

MONETARY POLICY INTEREST RATES

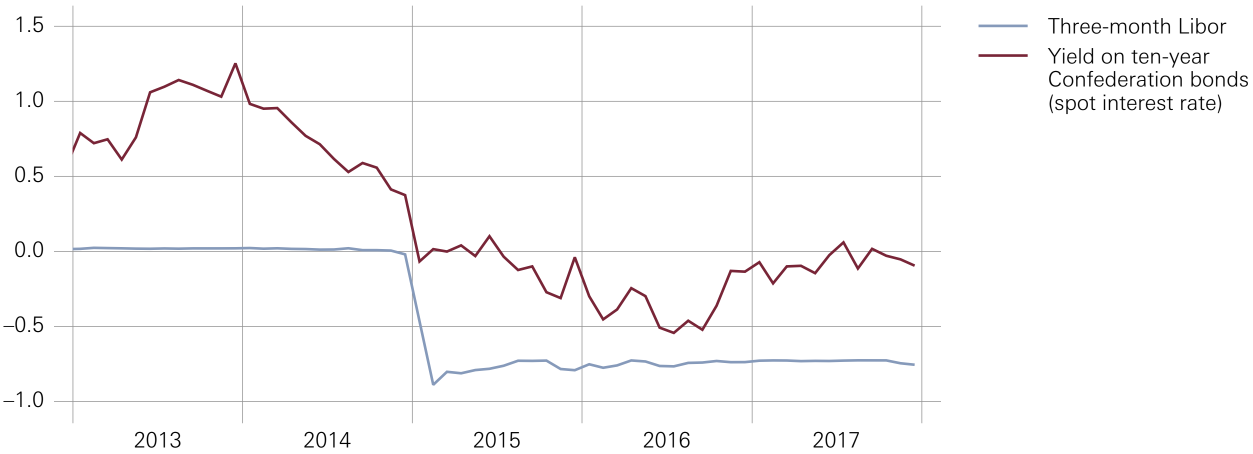
Daily values in percent, dates of monetary policy assessments



Source: SNB

MONEY AND CAPITAL MARKET RATES

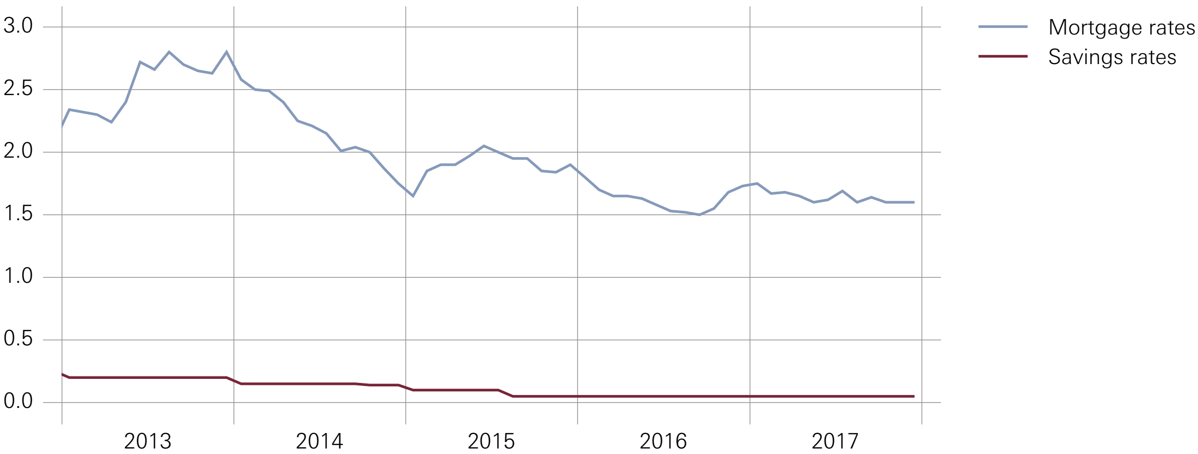
Monthly averages in percent



Source: SNB

BANK INTEREST RATES

Month-end values in percent



Source: SNB

Foreign exchange market interventions

The SNB ensured appropriate monetary conditions both by charging negative interest and by being willing to intervene in the foreign exchange market as necessary; this willingness remained essential. The first half-year in particular was dominated by political uncertainty in Europe. In 2017, the SNB's foreign exchange market interventions totalled CHF 48.2 billion. They occurred mainly during periods of uncertainty, when the Swiss franc was particularly sought-after as a safe investment.

Swiss franc weaker

The Swiss franc began weakening against the euro at the end of July, and this process continued in the months that followed. From September, the franc also weakened against the US dollar. Initially, these exchange rate movements principally reflected lower political uncertainty in the euro area following the French elections; later on, growing confidence about the economic recovery of the euro area and the momentum of the global economy were the main drivers. Safe-haven demand for the Swiss franc receded against this backdrop. The trade-weighted nominal external value of the Swiss franc fell by around 5% in the second half of the year. As inflation was lower in Switzerland than abroad, the trade-weighted real external value of the Swiss franc fell by slightly more. By December, it had thus returned to roughly the same level as before the discontinuation of the minimum exchange rate in January 2015. While the weakening of the Swiss franc helped to reduce the significant overvaluation of the currency, the franc nonetheless remained highly valued and the situation on the foreign exchange market remained fragile. Renewed upward pressure on the Swiss franc cannot be ruled out.

Monetary base stabilises

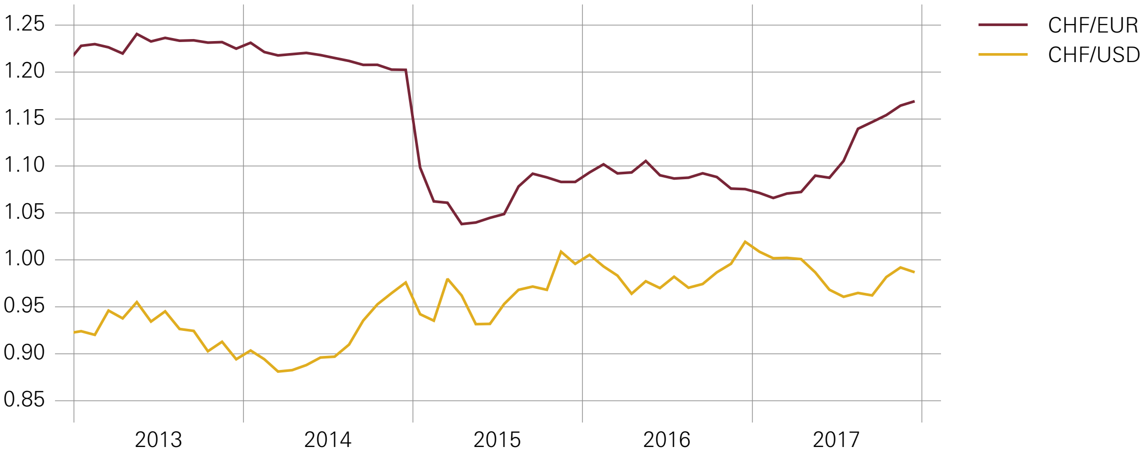
The monetary base, which is made up of banknotes in circulation and domestic banks' sight deposits with the SNB, expanded slightly until mid-year, before shrinking again somewhat. This decline reflects a shift from domestic banks' sight deposits towards other sight deposits held at the SNB. Total sight deposits at the SNB were practically unchanged in the second half of the year. As in the previous year, banknotes in circulation contributed only marginally to growth in the monetary base.

Persistently high excess liquidity

Banks' excess liquidity remained high in 2017. That is to say, their liquidity reserves (sight deposits at the SNB plus cash) were high relative to their customer deposits. This high excess liquidity in the banking system is a function of the SNB's large-scale foreign exchange market interventions in recent years against a backdrop of near-zero interest rates. The SNB has the requisite instruments at its disposal to re-absorb this liquidity, should the need arise.

EXCHANGE RATES

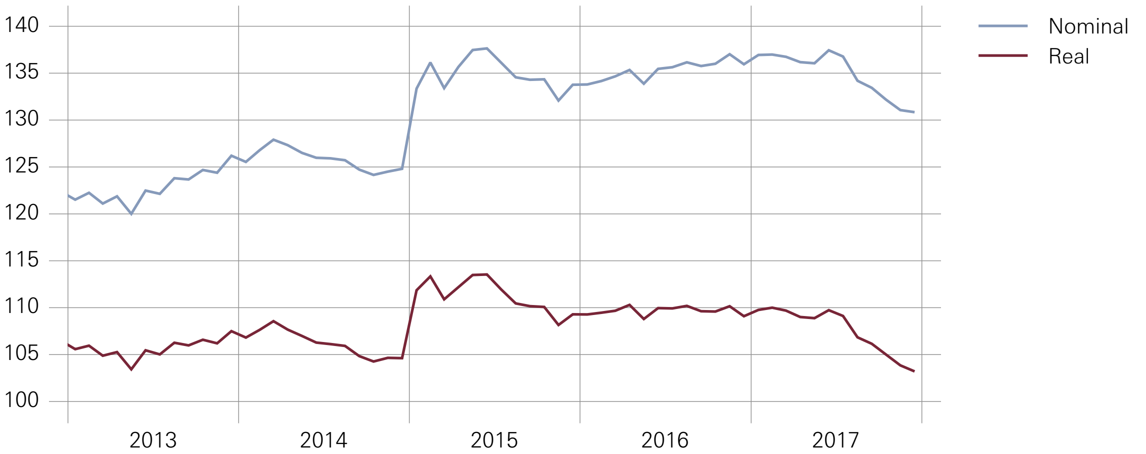
Monthly averages



Source: SNB

TRADE-WEIGHTED SWISS FRANC EXCHANGE RATES

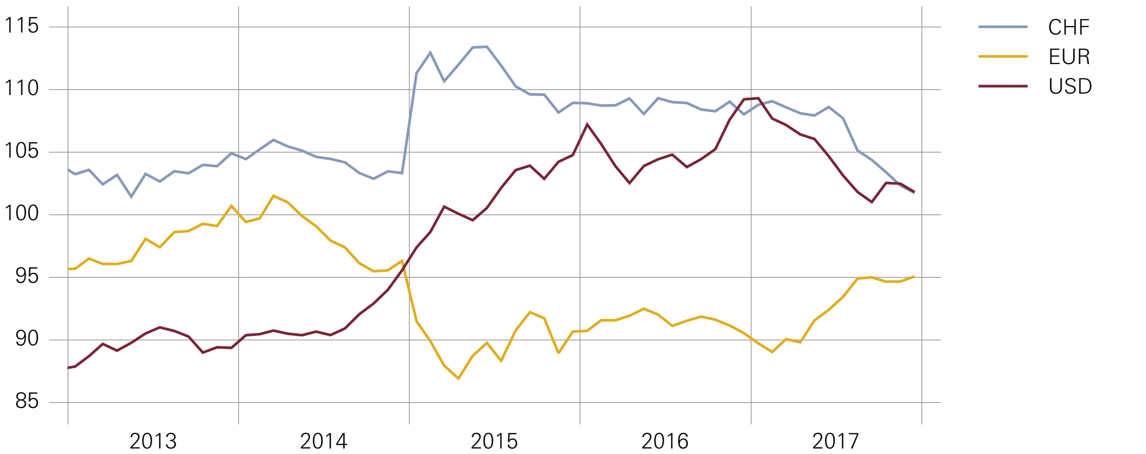
Index: average since 1990 = 100



Source: SNB

TRADE-WEIGHTED EXCHANGE RATES IN INTERNATIONAL COMPARISON

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



Sources: BIS, SNB

Monetary and credit aggregates growing

Monetary and credit aggregates continued to grow. M3, the broad monetary aggregate which covers sight deposits, transaction accounts, savings and time deposits in addition to currency in circulation, not only grew somewhat faster than in 2016, but also faster than total bank lending. Meanwhile, growth in bank lending once again exceeded nominal GDP; the loan ratio thus increased, as it has done every year since 2008. This suggests that risks to financial stability persist (cf. chapter 6).

International growth forecasts

The inflation forecasts published by the SNB as part of its quarterly monetary policy assessments are based on scenarios for the global economy. In December 2016, the SNB had assumed that the global economic recovery would continue in 2017 and that worldwide growth would be almost half a percentage point higher than in 2016. In both the second and third quarters of 2017, the forecast was revised upwards by 0.1 percentage points. These adjustments were principally a response to the fact that the recovery in both Europe and Japan had been slightly stronger than expected. The 2018 forecast for the global economy, on the other hand, remained virtually unchanged. The SNB expected global growth to stabilise and remain at roughly the same level as in 2017.

Oil price assumption

The oil price assumption that flows into the SNB's inflation forecasts is based on the market price per barrel of Brent crude at the time a given forecast is made. It was USD 56 in March, USD 51 in June, USD 50 in September and USD 61 in December 2017.

Growth forecast for Switzerland

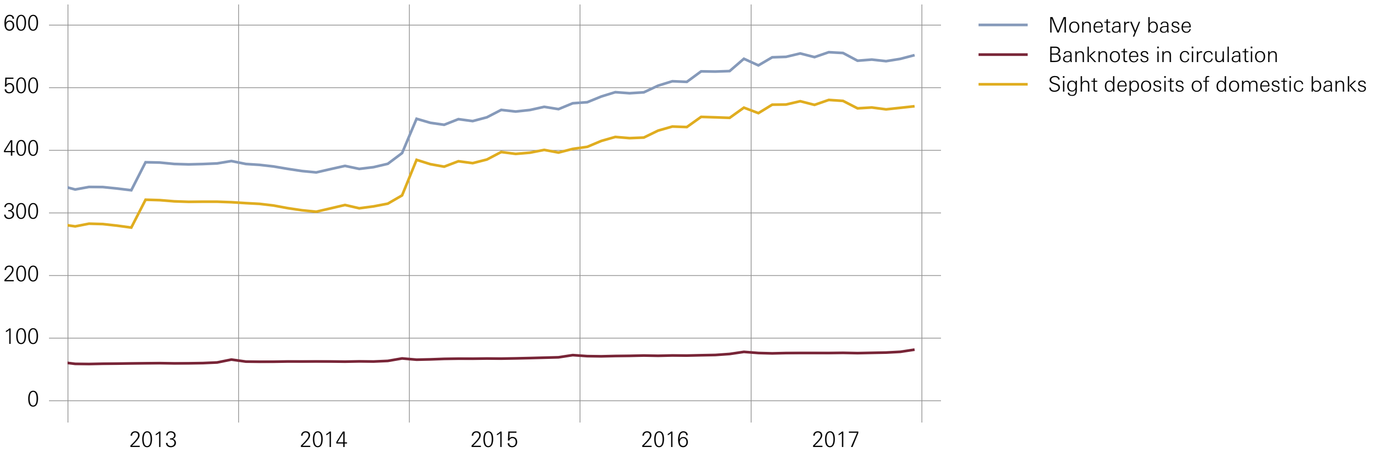
At the end of 2016, the SNB forecast real GDP growth of 1.5% for Switzerland in 2017, on the assumption that the economy would expand at a stable, moderate rate. The SNB confirmed its growth forecast in March and June; in September, it revised its forecast downwards to just under 1% due to weak GDP growth in the previous quarters. By December, it was projecting GDP growth of 1% for 2017 and around 2% for 2018.

Conditional inflation forecast

The conditional inflation forecasts published at the monetary policy assessments are based on the assumption that the three-month Libor remains constant over the three-year forecast horizon. As the three-month Libor remained at –0.75%, all forecasts assumed an interest rate of –0.75%.

MONETARY BASE AND COMPONENTS

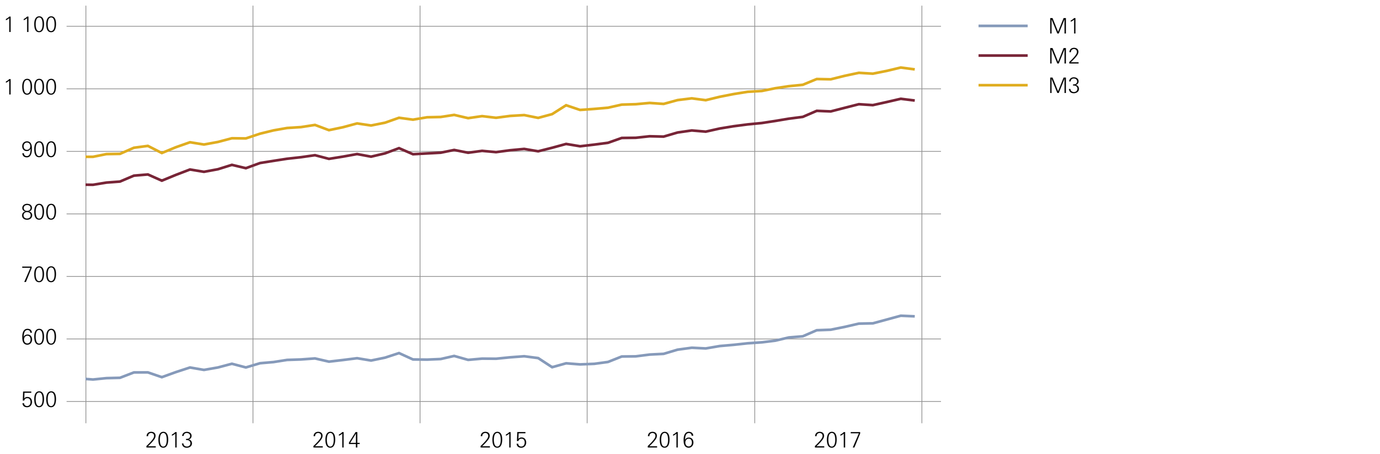
Monthly averages in CHF billions



Source: SNB

LEVEL OF MONETARY AGGREGATES

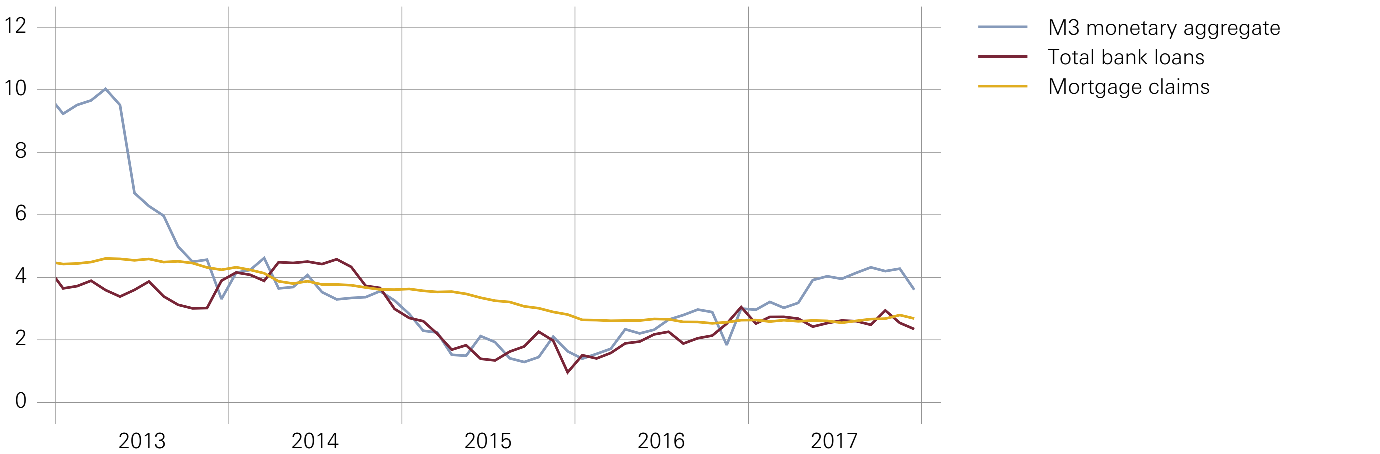
Month-end values in CHF billions



Source: SNB

GROWTH OF MONETARY AND CREDIT AGGREGATES

Year-on-year change in percent



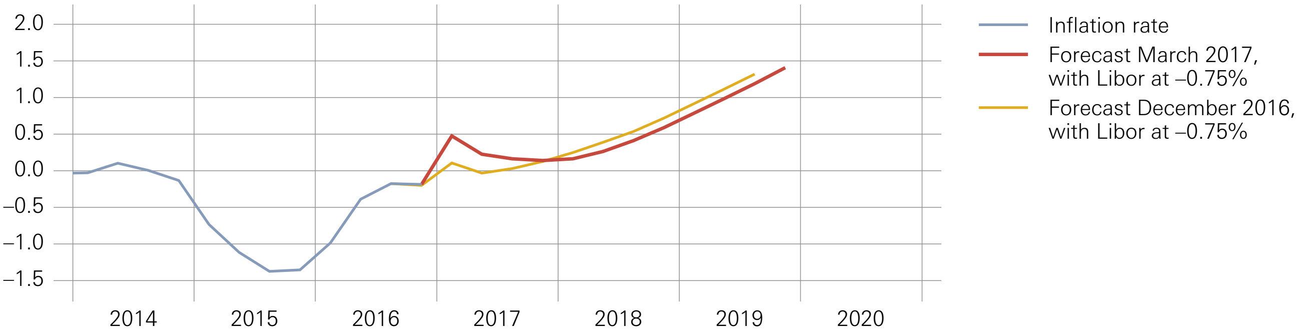
Source: SNB

In 2017, the SNB's conditional inflation forecasts projected that inflation would rise slightly over the forecast horizon. This reflected the assumption that, with the interest rate unchanged at –0.75%, the effect of monetary policy during the subsequent three years would be expansionary; however, the predicted rise in inflation was modest. Only at the very end of the forecast horizon did the conditional inflation forecast marginally overshoot the range that is consistent with the SNB's definition of price stability.

Only minor adjustments were made to the medium-term inflation forecast during the year. Although inflation was a little higher than expected in the first quarter, which meant that the short-term forecast in March 2017 was revised upwards, the long-term forecast was revised only slightly – and it was revised downwards. At the monetary policy assessments in June and September, the inflation forecast remained largely unchanged. In December, the short-term forecast was revised upwards again. In addition to factoring in a higher oil price assumption, this adjustment primarily reflects the weakening of the Swiss franc, which pushed up inflation in the fourth quarter.

CONDITIONAL INFLATION FORECAST OF MARCH 2017

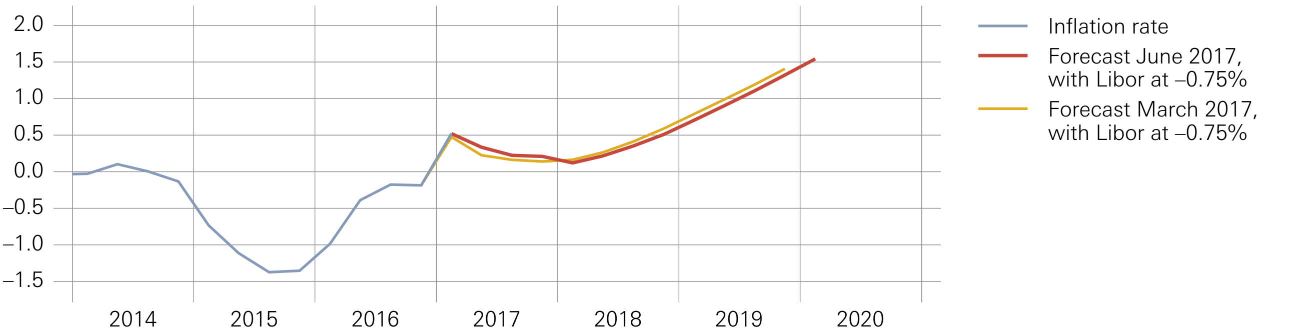
Year-on-year change in Swiss consumer price index in percent



Source: SNB

CONDITIONAL INFLATION FORECAST OF JUNE 2017

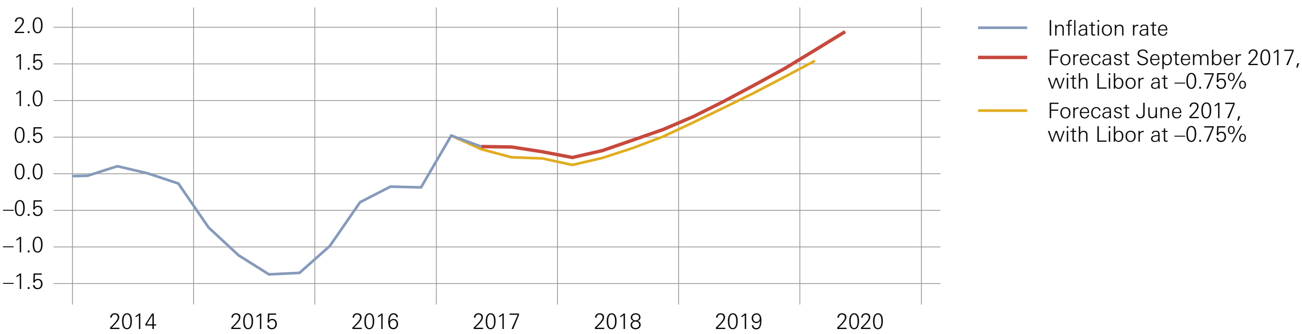
Year-on-year change in Swiss consumer price index in percent



Source: SNB

CONDITIONAL INFLATION FORECAST OF SEPTEMBER 2017

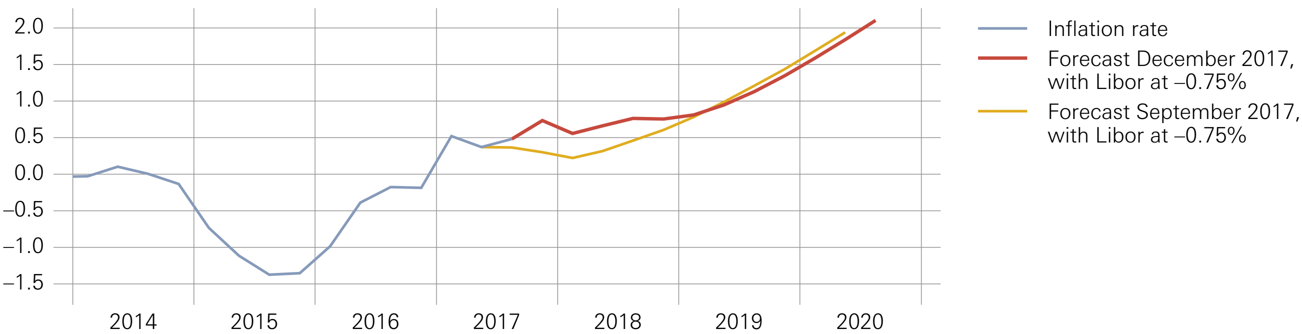
Year-on-year change in Swiss consumer price index in percent



Source: SNB

CONDITIONAL INFLATION FORECAST OF DECEMBER 2017

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



Source: SNB

The SNB's new exchange rate indices

Exchange rate indices serve as an indicator of the price competitiveness of a country. They are calculated on the basis of bilateral exchange rates, information on trade flows, and – in the case of real indices – price development data.

The SNB began calculating and publishing both a nominal and a real exchange rate index, weighted with goods exports to 15 of Switzerland's key trading partners, in 1977. In 1983, the SNB, the Federal Office for Economic Policy and the Federal Finance Administration (FFA) jointly drafted a methodology for calculating exchange rate indices; the FFA was responsible for performing the actual calculations. The SNB took over the task of calculating exchange rate indices in 1991. In the context of two minor revisions, the number of trading partners used was increased to 24 (2001), then to 40 (2009).

In 2017, the SNB fundamentally overhauled its methodology. Thanks to greater availability of balance of payments data, it is now able to deploy new calculation methods that are widely regarded as standard today.

First, it applies a weighting method that takes into account so-called third-market effects. Whereas a purely export-weighted index only replicates exports to the domestic markets of the relevant trading partners, the new weighting method factors in three key variables: competition with foreign suppliers in those suppliers' domestic markets (bilateral export competition), competition with foreign suppliers in the Swiss domestic market (import competition) and competition with foreign suppliers in third markets (export competition in third markets). The country weightings are calculated using data on global trade flows, including trade in services – an area of significance for Switzerland.

Second, the SNB calculates a chained exchange rate index that takes the year-back period as the base period. Chaining allows the group of countries included in the index, as well as their weightings, to be updated continuously. The index now includes all countries whose export or import share vis-à-vis Switzerland exceeds 0.2% in a current or year-back period. This ensures that ongoing developments in the trading of goods and services can be promptly replicated in the exchange rate index and that changes in the structure of international trade flows show up quickly in the index weightings.

As before, the SNB also calculates a real traded-weighted exchange rate index. In the past, only consumer price indices (CPIs) have been used as deflators. The SNB now also calculates and publishes a real exchange rate index in which the producer price index (PPI) is applied as a deflator.

There is only a negligible difference between the nominal exchange rate index calculated using the new methodology and the old index. The values in the new real exchange rate index (CPI-based), however, are marginally lower than those produced under the old methodology. This is because the countries that have received a larger weighting in the new index exhibit higher inflation, on average, than countries whose weighting has diminished.

As the chart entitled 'Trade-weighted Swiss franc exchange rates' shows, both the nominal and the real trade-weighted exchange rate indices declined in 2017.

2
Implementation of monetary policy

2.1 BACKGROUND AND OVERVIEW

Mandate

It is the task of the Swiss National Bank (SNB) 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.

Implementation of monetary policy using 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 2017, 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 hold sight deposits to satisfy minimum reserve requirements. 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 subject to exemption thresholds 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

Increase in sight deposits due to foreign currency purchases

As a result of foreign currency purchases during 2017, sight deposits held at the SNB rose to CHF 573 billion by the end of the year, a year-on-year increase of CHF 43 billion. The rise occurred mainly in the first half of the year.

Money market rates close to negative interest rate

The interest rate of –0.75% charged by the SNB on sight deposits helped to maintain the traditional interest rate differential between Switzerland and foreign countries and to make investments in Swiss francs less attractive. The relevant money market rates remained close to the interest rate on sight deposits. At the end of 2017, the interest rate for secured overnight money – the Swiss Average Rate Overnight (SARON) – and the three-month Swiss franc Libor both stood at –0.75%.

Slightly lower 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 billion, the average daily turnover on the repo market was lower than in the previous year (CHF 5 billion).

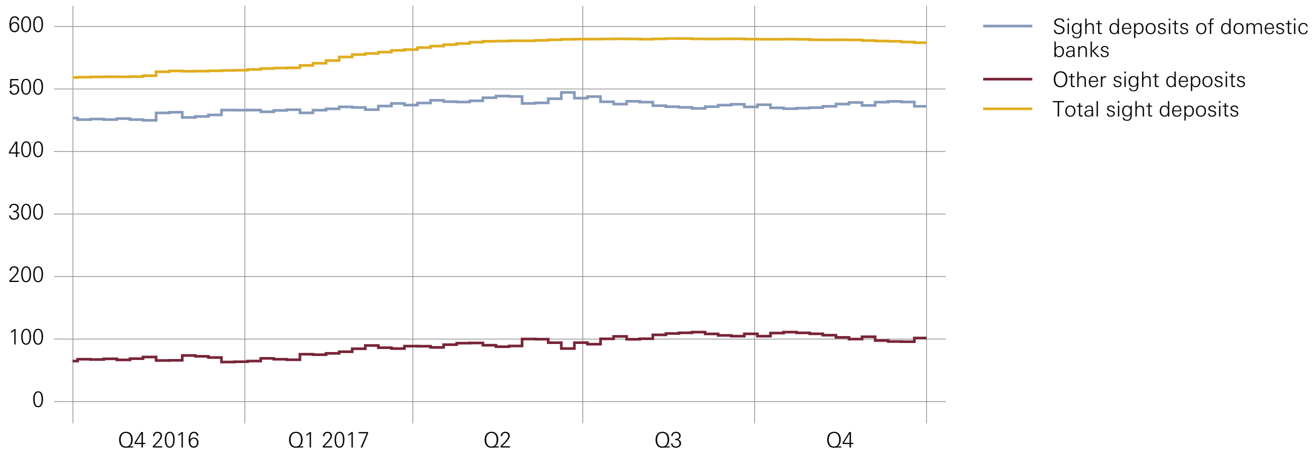
Interest rate benchmark reforms at international level

The interest rate benchmark reforms which the Financial Stability Board (FSB) has been coordinating since 2014 saw advances at both international and national level. In a further progress report on the reforms, the FSB noted that while the benchmark administrators of the interbank offered rates (IBORs) had continued to take important steps to strengthen rates, the data underlying the unsecured rates remained fragile, since trade in this money market segment had not yet recovered from the financial crisis. For the same reason, the British Financial Conduct Authority (FCA) announced in July 2017 that it would be withdrawing its support for the Libor as of the end of 2021; from then on, it will – among other things – no longer require banks to remain part of the Libor panel. The FCA recommended using the period until the end of 2021 to enable an orderly transition away from the Libor.

In the year under review, many currency areas made progress in implementing steps to establish alternative reference rates to the IBOR, as recommended by the FSB. In a number of countries, including Australia, Brazil, Canada, Hong Kong, Japan, Switzerland, the UK and the US, alternative reference rates were defined based on very short-term money market transactions. In addition, work was undertaken to convert the market for interest rate swaps to these reference interest rates.

SIGHT DEPOSITS AT THE SNB

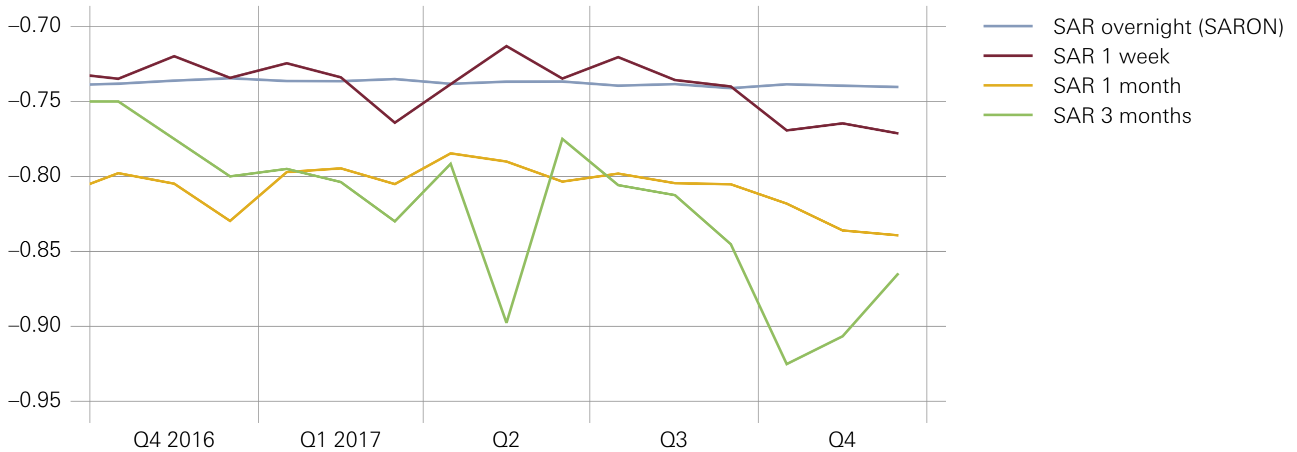
Weekly averages in CHF billions



Source: SNB

SWISS FRANC REFERENCE RATES (SWISS AVERAGE RATES, SAR)

Monthly averages of daily figures in percent



Source: SIX Swiss Exchange Ltd

Progress on reforms in Switzerland

In Switzerland, work is being spearheaded by the national working group on Swiss franc reference rates (NWG), founded in 2013. The NWG comprises representatives of domestic and foreign banks, as well as specialists from other areas of the economy. The group is co-chaired by a representative of the private sector and a representative of the SNB, which acts as a coordinator. Responsibility for reference rates lies with the private sector.

In recent years, the NWG has carried out work to support the use of SARON (the interest rate for secured overnight money based on Swiss franc repo transactions) as an alternative reference interest rate. In November 2016, the administrator of the TOIS fixing, a rate for the unsecured overnight money market, announced its discontinuation at the end of 2017. The NWG then recommended replacing TOIS fixing with SARON. Interest rate swaps based on SARON have been traded since April 2017.

At a meeting in October 2017, the NWG also recommended SARON as the alternative to the Swiss franc Libor. To this end, it deployed working groups to address the transition from Libor to SARON-based financial products. The SNB supports efforts to reform benchmark interest rates being undertaken at national and international level. Details of the NWG's activities are available on the SNB website.

The significance and role of reference interest rates

Reference interest rates are intended to give an overall reflection of the prevailing conditions on the money and capital markets. They provide a benchmark to guide the decisions of market participants. Reference interest rates create transparency and comparability, thus improving trade efficiency on the financial markets. Reference rates therefore play an important role in the pricing of financial products. The variable rates on mortgage agreements, for example, are based on them. Derivative transactions like interest rate swaps are also based on reference rates; interest rate swaps involve the exchange of fixed and variable-rate interest payments, the latter of which use a reference interest rate. Such transactions are concluded across the full spectrum of maturities, producing the 'swap curve'. Swap curves, in turn, are used to value balance sheet items and financial products.

There are various methods of determining a reference interest rate. It can be based either on rates reported by banks or directly on market transactions. The Libor, for example, is the trimmed mean of the interest rates reported by banks for unsecured loans with a range of maturities. The Swiss franc Libor is currently based on daily interest rate submissions by eleven international banks, known as panel banks. Given that banks have hardly lent any money on an unsecured basis in recent years, it has become increasingly difficult for the panel banks to base their reported interest rates on transactions. In contrast to the Libor, the SARON (Swiss Average Rate Overnight) is calculated according to binding quotes and concluded overnight repo transactions on the SIX money market trading platform. As long as participants are active on the platform, sufficient data is available for the calculation of the SARON.

The Libor remains the most important reference interest rate on money and capital markets worldwide. Estimates suggest it is used to price financial products worth more than USD 300 trillion; the Swiss franc Libor is the benchmark for around CHF 6 trillion of financial products. Most of the financial products which use the Libor as a reference interest rate have a maturity of about 5 years, although maturities of 30 to 50 years are not uncommon. Interest rate swaps based on the Libor, which influence the formation of interest rates on the credit and capital markets, are particularly significant. The pricing of long-term mortgages and government bonds, for example, is based on the Libor swap curve. In October 2017, the national working group on Swiss franc reference rates recommended SARON as the alternative to the Swiss franc Libor.

Principles of collateral policy

The SNB requires that the banks and other financial market participants with whom it conducts credit transactions provide sufficient collateral (art. 9 NBA). In so doing, the SNB protects itself against losses and ensures equal treatment of its counterparties. The 'Guidelines of the Swiss National Bank on monetary policy instruments' outline the types of securities that are eligible as collateral for SNB transactions. The 'Instruction sheet on collateral eligible for SNB repos' details the criteria which securities must meet in order to be eligible as collateral in repo transactions with the SNB. Only securities included in the 'List of collateral eligible for SNB repos' are accepted. Since the SNB also admits 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.

Translated into Swiss francs, the volume of collateral eligible for SNB repos at the end of 2017 amounted to CHF 9,703 billion, almost CHF 800 billion more than at the end of the previous year. The increase was largely a result of the higher Swiss franc value – due to exchange rates – of securities denominated in euros.

2.3 USE OF MONETARY POLICY INSTRUMENTS

Foreign exchange transactions and foreign exchange swaps

In order to fulfil its monetary policy mandate, the SNB may purchase and sell foreign currency against Swiss francs on the financial markets. Most foreign exchange transactions conducted by the SNB are either 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 2017, the SNB continued to influence exchange rate developments where necessary. It purchased a total of CHF 48.2 billion in foreign currency, but 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 2017, the institutions' total sight deposits stood at CHF 573 billion, well above the maximum exempted amount of CHF 291 billion. At the end of December, sight deposits of CHF 271 billion were subject to negative interest. Negative interest rate income totalled CHF 2.0 billion in 2017. Due to account holders' efforts to 'trade' sight deposits among themselves via the money market, exemption thresholds have been almost entirely exhausted 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 liquidity-absorbing repo transactions, the SNB sells securities to a bank and debits the associated sum in Swiss francs to the latter's sight deposit account. At the same time, it is agreed that the SNB will repurchase the securities from the bank at a later date. For the term of the repo agreement, the cash taker generally pays interest (the repo rate) to the cash provider. From an economic perspective, a repo transaction is thus regarded as a secured loan. 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 2017. 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.

SNB debt certificates

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

In 2017, 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 (cf. 'Repo transactions').

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 (AHV/AVS; IV/AI; EO/APG). 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 2017, 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 2017, 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 39.6 billion; at the end of the year, 81 financial market participants held corresponding limits.

SUPPLYING THE MONEY MARKET WITH LIQUIDITY

Liquidity-related operations in CHF millions[1]

Terms	2017	2016
Open market operations		
Repo transactions[2]	–	–
Up to 3 days	–	–
4 to 11 days	+11	+9
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	–230	–444
8 to 28 days	–	–
29 to 84 days	–	–
85 to 168 days	–	–
169 to 336 days	–	–
Foreign exchange transactions	+48 154	+67 062
Total	**+47 935**	**+66 627**
Standing facilities		
Intraday facility[3]	+1 086	+1 060
Liquidity-shortage financing facility[2]	0	0
Other monetary policy instruments		
Negative interest on sight deposit account balances	–2 021	–1 523

1 A plus sign (+) indicates liquidity-providing; a minus sign (–) indicates liquidity-absorbing.
2 Average level of liquidity-providing operations outstanding at the end of the day.
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 the SARON over the reporting period in question.

MINIMUM RESERVES

In CHF millions

	2017 Outstanding Average	2016 Outstanding Average
Sight deposits at the SNB	473 456	429 081
Banknotes	6 364	6 641
Coins in circulation	118	124
Eligible assets	479 938	435 846
Requirement	15 884	15 047
Compliance in excess of requirement	464 054	420 798
Compliance in percent	3 021	2 897

In 2017 (between 20 December 2016 and 19 December 2017), statutory average minimum reserves amounted to CHF 15.9 billion. This is a 6% increase year-on-year. Eligible assets rose to CHF 479.9 billion on average, compared with CHF 435.8 billion a year previously. Banks exceeded the requirement by an annual average of CHF 464.1 billion; the average degree of compliance was 3021% (2016: 2897%). The statutory minimum reserve requirement was met by all 238 banks.

2.5 LIQUIDITY IN FOREIGN CURRENCIES

Swap agreements

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 2017, 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.

Besides its permanent network, the SNB has had swap agreements with the National Bank of Poland and the People's Bank of China since 2012 and 2014 respectively.

In February 2018, the SNB also concluded a swap agreement with the Bank of Korea.

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 what 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 (SNB) 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 2017, the turnover (incoming and outgoing) of the cash offices in Berne and Zurich amounted to CHF 91.4 billion (2016: CHF 94.7 billion). They received a total of 410.1 million banknotes (2016: 397.6 million) and 234.4 million coins (2016: 241.5 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 439.9 million banknotes (2016: 420.8 million) and 336.0 million coins (2016: 327.6 million).

Temporary relocation of public counter

The head office at Bundesplatz 1 in Berne is currently undergoing alteration work. During this period, the bank counter, which is open to the public, has been transferred to Bank EEK on Amthausgasse 14/ Marktgasse 19 in Berne, where the full range of services will continue to be offered. Payment transactions by bigger customers, such as commercial banks and cash processing operators, are settled at a separate location.

Turnover at agencies

The 14 agencies assist the SNB's cash offices by distributing and redeeming cash. They play an important role in ensuring the regional supply and distribution of cash.

The agencies' turnover (incoming and outgoing) amounted to CHF 11.3 billion (2016: CHF 11.9 billion). The share of agency turnover in the SNB's overall turnover was 12.4% (2016: 12.6%).

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 2017, 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.

Purchase of Landqart AG

In December 2017, the SNB acquired a majority stake (90%) in Landqart AG and in the patent-holding company, landqart management and services. The remaining 10% of the share capital in both companies was purchased by Orell Füssli Holding Ltd. The purchase price came to a total of CHF 21.5 million, with the SNB's portion amounting to CHF 19.4 million. Landqart is the only company in the world to provide the technology and production units for the manufacture of the special paper used for the new Swiss banknote series (Durasafe® substrate). The acquisition took place against the background of an acute liquidity shortage which posed a threat to the company's survival. The SNB decided to purchase Landqart because, otherwise, the issuance of the new banknote series would not have been guaranteed across the entire production stream. By taking this step, the SNB is ensuring the continued supply of cash and, hence, the fulfilment of its own statutory mandate.

Banknotes in circulation

In 2017, banknote circulation averaged CHF 76.5 billion (2016: CHF 72.2 billion). The total number of notes in circulation amounted on average to 449.2 million (2016: 425.9 million). In value terms, the increase came to 5.9% (2016: 7.2%). It was thus slightly below the year-back growth rate and also below the average growth rate over the last five years. Although all denominations registered growth, the increased demand for large-denomination banknotes observed since the financial crisis has continued.

Issue and disposal

In 2017, the SNB put 206.9 million freshly printed banknotes (2016: 180.7 million) with a face value of CHF 13.7 billion into circulation (2016: CHF 12.4 billion). This high growth can be attributed to the release of the new 20-franc and 10-franc notes from the ninth banknote series. Meanwhile, it destroyed 172.8 million damaged or recalled notes (2016: 172.3 million) with a face value of CHF 7.1 billion (2016: CHF 8.2 billion).

NUMBER OF BANKNOTES IN CIRCULATION

In millions

CHF 10s **76**
CHF 20s **86**
CHF 50s **58**
CHF 100s **125**
CHF 200s **56**
CHF 1000s **47**

Annual average for 2017

Counterfeits

In Switzerland, 1,988 counterfeit banknotes were confiscated in 2017 (2016: 2,370). This corresponds to 4 counterfeit notes per million Swiss franc notes in circulation (2016: 6); a low figure by international standards.

New banknote series

A banknote series must meet high standards with regard to security and production – and must continue to do so for around 15 years after its release. The long life cycle of a banknote series allows the cost for the economy connected with exchanging banknotes to be kept low.

In April 2016, the SNB launched the ninth banknote series, inspired by the theme 'The many facets of Switzerland'. The first denomination to be released was the 50-franc note, showcasing the wealth of experiences Switzerland has to offer. In 2017, two further denominations were put into circulation – the 20-franc note on 17 May (creativity) and the 10-franc note on 18 October (organisational talent). The new notes have proved their worth, and their reception among both the public and experts has been positive. The new 50-franc note won two internationally recognised awards.

The next denomination to be released will be the 200-franc note (scientific expertise), scheduled for August 2018. The last two denominations in the new series, the 1000-franc (communicative flair) and 100-franc (humanitarian tradition) notes, are to be issued in the course of 2019. The eighth banknote series will remain legal tender until further notice.

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 still be exchanged at the SNB at full face value until 30 April 2020. At the end of 2017, a total of 18.1 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 the consultation procedure for a partial revision of the CPIA. The revision is aimed at revoking the exchange period for all banknote series from the sixth series onwards. The public would thus have the certainty that there is no time limit for exchanging recalled Swiss banknotes at the SNB. The new regulation would be in line with that applied by other major currencies, such as the US dollar, euro, pound sterling and yen. The SNB takes a positive stance towards this legislative change.

Survey on use of payment methods

In 2017, for the first time, the SNB conducted a representative survey on the usage of the different payment methods in Switzerland. To this end, a questionnaire and payment diary were sent to 2,000 randomly selected Swiss residents, who were asked about their habits regarding their payment method and cash usage habits. The SNB will publish the results of the payment method survey in the course of 2018.

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 2017, the value of coins in circulation averaged CHF 3,102 million (2016: CHF 3,062 million), which corresponds to 5,527 million coins (2016: 5,442 million). At 1.3%, the growth rate in value terms of coins in circulation was below that of last year (2016: 1.5%). In recent years, the annual rate of growth ranged between 1.5% and 2.5%.

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 (SNB) facilitates and secures the operation of cashless payment systems. Art. 9 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 system (SIC) 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 6.6).

Main features of SIC

SIC is a real-time gross settlement system. This means that payment orders are settled irrevocably and individually 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. Similarly, some liabilities arising from card payments are bundled and settled among system participants via SIC.

Operation of the SIC system

The SNB steers the SIC system and ensures that there is sufficient liquidity 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 an agreement between the SNB and SIX Interbank Clearing. Furthermore, the SNB has a seat on the Board of Directors of SIX Interbank Clearing 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

Besides banks, the SNB can also grant other participants operating commercially on the financial markets access to the SIC system. These include securities dealers, insurance companies and institutions such as cash processing operators and financial market infrastructures which play a significant role in implementing monetary policy, settling payments or maintaining the stability of the financial system. Subject to certain conditions, banks domiciled abroad can also gain access to SIC.

4.2 THE SIC SYSTEM IN 2017

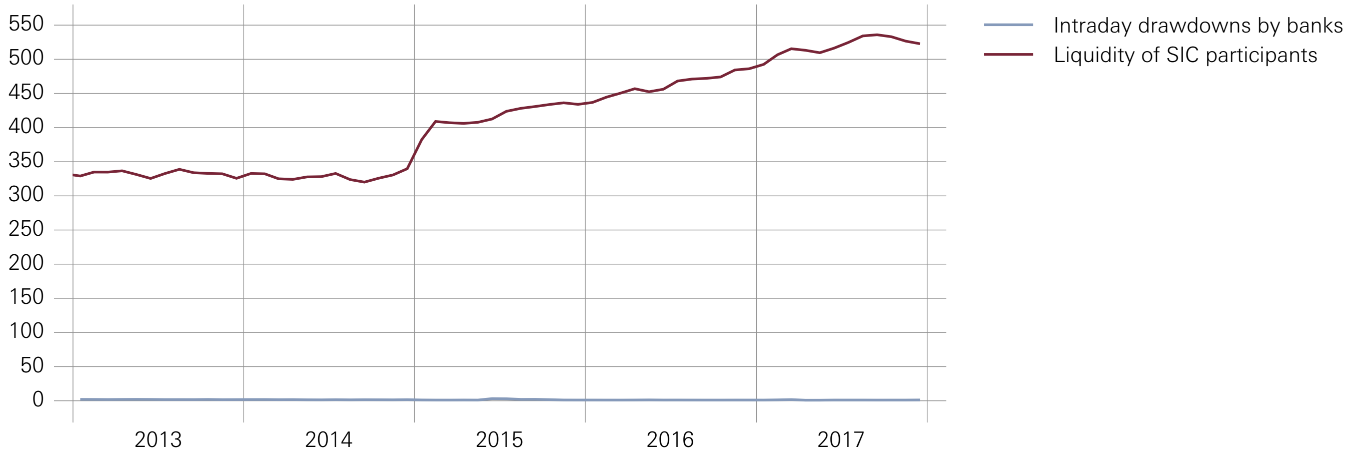
Transactions and turnover

In 2017, SIC settled a daily average of approximately 2 million transactions amounting to CHF 173 billion. Compared to the previous year, this represents a 15.3% increase in the number of transactions and a 13.1% increase in the value of transactions. Peak days saw up to 7 million transactions, with turnover of up to CHF 227 billion. This record number of transactions is due to the fact that PostFinance began – in a gradual process – to settle its bilateral payment transactions with other banks via the SIC system in 2017 (cf. chapter 4.3).

In 2017, around 97% of the transactions in the SIC system were accounted for by retail payments (9% of turnover) and 3% (91% of turnover) by interbank payments. 89.7% of the payment transactions involved an amount of less than CHF 5,000, 10.1% an amount between CHF 5,000 and CHF 1 million, and 0.2% an amount of over CHF 1 million.

LIQUIDITY IN SIC

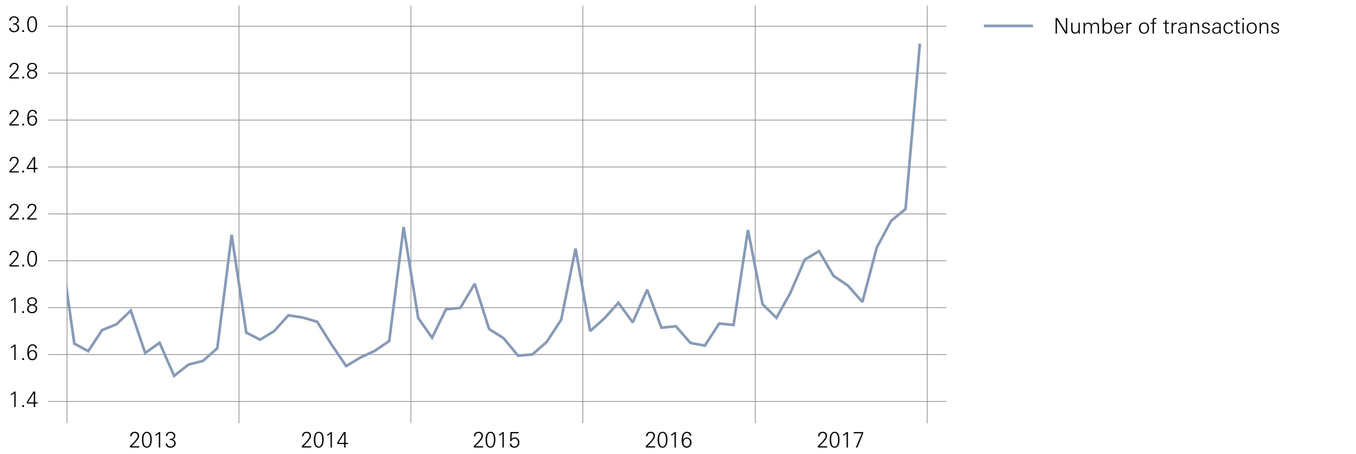
Monthly averages of daily figures in CHF billions



Source: SNB

TRANSACTIONS IN SIC

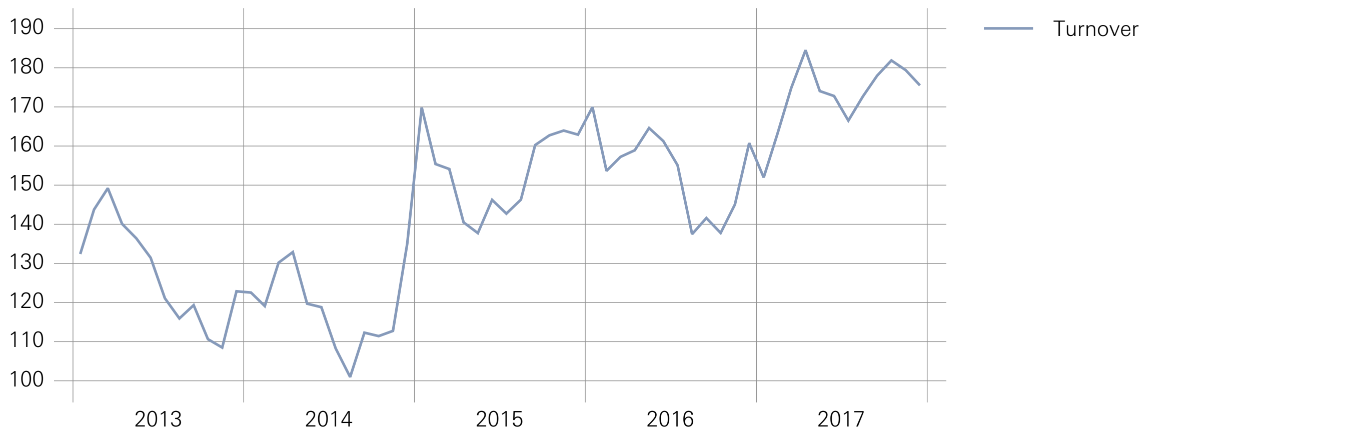
Monthly averages of daily figures, transactions in millions



Source: SNB

TURNOVER IN SIC

Monthly averages of daily figures in CHF billions
(based on revised method of calculation compared to previous year)



Source: SNB

KEY FIGURES ON SIC

	2013	2014	2015	2016	2017
Number of transactions					
Daily average (in thousands)	1 673	1 708	1 742	1 765	2 035
Peak daily value for year (in thousands)	5 498	5 123	5 302	5 670	7 025
Value of transactions					
Average daily turnover (in CHF billions)	127	119	154	153	173
Peak daily turnover for year (in CHF billions)	215	208	293	266	227
Average value per transaction (in CHF thousands)	76	69	88	87	85
Average liquidity					
Sight deposits at end of day (in CHF millions)	332 428	328 597	418 144	463 038	519 433
Intraday facility (in CHF millions)	1 858	1 547	1 629	1 060	1 086

Participants in SIC

As at 31 December 2017, the SNB had 422 holders of sight deposit accounts (2016: 428). Of these, 333 participated in SIC (2016: 337). The majority of SIC participants (237) are domiciled in Switzerland (2016: 240).

4.3 DEVELOPMENTS IN SWISS FINANCIAL MARKET INFRASTRUCTURE

Developments in SIC

Innovations in the financial industry have an especially strong impact on cashless retail payment transactions (cf. box 'Fintech'). Since both interbank and retail payments are settled via the SIC system, these developments are also relevant to SIC. In its capacity as commissioning party of SIC, the SNB strives to support innovation provided this does not impair the system's security and efficiency.

Efforts are currently under way in Switzerland to make cashless payment transactions more efficient and to harmonise the historically evolved diversity of standards, procedures and formats. The harmonisation is founded on the globally 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. As planned, all SIC participants introduced the new standard for the settlement of payment transactions in 2017. The next phase will see the corporate customers of SIC participants also switch to ISO 20022.

In March 2017, SIX Interbank Clearing Ltd reported on the further implementation of the harmonisation measures and the timetable for the transition to ISO 20022. The most visible element in the harmonisation of Swiss payment transactions will be the replacement of payment slips by QR-bills. The QR code on each bill will contain all the payment information and enable a more efficient payment settlement.

SIC's operating hours were extended in May 2017. This adjustment gives participants an additional two hours in the afternoon to submit payments with a same-day value date. SIC has thus addressed the requirement for extended settlement times for retail payments. The associated proposal made by the Board of Directors of SIX Interbank Clearing Ltd had been approved by the SNB in 2016.

In 2017, PostFinance began to process its bilateral payment transactions with other banks via the SIC system, aiming to do so entirely by 2023. This will lead to a substantial increase in the volume of payments settled by SIC and further raise the SIC system's significance.

Fintech
Under the catchword of 'fintech' (short for financial technology), the financial industry is currently experiencing a surge of innovation. Fintech is an umbrella term used for a variety of developments. First, it denotes technological innovations like distributed ledger technology (DLT), which enables the operation of a decentralised, synchronised database without the involvement of a central third party. Second, Fintech refers to the application of technological advances to traditional financial services (e.g. mobile payments, cryptocurrencies and crowd lending). Third, the term pertains to suppliers of financial products and services that until recently have not been active within traditional areas of finance, such as non-banks and 'fintechs'.

Fintech developments are primarily driven by progress in IT technology, including the ongoing advances in processing power and storage capacity, the increasing significance of smartphones as access devices, as well as the innovative application of encryption technology. On the demand side, this raises customer expectations regarding the availability of financial services in terms of time and place, the speed of transaction settlement, and the user friendliness of these services. On the supply side, on the one hand, new players such as telecommunication and technology companies as well as start-ups are entering the market with new forms of financial services and business models geared to meeting these requirements. On the other hand, traditional banks are also harnessing technological innovation in order to enhance their efficiency and live up to changing customer expectations.

The SNB's focus is on the effects that fintech innovation could have on the fulfilment of its statutory mandate, especially with regard to the operation of cashless payment systems and on the stability of the financial system. The debate on cryptocurrencies, for instance, has raised the question of whether or not central banks should issue new forms of digital currencies (CBDCs). The SNB currently sees no need for this.

The SNB is engaged in discussions with the Confederation and with the Swiss Financial Market Supervisory Authority (FINMA) on fintech developments and takes part in exchanges on this subject with other central banks at Bank for International Settlements and Financial Stability Board meetings (cf. chapters 7.2.2 and 7.2.3).

The SIC system is steered by the SNB and 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.

SIC as part of Swiss financial market infrastructure

In November 2017, SIX decided to adjust its business strategy and to simplify its organisational structure in order to enhance its competitiveness and that of the Swiss financial centre. SIX will henceforth focus on providing infrastructure services for its shareholders and the financial centre in the areas of securities business, payment transactions and financial information.

Significance of the 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. The SNB thus welcomes measures aimed at strengthening the Swiss financial infrastructure and continued the dialogue on this matter with SIX and the banking sector in 2017.

5
Asset management

5.1 BACKGROUND

Mandate

The assets of the Swiss National Bank (SNB) 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 more than CHF 700 billion to almost CHF 800 billion since the onset of the financial and debt crisis in 2008. The increase is largely 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 mainly 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 trigger 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 inside knowledge acquired within the SNB can influence investment activity and that no unintentional signal effects are created. For this reason, no investments are made in Swiss shares or in bonds issued by Swiss companies and the Swiss franc portfolio is managed passively.

The weighting of the individual investment criteria (liquidity, security and return) is derived from the functions of the currency reserves. Ensuring room for manoeuvre in the implementation of monetary policy requires, in particular, a high level of liquidity of assets. 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 investment categories. Since all investments are valued in Swiss francs, the return must compensate for 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 investment categories. 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, investment categories, 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 investment categories and currencies, and determines the scope for active management at operational level.

Investment Committee and Portfolio Management 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 investment categories, to take account of changed market conditions.

Portfolio Management manages the individual portfolios. The majority of assets are managed internally. Portfolios from the Asia-Pacific region are managed by SNB portfolio managers in the Singapore branch office. Its activities, especially trade and portfolio management, are fully integrated into the investment and risk control process in Switzerland. External asset managers are used to benchmark internal portfolio management and obtain efficient access to new investment categories. At operational level, responsibilities for monetary policy and investment policy are organised in such a way as to avoid conflicts of interest.

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 on 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 assessment of counterparty risk changes. To mitigate counterparty risk, the replacement values of derivatives are usually collateralised by securities. Concentration and reputational risks are also factored in when determining risk limits. Risk indicators are aggregated across all investments. Compliance with the guidelines and limits is monitored daily. The risk analyses and results of risk management activities are submitted to the Governing Board and the Bank Council's Risk Committee in quarterly risk reports. In addition, the annual risk management report is submitted to the Bank Council.

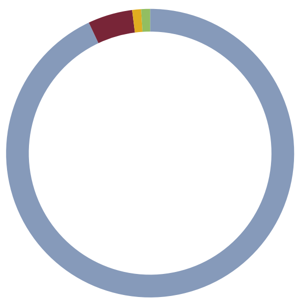
5.3 CHANGES IN AND BREAKDOWN OF ASSETS

Changes in assets

At the end of 2017, the SNB's assets amounted to CHF 843 billion, which was CHF 97 billion higher than a year earlier. They consisted of foreign currency investments (CHF 790 billion), gold (CHF 42 billion), Special Drawing Rights (CHF 5 billion), Swiss franc bonds (CHF 4 billion) and other assets (CHF 1 billion).

BREAKDOWN OF SNB ASSETS

In percent



Foreign currency investments **93**
Gold holdings **5**
Swiss franc securities **1**
Sundry **1**

Total: CHF 843 billion
At year-end 2017

Currency reserves

The rise in the balance sheet total was mainly attributable to the increase in the foreign currency investments. These were up by CHF 94 billion year-on-year, principally due to foreign currency purchases and investment performance. In addition, the value of gold holdings increased by CHF 3 billion. Foreign exchange reserves – which consist of foreign currency investments minus liabilities from foreign currency repo transactions – rose by CHF 97 billion year-on-year. At the end of 2017, total currency reserves amounted to CHF 791 billion.

COMPOSITION OF CURRENCY RESERVES

In CHF billions

	31.12.2017	31.12.2016
Gold reserves	42	39
Foreign currency investments	790	696
Less: associated liabilities[1]	–46	–49
Derivatives (replacement values, net)	0	0
Total foreign exchange reserves	744	647
Reserve position in the IMF	1	1
International payment instruments	4	4
Total currency reserves	**791**	**692**

1 Liabilities from foreign currency repo transactions.

Bond portfolios

At the end of 2017, 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 increased slightly, amounting to just under five 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 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 about 6,600 individual shares (around 1,500 shares of mid-cap and large-cap companies and 4,300 shares of small-cap companies in advanced economies, as well as 800 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

The SNB is a purely financial investor and does not pursue any strategic interests in its equity investments, e.g. in relation to companies and industries. By replicating individual markets in their entirety, thereby diversifying its placements as broadly as possible, it pursues as neutral and passive an investment approach as possible. As a general rule, the SNB does not actively engage in stock picking, nor does it overweight or underweight particular sectors. The SNB's investment policy is thus shielded from political considerations and the impact on individual markets is kept to an absolute minimum.

As regards equities, the principle of full market coverage is not applied in some cases. For example, the SNB does not invest in equities of mid-cap and large-cap banks and bank-like institutions, to avoid possible conflicts of interest. In addition, the SNB does not purchase shares of 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 are excluded as well (China, France, Russia, United Kingdom, United States).

To identify the companies concerned, the SNB defines the exclusion criteria and reviews the whole investment universe in a clearly delineated two-phased 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 made for each identified company as to whether it should be excluded or not. These 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 described in detail in 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 securities depositary, which in turn draws on its network of local custodians in the country concerned, holds operational responsibility for the casting of votes.

Swiss franc bonds

The passively managed Swiss franc bond portfolio amounted to CHF 4 billion and primarily contained bonds issued by the Confederation, the cantons and foreign borrowers, as well as Swiss Pfandbriefe. The average duration of the portfolio increased slightly in 2017 to eight and a half years.

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

	2017		2016	
	Foreign exchange reserves	CHF bond investments	Foreign exchange reserves	CHF bond investments
Currency allocation (in percent, incl. derivatives positions)				
CHF		100		100
EUR	40		42	
USD	35		33	
JPY	8		8	
GBP	7		7	
CAD	3		3	
Other[1]	7		7	
Investment categories (in percent)				
Investments with banks	0		0	–
Government bonds[2]	68	42	69	40
Other bonds[3]	11	58	11	60
Shares	21		20	–
Breakdown of fixed income investments (in percent)				
AAA-rated[4]	59	78	61	75
AA-rated[4]	24	22	25	24
A-rated[4]	12	0	9	0
Other	5	0	5	0
Investment duration (years)	4.7	8.5	4.2	8.3

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

Changes in asset structure

There was little year-on-year change in the structure of the foreign exchange reserves and Swiss franc bonds. The 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 21% at year-end.

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.

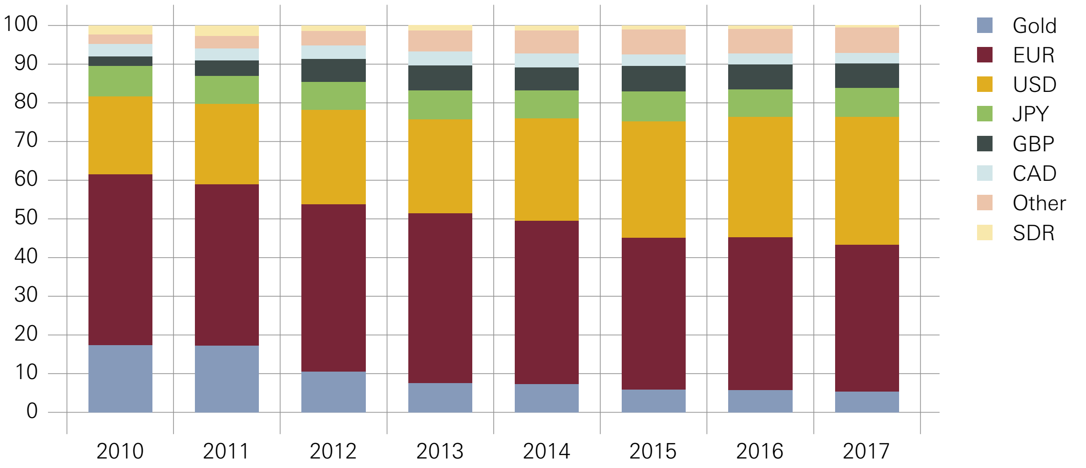
Market risk

Exchange rates are the most important risk factor for the currency reserves. As currency risk is not hedged against Swiss francs, 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.

As a matter of principle, 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 the 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.

BREAKDOWN OF CURRENCY RESERVES AT YEAR-END

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



Source: SNB

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 2017. 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 present in the case of 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 2017. Replacement values of derivatives were collateralised, in accordance with the ISDA (International Swaps and Derivatives Association) agreements with counterparties. Since May 2014, the SNB has been executing 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 collateral.

In 2017, too, investments mainly took the form of government bonds; the bulk of these were in highly liquid bonds issued by core European countries and the US. At the end of 2017, outstanding balances at central banks and the Bank for International Settlements amounted to almost CHF 19 billion. In all, 82% of bonds were rated AA or higher.

Country risk

Country risk arises from the possibility that a country may hinder 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 access to its gold reserves even in the event of a crisis.

Allocation to provisions

The SNB's equity capital is composed mainly of the provisions for currency reserves and the distribution reserve; it is built up from retained profits and serves in particular to absorb losses. The increase in currency reserves for monetary policy reasons in recent years has caused the SNB's balance sheet to grow, and this in turn has resulted in higher loss risk in absolute terms. Any such losses would reduce equity capital. Annual allocations to the provisions are necessary to ensure a healthy equity base.

The annual allocation is determined on the basis of double the average nominal GDP growth rate over the previous five years. A minimum annual allocation of 8% of the provisions at the end of the previous year has applied since 2016. 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. As already in 2016, the minimum allocation applied for 2017 and amounted to CHF 5 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. The distribution reserve is intended to help smooth the SNB's profit distribution. 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 2017, the SNB's annual result was CHF 54 billion; the distribution reserve from the previous year amounted to CHF 20 billion. This allows for the ordinary distribution of CHF 1 billion as well as a supplementary distribution of CHF 1 billion. After allocation to the provisions for currency reserves of CHF 5.0 billion and the profit distribution to the Confederation and the cantons of CHF 2 billion for the 2017 financial year, the SNB's equity amounted to CHF 135 billion (provisions of CHF 68 billion and a distribution reserve of CHF 67 billion). This corresponded to 16% of the balance sheet total.

5.5 INVESTMENT PERFORMANCE

Return on investments

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

In 2017, the return on currency reserves was 7.2%. Returns on gold (7.9%) and foreign exchange reserves (7.2%) were clearly positive. Return on foreign exchange reserves was 4.2% in local currency. As a result of the Swiss franc's depreciation, the exchange rate return was also positive (2.9%). The positive investment performance was largely the result of strong equity returns. In Swiss franc terms, the annual return on the currency reserves has averaged 3.8% 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
2003	5.0	9.1	3.0	–0.4	3.4	1.4
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
2013–2017[2]	2.2	–3.5	2.8	–0.6	3.5	1.8
2008–2017[2]	1.7	3	0.4	–2.9	3.5	3.2
2003–2017[2]	3.8	6.8	1.6	–2	3.8	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 investment categories 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 option for the SNB. Furthermore, given that expected return is higher on shares than on bonds, this investment category 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 correlation characteristics with bonds and gold.

The share of equity holdings stood at 21% at the end of 2017. 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 has been 4.0%. Likewise measured in Swiss francs, the annual return on bonds over the same period has averaged 1.0%. Calculated in Swiss francs, the bonds component of the foreign exchange reserves made a gain of CHF 17.5 billion between 2005 and the end of 2017. The equity holdings generated a positive result of almost CHF 62 billion over this period. In recent years, equities have thus made a substantial contribution to the SNB's equity 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
2005–2017[1]	1.5	1.0	4.0

1 Average annual return over 13 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 (SNB) 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, 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 financial market infrastructures.

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).

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 for, among other things, 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.

Collaboration with FINMA, FDF and foreign authorities

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 financial market infrastructures, the SNB liaises closely with FINMA and with foreign authorities.

6.2 MAIN ACTIVITIES

Gone-concern requirements for domestically focused systemically important banks

In 2016, the SNB was involved in preparing the second evaluation report on the 'too big to fail' (TBTF) regulations for the Federal Council. Based on that report, in June 2017 the Federal Council decided that domestically focused systemically important banks will have to meet requirements on gone-concern loss-absorbing instruments, and formulated the relevant criteria. In the event of impending insolvency, these instruments can be written down or converted into equity. Together with the emergency plans, these requirements form the basis for the recovery or orderly wind-down of a bank. The FDF launched the associated consultation procedure in February 2018. For the two big banks, these requirements have already been in force since mid-2016.

Oversight of financial market infrastructures

In its oversight of systemically important financial market infrastructures (FMIs), in 2017 the SNB continued to focus on implementation efforts in connection with the Financial Market Infrastructure Act (FMIA), which came into effect on 1 January 2016. In particular, as part of the authorisation procedure for SIX x-clear and SIX SIS, the SNB noted that both of these FMIs complied with the applicable special requirements.

6.3 MONITORING THE FINANCIAL SYSTEM

Financial Stability Report

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*.

Big banks: improved resilience ...

As regards the two globally active Swiss big banks, in 2017 the SNB noted a further improvement in resilience, i.e. the first pillar of the TBTF regulations. Both institutions once again strengthened their going-concern loss-absorbing capacity. Credit Suisse and UBS are thus on track to meet the capital requirements that will apply once all the transitional phases have ended. As regards risk-weighted capital requirements, these banks already meet all the requirements. The requirements in terms of the leverage ratio have not yet been met in full. Achieving full compliance with the TBTF regulations will further strengthen loss-absorbing capacity. Given their significance to the Swiss economy, it is important that both institutions remain adequately capitalised, even after incurring substantial losses.

The second pillar of the TBTF regulations covers the recovery and orderly wind-down (resolution) of a bank in a crisis, where an institution can no longer continue to operate as a going concern (and is thus a 'gone-concern'). Both big banks made progress in this regard. FINMA is responsible for bank resolution planning and implementation. For this purpose, the big banks introduced a number of measures last year: First, they issued additional loss-absorbing instruments, which can be converted into equity in the event of impending insolvency. Second, they took precautions at organisational level. For example, they set up Swiss subsidiaries to which they transferred systemically important functions, including, in particular, their domestic deposit and lending business. In addition, they began to establish standalone service companies, aimed at strengthening operational independence within the group. Nonetheless, the SNB considers that more progress is necessary. Gone-concern loss-absorbing capacity needs to be strengthened further, in accordance with the provisions of the TBTF regulations. Moreover, the resolution plans must be credible and implementable.

... and progress on resolution

Domestically focused banks

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, the 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.

However, the SNB emphasised that, in the prevailing low interest rate environment, incentives for banks, corporate investors and households to take on greater risk exposure to the domestic credit and real estate markets were substantial. Banks in particular faced strong incentives to increase affordability risk or interest rate risk in mortgage lending. For the stability of the financial system, it was crucial that banks continued to hold sufficient capital to cover the risks taken.

6.4 RISKS AND MEASURES RELATING TO MORTGAGE AND REAL ESTATE MARKETS

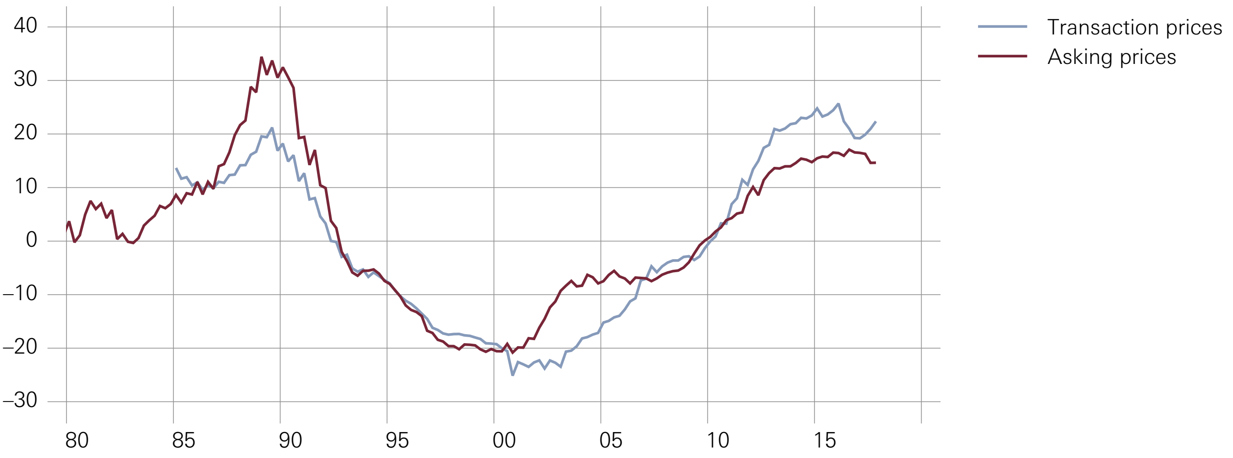
Developments up to end-2016

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 countercyclical capital buffer (CCyB) on mortgage lending to finance residential real estate in Switzerland was first activated, and 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 ensure that the imbalances on the mortgage market and the real estate market for residential property (single-family houses and owner-occupied apartments) registered hardly any change overall in 2014 and 2015, and declined slightly in 2016. By contrast, there was a build-up of risks in the residential investment property segment, as a result of sharply rising prices.

The imbalances on the mortgage and real estate markets persisted in 2017. As in the previous year, mortgage lending growth was relatively low. However, transaction prices for single-family houses and privately owned apartments suggest that the owner-occupied residential property segment picked up again strongly. Moreover, the SNB emphasised that, given the marked price rises for apartment buildings since 2013, especially in the residential investment property segment, there was the risk of a substantial price correction. This risk was compounded by brisk construction activity in the rental apartments segment, which could lead to oversupply. Rising vacancy rates were an indication of this.

PRIVATELY OWNED APARTMENTS: PRICE-TO-RENT RATIO

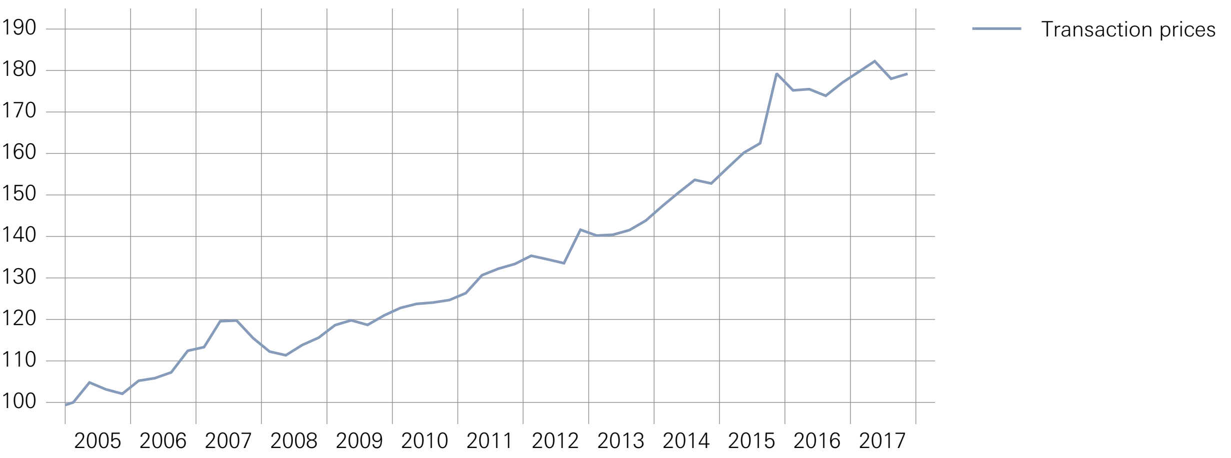
Deviation from average 1970–2017, in percent



Sources: BFS, 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 2017, 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.

6.5 ADDITIONAL MEASURES TO STRENGTHEN FINANCIAL STABILITY

6.5.1 IMPLEMENTATION OF 'TOO BIG TO FAIL' REGULATIONS

Purpose of TBTF regulations

The two pillars of the TBTF regulations – resilience and resolution (recovery or orderly wind-down) – are aimed at reducing the risks to financial system stability stemming from systemically important banks. As such, the regulations complement the generally applicable banking legislation. In addition, the TBTF regulations aim to ensure that the economically important functions of these banks can be maintained in the event of impending insolvency without the need for public sector support. The Banking Act envisages a division of responsibilities between the SNB, FINMA and the systemically important banks.

Decrees on systemic importance

The Banking Act gives the SNB the authority to designate banks and bank functions as systemically important, following consultation with FINMA. A bank is considered to be systemically important if it performs functions in domestic deposit and lending business which are essential to the Swiss economy and cannot be substituted at short notice. Other criteria such as size, risk profile and interconnectedness are also taken into consideration when deciding on systemic importance. The SNB carries out the requisite assessment as part of a formal process culminating in the issuance of a decree. The SNB had already issued decrees between 2012 and 2015, designating Credit Suisse Group, UBS Group, Zürcher Kantonalbank, the Raiffeisen Group and PostFinance as systemically important.

Systemically important banks must meet special requirements as regards capital, liquidity, risk diversification and emergency planning. The Banking Act gives FINMA the authority to define the requirements on capital, liquidity and risk diversification by decree, in consultation with the SNB. In addition, FINMA informs the public about the general content of the decree and compliance with it. Regarding emergency planning, the systemically important bank must draw up an emergency plan and demonstrate that this plan meets the legal requirements. If the bank fails to demonstrate compliance, FINMA will order that appropriate measures be taken.

Special requirements

6.5.2 REVIEW AND AMENDMENT OF 'TOO BIG TO FAIL' REGULATIONS

The Banking Act stipulates that the Federal Council regularly reviews the status of Swiss TBTF regulations compared to international standards and their implementation. The first review by the Federal Council was carried out in 2015, based on the final report of the group of experts on the further development of the financial market strategy. It formed the basis for the revision of the TBTF provisions, which came into force on 1 July 2016. In this context, the going-concern and gone-concern capital requirements for the big banks were increased, with the aim of strengthening resilience. The second review was conducted in 2016.

Background

The SNB was involved in preparing the evaluation report from the second review of the TBTF regulations. On the basis of that report, in June 2017 the Federal Council decided that domestically focused systemically important banks, too, will have to meet requirements on loss-absorbing instruments in the event of resolution (gone concern), and set the criteria for these requirements. In the event of impending insolvency, these instruments can be written off or converted into equity. They form the basis for the recovery or orderly wind-down of a bank. Contrary to the situation for big banks, the gone-concern requirements for domestically focused systemically important banks are only 40% of the relevant going-concern requirements. The reasoning behind this is that these banks are less globally interconnected and less complex. Surplus going-concern capital can be given preferential treatment in the calculation of gone-concern requirements. Moreover, part of these requirements can be met using explicit cantonal guarantees or similar mechanisms. The FDF launched the associated consultation procedure in February 2018.

Domestically focused systemically important banks: gone-concern requirements …

... and emergency plans

In addition, domestically focused systemically important banks must draw up workable emergency plans no later than three years after being designated as systemically important, to ensure the uninterrupted operation of systemically important functions in the event of impending insolvency. FINMA is responsible for the definitive assessment of the emergency plans. These two measures will create the prerequisites for improved resolvability.

6.6 OVERSIGHT OF FINANCIAL MARKET INFRASTRUCTURES

6.6.1 BACKGROUND

Mandate

The NBA (art. 5 and arts. 19–21) requires the SNB to oversee systemically important central counterparties, central securities depositories and payment systems as specified in art. 22 of the 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.

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

6.6.2 IMPLEMENTATION OF THE FINANCIAL MARKET INFRASTRUCTURE ACT

New regulatory and supervisory framework

The Financial Market Infrastructure Act (FMIA), which entered into force on 1 January 2016, included a new regulatory and supervisory framework for financial market infrastructures (FMIs) in Switzerland. In 2017, the SNB continued its implementation efforts in connection with the FMIA, focusing in particular on the new authorisation procedure to which FMIs are now subject under the FMIA.

Authorisation procedure for systemically important Swiss FMIs

SIX x-clear and SIX SIS, which until then had been regulated as banks, lodged an application with FINMA in December 2016 to be authorised as a central counterparty under art. 48 FMIA and a central securities depository under art. 61 FMIA respectively. As part of the authorisation procedure, the SNB stipulated which of the special requirements set down in the NBO would be imposed on SIX x-clear and SIX SIS as systemically important financial market infrastructures. It also monitored compliance with these special requirements and, in the orders referring to SIX x-clear and SIX SIS, confirmed that they both complied with the applicable special requirements. These orders form an evaluation basis for FINMA which, as part of the authorisation procedure, has to assess whether SIX x-clear and SIX SIS are compliant with all the criteria. In September 2017, FINMA authorised SIX SIS to operate a central securities depository and a securities settlement system according to art. 61 FMIA. The authorisation procedure for SIX x-clear was still ongoing at end-2017.

Designation of systemically important business processes

The FMIA stipulates that the SNB determines which business processes at FMIs are systemically important. FMI operators must have a plan in place for the recovery or orderly wind-down of systemically important business processes, even under adverse scenarios which could jeopardise their viability as a going concern (art. 24 para 1 FMIA). In addition, for systemically important business processes, the maximum acceptable time for recovery, even in the event of major damage or disruption, is two hours (arts. 32b and 32c NBO). In 2017, the SNB designated the systemically important business processes at SIX SIS.

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 clear trades in the same market or markets with a central counterparty in Switzerland (art. 60 FMIA). As part of this process, the SNB assesses whether the foreign central counterparty is systemically important. Twelve requests for recognition had been submitted to FINMA by end-2017. In the case of seven central counterparties, the SNB concluded that they were not systemically important. Five assessments were still ongoing at end-2017, including those for Eurex Clearing and LCH. These two central counterparties had already been designated as systemically important, but their importance for financial system stability needs to be reviewed by the SNB.

6.6.3 OTHER AREAS OF FOCUS FOR OVERSIGHT

Revision of recovery plans

SIX x-clear and SIX SIS submitted revised recovery plans to FINMA and the SNB; under art. 25 para 4 FMIA, these plans must in future be approved by FINMA. The SNB is consulted by FINMA as part of its deliberations. SIC Ltd has submitted its revised recovery plans to the SNB, which will provide its opinion in 2018.

Assessing the management of access rights

To assess the IT and information security of FMIs, the SNB also uses external auditors. In 2017, the audits – whose scope and degree of detail are determined by the SNB – concentrated on the management of access rights for FMIs' information systems.

Central counterparties
Central counterparties are responsible for clearing financial market transactions and, as clearing hubs, play a decisive role in the stability of the financial system. Their importance has increased in recent years, in part because, in 2009, in the wake of the global financial crisis, the 20 largest advanced and emerging economies (G20) decided that market participants must clear all standardised over-the-counter derivatives contracts via central counterparties in future. The aim is to increase the stability, transparency and efficiency of derivatives markets.

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 delivery and payment 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 the 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
Involvement in international monetary cooperation

7.1 BACKGROUND

Mandate

The Swiss National Bank (SNB) participates in international monetary cooperation. To this end, it works jointly with the Federal Council (art. 5 para. 3 of the National Bank Act (NBA)). 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) and the Organisation for Economic Co-operation and Development (OECD). Participation in the IMF, FSB and OECD 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. 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 of the IMF. In this way, it supports IMF surveillance and IMF lending. It also contributes to IMF funding and to the development of the Fund’s strategy and organisation.

In 2017, in the context of its surveillance activities, the IMF emphasised that the improved economic situation offered an opportunity for structural reforms aimed at raising potential growth and mitigating risks. Against the background of global economic recovery, loan commitments by the IMF to member countries declined somewhat. Switzerland contributed to the financing of IMF loans through the funds provided under its quota and through its participation in the New Arrangements to Borrow (NAB). In addition, Switzerland granted the IMF a bilateral credit line for the first time. Within the context of its current quota review, the IMF analysed whether the overall size of the quotas is still adequate. Discussions in the Executive Board showed that members continue to have differing views on the subject.

Priorities for global economic policy

At the IMFC meetings in spring and autumn, finance ministers and central bank governors deliberated as usual on the outlook for the global economy and the priorities for global economic policy. While recognising that the global economic recovery had gained traction, they also noted that risks remain. Against this background, Switzerland welcomed the IMF's call for countries to undertake the fundamental structural reforms needed to strengthen economic resilience and improve the conditions for future growth. Furthermore, Switzerland stressed the importance of ongoing efforts to combat protectionism and to preserve open markets. Switzerland also drew attention to the increase in risks in the financial system and emphasised the need to conclude and implement the agreed regulatory reforms.

Decline in loan commitments

Loan commitments by the IMF to members facing acute or potential balance of payments difficulties declined somewhat in 2017. At year-end, there were regular (non-concessional) lending programmes in 18 countries (2016: 23), totalling SDR 106.3 billion (2016: SDR 119.2 billion). Of this amount, SDR 73.1 billion (2016: SDR 86.1 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 on a precautionary basis. The decline in commitments under the insurance facilities was driven in particular by Poland's decision – taken against the background of strengthened economic conditions – to end the arrangement under the Flexible Credit Line as of the beginning of November. Total IMF lending commitments amounted to SDR 132.3 billion (2016: SDR 159.0 billion). Overall, outstanding loans decreased to SDR 39.6 billion (2016: SDR 49.3 billion).

Support to Ukraine

In 2017, a large proportion of the financial support provided by the IMF once again went to Ukraine. In April, the IMF assessed that Ukraine's progress in implementing the Extended Arrangement was sufficient to allow the third review to be completed, after a delay, and a further loan tranche to be disbursed. Disbursements to Ukraine under the current programme thus came to SDR 6.2 billion, out of a total available loan amount of SDR 12.3 billion. The planned fourth programme review could not yet be concluded as implementation of the agreed measures remains difficult.

IMF commitment in Greece

In July 2017, the IMF approved in principle a EUR 1.6 billion Stand-By Arrangement (SBA) for Greece, to expire at the end of August 2018. This Approval in Principle (AIP) procedure means that the lending arrangement will become effective only after the Fund receives assurances for debt relief from the European institutions sufficient to ensure debt sustainability. As a result of drawdowns under earlier lending arrangements, Greece was one of the IMF's largest borrowers at end-2017. The previous lending arrangement between Greece and the IMF dates from March 2012 and was terminated at the beginning of 2016 at the request of the Greek government.

The IMF and Switzerland

The IMF is the central institution for international monetary cooperation. It promotes the stability of the global monetary and financial system as well as macroeconomic and financial stability in its 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. The IMF has 189 member countries.

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 since 1992 and is part of a voting group (constituency) whose other members are Azerbaijan, Kazakhstan, the Kyrgyz Republic, Poland, Serbia, Tajikistan and Turkmenistan. Since November 2014, Switzerland and Poland have alternated in appointing the constituency's executive director, for two years each time. This director holds one of the 24 seats on the Executive Board, the IMF's most important operational body. The post of Swiss executive director is held alternately by a representative of the FDF and the SNB. The FDF and the SNB determine Switzerland's policy in the IMF and support the constituency's executive director in his or her activities.

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-2017, the IMF had SDR 219 billion of resources available for new loan commitments over the next 12 months. The NAB represent a second line of defence for crisis situations and can be activated as necessary, providing the IMF with funds of SDR 182 billion. The last NAB activation period ended in February 2016. The temporary bilateral borrowing agreements introduced by the IMF in the wake of the financial crisis serve as a third line of defence for use in exceptional situations. Bilateral borrowing agreements amounting to SDR 291 billion were in force at end-2017.

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. The IMF reviews the composition and weighting of the currency basket every five years. On 1 October 2016, the Chinese currency, the renminbi, joined the US dollar, the euro, the yen and the pound sterling as the fifth currency in the basket. At end-2017, one SDR was equivalent to CHF 1.39 or USD 1.42.

Review of quotas

The IMF made progress with the 15th General Review of Quotas during 2017. The Executive Board discussed both the size of any possible quota increase and its distribution among the members. This distribution is based on the quota formula, which was also reviewed by the Executive Board. Members held widely differing views on these issues. Not all members were convinced that a quota increase is necessary to provide the IMF with sufficient resources in future. There was also no agreement on a quota formula. Switzerland indicated that it would be open to an increase in quotas in order to maintain the total amount of resources available to the IMF following the expiry of the temporary bilateral borrowing agreements. In autumn 2017, the IMFC affirmed its intention to conclude the review of quotas by the 2019 annual meeting.

Quota
When a country joins the IMF, it is assigned a quota based broadly on its relative position in the world economy. The quota is expressed in terms of Special Drawing Rights, the unit of account used by the IMF. 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 the 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. The quota is thus decisive for the financial and organisational relationship between a member country and the IMF.

Members' quotas are reviewed at regular intervals and adjusted as required. The last review was conducted in 2010; the quota reform came into force in January 2016. Work on the next quota review is under way and is due to be completed in 2019.

No extension of the GAB

As the importance of the General Arrangements to Borrow (GAB) has declined over the years, participants decided unanimously at the end of 2017 that the GAB should be allowed to lapse when the current term ends in December 2018. The last time the GAB were activated was almost 20 years ago, before the New Arrangements to Borrow (NAB) came into effect in November 1998. From that date, the GAB could only be drawn down if agreement had not been reached under the NAB. The size of the GAB, which has remained unchanged since 1983, has declined sharply in recent years relative to the size of the quotas and the NAB.

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). The amount activated is 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. In an exceptional crisis and in the event of a shortage of funds, the General Arrangements to Borrow (GAB) permit the IMF to borrow funds in the amount of SDR 17 billion from the G10 countries according to an agreed distribution key. The GAB can only be drawn down if agreement has not been reached under the NAB. The SNB is also the institution representing Switzerland in the GAB. The decision was made at the end of 2017 to let the GAB lapse in December 2018.

Temporary bilateral credit line from Switzerland to the IMF

In view of persistent global uncertainty, the IMF asked its members in 2016 to provide new temporary bilateral credit lines. Under Switzerland's revised Monetary Assistance Act, which came into force in November 2017, the requirements were met for Switzerland to grant the IMF a bilateral credit line (cf. chapter 7.3.1). As a result, the Federal Council instructed the SNB to open a credit line for the IMF of CHF 8.5 billion. The SNB concluded an agreement with the IMF to this end, which came into effect in January 2018. The Confederation guarantees the SNB the timely repayment of loans under this agreement. By end-2017, the IMF had received bilateral loan commitments from 40 countries amounting to SDR 318 billion. The agreements under the new framework have a common maximum term until the end of 2020.

Concessional lending arrangements

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 IMF lending programmes in 20 countries, totalling SDR 3.6 billion. The IMF's total PRGT lending commitments amounted to SDR 8.7 billion; this also includes outstanding loans under completed lending arrangements. In total, loans of SDR 6.5 billion were outstanding.

Swiss contribution to PRGT financing

Switzerland contributes to the financing of the PRGT through loans and interest subsidies. The legal basis for this is provided by the Monetary Assistance Act (cf. chapter 7.3.1). The loans to the PRGT are granted by the SNB and guaranteed by the Confederation. Switzerland's participation in the interest subsidies is financed by the Confederation. The SNB currently has three such PRGT loan agreements in force. The first loan, from 2001, amounted to SDR 250 million. It was fully disbursed and has been partially repaid in the meantime; at the end of 2017, SDR 36.0 million were outstanding. The second loan, from 2011, amounted to SDR 500 million, of which SDR 44.6 million had been disbursed by end-2017. The new, third loan agreement, which came into effect at the end of August 2017, also amounted to SDR 500 million. Credit can only be drawn under this agreement once the loan from 2011 has been fully disbursed.

New SNB loan to the PRGT

The third loan agreement of August 2017 was concluded by the SNB in the context of the fundraising round launched by the IMF in November 2015. At that time, the IMF asked Switzerland and other countries to contribute towards topping up the PRGT loan account by SDR 11 billion. In July 2016, the SNB approved a proposal by the Federal Council to grant the PRGT a further loan of SDR 500 million. After the National Council and the Council of States approved a federal guarantee to the SNB in June 2017, the National Bank signed a corresponding loan agreement with the IMF. At end-2017, the IMF had concluded 14 PRGT loan agreements totalling SDR 9.4 billion under this fundraising round.

Switzerland's reserve position

Both Switzerland's IMF quota and the Swiss NAB contribution are funded by the SNB. Switzerland provides the IMF with a maximum of SDR 11.3 billion under its quota and the NAB, consisting of a maximum SDR 5.8 billion under its quota and a maximum of SDR 5.5 billion under the NAB. The used portions of the Swiss quota and of the Swiss contribution to the NAB 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. At end-2017, Switzerland's reserve position amounted to SDR 0.6 billion (CHF 0.9 billion), compared with SDR 1.0 billion (CHF 1.3 billion) a year earlier.

THE SNB'S FINANCIAL COMMITMENT TO THE IMF

In CHF billions

		End-2017
	Maximum	Drawn down
Reserve position		0.870
Quota	8.026	0.018
GAB and NAB	7.705	0.852
PRGT[1]	1.441	0.112
SDR[2]	2.286	–0.077

1 With federal guarantee.
2 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 2.286 billion).

Switzerland's external position broadly consistent with fundamentals

As part of its surveillance activities, the IMF regularly analyses the external position of its member countries including the current account and the real exchange rate. In its analysis of 2017, the IMF assessed Switzerland's external position as broadly consistent with fundamentals. In this connection, it recognised the appropriateness of the SNB's monetary policy strategy based on the negative interest rate and the willingness to intervene in the foreign exchange market to counter an excessive appreciation of the Swiss franc and, hence, negative inflation.

Swiss strategy on the international monetary system

At the end of 2017, the Federal Council adopted a report in response to the postulate of Susanne Leutenegger Oberholzer entitled "The international monetary system and Switzerland's strategy". The report shows how Switzerland participates in the relevant international institutions, especially the IMF, in order to contribute actively to the stability of the international financial and monetary system. The report stresses that the IMF plays an important role in preventing and managing global economic and financial crises. At the same time, the Confederation and the SNB updated the key principles of Switzerland's policy in the IMF. These serve to maintain the consistency of Switzerland's position in the IMF and thereby facilitate its effective participation in the organisation.

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 (currently 20) on the BIS Board of Directors since its foundation in 1930.

The governors of member central banks convene every two months to discuss developments in the global economy and the international financial system, and also to guide and oversee the work of the standing committees. These bimonthly meetings include the Economic Consultative Committee, the Global Economy Meeting and the All Governors' Meeting.

The SNB participates in 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 of Basel III

In 2017, the Basel Committee finalised the last elements of the Basel III reform package, which was agreed upon in the wake of the 2008 global financial crisis. These elements are intended to restore the credibility and effectiveness of the risk-weighted capital requirements. To this end, the Committee restricted the use of internal bank models and improved the risk sensitivity of the prescribed standardised approaches. In addition, it revised the floor for the model-based requirements, setting it at 72.5% of the requirements under the standardised approaches. The changes will be introduced on 1 January 2022, with a five-year transition period before the floor for the model-based requirements applies in full.

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 25 central banks.

In 2017, the Committee's work focused on central counterparties (CCPs) (cf. chapter 6.6). This included guidelines – published jointly with the International Organization of Securities Commissions (IOSCO) – on the financial risk management of CCPs. These guidelines set out in more detail the requirements listed in the Principles for Financial Market Infrastructures (PFMI), for example in relation to the configuration of margin calculation models and the definition and implementation of stress tests.

The Committee also discussed digital innovations (cf. chapter 4.3, box 'Fintech') and published a report on distributed ledger technology (DLT). The report includes an analytical framework which can be used to analyse the effects of using DLT on the efficiency and safety of payment, clearing and settlement systems.

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 discussions during 2017 on economic developments, the Committee considered the potential risks of a steepening yield curve, as well as the impact of political uncertainty on the markets. It also considered developments in asset prices and addressed the activities of financial and non-financial companies. The Committee published three reports. The first dealt with the challenges faced by central banks in providing liquidity assistance. In order to be able to provide liquidity effectively in times of crisis, central banks need to prepare during calm periods. The second report concerned the repo markets, which are very important for the transmission of monetary policy. They are having to operate within an ever-changing regulatory environment and require close monitoring during this period. The third report, compiled jointly with the FSB, analyses the development of fintech credit. Although innovative forms of credit are expanding rapidly, their share relative to traditional credit business remains very small. The respective business models of fintech credit platforms are also highly heterogeneous.

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 21 central banks.

In 2017, the Markets Committee once again addressed the effects of unconventional monetary policy measures by central banks. Another topic of discussion was the normalisation of monetary policy conditions and its impact on the financial markets, in particular following the US Federal Reserve's announcement that it would begin reducing its balance sheet. In addition, the Committee once again reviewed the market developments in currency swaps observed at the end of 2016. Another subject under discussion was the reform of reference interest rates, which became even more topical in light of the announcement by the UK's Financial Conduct Authority that it would only support Libor fixing until 2021 (cf. chapter 2.2). The implications of digital financial innovation for the implementation of monetary policy were also explored (cf. chapter 4.3, box 'Fintech').

The FX Global Code, which the Markets Committee has been intensively involved in developing in recent years, was published in May 2017. The aim of the new global code of conduct for foreign exchange transactions is to provide market players with clear rules of conduct, and to thereby enhance the efficiency of these markets. The FX Global Code replaces all existing codes of conduct and establishes standardised rules at a global level.

7.2.3 FINANCIAL STABILITY BOARD

Swiss representation on the FSB

The Financial Stability Board (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. In 2017, it noted that the tools to resolve the 'too big to fail' issue had generally been adopted. As far as the resolution of banks is concerned, the relevant tools were defined more precisely. The FSB also addressed the implementation of reforms and the evaluation of their effects, as well as the analysis of the possible impact of fintech on the financial sector.

Clarification on the resolution of banks

Following a consultation in 2016, the FSB published guiding principles on internal total loss-absorbing capacity (internal TLAC) in 2017. Internal TLAC refers to loss-absorbing capacity that resolution entities have committed to material sub-groups. The FSB also formulated in more detail the guiding principles – first published in 2016 – on ensuring liquidity in the event of recovery or wind-down (resolution). An FSB working group developed guiding principles for the consideration of liquidity aspects in resolution plans developed for banks by the supervisory authorities. The objective is to ensure that sufficient liquidity is available in a resolution. Plans should indicate, for example, banks' capabilities to support monitoring, reporting and estimating funding needs in the event of a crisis. These new guiding principles were released for consultation in 2017. A further consultation document published in 2017 concerned the principles for executing a bail-in within resolution. In a bail-in, special bonds are converted to equity to recapitalise the bank. In 2018, based on the consultation findings, both documents are to be revised, adopted and published.

Evaluation of the effects of regulatory reforms

Following the adoption of key reforms in financial regulation, the FSB's attention turned to the implementation and evaluation of the effects of these reforms. For this purpose, the FSB, under the German G20 presidency, developed a conceptual framework for comparing reform benefits against potential negative consequences. An initial evaluation study – launched in 2017 and due for completion in 2018 – deals with the incentives for market participants to settle OTC derivatives via central counterparties (cf. chapter 6.6.3, box 'Central counterparties').

Impact of digitalisation on the financial sector

In 2017, the FSB continued its examination of the impact of digitalisation on the financial sector (cf. chapter 4.3, box 'Fintech') and examined regulatory and supervisory issues which arise in this connection. The results of the analysis were published in a report. For its study, the FSB developed a conceptual framework that analyses the potential benefits and risks of fintech activities for financial stability. The analysis showed that fintech activities currently pose no financial stability risk, but that developments require ongoing monitoring. In addition, the report identified a number of areas, such as cyber risks and fintech activities, in which international collaboration is desirable.

7.2.4 OECD

Participation

Switzerland is a founding member of the Organisation for Economic Co-operation and Development (OECD). It works in the organisation's intergovernmental committees to promote the development of relations among the 35 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). On a political and academic level, the EPC and its working groups deal with current developments in the global economy as well as with structural policy. The CMF analyses ongoing developments in the international financial markets and examines regulatory issues. The CSSP drafts standards for the national accounts in coordination with other international organisations. The OECD's *Economic Outlook* report, published biannually, includes an assessment of the growth prospects and of economic policy for Switzerland.

OECD recommendations for Switzerland

Every two years, the OECD performs a detailed analysis of the economy of every member country. The results are published in country reports. The Swiss economy was evaluated in 2017, as ever in close cooperation with the Confederation and the SNB. The OECD reported in November that while expansionary monetary policy was still appropriate, with growth strengthening and deflation risks subsiding, the time to begin normalising monetary policy was approaching. It drew attention to heightened risks to financial stability and pointed out that profitability and yields in the financial sector, particularly at banks and pension funds, remained under pressure after three years of negative interest rates. In view of record levels of mortgage debt and the renewed rise in house prices, it called for continued vigilance.

7.2.5 G20

Switzerland's participation in G20 Finance Track

On the invitation of the German G20 presidency, Switzerland participated in 2017, for the third time, in the meetings of finance ministers and central bank governors from the 20 major advanced and emerging economies (Finance Track). In addition, it was involved in the associated preparatory meetings at deputy level and in the Finance Track working groups. Swiss interests were represented jointly by the Confederation and the SNB. Switzerland has also been invited to the G20 Finance Track in 2018, which will occur under the Argentinian presidency.

Focus of the G20 in 2017

In the G20 Finance Track in 2017, the German presidency focused on the resilience of economies and the challenges of digitalisation. The Confederation and the SNB supported this agenda. They considered it particularly important that the relevant structural reforms be tackled and the international financial architecture strengthened. They also emphasised the need to implement the agreed reforms in the area of financial market regulation.

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 may also be requested to grant a loan to the IMF's special funds. In such a case, however, a special guarantee credit must be approved by the Federal Assembly.

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 Extended Arrangement under the IMF's Extended Fund Facility and must not be used to finance the military budget. It will be disbursed in stages based on the payout of tranches under the Extended Arrangement. A first tranche was disbursed at the beginning of March 2017.

Revision of Monetary Assistance Act

On 1 November 2017, the Federal Council put the revised Monetary Assistance Act into effect. The revision became necessary following changes in lending practices at multilateral level. The most important amendment to the Act concerns the maximum duration of monetary assistance in systemic crisis situations. This was increased from seven to ten years as a result of the IMF's call for ten-year terms for bilateral loans in the wake of the global financial crisis. The extension of the term ensures that Switzerland can continue to participate in measures to stabilise the international monetary and financial system (cf. chapter 7.2.1). Another amendment concerns the SNB's involvement in monetary assistance. The Act now allows the SNB to participate in monetary assistance for individual countries even where there is no current or potential disruption to the international monetary system. In such cases, the Federal Council can request that the SNB grant a loan. Once again, the Confederation provides the SNB with a guarantee for timely reimbursement and interest payments.

7.3.2 COOPERATION WITH OTHER CENTRAL BANKS AND FOREIGN AUTHORITIES

The SNB cultivates regular bilateral contacts with other central banks and foreign authorities.

Cooperation with Liechtenstein

Switzerland and the Principality of Liechtenstein concluded a Currency Treaty in 1980. Before that date, a de facto monetary union had existed between the two countries for almost 60 years. 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. It is the task of the SNB to provide Liechtenstein financial institutions with liquidity. Liechtenstein banks, like Swiss banks, are obliged to submit the data required for the conduct of monetary policy and for the compilation of banking statistics. The SNB cooperates closely with the relevant authorities in Liechtenstein. The government of the Principality of Liechtenstein and the Governing Board of the SNB meet regularly for an exchange of views.

Cooperation with the PBC

For some years now, the SNB has been strengthening its cooperation on financial matters with the Chinese central bank, the People's Bank of China (PBC). The main focus has been the establishment of a renminbi market in Switzerland. Both central banks fulfilled an important prerequisite when they signed a bilateral swap agreement in July 2014. In addition, at the beginning of 2015, the PBC and the SNB concluded a memorandum of understanding on the establishment of renminbi clearing arrangements in Switzerland. In November 2015, following the granting of a banking licence by FINMA, the PBC authorised the Swiss branch of China Construction Bank to be the first renminbi clearing bank in Switzerland, and authorised direct trading between the renminbi and the Swiss franc. The cooperation between Switzerland and China continued with the fifth bilateral financial dialogue in December 2017.

Financial dialogue

The SNB is also involved in bilateral financial dialogue with other countries led by the State Secretariat for International Financial Matters (SIF) in liaison with various federal institutions and associated enterprises. In 2017, the SNB took part in financial dialogues with China, Hong Kong, Russia, Singapore and the UK.

Meeting of central bank governors from French-speaking countries

Every year, the central bank governors of French-speaking countries meet in one of the member countries to discuss matters of common interest and exchange insights and experiences. In May 2017, the SNB hosted the 24th meeting, in Montreux. Thirty central bank representatives attended the meeting, whose topic was digitalisation.

7.3.3 TECHNICAL ASSISTANCE

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. In addition, the SNB is involved in cross-national activities to promote the exchange of central bank-specific expertise between central banks. In 2017, the SNB reviewed its strategy on technical assistance. This review included, in particular, the decision to intensify the coordination with other institutions (e.g. SECO and the IMF).

Focus of technical assistance

In 2017, the focus of the SNB's technical assistance was again on cooperation with central banks from countries in Switzerland's IMF constituency (cf. chapter 7.2.1). Bilateral projects were pursued with the central banks of Azerbaijan, the Kyrgyz Republic and Tajikistan. Economists from the SNB advised the central bank of Azerbaijan on the implementation of monetary policy, and the National Bank of Tajikistan on the development of forward-looking liquidity planning. Cooperation with the National Bank of the Kyrgyz Republic continued in the areas of monetary policy analysis and cash.

International events

In addition to the bilateral projects, the SNB organised three events for central bank economists from the constituency as well as other countries of Eastern Europe, the Caucasus and Central Asia. In January 2017, the SNB and the IMF together hosted the third meeting of the 'Caucasus and Central Asia Peer-to-Peer Network' at the Joint Vienna Institute. One key topic was the effect of external shocks on monetary policy in the region. In May, the SNB hosted the 14th in a series of joint seminars with the National Bank of Poland. The event was held in Zurich and addressed the subject of monetary policy spillovers. Finally, in November, the SNB organised a one-week seminar for central bank cash specialists, focusing on the SNB's new banknote series.

Study Center Gerzensee

The Study Center Gerzensee fosters academic research and acts as a training centre (cf. chapter 1.1, box 'Research and economic education'). In the context of cooperation with other central banks, the courses for employees from foreign central banks are of particular relevance. They have been offered since its foundation. In 2017, the Center once again organised two to three-week courses on monetary policy and financial markets. As in previous years, guest presentations by employees of the SNB and other institutions formed an integral part of the programme. Altogether, 152 participants from 79 countries attended the 6 courses.

8 Banking services for the Confederation

Mandate

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

Remuneration for banking services

The SNB provides these banking services to the Confederation in return for adequate compensation. 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 issue 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 2017, the SNB issued both MMDRCs and Confederation bonds on behalf of and for the account of the Confederation. MMDRCs amounting to CHF 126.2 billion were subscribed (2016: CHF 140.6 billion), of which CHF 24.7 billion was allocated (2016: CHF 23.4 billion). The corresponding figures for Confederation bonds were CHF 7.6 billion (2016: CHF 5.1 billion) and CHF 3.9 billion (2016: CHF 3.2 billion) respectively. Issues of MMDRCs and Confederation bonds were carried out 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 –0.81% to –1.19%. The lowest yield was thus similar to that recorded 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 stood at CHF 14.8 billion, compared to CHF 7.2 billion at the end of 2016. The SNB carried out roughly 89,000 (2016: 115,000) payments in Swiss francs and approximately 21,000 (2016: 25,000) payments in foreign currencies on behalf of the Confederation.

9 Statistics

9.1 BACKGROUND

Purpose of activities in field of statistics

The Swiss National Bank (SNB) collects the statistical data it requires to fulfil its statutory mandate on the basis of art. 14 of the National Bank Act (NBA). 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.

Institutions required to provide data

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 trends 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 those required to provide information.

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 almost 11 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*, *Swiss Balance of Payments and International Investment Position*, *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, which was launched in August 2015, was expanded at the beginning of 2018 with the option to display contents as a chart 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

Introduction of revised survey on new mortgage lending

The SNB had been conducting a supplementary survey on mortgage lending, on a quarterly basis, since 2011. The survey findings played a key role in the assessment of risks in the mortgage market. In 2014, the SNB decided to convert the supplementary survey into a regular survey in accordance with art. 5 NBO. At the same time, it decided to collect data on an individual loan basis rather than the previous aggregate basis. All banks with a domestic mortgage lending volume of at least CHF 6 billion are obliged to report data. The revised survey was introduced in the first quarter of 2017. The previous supplementary survey was simultaneously conducted for the last time.

New survey as part of Data Gaps Initiative

The Financial Stability Board's Data Gaps Initiative has the aim of establishing an exchange of data on global systemically important banks to enable better assessment of international financial stability issues. Countries transmit their data to the central data hub specially set up for the purpose and hosted by the Bank for International Settlements (BIS). In the fourth quarter of 2017, the SNB collected an expanded data set from the two global systemically important Swiss banks, Credit Suisse and UBS, for the first time and transmitted these data to the central data hub.

Interest rate survey revised

The revised interest rate survey was carried out for the first time as at 30 June 2017. Among the newly included categories are interest rates on consumer loans and on accounts for tied pension provisions.

Revision of securities statistics

In 2016, work began on the revision of securities statistics. The revision is performed 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 mid-2017, the SNB reviewed its approach and decided to analyse, in a first step, both the feasibility and the advantages and disadvantages of an alternative survey method. The results of this analysis will be available in the course of 2018. In order to comply with the SDDS Plus requirements despite the resulting delay, the SNB has decided to carry out a supplementary survey, limited in time and content, at a small number of banks in 2019.

9.4 COLLABORATION

In the case of organisational or procedural issues and for the introduction of new surveys or modification of existing ones, reporting institutions and their associations are given the opportunity to comment.

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 2017, the banking statistics committee mainly dealt with the revision of the survey on the solvency risk of counterparties in the interbank sector, initial experience with the revised survey on new mortgage lending, and the planned revision of the securities statistics. 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, insurance, various federal agencies and the KOF Swiss Economic Institute at ETH Zurich.

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 agreement with FINMA on the exchange of data in the financial sector, the SNB collects information, including data on the capital adequacy, liquidity and interest rate risk of banks and securities dealers. The focus in 2017 was on the total revision of the interest rate report, the planned introduction of large exposure reporting (LER), and the revision of the liquidity coverage ratio (LCR) survey.

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 BIS, the Organisation for Economic Co-operation and Development (OECD) and the IMF. This collaboration is aimed at harmonising statistical survey methods and analyses. In 2017, the SNB again participated in several international working groups concerned with closing data gaps in financial market statistics.

Balance of payments and international investment position
The statistics for the balance of payments and the international investment position are, apart from the banking statistics, the most comprehensive statistics compiled by the Swiss National Bank; they are published on both a quarterly and an annual basis. There are close links between the balance of payments on the one hand, and the reserve assets, financial system and exchange rates on the other. Accordingly, in Switzerland, as in many other countries, the central bank is responsible for these statistics.

The balance of payments and the international investment position form part of Switzerland's System of National Accounts (SNA). They report the economic activity of a country – including its financial relations – with other countries and are compiled in accordance with the guidelines of the International Monetary Fund (IMF). The balance of payments comprises Switzerland's cross-border transactions with other countries over a given period. The international investment position indicates Switzerland's stocks of financial assets abroad and foreign financial liabilities at the end of a given period.

The three main elements of the balance of payments are the current account, the capital account and the financial account. The balance of payments comprises the receipts and expenses from trade in goods and services as well as cross-border labour income and investment income. The capital account includes, among other things, receipts and expenses from the purchases and sales of franchises and trademarks as well as other capital transfers (e.g. debt cancellation). The financial account covers financial transactions with other countries, e.g. the purchase of foreign debt securities by Swiss investors or direct investment by foreign companies in Switzerland. It is divided into direct investment, portfolio investment, other investment, reserve assets and derivatives. The international investment position is broken down in the same way.

The data for the balance of payments and international investment position are collected from different sources. For the balance of payments, most of the data on the import and export of goods are taken from the foreign trade statistics of the Federal Customs Administration (FCA). The data for cross-border tourism under trade in services is gathered by the SFSO. The SNB collects the rest of the data itself by conducting surveys at companies in Switzerland on a quarterly basis. The survey covers all industry branches and all aspects of trading in services (e.g. business services, telecommunications, computer and information services). The same survey is used to collect information on merchanting transactions. Special surveys are carried out with banks and insurance companies to collect information on financial services and investment income. Certain components of the current account, such as investment income on portfolio investment, are estimated with the help of indices, yields and coupon rates.

In compiling the financial account and the international investment position, too, the SNB draws on existing information wherever possible. It uses data from the banking statistics (e.g. from securities statistics), from its own central accounting in the case of reserve assets, other administrative sources (e.g. the Confederation), and the BIS. Only in the category of capital relationships of companies in Switzerland with entities abroad does the SNB conduct its own additional surveys.

The Swiss economy's cross-border capital linkages are subject to constant change, which regularly gives rise to new conceptual questions with regard to the balance of payments. Additional data sources have to be found and the SNB's own existing surveys need to be adjusted to reflect the change in requirements. The SNB is represented on committees at the OECD, the European Central Bank (ECB), Eurostat and the IMF, which are all working on these issues. The results of their discussions are, among other things, incorporated into the ongoing development of the IMF's Balance of Payments and International Investment Position Manual (BPM), which is used as the basis for drawing up the balance of payments and the international investment position.