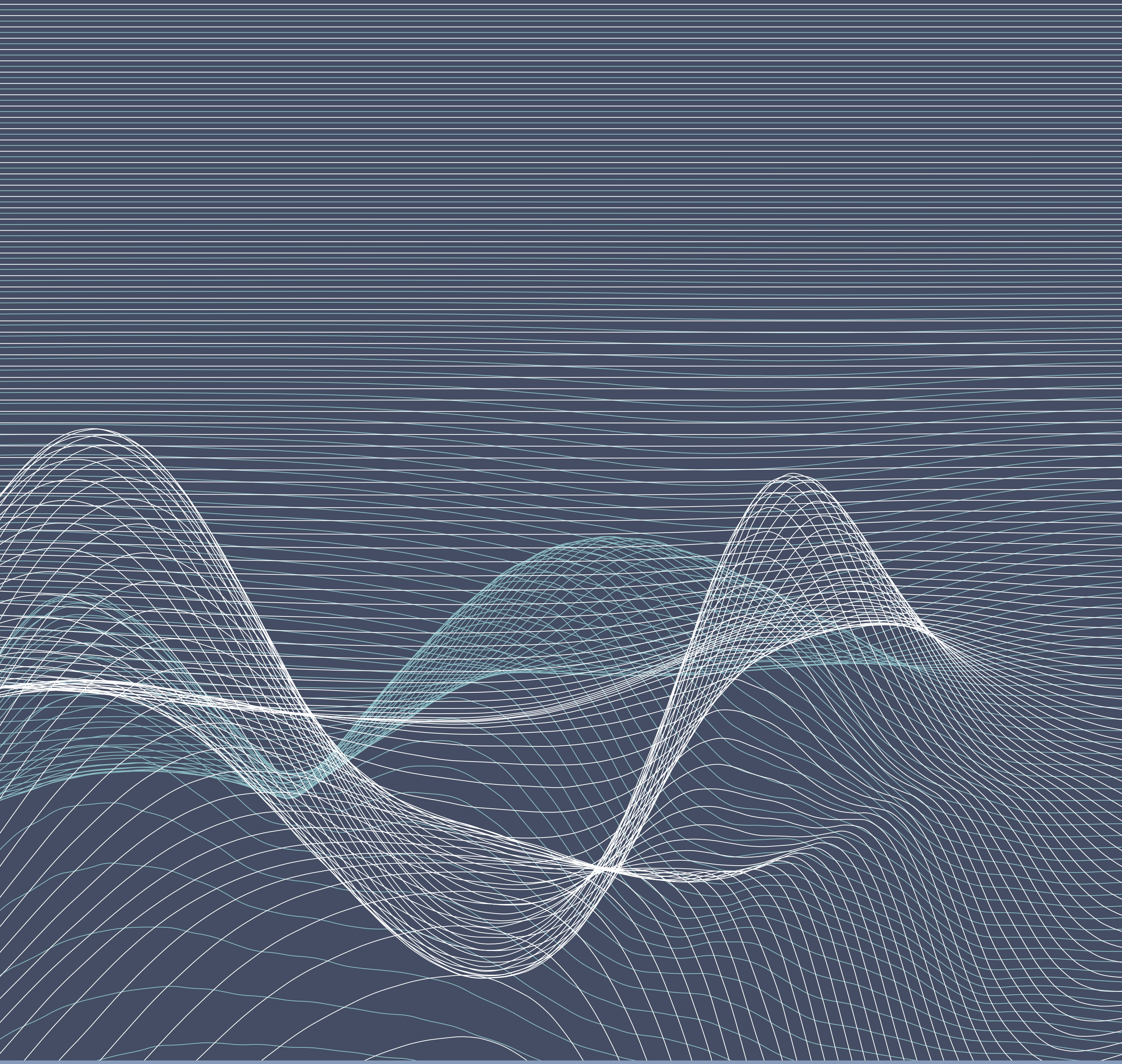


110th Annual Report
Swiss National Bank
2017

SCHWEIZERISCHE NATIONALBANK
BANQUE NATIONALE SUISSE
BANCA NAZIONALE SVIZZERA
BANCA NAZIUNALA SVIZRA
SWISS NATIONAL BANK

110th Annual Report
Swiss National Bank
2017

Content

Preface

Ladies and Gentlemen

It is our pleasure to present the *110th Annual Report*. The first part of the report comprises the accountability report to the Federal Assembly, and provides information about how the Swiss National Bank (SNB) has fulfilled its mandate pursuant to art. 5 of the National Bank Act. The second part comprises the financial report, which provides information on organisational and operational developments as well as the financial result of the SNB. It is submitted for approval, first to the Federal Council and then to the General Meeting of Shareholders.

At global level, the economic recovery gained momentum in 2017. In Europe, too, growth strengthened and sentiment improved significantly. Following subdued growth at the beginning of the year, the Swiss economy picked up pace as well. An improvement was recorded in both production capacity utilisation and the situation on the labour market.

The generally favourable international economic environment led to a noticeable decrease in demand for Swiss franc investments in the second half of the year. The Swiss franc weakened, in particular against the euro. The associated reduction in the Swiss franc's significant overvaluation provided much needed relief for export-oriented industries. Ongoing structural change driven by increasing automation and digitalisation continues to pose major challenges for many industries, however.

The SNB maintained its expansionary monetary policy in 2017. Although inflation rose slightly, remaining throughout the year within the range that the SNB equates with price stability, utilisation of economic capacity was still below the long-term average. Negative interest on sight deposits held by banks and other financial market participants at the SNB as well as the SNB's willingness to intervene in the foreign exchange market if necessary remain essential to ensure appropriate monetary conditions.

The issuance of the new banknote series proceeded as planned. Following the release of the 50-franc note in April 2016, the SNB issued the new 20-franc note in May 2017 and the 10-franc note in October. These denominations were also well received by the public and experts alike. The next denomination, the 200-franc note, will be released in August 2018.

In December 2017, the SNB acquired a majority stake in Landqart AG and in the patent-holding company, landqart management and services. Landqart is the only company worldwide that has the technology and production facilities to manufacture the special paper for the new Swiss banknote series. By taking this step, the SNB is ensuring the continued supply of cash and, hence, the fulfilment of its own statutory mandate.

The SNB's 2017 annual financial statements closed with a profit of CHF 54.4 billion, following a profit of CHF 24.5 billion in the previous year. This positive result was primarily attributable to gains of CHF 49.7 billion on foreign currency positions and CHF 3.1 billion on gold holdings.

The allocation to the provisions for currency reserves amounts to CHF 5 billion. After taking into account the distribution reserve of CHF 20.0 billion, the net profit comes to CHF 69.3 billion. This will permit a dividend payment of CHF 15 per share, the legally stipulated maximum amount, as well as a profit distribution of CHF 2.0 billion to the Confederation and the cantons. The distribution reserve after appropriation of profit is CHF 67.3 billion.

We wish to thank our employees for all their hard work and valuable support over the past year.

Berne and Zurich, 2 March 2018

JEAN STUDER
President of the Bank Council

THOMAS J. JORDAN
Chairman of the Governing Board

Goals and responsibilities of the Swiss National Bank

The Swiss National Bank (SNB) conducts the country's monetary policy as an independent central bank. It is obliged by Constitution and statute to act in accordance with the interests of the country as a whole. Its primary goal is to ensure price stability, while taking due account of economic developments. In so doing, it creates an appropriate environment for economic growth.

Mandate

Price stability is an important condition for growth and prosperity. Inflation and deflation, by contrast, 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. The SNB equates price stability with a rise in consumer prices of less than 2% per annum. Deflation – i.e. a sustained decrease in the price level – also breaches the objective of price stability. A medium-term inflation forecast serves as the main indicator for monetary policy decisions.

Price stability

The SNB 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. In order to influence monetary policy conditions, the SNB also intervenes in the foreign exchange market, as necessary.

Implementation of monetary policy

The SNB is entrusted with the note-issuing privilege. It supplies the Swiss economy with banknotes commensurate with demand for payment purposes. These banknotes meet high standards with respect to quality and security. It is also charged by the Confederation with the task of coin distribution.

Cash supply and distribution

Regarding cashless payment transactions, the SNB is involved in the Swiss Interbank Clearing (SIC) payment system. The payments are settled in SIC via sight deposit accounts held with the SNB.

Cashless payment transactions

The SNB manages the currency reserves, the most important component of its assets. It requires currency reserves to ensure that it has room for manoeuvre in its monetary policy at all times. The level of the currency reserves is largely dictated by the implementation of monetary policy.

Asset management

The SNB contributes to the stability of the financial system. It fulfils this mandate by analysing sources of risk to the financial system and identifying areas where action is needed. In addition, it helps to create and implement a regulatory framework for the financial sector, and oversees systemically important financial market infrastructures.

Financial system stability

The SNB participates in international monetary cooperation. To this end, it works in conjunction with the federal authorities. It participates in multilateral institutions, cooperates with the Confederation in providing international monetary assistance, and works on a bilateral level with other central banks and authorities.

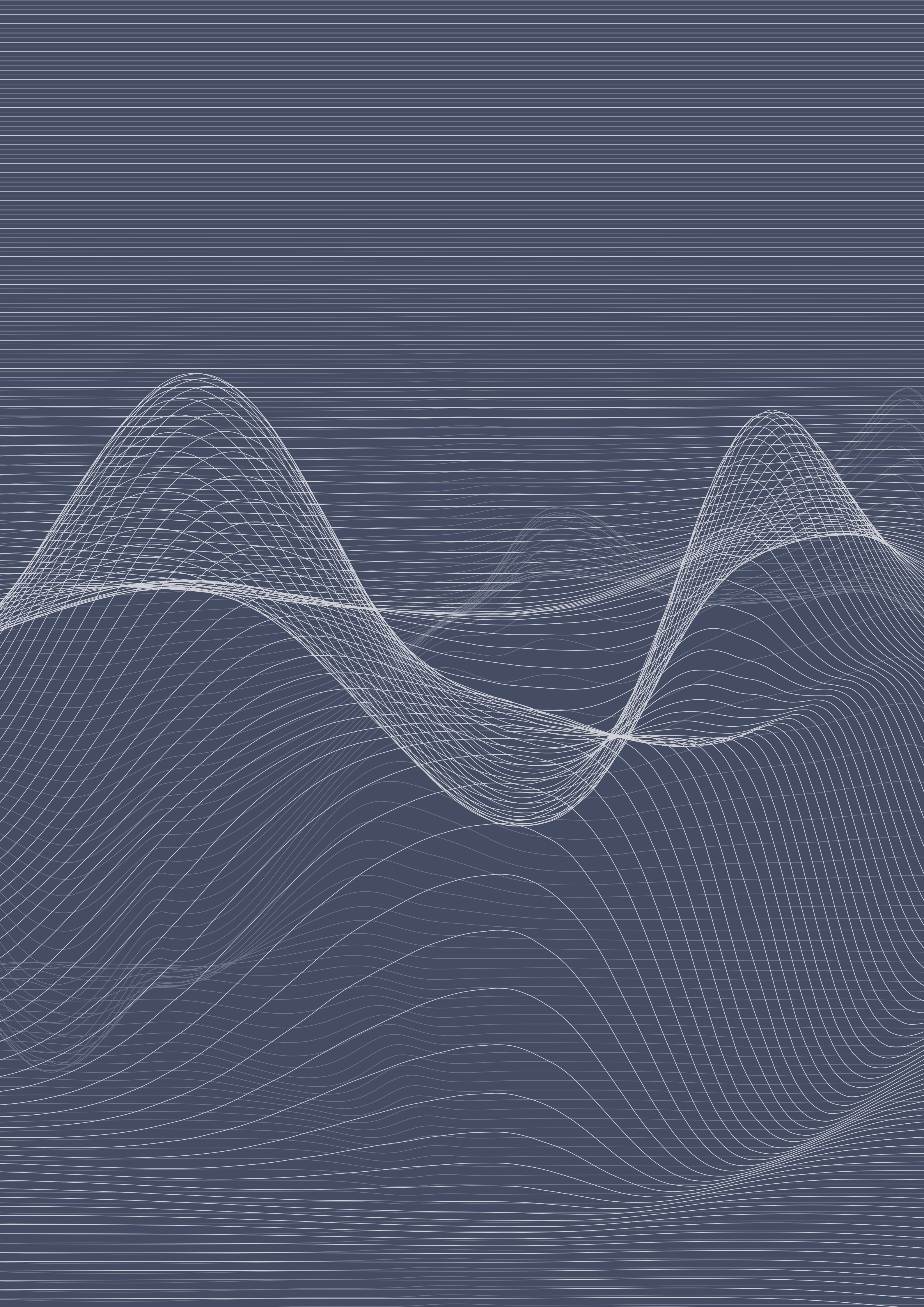
International monetary cooperation

The SNB acts as banker to the Confederation. It processes payments on behalf of the Confederation, issues money market debt register claims and bonds, handles the custody of securities and carries out foreign exchange transactions.

Banker to the Confederation

The SNB compiles statistical data on banks and financial markets, the balance of payments, direct investment, the international investment position and the Swiss financial accounts.

Statistics



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.

Unconventional monetary policy measures

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.

Negative interest on sight deposits at the SNB

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').

Willingness to intervene in foreign exchange market

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.

Macroprudential instruments

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).

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 …

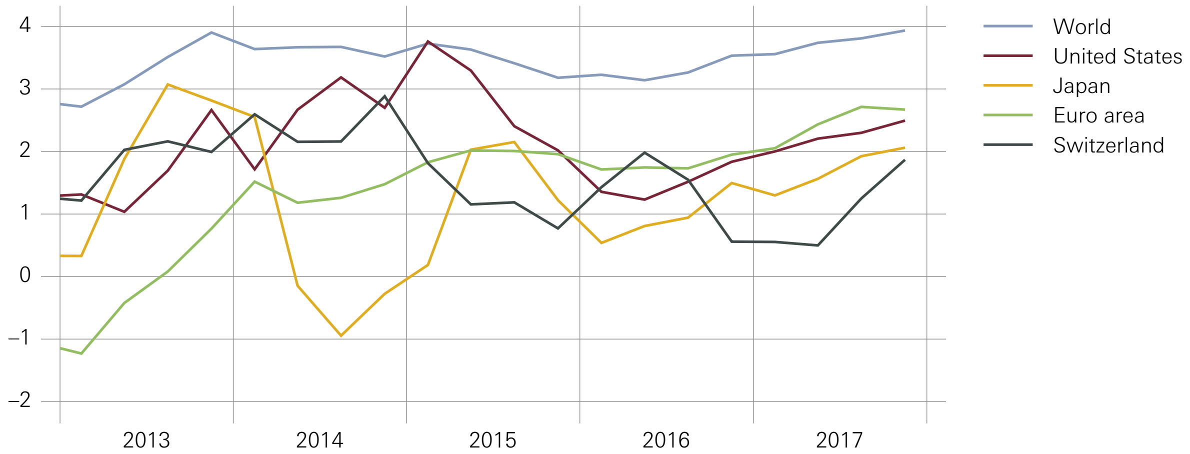
Economic growth in the US was considerably stronger at 2.3% in 2017 than in the previous year (1.5%). After weak growth at the beginning of the year, which was partly weather-related, the economy gained broad-based momentum. The labour market was close to full employment, which also contributed to consumer 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

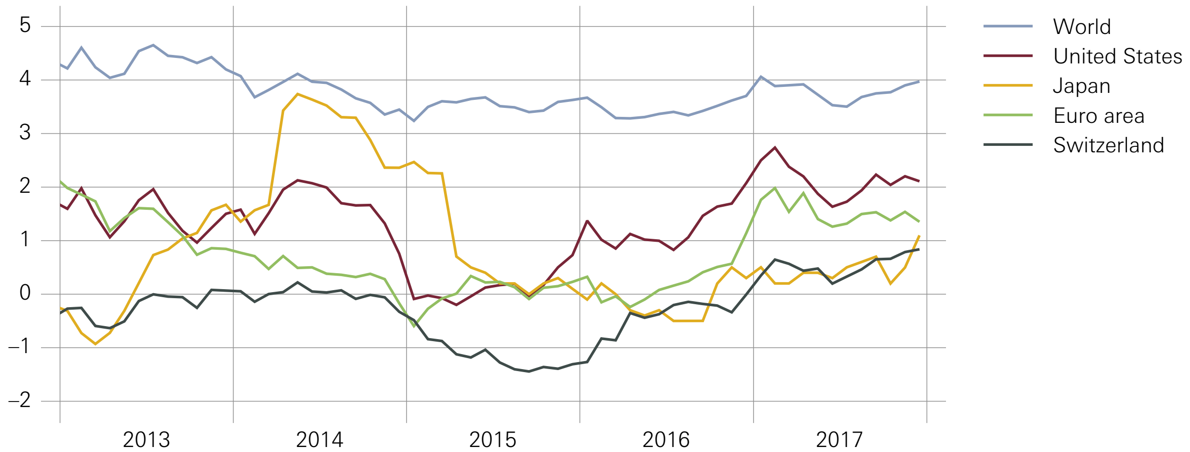
Year-on-year change in percent, in real terms



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%.

Inflation rate declines in emerging economies

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.

Gradual normalisation of monetary policy in US

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.

Continuation of expansionary monetary policy in euro area

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.

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%.

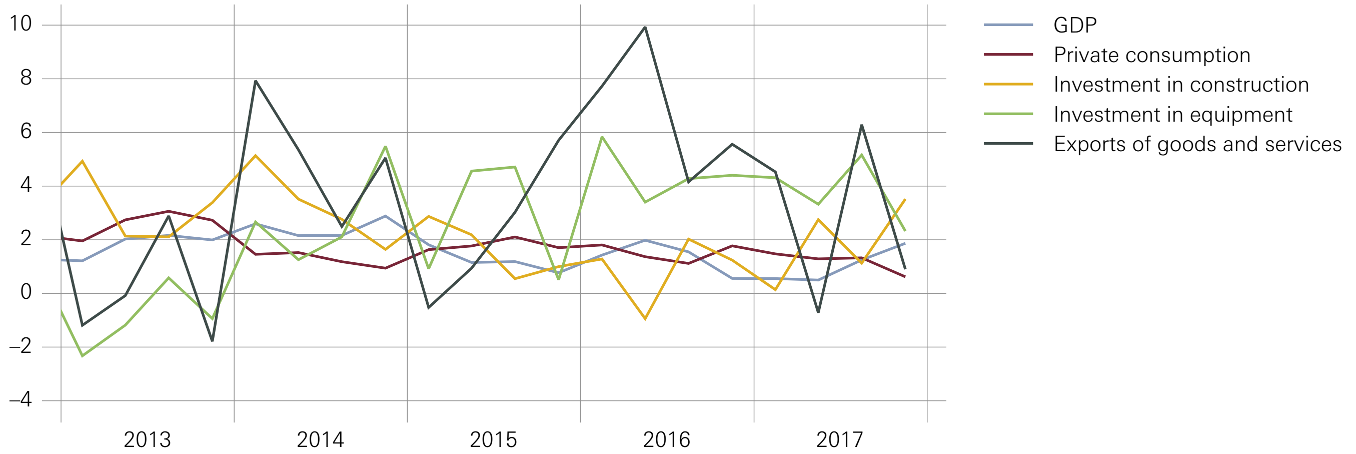
1.3 ECONOMIC DEVELOPMENTS IN SWITZERLAND

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

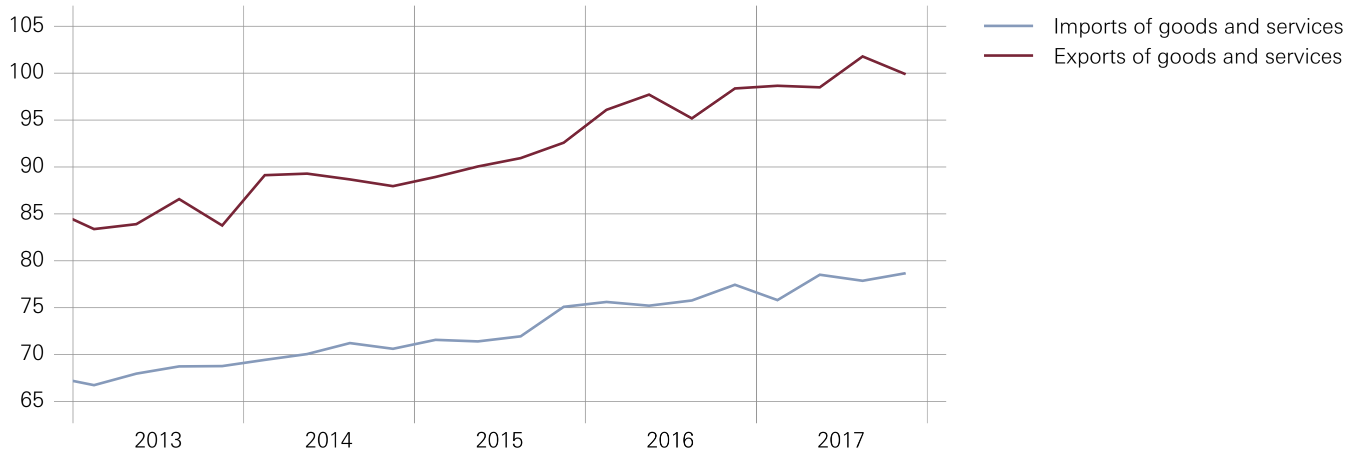
Year-on-year change in percent, in real terms



Source: SECO

FOREIGN TRADE

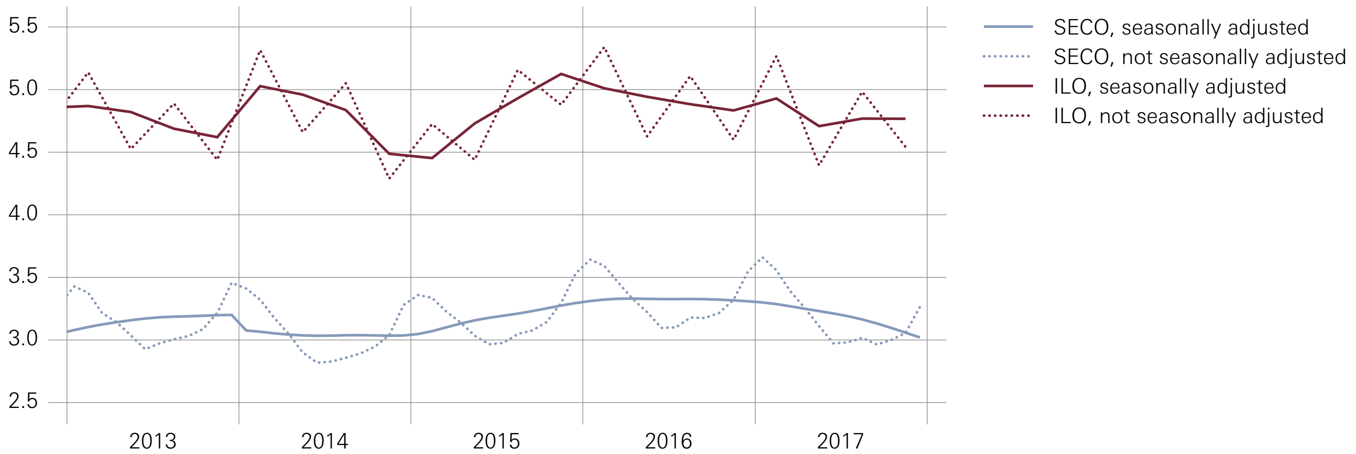
In CHF billions, in real terms, seasonally adjusted



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

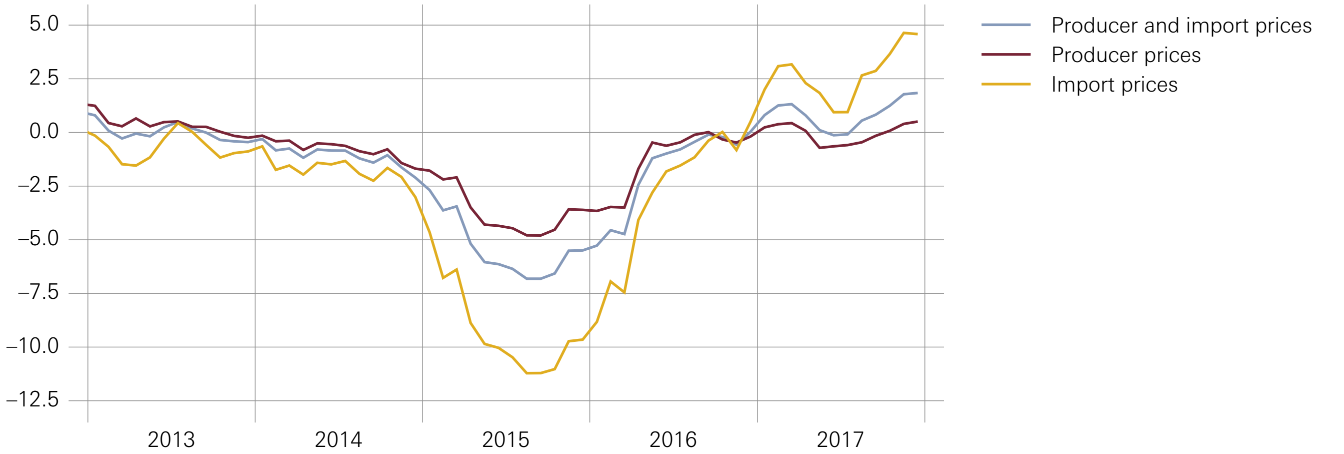
The utilisation of production capacity improved. The output gap, which is defined as the percentage deviation of GDP from estimated aggregate potential output, remained negative, but narrowed in the course of the year. In manufacturing, at the end of the year, utilisation of technical capacity was slightly 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

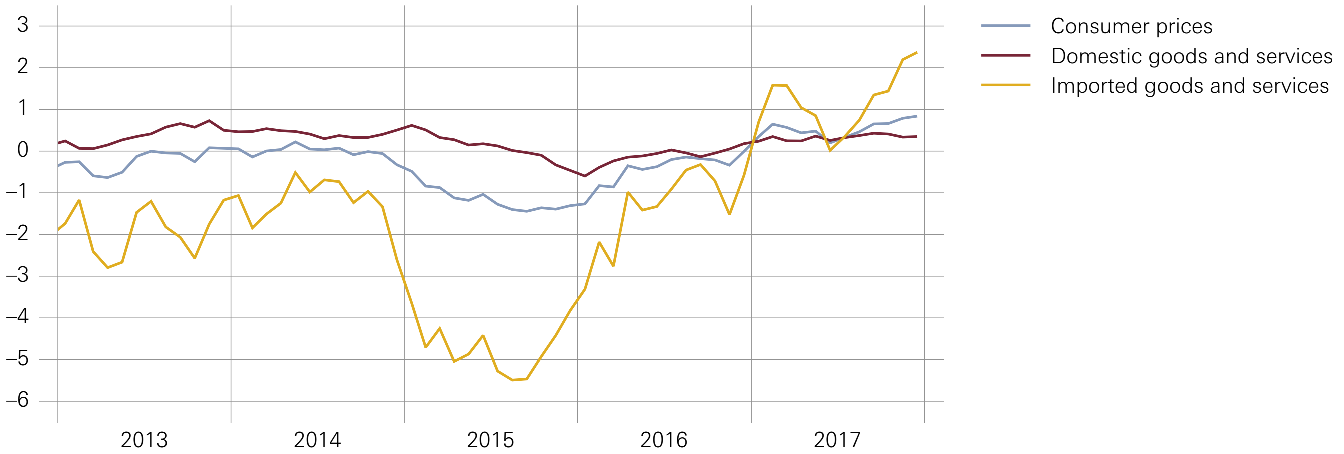
Year-on-year change in percent



Source: SFSO

CONSUMER PRICES

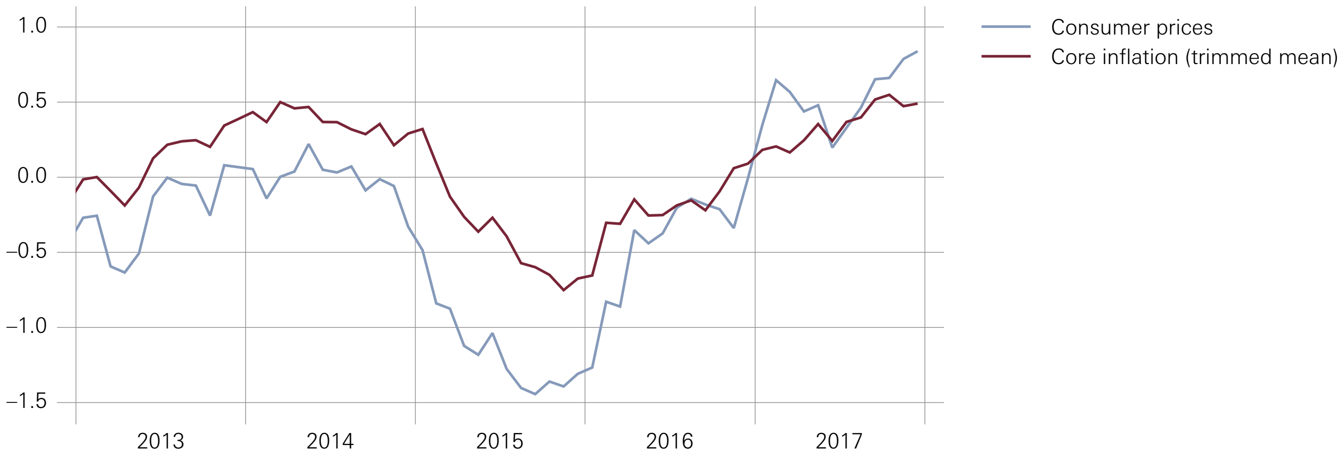
Year-on-year change in percent



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

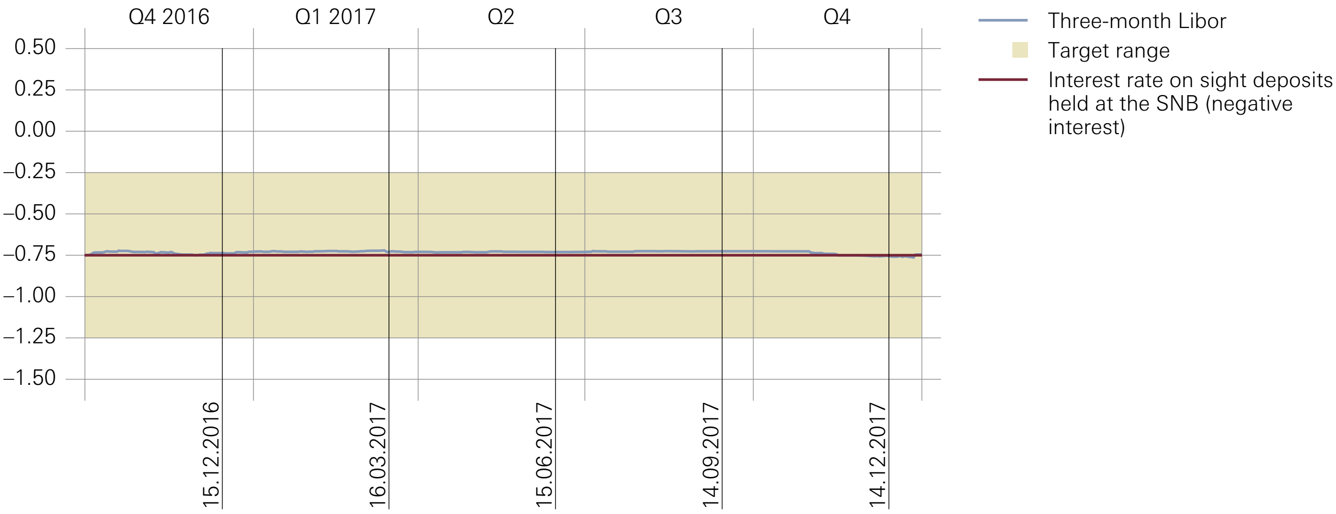
In 2017, average yields on long-term bonds were higher than during the previous year. Yields had already risen in the last quarter of 2016 following the US presidential elections, however. During 2017, bond yields moved sideways amid moderate fluctuations; they thus followed a broadly similar trajectory 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

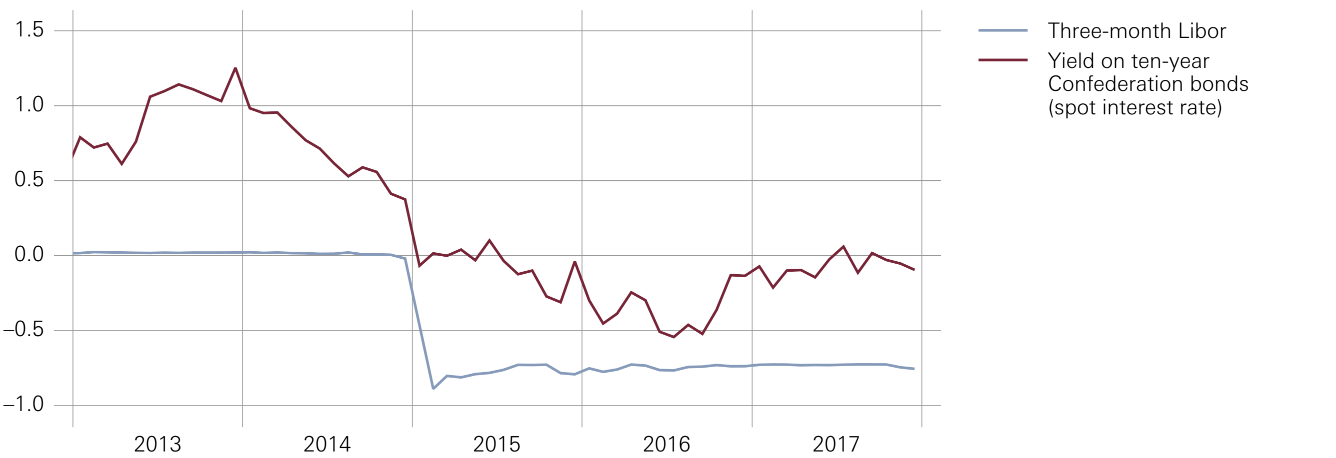
Daily values in percent, dates of monetary policy assessments



Source: SNB

MONEY AND CAPITAL MARKET RATES

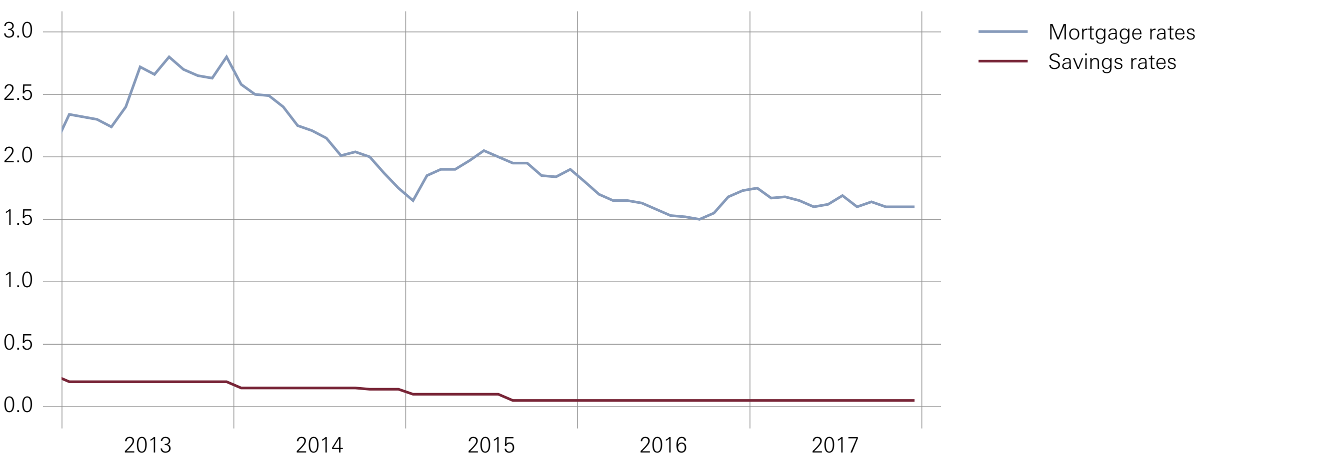
Monthly averages in percent



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

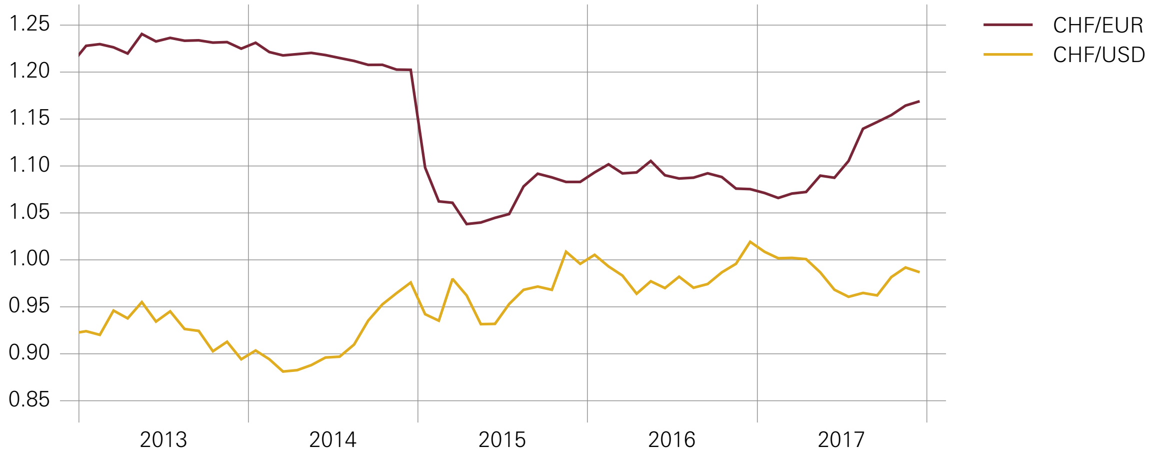
The monetary base, which is made up of banknotes in circulation and domestic banks' sight deposits with the SNB, expanded slightly until mid-year, before shrinking again somewhat. This decline reflects a shift from domestic banks' sight deposits towards other sight deposits held at the SNB. Total sight 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

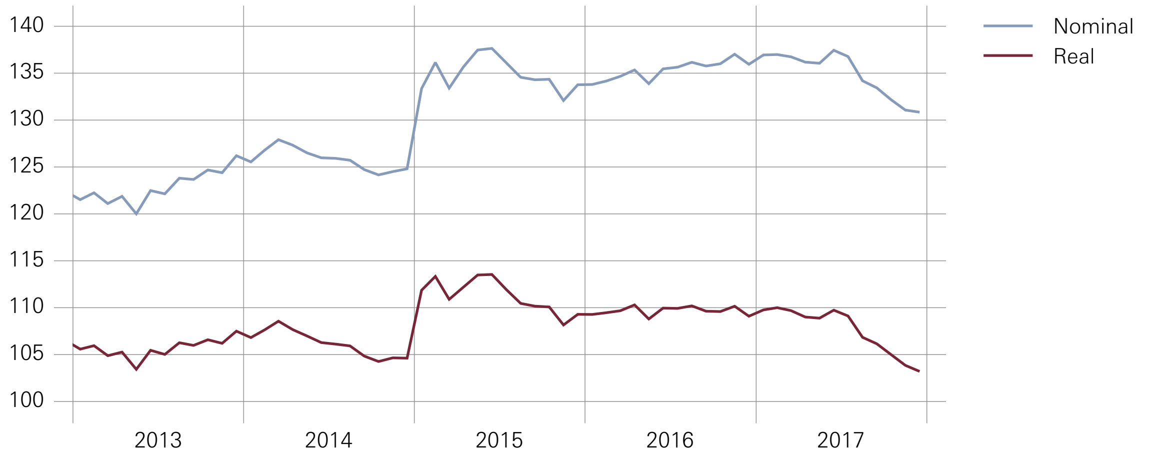
Monthly averages



Source: SNB

TRADE-WEIGHTED SWISS FRANC EXCHANGE RATES

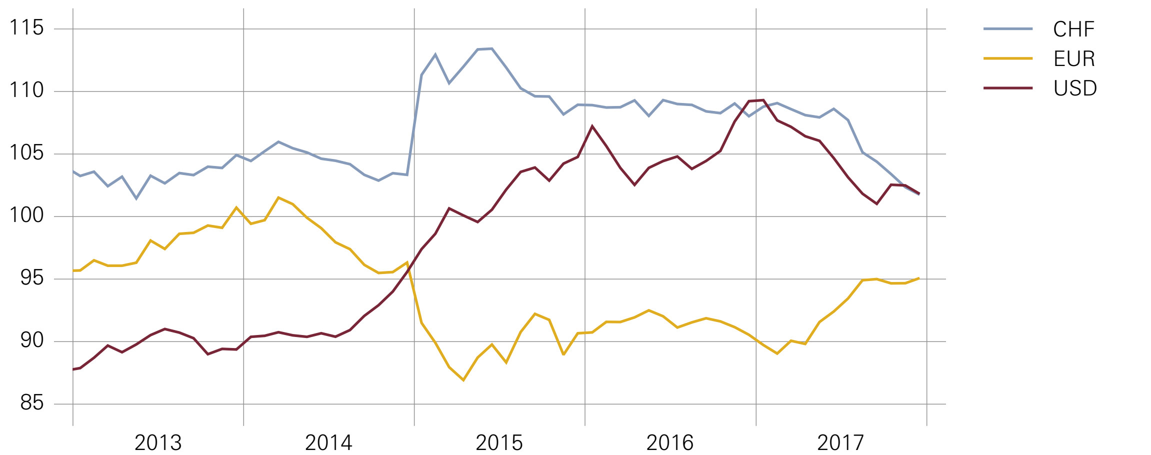
Index: average since 1990 = 100



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

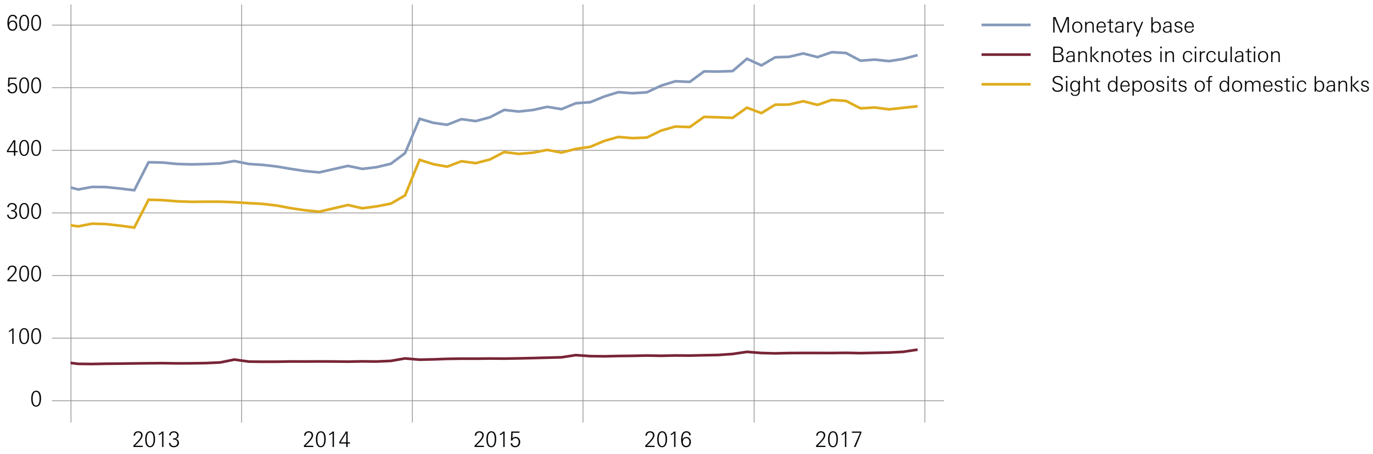
At the end of 2016, the SNB forecast real GDP growth of 1.5% for Switzerland in 2017, on the assumption that the economy would expand at a stable, moderate rate. The SNB confirmed its growth forecast in March and June; in September, it revised its forecast downwards to just under 1% due to weak GDP growth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

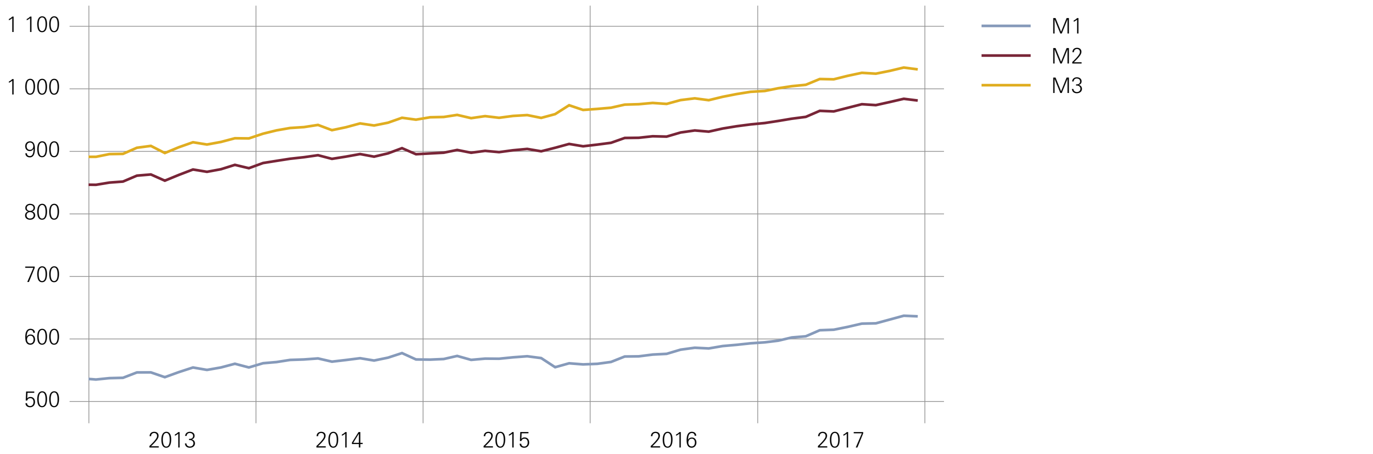
Monthly averages in CHF billions



Source: SNB

LEVEL OF MONETARY AGGREGATES

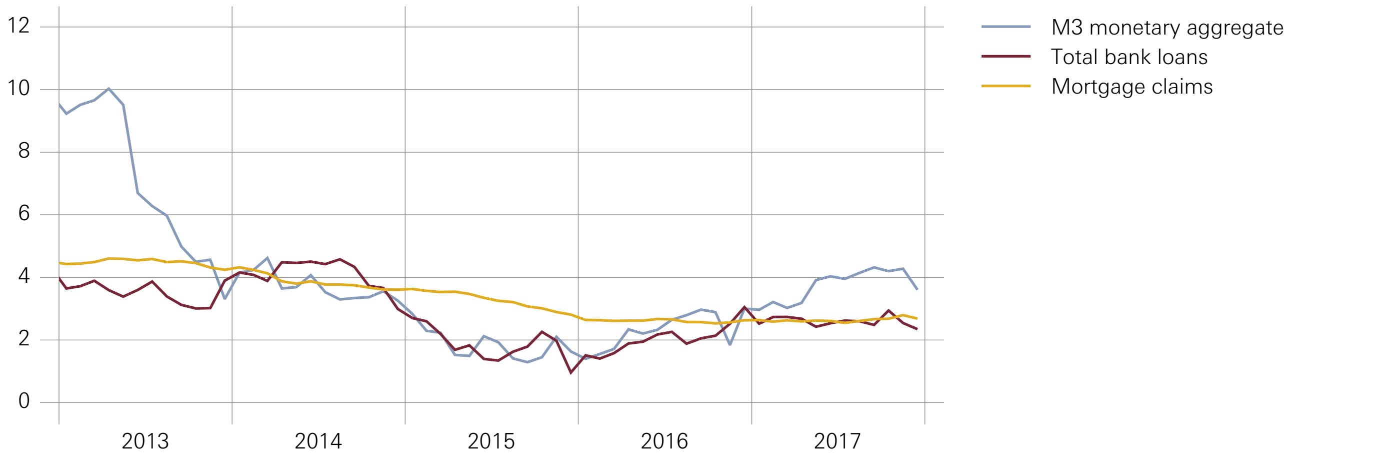
Month-end values in CHF billions



Source: SNB

GROWTH OF MONETARY AND CREDIT AGGREGATES

Year-on-year change in percent

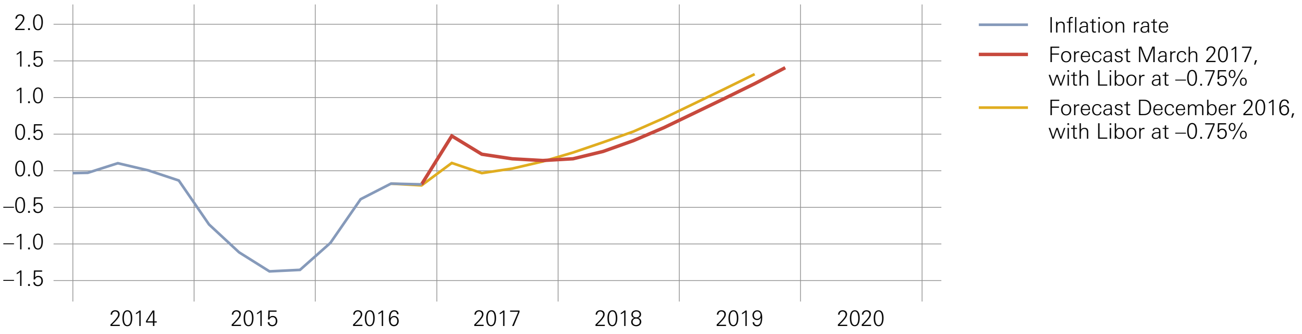


Source: SNB

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.

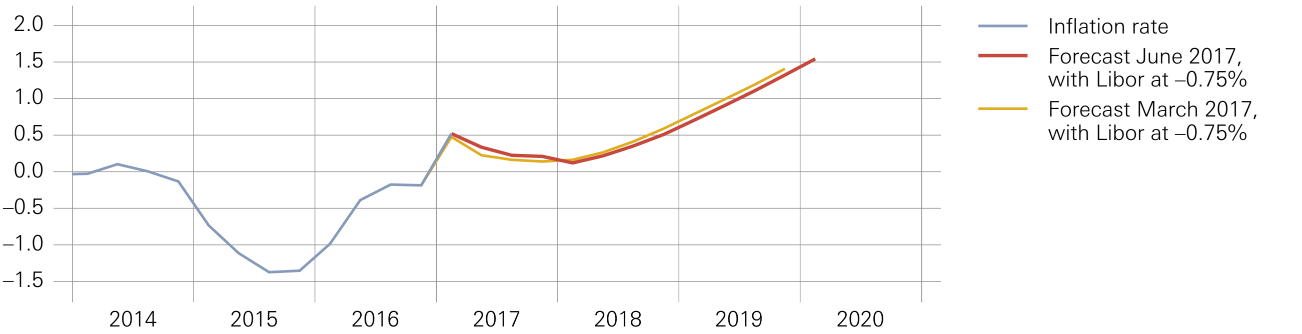
Only minor adjustments were made to the medium-term inflation forecast during the year. Although inflation was a little higher than expected in the first quarter, which meant that the short-term forecast in March 2017 was revised upwards, the long-term forecast was revised only slightly – and it was 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



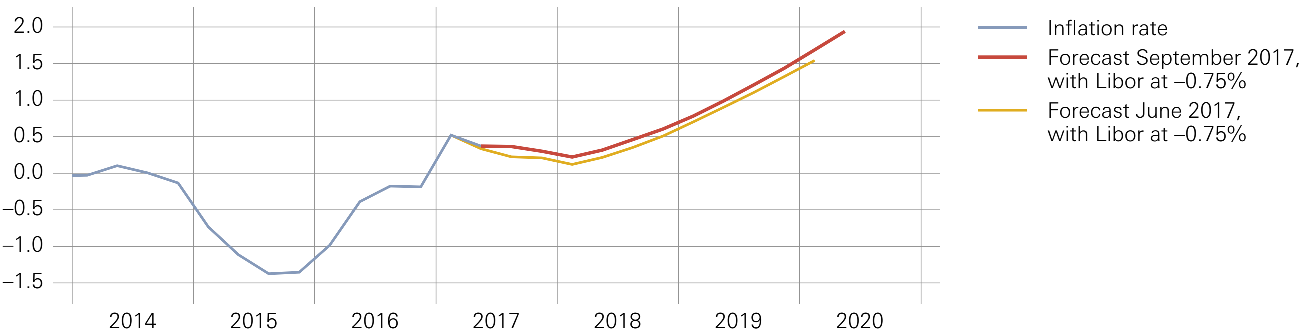
Source: SNB

CONDITIONAL INFLATION FORECAST OF JUNE 2017
Year-on-year change in Swiss consumer price index in percent



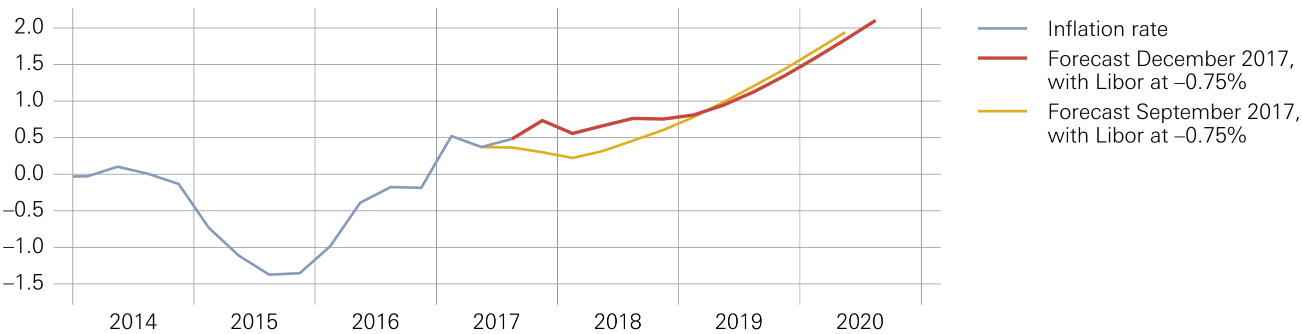
Source: SNB

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).

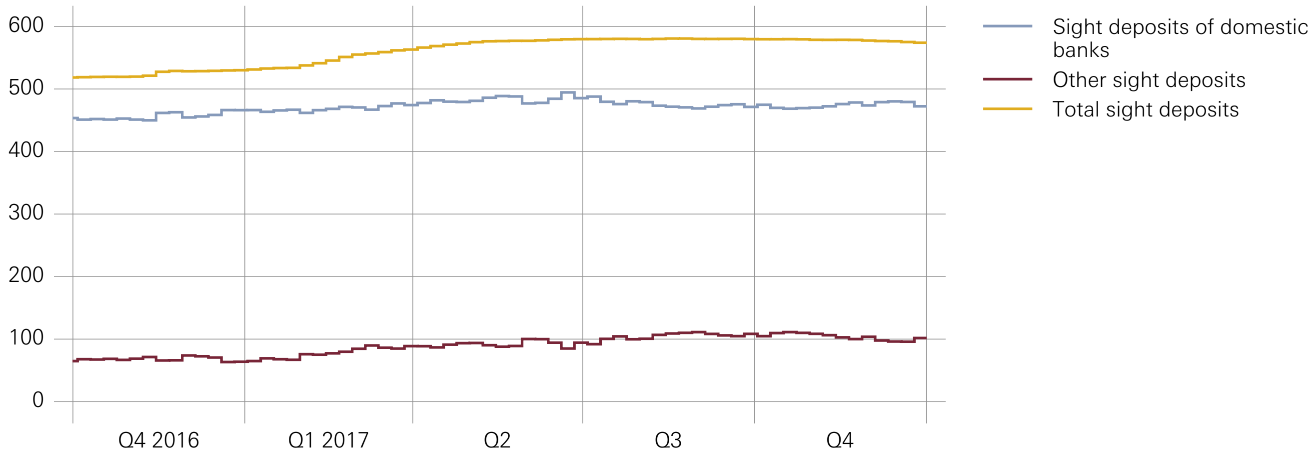
Interest rate benchmark reforms at international level

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

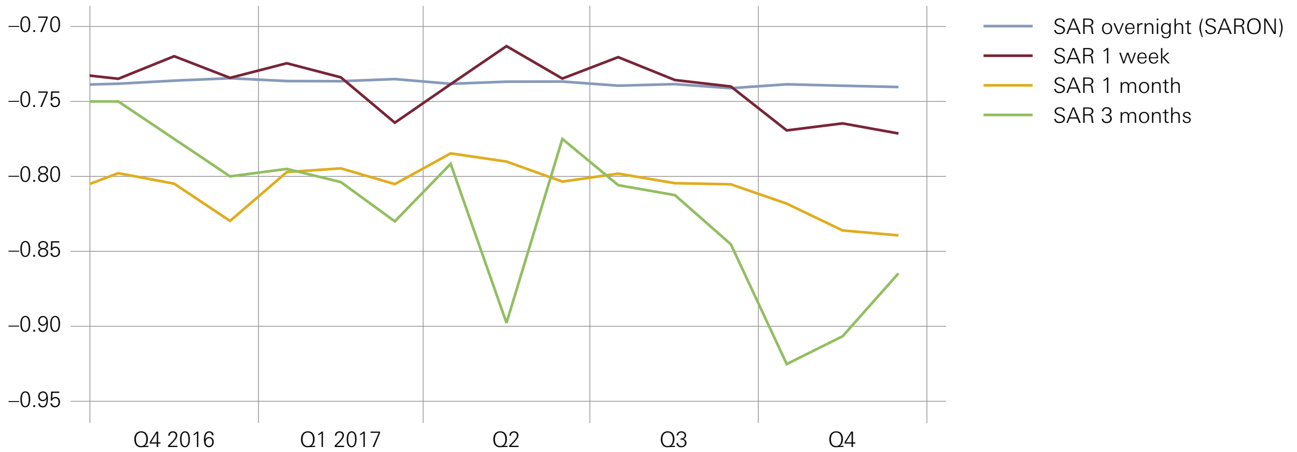
Weekly averages in CHF billions



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.

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

SNB debt certificates

In 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

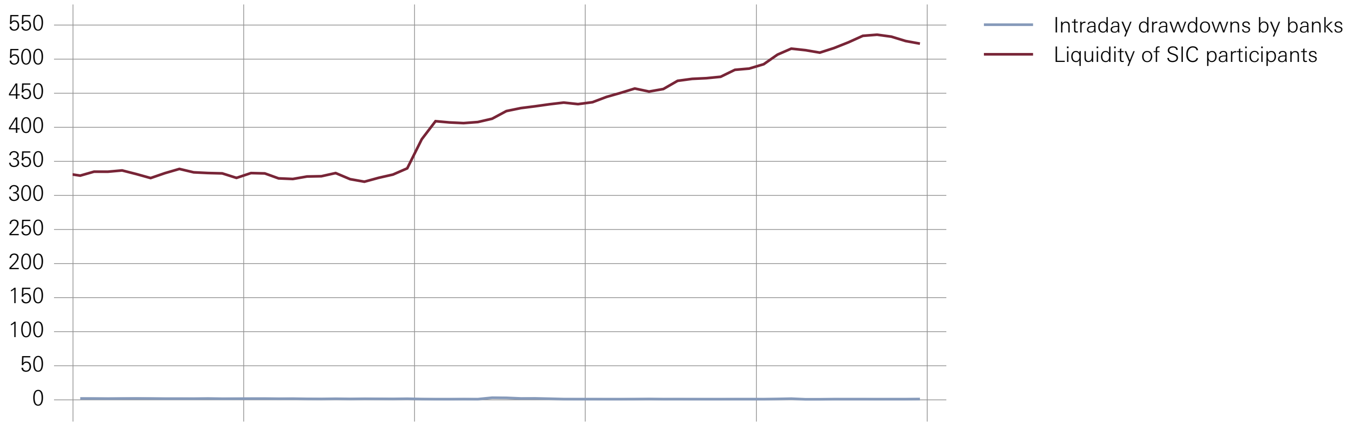
Transactions and turnover

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

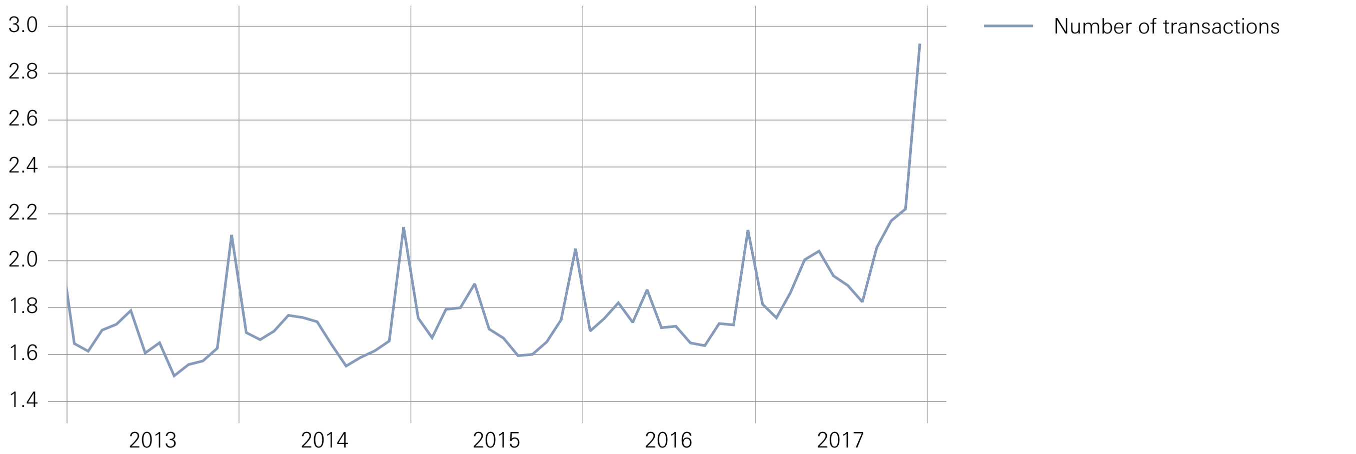
Monthly averages of daily figures in CHF billions



Source: SNB

TRANSACTIONS IN SIC

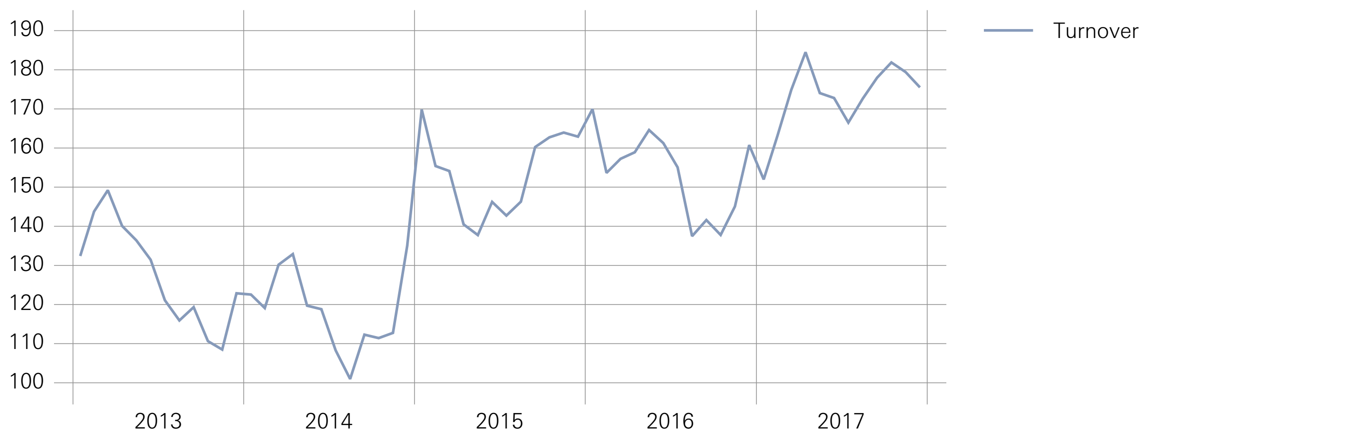
Monthly averages of daily figures, transactions in millions



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).

SIC as part of Swiss financial market infrastructure

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.

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.

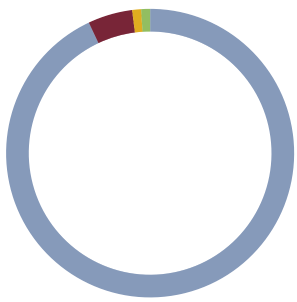
5.3 CHANGES IN AND BREAKDOWN OF ASSETS

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



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.

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.

Equity portfolios

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.

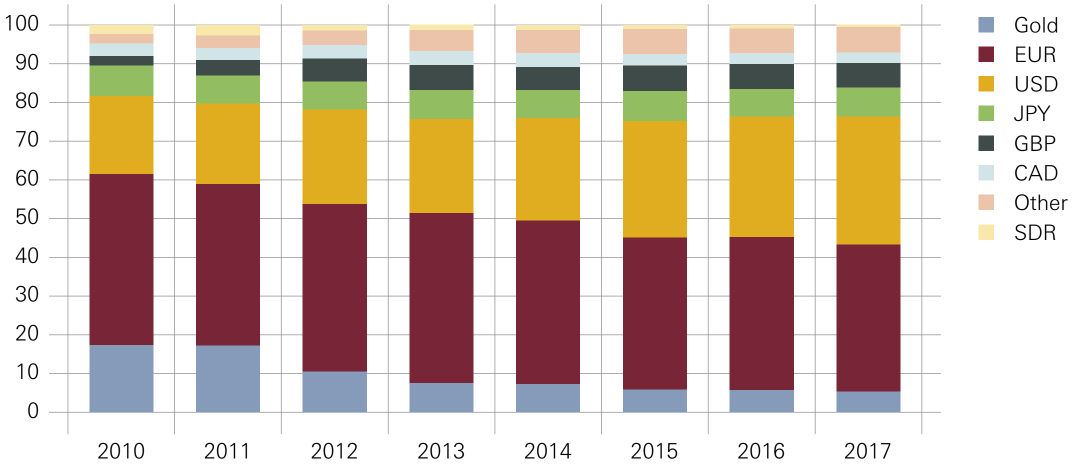
Market risk

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.

... and progress on resolution

The second pillar of the TBTF regulations covers the recovery and orderly wind-down (resolution) of a bank in a crisis, where 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.

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

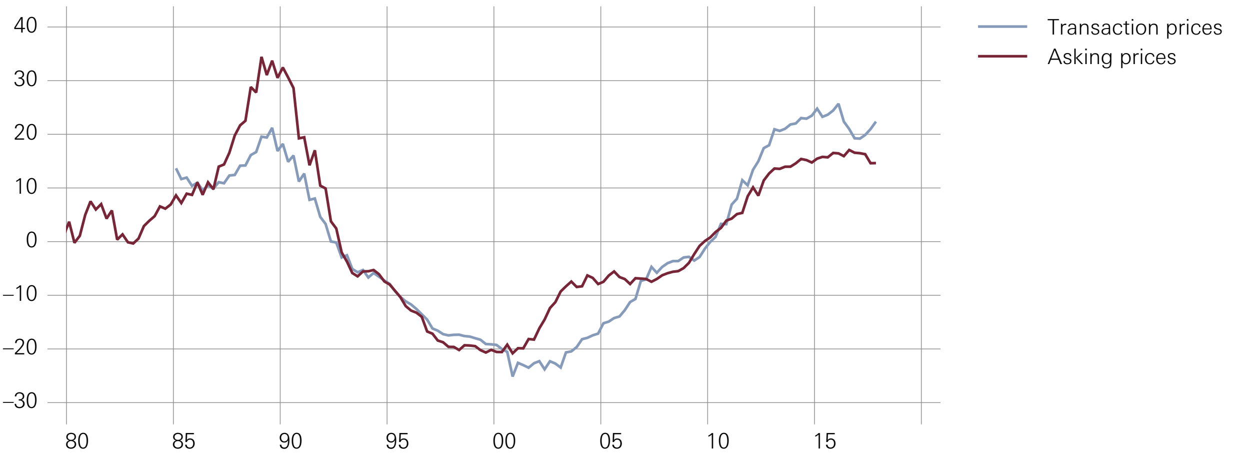
Developments up to end-2016

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

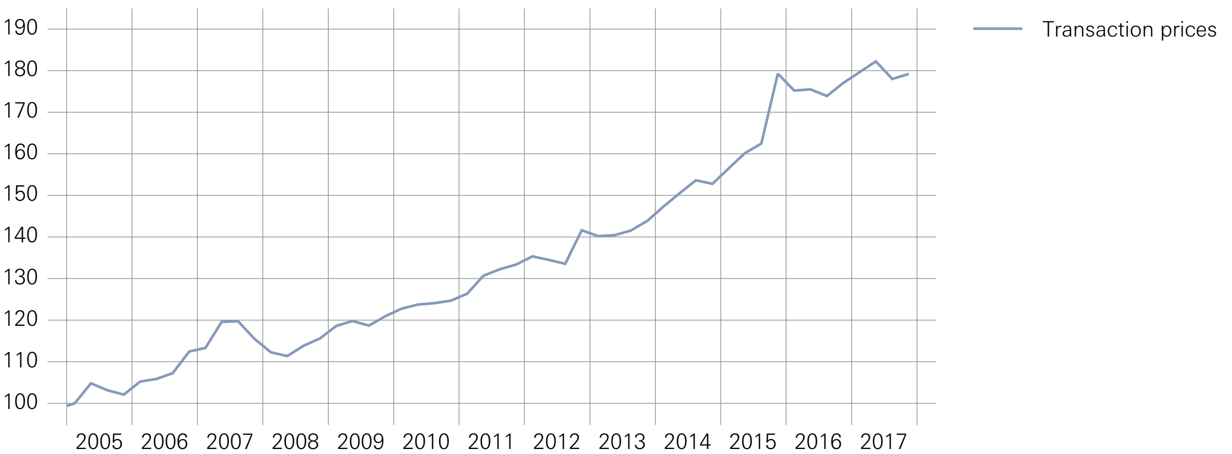
Deviation from average 1970–2017, in percent



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

Background

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.

Domestically focused systemically important banks: gone-concern requirements…

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.

... 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.

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.

Financial dialogue

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.

Meeting of central bank governors from French-speaking countries

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).

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.

Focus of technical assistance

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

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

Mandate

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.

Remuneration for banking services

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.

Issuing activities

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%).

Negative MMDRC yields

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.

Account management and payment transactions

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

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.

Surveys and statistics

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.

Statistical publications

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.

SNB data portal

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.

Special Data Dissemination Standard

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.

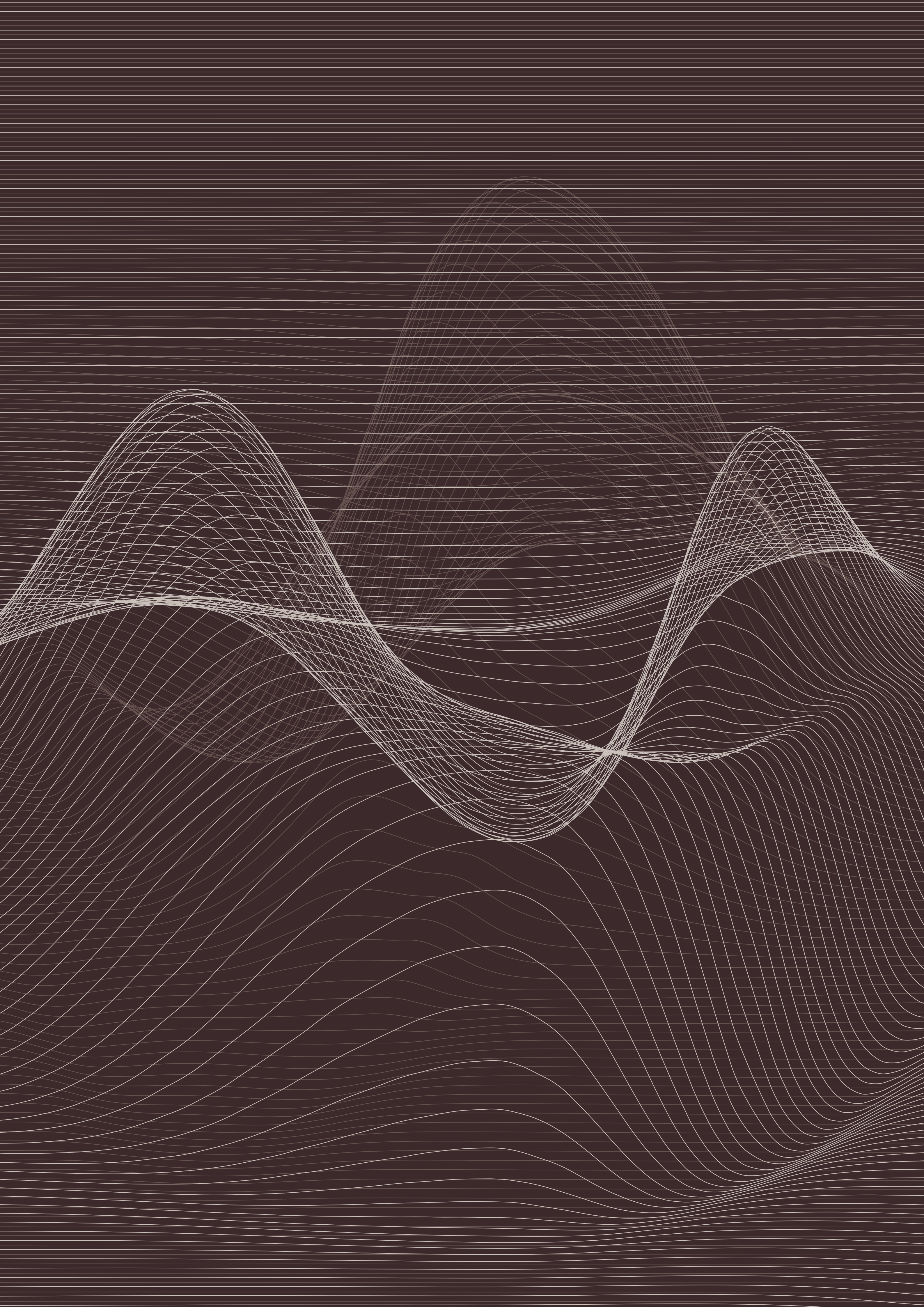
The balance of payments and the international investment position form part of Switzerland's System of National Accounts (SNA). They report the economic activity of a country – including its financial relations – with other countries and are compiled in accordance with the guidelines of the International 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.



Financial report

Key financial figures for 2017

SELECTED BALANCE SHEET FIGURES

In CHF billions

	31.12.2016	31.03.2017	30.06.2017	30.09.2017	**31.12.2017**
Banknotes in circulation	**78.1**	76.2	76.2	76.5	**81.6**
Sight deposits of domestic banks	**468.2**	473.2	480.5	468.4	**470.4**
Sight deposits of foreign banks and institutions	**24.6**	46.9	42.5	59.5	**54.1**
Other sight liabilities	**30.0**	30.8	37.7	35.4	**34.4**
Claims from Swiss franc repo transactions	**–**	–	–	–	**–**
Liabilities from Swiss franc repo transactions	**–**	–	–	–	**–**
SNB debt certificates in Swiss francs	**–**	–	–	–	**–**
Gold holdings	**39.4**	41.6	39.7	41.7	**42.5**
Foreign currency investments	**696.1**	710.5	724.4	761.0	**790.1**
Of which, in euros	**309.3**	299.0	308.4	319.8	**339.5**
Of which, in US dollars	**231.5**	244.5	247.5	263.5	**268.5**
Of which, in other currencies	**155.3**	167.0	168.5	177.7	**182.1**
Provisions for currency reserves[1]	**58.1**	58.1	62.8	62.8	**62.8**
Distribution reserve[2]	**1.9**	1.9	20.0	20.0	**20.0**

1 The allocation to the provisions for currency reserves form part of the profit appropriation. After the allocation for the 2017 financial year, which will amount to CHF 5.0 billion, the provisions for currency reserves will increase to CHF 67.8 billion (cf. p. 169).
2 The distribution reserve changes as part of the profit appropriation. After the profit appropriation for 2017, it will amount to CHF 67.3 billion (cf. p. 169).

SELECTED FIGURES FROM INCOME STATEMENT

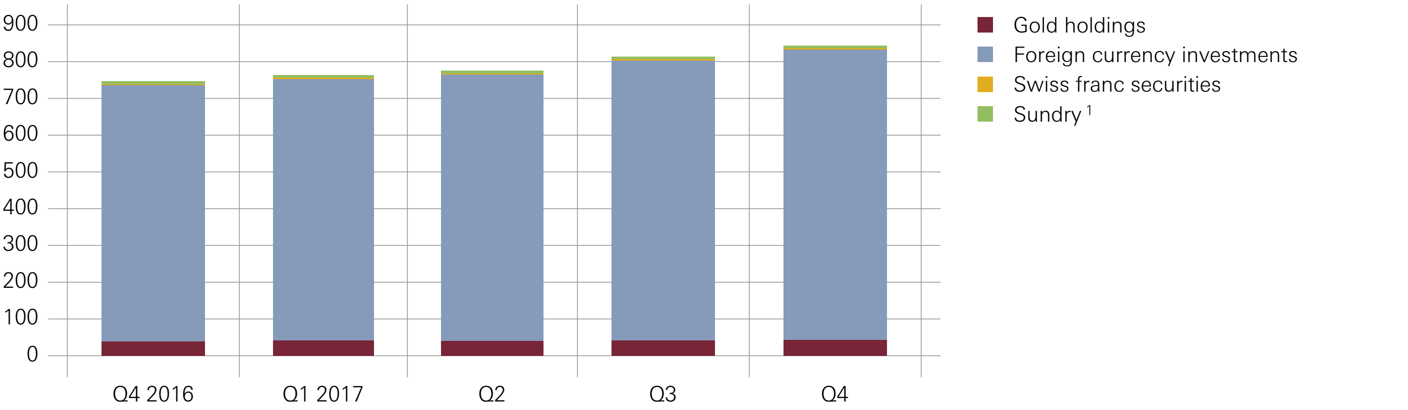
In CHF billions

	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Year 2017
Result for period[1]	7.9	–6.7	32.5	20.6	54.4
Of which, net result from gold	2.2	–1.9	1.9	0.8	3.1
Of which, net result from foreign currency positions	5.3	–5.2	30.2	19.4	49.7

1 For appropriation of profit, cf. p. 168.

ASSETS AT END OF QUARTER

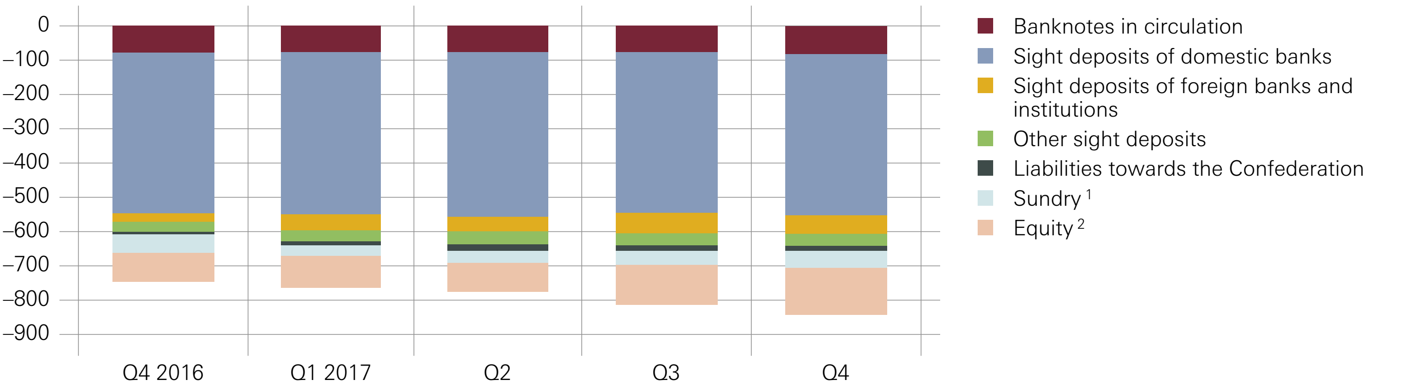
In CHF billions



1 Reserve position in the IMF, international payment instruments, monetary assistance loans, tangible assets, participations, other assets.
Source: SNB

LIABILITIES AT END OF QUARTER

In CHF billions



1 Foreign currency liabilities, counterpart of SDRs allocated by the IMF, other liabilities.
2 Provisions for currency reserves, share capital, distribution reserve (before appropriation of profit), annual result.
Source: SNB

EXCHANGE RATES AND GOLD PRICE IN SWISS FRANCS

Index: 1 January 2017 = 100

Source: SNB

Business report

The business report provides information on organisational and operational developments as well as the financial result of the Swiss National Bank (SNB). In addition, as a company quoted on the stock exchange, the SNB publishes information on corporate governance (SIX Swiss Exchange Ltd corporate governance directive) in its business report.

The business report and the annual financial statements together constitute the financial report of the SNB, as stipulated under Swiss company law (art. 958 of the Swiss Code of Obligations (CO)). At the SNB, the business report fulfils the function of a management report (art. 961c CO).

The fulfilment of the SNB's statutory mandate is explained in the accountability report.

1
Corporate governance

1.1 BACKGROUND

The Swiss National Bank (SNB) is a special-statute joint-stock company that is administered with the cooperation and under the supervision of the Confederation. Its organisational structure and responsibilities are governed by the National Bank Act of 3 October 2003 (NBA; as at 1 January 2016) and the 'Regulations on the organisation of the Swiss National Bank of 14 May 2004' (Organisation regulations; as at 15 July 2016). At the SNB, statutes and regulations fulfil the function of articles of association.

Mandate

The SNB's mandate is derived directly from the Federal Constitution. Under the terms of art. 99 of the Constitution, the SNB is required to pursue a monetary policy that serves the overall interests of the country. In addition, the article enshrines the SNB's independence and requires it to set aside sufficient currency reserves from its earnings, also specifying that a part of these reserves be held in gold. Finally, the Constitution stipulates that the SNB must distribute at least two-thirds of its net profits to the cantons.

NBA and implementation decrees

The main legislation governing the activities of the SNB is the NBA, which sets out in detail the various elements of the SNB's constitutional mandate (art. 5) and independence (art. 6). To counterbalance the SNB's independence, the NBA specifies a duty of accountability and a duty to provide information to the Federal Council, parliament and the public (art. 7). The SNB's scope of business is outlined in arts. 9–13 NBA. The instruments used by the SNB to implement its monetary policy and for investing its currency reserves are set out in the 'Guidelines on monetary policy instruments' and the 'Investment policy guidelines'.

The NBA also sets out the legal basis for the collection of statistical data on financial markets, the imposition of minimum reserve requirements on banks and the oversight of financial market infrastructures. Provisions governing the implementation of these statutory powers may be found in the National Bank Ordinance (NBO; as at 1 January 2018) issued by the SNB Governing Board.

Finally, the NBA lays down the foundations of the SNB's organisational structure (arts. 2, 33–48).

The ordinance against excessive remuneration at listed companies limited by shares does not apply to the SNB, since the SNB is not a company limited by shares within the meaning of arts. 620–763 of the Swiss Code of Obligations (CO). Where the NBA leaves room for manoeuvre, the SNB implements the ordinance requirements. This applies especially to the prohibition of voting rights for corporate bodies and deposited shares, as well as the requirements regarding independent proxy voting and the proxy's powers.

1.2 SHAREHOLDERS

Listed registered shares

The share capital of the SNB amounts to CHF 25 million and is fully paid up. It is divided into 100,000 registered shares with a nominal value of CHF 250 each. SNB registered shares are traded on the Swiss stock exchange (SIX Swiss Exchange) under the Swiss Reporting Standard.

The majority of SNB shares are held by cantons and cantonal banks. At the end of 2017, they held around 51% of shares. The Confederation is not a shareholder. The remaining shares are mainly owned by private individuals.

The major shareholders were the Canton of Berne with 6.63% (6,630 shares), Theo Siegert (Düsseldorf) with 6.07% (6,070 shares), the Canton of Zurich with 5.20% (5,200 shares), the Canton of Vaud with 3.40% (3,401 shares) and the Canton of St Gallen with 3.00% (3,002 shares).

In 2017, the members of the Bank Council did not hold any SNB shares. According to the 'Code of Conduct for members of the Bank Council', Bank Council members may not hold any such shares. As at 31 December 2017, a member of the Enlarged Governing Board and a party related to a member of the Governing Board held one share each (cf. table 'Remuneration for members of executive management (including employer social security contributions)', p. 196).

Shareholder rights

Shareholder rights are governed by the NBA, with the provisions of company law being complementary to those of the NBA. As the SNB fulfils a public mandate and is administered with the cooperation and under the supervision of the Confederation, shareholder rights are restricted as compared with a joint-stock company under private law. For shareholders from outside the public sector, voting rights are limited to 100 shares. Dividends may not exceed 6% of the share capital. Of the remaining distributable profit, one-third is paid out to the Confederation, and two-thirds to the cantons.

The business report and the annual financial statements must be approved by the Federal Council before being submitted to the General Meeting of Shareholders for its approval. Other provisions on the General Meeting of Shareholders that deviate from company law concern its convocation, agenda and adoption of resolutions. Agenda items with motions from shareholders must be signed by at least 20 shareholders and submitted to the President of the Bank Council in writing and in good time, before invitations are sent out (cf. Participation rights, p. 150).

Information for shareholders

Notifications to shareholders are generally communicated in writing to the address listed in the share register, and by one-off publication in the Swiss Official Gazette of Commerce. Shareholders only receive information which is also available to the public.

Independent proxy

The SNB allows its shareholders to grant their power of attorney and send instructions to the independent proxy, either in writing or electronically.

1.3 ORGANISATIONAL STRUCTURE

Departments

The SNB has two head offices, one in Berne and one in Zurich. It is divided into three departments. For the most part, the organisational units of Departments I and III are located in Zurich, while those of Department II are mainly in Berne. Each of the three departments is headed by a member of the Governing Board, who is assisted in this task by a deputy.

Branch office

The Singapore branch office allows the SNB to efficiently manage the Asia-Pacific part of its foreign exchange reserves. Geographical proximity to investment markets and participants in these markets also allows for a better understanding of the local markets and economic areas. Additionally, the Singapore location facilitates foreign exchange market operations at all market hours.

The delegates for regional economic relations are responsible for monitoring economic developments and explaining the SNB's policy in the regions. To this end, in addition to the head offices in Zurich and Berne, the SNB maintains representative offices in Basel, Geneva, Lausanne, Lucerne, Lugano and St Gallen. The delegates are supported by the Regional Economic Councils, which analyse the economic situation and the effect of monetary policy in their regions and report the results to the Governing Board. In addition, the Regional Economic Councils conduct a regular exchange of information with the delegates. At the beginning of 2018, the regions were reorganised. The Geneva region was expanded to include the cantons of Neuchâtel and Jura, while the canton of Fribourg was added to the Vaud-Valais region. Finally, the cantons of Berne and Solothurn became part of the Mittelland region.

Representative offices

The SNB also maintains 14 agencies for the receipt and distribution of banknotes and coins. These agencies are run by cantonal banks.

Agencies

1.4 CORPORATE BODIES AND RESPONSIBILITIES

The corporate bodies of the SNB are the General Meeting of Shareholders, the Bank Council, the Governing Board and the Audit Board. The composition of these bodies is described on pp. 212–213.

The General Meeting of Shareholders elects five of the Bank Council's eleven members (via separate ballot per member) and appoints the Audit Board. It approves the business report and the annual financial statements, and grants discharge to the Bank Council. Furthermore, within the context of the profit appropriation, the General Meeting of Shareholders determines the dividend. This may not exceed 6% of the share capital.

General Meeting of Shareholders

Bank Council

The Bank Council is the SNB's supervisory and control body. Six of its members are elected by the Federal Council; five by the General Meeting of Shareholders. The Federal Council is also responsible for appointing the President and Vice President. The Bank Council oversees and controls the conduct of business by the SNB. The individual tasks of the Bank Council are described in art. 42 NBA and art. 10 of the 'Organisation regulations'. The Bank Council's responsibilities cover, in particular, the determination of the basic principles according to which the SNB should be organised (including the structure of its accounting and financial control systems and its financial planning) and the approval of the budget and the provisions for currency reserves (art. 30 NBA). The Bank Council also assesses risk management and the basic principles underlying the investment process, and is kept informed of the SNB's operational resource strategies. The Bank Council submits proposals to the Federal Council for the appointment of Governing Board members and their deputies. It determines, in a set of regulations, the remuneration of its own members, and the remuneration of Governing Board members and deputies. Finally, the Bank Council approves the agreement with the Federal Department of Finance on profit distribution, decides on the design of banknotes and appoints the members of the Regional Economic Councils. Monetary policy does not form part of its remit; this falls to the Governing Board.

Bank Council activities

In 2017, the Bank Council held six ordinary half-day meetings (in March, April, June, September, October and December), all of which were attended by the members of the Governing Board.

The Bank Council took note of the accountability report for 2016 submitted to the Federal Assembly and approved the financial report for 2016 for submission to the Federal Council and the General Meeting of Shareholders. It discussed reports submitted by the Audit Board to the Bank Council and the General Meeting of Shareholders, took note of the annual reports on financial and operational risks, the annual report of the Compliance unit, and the 2016 annual report of the pension fund, prepared the 2017 General Meeting of Shareholders and approved the 2016 budget statement and the 2018 budget.

In addition, the Bank Council elected new members to the Regional Economic Councils of Central Switzerland and Vaud-Valais, and determined the membership of the Bank Council committees for the 2017–2018 term of office.

The Bank Council also received a detailed report on the activities of the Board of Deputies.

In addition, the Bank Council took note of the latest status report on the renovation of the SNB premises at Bundesplatz 1 in Berne. Moreover, it approved the creation of a visitor centre at the Berne head office and granted the associated budget allocation.

Furthermore, the Bank Council discussed the investment policy and took note of the cybersecurity strategy and IT strategy for 2017.

Finally, the Bank Council approved the level of provisions for currency reserves.

Committees

The Bank Council has an Audit Committee, a Risk Committee, a Compensation Committee and a Nomination Committee, each of which has three members.

The Audit Committee supports the Bank Council in monitoring accounting and financial reporting, and oversees the activities of the Audit Board and the Internal Audit unit. It also assesses the appropriateness and efficacy of the internal control system (ICS), in particular regarding the processes for managing operational risk and ensuring compliance with laws, regulations and directives.

The Risk Committee assists the Bank Council in monitoring risk management and in assessing the governance of the investment process. The Audit Committee and the Risk Committee coordinate their activities and collaborate in areas where their tasks overlap.

The Compensation Committee supports the Bank Council in determining the principles of the SNB's compensation and salary policy, and submits proposals to the Bank Council regarding the salaries of Governing Board members and their deputies.

The Nomination Committee submits proposals to the Bank Council for the election of those Bank Council members who are appointed by the General Meeting of Shareholders, and for members of the Governing Board and their deputies, who are elected by the Federal Council.

Meetings

The Audit Committee held five meetings, four of which were attended by the Audit Board. The Risk Committee held two meetings. The Compensation Committee held two meetings. The Nomination Committee did not meet.

Executive management

The Governing Board is the SNB's highest management and executive body. Its three members are appointed for a six-year term by the Federal Council on the recommendation of the Bank Council. The Governing Board is responsible, in particular, for monetary policy, asset management strategy, contributing to the stability of the financial system, and international monetary cooperation.

The Enlarged Governing Board is made up of the three Governing Board members and their deputies. It issues the strategic guidelines for the SNB's business operations.

The Board of Deputies is responsible for the planning and implementation of these strategic guidelines. It ensures coordination in all operational matters of interdepartmental importance.

Audit Board

The Audit Board examines whether the accounting records, the annual financial statements and the proposal for the appropriation of the net profit are in accordance with statutory requirements. To this end, it is entitled to inspect the SNB's business activities at any time. It is appointed by the General Meeting of Shareholders for a term of one year. The auditors must meet special professional qualifications pursuant to art. 727b CO, and must be independent of the Bank Council, the Governing Board and the controlling shareholders.

KPMG Ltd has been the Audit Board since 2015 and was reappointed by the General Meeting of Shareholders for 2017. Philipp Rickert has been the auditor in charge since 2015. The role of auditor in charge is rotated at least every seven years in compliance with the regulations on terms of office stipulated in the Swiss Code of Obligations. Auditing fees for the 2017 financial year amounted to CHF 0.3 million (2016: CHF 0.3 million). KPMG did not provide any additional consulting services in 2017, as in the previous year.

Internal Audit

The Internal Audit unit is an independent instrument for overseeing and monitoring the SNB's business activities. It reports to the Audit Committee of the Bank Council.

1.5 REMUNERATION REPORT

Remuneration

When remunerating the members of the Bank Council and the Enlarged Governing Board, the Bank Council is required to comply analogously with the Confederation's principles governing the remuneration and other contractual conditions for senior staff and management officers of federal enterprises and institutions, as outlined in art. 6a of the Federal Personnel Act. The Bank Council laid down the principles governing remuneration in the regulations on the compensation of SNB supervisory and executive bodies of 14 May 2004 (Compensation regulations).

Remuneration and compensation remitted in 2017 are listed in the tables on pp. 195–196.

Bank Council

The compensation for members of the Bank Council is made up of a fixed annual remuneration plus per diem payments for special assignments and committee meetings. No compensation is due for committee meetings that are held on the same day as Bank Council meetings.

Executive management

The remuneration paid to members of the Enlarged Governing Board comprises a salary and a lump sum for representation expenses. It is based on the level of remuneration in other financial sector companies of a similar size and complexity, and in large federally run companies.

Regional Economic Councils

Information on the remuneration for members of the Regional Economic Councils can be found on p. 195.

Severance payments and compensation for restrictions

The SNB does not make severance payments to departing members of the Bank Council. In accordance with the SNB's regulations on the employment relationship of the Governing Board of the SNB and their deputies (Regulations on the Governing Board), members of the Governing Board and their deputies are entitled to compensation for the restrictions on their right to carry out professional activities after termination of their employment with the SNB. They cover all forms of financial intermediary activities for a period of six months. Consequently, compensation amounting to six months of salary is paid. A twelve-month limitation applies to activities with systemically important banks in Switzerland. If a member of the Enlarged Governing Board is not reappointed, is removed from office or is dismissed in the interest of the bank, the Bank Council may grant a severance payment amounting to a maximum of one year's salary.

1.6 INTERNAL CONTROL SYSTEM

Aim and purpose

The ICS comprises all the structures and processes which ensure orderly procedures for operational activities and contribute to the attainment of business goals.

The ICS makes a major contribution towards compliance with legal requirements and internal specifications, the prudential protection of corporate assets, the prevention, reduction and disclosure of errors and irregularities, as well as ensuring that accounts are reliable and complete, that reporting is timely and dependable, and that risk management is appropriate and efficient.

Elements

The ICS comprises the management of financial risk, operational risk, compliance risk and risk associated with financial reporting.

Organisation

The ICS is divided into three levels. The three, organisationally separate levels (lines of defence) are line management (heads of department and line managers), risk monitoring and internal audit.

First level

The first level is ensured through the line management's responsibility to provide verification of its duty of care and orderly business procedures. Organisational units define their structures and procedures so as to ensure that tasks are carried out efficiently and their objectives achieved. To this end, they specify operational goals and control measures to manage the risks they are exposed to in their business activities.

Second level

The second level is risk monitoring. The units responsible (Operational Risk and Security, Compliance, and Risk Management) advise line management in the management of risk in their units. They monitor and report on the appropriateness and efficacy of risk management. In addition, they make their own assessment of the risk situation. They draw up specifications and measures to limit risk, and submit corresponding proposals to executive management.

Third level

Finally, at a third, independent level, the Internal Audit unit examines the appropriateness and efficacy of the ICS, pursuing an approach that is first and foremost risk-oriented.

The Bank Council and, in particular, its Audit Committee and Risk Committee, assess the appropriateness and efficacy of the ICS and satisfy themselves with regard to the security and integrity of the business processes.

Responsibilities of Bank Council and executive management

The Enlarged Governing Board approves strategies for the SNB's business operations.

The Board of Deputies approves the specifications with respect to the ICS and monitors compliance therewith. To this end, it issues directives and specifications on operational management.

Reporting

Once a year, individual ICS reports on financial, operational and compliance risks are submitted to executive management and the Bank Council. In addition, Internal Audit communicates its findings on the appropriateness and efficacy of the ICS to executive management and the Bank Council's Audit Committee at least twice a year.

1.7 RISK MANAGEMENT

Risks

In fulfilling its statutory mandate, the SNB incurs various risks. These include financial risks in the form of market, credit, country and liquidity risks. It is also exposed to operational and compliance risks. These include personal injury, financial loss or reputational damage arising as a result of inadequate internal processes, incorrect reporting, a lack of – or disregard for – regulations or rules of conduct, technical failure and the impact of various external events.

Risk assessment

The Bank Council oversees and monitors the conduct of business by the SNB. It is responsible for assessing risk management and monitors its implementation. The Risk Committee and the Audit Committee prepare the business agenda and support the Bank Council in overseeing risk management.

Risk strategy

Each year, the Governing Board determines the investment strategy and issues the 'Investment policy guidelines'. In so doing, it determines the framework for the financial risks associated with investments.

The enlarged Governing Board approves strategies for business operations and has strategic responsibility for the management of operational and compliance risks. It defines the corresponding guidelines.

Organisation with regard to financial risk

Financial risk associated with investment is continuously monitored by the Risk Management unit. Each quarter, the Governing Board discusses the reports on investment activities and risk management. The detailed reports on risk management are discussed by the Risk Committee of the Bank Council, and the annual report on financial risk is also discussed by the Bank Council. Details of the investment and risk control process can be found in chapter 5 of the accountability report.

Organisation with regard to operational risk

The department heads ensure implementation of the operational risk guidelines issued by the Enlarged Governing Board in their organisational units. Management of operational risk is the responsibility of line managers.

Operational risk, which includes cyber and information security, business continuity management and operational security, is monitored by the Operational Risk and Security unit. The Board of Deputies is responsible for the management and control of operational risk. It prepares the relevant guidelines, is responsible for their implementation throughout the SNB, and ensures reporting to the Enlarged Governing Board. The Audit Committee discusses the business report on the management of operational risk before the Bank Council takes note of it. The Risk Committee and the Audit Committee are jointly responsible for monitoring operational risk arising from the SNB's investment activities.

Organisation with regard to compliance risk

The department heads also ensure implementation of the compliance risk guidelines issued by the Enlarged Governing Board and the Bank Council in their organisational units. Management of compliance risk is the responsibility of line managers.

Compliance risk is monitored by the Compliance unit, the Operational Risk and Security unit and the Board of Deputies. The Compliance unit supports and advises the department heads, line managers and staff in the avoidance of compliance risks. It carries out spot checks to monitor adherence to, and the appropriateness of, rules of conduct. In addition, it makes sure that reporting of compliance risks arising from the disregard for rules of conduct is both timely and appropriate to hierarchical levels. The Compliance unit may approach the Head of the Audit Committee or the President of the Bank Council at any time, should this prove necessary.

The SNB has extensive control mechanisms in place for the prevention or early identification of errors in financial reporting (accounting procedures and bookkeeping). This ensures that the SNB's financial position is correctly reported. Together, these controls make up the ICS for financial reporting, which is managed by the Central Accounting unit.

ICS for financial reporting

In the case of audit objectives relating to proper accounting and financial reporting, the Internal Audit unit conducts spot checks to ascertain whether the corresponding key controls are appropriate and whether they have been performed. Any findings on the ICS for financial reporting are communicated twice a year to the Board of Deputies, the Enlarged Governing Board and the Bank Council's Audit Committee. Among other things, they are used by the Audit Board as the basis of its confirmation in accordance with art. 728a para. 1 (3) CO.

The following table summarises the organisation of risk management.

ORGANISATION OF RISK MANAGEMENT

	Specifications	Management	Oversight	Supervision
Financial risk	Governing Board	Line management	Risk Management unit	Risk Committee of Bank Council and Bank Council
Operational risk	Enlarged Governing Board	Line management	Board of Deputies, Operational Risk and Security unit	Audit Committee/ Risk Committee of Bank Council and Bank Council
Compliance risk	Bank Council and Enlarged Governing Board	Line management	Board of Deputies, Compliance unit, Operational Risk and Security unit	Audit Committee of Bank Council and Bank Council
Risks in financial reporting	Enlarged Governing Board	Line management	Central Accounting unit	Audit Committee of Bank Council and Bank Council

1.8 CROSS REFERENCE TABLES

Further information on corporate governance may be found in other sections of the *Annual Report*, on the SNB website, in the NBA, in the 'Organisation regulations' and in the following places:

NBA (SR 951.11)	www.snb.ch, *The SNB, Legal basis, Constitution and laws*
Organisation regulations (SR 951.153)	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Shareholders	www.snb.ch, *Shareholders*
Participation rights	www.snb.ch, *Shareholders, General Meeting of Shareholders, Participation*
Listing in share register	www.snb.ch, *Shareholders, General Meeting of Shareholders, Participation*
Decision-making quorums	Art. 38 NBA; art. 9 Organisation regulations
General Meeting of Shareholders	Arts. 34–38 NBA; arts. 8–9 Organisation regulations
Regulations on the recognition and representation of shareholders of the Swiss National Bank	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Bank Council	www.snb.ch, *The SNB, Supervisory and executive bodies, Bank Council*
Members	*Annual Report*, p. 212
Nationality	Art. 40 NBA
Affiliations	www.snb.ch, *The SNB, Supervisory and executive bodies, Bank Council*
Election and term of office	Art. 39 NBA
Initial and current election	*Annual Report*, p. 212
Internal organisation	Arts. 10 et seq. Organisation regulations
Committees	www.snb.ch, *The SNB, Supervisory and executive bodies, Bank Council*
Regulations on the Audit Committee, Risk Committee, Compensation Committee, and Nomination Committee; Compensation regulations	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Delimitation of powers	Art. 42 NBA; arts. 10 et seq. Organisation regulations
Internal control system	*Annual Report*, pp. 146 et seq.; arts. 10 et seq. Organisation regulations
Information tools	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Remuneration	*Annual Report*, p. 195
Code of Conduct	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*

Executive management	www.snb.ch, *The SNB, Supervisory and executive bodies, Governing Board/Enlarged Governing Board*
Members	*Annual Report*, p. 213
Affiliations	www.snb.ch, *The SNB, Supervisory and executive bodies, Bank Council*
Election and term of office	Art. 43 NBA
Internal organisation	Art. 18–24 Organisation regulations
Regulations on the employment relationship of members of the Governing Board of the Swiss National Bank and their deputies	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Regulations on the compensation of SNB supervisory and executive bodies (Compensation regulations)	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Regulations on private financial investments and financial transactions by members of SNB management	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Regulations on the acceptance by members of the Enlarged Governing Board of gifts, invitations and third-party considerations	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Federal Personnel Act	www.admin.ch, *Bundesrecht, Systematische Rechtssammlung, Landesrecht, 1 Staat – Volk – Behörden, 17 Bundesbehörden, 172.220 Arbeitsverhältnis, 172.220.1 Bundespersonalgesetz vom 24. März 2000 (BPG)* Not available in English
Remuneration	*Annual Report*, p. 196
Code of Conduct	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Staff	
Charter	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Code of Conduct	www.snb.ch, *The SNB, Legal basis, Guidelines and regulations*
Audit Board	
Election and requirements	Art. 47 NBA
Tasks	Art. 48 NBA
Information policy	*Annual Report*, pp. 140, 218 et seq. as well as information for shareholders at www.snb.ch, *Shareholders, Ad hoc announcements – messaging service*
Corporate structure and shareholders	*Annual Report*, pp. 138 et seq., pp. 189–190
Head offices	Art. 3 Abs. 1 NBA
Ticker symbol/ISIN	SNBN/CH0001319265
Breakdown of capital	*Annual Report*, p. 189
Accounting principles	*Annual Report*, p. 170

2
Resources

2.1 ORGANISATIONAL CHANGES

Organisation

The departments are made up of divisions and a number of organisational units that report directly to them. Divisions encompass large specialised areas that are covered by several organisational units; they are led by division heads, who report to the department management.

The divisions making up Department I are the Secretariat General, Economic Affairs, International Monetary Cooperation, and Statistics. It also includes the Legal Services, Compliance, Human Resources, and Premises and Technical Services units, which report directly to the department management. Internal Audit reports administratively to Department I.

In addition to the Financial Stability and Cash divisions, Department II includes the Central Accounting, Controlling, Risk Management, and Operational Risk and Security units, which report directly to the department management.

Department III comprises the Money Market and Foreign Exchange, Asset Management, Banking Operations, and Information Technology divisions, as well as the Financial Market Analysis unit and the Singapore branch office, which report directly to the department management.

The Asset Management division was reorganised; whereas previously it was made up of the Global Rates and Global Corporates units and the Investment Strategy team, it now comprises the Portfolio Management and Portfolio Trading units and the Investment Strategy and Quantitative Analysis team.

The organisational structure is presented on pp. 216–217.

In 2017, further advances were made in three multi-year strategic initiatives, namely resource and performance management, procurement, and project and project portfolio management. The focus was on the further development of transparency and a holistic view. In procurement, the emphasis was on consolidating newly introduced procurement tools.

HUMAN RESOURCES
Number of employees

Full-time, men **519**
Part-time, men **97**
Full-time, women **97**
Part-time, women **189**

Total: 902
At year-end 2017

2.2 HUMAN RESOURCES

Number of staff

At the end of 2017,[1] the SNB employed 902 people, an increase of 33 (or 3.8%) on the previous year. In terms of full-time equivalents, the number of employees rose by 3.3% to 826.4. The SNB also employed 20 apprentices. Averaged over the year, the number of full-time equivalents was 811. Staff turnover was 6.0% (2016: 6.3%).

The increase in staff numbers falls within the parameters laid down in the medium-term resource and performance plan approved by the Bank Council. Staff numbers rose in the area concerned with the bank's core tasks, and in IT, in particular.

Implementation of HR strategy

As part of the new HR strategy, in 2017 special focus was placed on assessing and further developing management tools. In this context, the management principles of the SNB were revised to further strengthen management awareness and responsibility.

2.3 PREMISES

The SNB owns premises in Berne and Zurich for its own use. These are managed according to a long-term strategy.

As part of this strategy, various buildings at both locations are currently undergoing renovation and alteration work.

Construction projects in Berne

Planning for the renovations and alterations at the SNB premises in Berne commenced in 2011; work began in early 2015. In 2017, the majority of the structural work on the Bundesplatz 1 site was concluded, and the upper floors were largely completed. Staff are due to move back into the building in October 2018. As part of the renovation and alteration work on the Kaiserhaus premises, a new design concept was developed for the ground-floor arcade (Kaiserhauspassage). A preliminary project was launched in July 2017, work began at the end of the year, and project completion is scheduled for end-2021.

1 From 2017 onwards, employees seconded to international organisations abroad (e.g. IMF and OECD) are included in the number of staff. Furthermore, apprentice positions are now listed separately.

Construction projects in Zurich

In Zurich, planning for the renovation and alteration work on the Fraumünsterstrasse 8 building began in early 2014, and construction commenced in August 2016. In 2017, mostly demolition and structural work was carried out. From the third quarter onwards, work began on the building services installations. Staff are due to move back into the building in 2019.

2.4 INFORMATION TECHNOLOGY

IT operations

IT production systems and applications were reliable and stable in 2017.

IT projects

The IT division developed a new strategy in 2017. Following approval by the relevant committees within the bank, implementation work began.

Advances were made in the automation of business transactions, and in the consolidation of electronic data.

An archiving solution for digital documents went into operation, thereby enabling the SNB to fulfil its duties according to the Archiving Act.

The technical and organisational precautions to protect data and IT systems against cyber attacks – especially in connection with SIC and SWIFT – were further reinforced.

An external agency carried out an in-depth assessment of the IT division and its services; the assessment results were positive.

2.5 ENVIRONMENT

Environmental management

According to its Charter, the SNB undertakes to be careful in its use of natural resources and to take account of economic, ecological and social criteria in its operational procurement processes. The Environmental unit, within whose domain this work falls, celebrated its 20th anniversary in 2017.

Environmental report

The SNB has published an annual environmental report since 2009. This will be replaced by a sustainability report on the operating divisions, to be published for the first time in summer 2018.

According to its 2016 environmental report (published in August 2017), the SNB achieved further reductions in its heating and paper consumption as well as its waste volume. In the areas of transport, electricity and water, there remains potential for mitigating environmental impact.

Consumption of electricity and heating

Data for the SNB's electricity and heating energy usage are available for 2017. Electricity consumption and energy consumption for heating each decreased by 5% per capita.

As a contribution to climate protection, the SNB uses exclusively 'green electricity'. It continually invests in energy-conscious renovations of SNB premises which it uses for its own operations, and increasingly substitutes its usage of fossil fuels with biogas, and, in its Zurich buildings, with lake water for heating and cooling. Since 2011, greenhouse gas emissions that are unavoidable in connection with the SNB's operational activities have been offset by purchasing emission reduction certificates.

3
Changes in bank bodies

Audit Board

On 28 April 2017, the General Meeting of Shareholders elected KPMG Ltd as the Audit Board for the 2017–2018 term of office, with Philipp Rickert as auditor in charge.

Bank management

The Bank Council appointed Nicolas Cuche-Curti, Head of Inflation Forecasting, to the position of Director with effect from 1 January 2018.

4
Business performance

4.1 ANNUAL RESULT

Summary

The Swiss National Bank (SNB) reported a profit of CHF 54.4 billion for the year 2017 (2016: CHF 24.5 billion).

The profit on foreign currency positions amounted to CHF 49.7 billion. A valuation gain of CHF 3.1 billion was recorded on gold holdings. The profit on Swiss franc positions was CHF 2.0 billion.

For the financial year just ended, the SNB has set the allocation to the provisions for currency reserves at CHF 5.0 billion. After taking into account the distribution reserve of CHF 20.0 billion, the net profit comes to CHF 69.3 billion. This will allow a dividend payment of CHF 15 per share, which corresponds to the legally stipulated maximum amount, as well as a profit distribution to the Confederation and the cantons of CHF 1 billion. The Confederation and the cantons are also entitled to a supplementary distribution of CHF 1 billion as the distribution reserve after appropriation of profit exceeds CHF 20 billion. Of the total amount to be distributed (CHF 2 billion), one-third goes to the Confederation and two-thirds to the cantons. After these payments, the distribution reserve will amount to CHF 67.3 billion.

Valuation gain on gold holdings

At CHF 40,859 per kilogram, the price of gold was 8% higher than at the end of 2016 (CHF 37,885). This gave rise to a valuation gain of CHF 3.1 billion on the unchanged holdings of 1,040 tonnes of gold (2016: CHF 3.9 billion).

Profit on foreign currency positions

The profit on foreign currency positions was CHF 49.7 billion (2016: CHF 19.4 billion). Of this, interest income amounted to CHF 9.3 billion and dividend income to CHF 3.2 billion. Movements in bond prices differed from those in share prices. Price losses of CHF 5.5 billion were recorded on interest-bearing paper and instruments. By contrast, equity securities and instruments benefited from the favourable stock market environment and contributed CHF 21.5 billion to the net result. Overall, exchange rate-related gains amounted to CHF 21.0 billion.

Profit on Swiss franc positions

The profit on Swiss franc positions, which stood at CHF 2.0 billion (2016: CHF 1.6 billion), largely resulted from negative interest charged on sight deposit account balances.

Operating expenses

Operating expenses are made up of banknote and personnel expenses, general overheads and depreciation on the SNB's tangible assets.

Operating expenses increased by CHF 10.1 million to CH 414.3 million.

Outlook

The SNB's financial result depends largely on developments in the gold, foreign exchange and capital markets. Consequently, very strong fluctuations in quarterly and annual results are to be expected. In view of the considerable volatility in its results, the SNB does not exclude the possibility that, in some years, profit distributions will only be able to be carried out on a reduced scale or will have to be suspended completely.

4.2 PROVISIONS FOR CURRENCY RESERVES

Purpose

In accordance with art. 30 para. 1 of the National Bank Act (NBA), the SNB sets up provisions to maintain the currency reserves at the level necessary for monetary policy. Independent of this financing function, the provisions for currency reserves have a general reserve function and thus serve as equity capital. They act as a buffer against all the different forms of loss risk at the SNB.

Level of provisions

When setting aside provisions for currency reserves, the SNB must take into account the development of the Swiss economy (art. 30 para. 1 NBA).

Allocation from 2017 annual result

In principle, given the high market risks present in the SNB balance sheet, the percentage increase in provisions is calculated on the basis of double the average nominal GDP growth rate for the previous five years. In addition, 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 further strengthened, even in periods of low nominal GDP growth.

Since nominal GDP growth over the last five years has averaged just 1.4%, the minimum rate of 8% will be applied for the 2017 financial year. This corresponds to an allocation of CHF 5.0 billion (2016: CHF 4.6 billion). As a result, the provisions for currency reserves will grow from CHF 62.8 billion to CHF 67.8 billion.

Multi-year comparison of provisions

PROVISIONS

	Growth in nominal GDP In percent (average period)[1]	Annual allocation In CHF millions	Provisions after allocation In CHF millions
2013[2]	2,9 (2007–2011)	3 003.4	54 787.0
2014[2]	1,8 (2008–2012)	1 972.3	56 759.3
2015[2]	1,2 (2009–2013)	1 362.2	58 121.5
2016[3]	1,9 (2010–2014)	4 649.7	62 771.2
2017[3]	1,4 (2011–2015)	5 021.7	67 792.9

1 The average nominal GDP growth rate is based on the last five years for which definite values are available. GDP figures are revised on a regular basis. This means that the latest available growth rates may deviate from reported figures. This does not affect the allocation.
2 Doubling of allocation.
3 Minimum allocation of 8% of the provisions at the end of the previous year.

Distributable annual result and net profit

The portion of the annual result remaining after the allocation to the currency reserves corresponds to the distributable profit as per art. 30 para. 2 NBA. Together with the distribution reserve, this makes up the net profit/net loss (art. 31 NBA). If a net profit is achieved, this is used for distributions.

For 2017, the distributable annual result amounts to CHF 49.3 billion. The net profit is CHF 69.3 billion.

4.3 DIVIDEND AND PROFIT DISTRIBUTION

Dividend

Art. 31 para. 1 NBA specifies that a dividend not exceeding 6% of the share capital shall be paid from the net profit, with the decision on this matter being taken by the General Meeting of Shareholders on the basis of a Bank Council proposal.

Profit distribution to Confederation and cantons

In accordance with art. 31 para. 2 NBA, should the SNB's net profit exceed the dividend, one-third will be distributed to the Confederation and two-thirds to the cantons.

Distribution agreement

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. Given the considerable fluctuations in the SNB's earnings, the NBA stipulates that profit distribution be maintained at a steady level. Consequently, a constant flow of payments over several years is provided for in the agreement and a distribution reserve carried on the balance sheet.

The current agreement covers the profit distributions for the financial years 2016–2020. The annual distribution amounts to CHF 1 billion and will only be made if it does not render the distribution reserve negative. Omitted or reduced profit distributions will be made up in subsequent years, if the distribution reserve allows it. Furthermore, the distribution amount will be raised to a maximum of CHF 2 billion if the distribution reserve exceeds CHF 20 billion.

Distribution for 2017

For 2017, after the allocation to the provisions for currency reserves, the SNB is distributing CHF 2.0 billion to the Confederation and the cantons.

Distribution reserve

Following last year's profit appropriation, the distribution reserve showed a value of CHF 20.0 billion. After offsetting against the annual result and the profit appropriation for 2017, the distribution reserve will amount to CHF 67.3 billion.

PROFIT DISTRIBUTION AND DISTRIBUTION RESERVE

In CHF millions

	2013	2014	2015	2016	2017[2]
Annual result	**−9 076.6**	**38 312.9**	**−23 250.6**	**24 476.4**	**54 371.6**
– Allocation to provisions for currency reserves	−3 003.4	−1 972.3	−1 362.2	−4 649.7	−5 021.7
= Distributable annual result	**−12 080.0**	**36 340.6**	**−24 612.8**	**19 826.7**	**49 349.9**
+ Distribution reserve before appropriation of profit[1]	5 259.8	−6 820.2	27 518.8	1 904.5	20 000.0
= Net profit/loss	**−6 820.2**	**29 520.3**	**2 906.0**	**21 731.2**	**69 349.9**
– Payment of a dividend of 6%	–	−1.5	−1.5	−1.5	−1.5
– Profit distribution to Confederation and cantons	–	−2 000.0	−1 000.0	−1 729.7	−2 000.0
= Distribution reserve after appropriation of profit	**−6 820.2**	**27 518.8**	**1 904.5**	**20 000.0**	**67 348.4**

1 Year-end total as per balance sheet.
2 In accordance with proposed appropriation of profit.

4.4 MULTI-YEAR COMPARISON OF ASSETS AND LIABILITIES

The following summary provides an overview of the movements in balance sheet positions over the last five years.

Year-end values in CHF millions

	2013	2014	2015	2016	2017
Gold holdings	35 562	39 630	35 467	39 400	42 494
Claims from gold transactions	3	–	–	–	–
Foreign currency investments	443 275	510 062	593 234	696 104	790 125
Reserve position in the IMF	2 295	2 037	1 608	1 341	871
International payment instruments	4 294	4 414	4 707	4 406	4 496
Monetary assistance loans	244	213	170	155	210
Claims from Swiss franc repo transactions	–	–	–	–	–
Swiss franc securities	3 690	3 978	3 972	3 998	3 956
Banknote stocks	157	–	–	–	–
Tangible assets	433	417	397	375	396
Participations	134	134	136	137	157
Other assets	295	316	461	585	601
Total assets	**490 382**	**561 202**	**640 152**	**746 502**	**843 306**
Banknotes in circulation	65 766	67 596	72 882	78 084	81 639
Sight deposits of domestic banks	317 132	328 006	402 317	468 199	470 439
Liabilities towards the Confederation	10 482	9 046	10 931	7 230	14 755
Sight deposits of foreign banks and institutions	11 523	17 487	25 621	24 585	54 086
Other sight liabilities	24 774	33 127	30 166	30 036	34 399
Liabilities from Swiss franc repo transactions	–	–	–	–	–
SNB debt certificates	–	–	–	–	–
Foreign currency liabilities	8 074	14 753	32 521	49 096	45 934
Counterpart of SDRs allocated by the IMF	4 511	4 727	4 548	4 493	4 573
Other liabilities	98	155	114	252	315
Operating provisions	31	–	–	–	–
Equity					
Provisions for currency reserves[1]	51 784	54 787	56 759	58 122	62 771
Share capital	25	25	25	25	25
Distribution reserve[1]	5 260	–6 820	27 519	1 905	20 000
Annual result	–9 077	38 313	–23 251	24 476	54 372
Total equity	**47 992**	**86 305**	**61 053**	**84 527**	**137 168**
Total liabilities	**490 382**	**561 202**	**640 152**	**746 502**	**843 306**

1 Before appropriation of profit, cf. p. 168.

Annual financial statements

1
Balance sheet as at 31 December 2017

ASSETS

In CHF millions

	Item in Notes	31.12.2017	31.12.2016	Change
Gold holdings	01	42 494.0	39 400.3	+ 3 093.7
Foreign currency investments	02, 25	790 124.8	696 104.2	+ 94 020.6
Reserve position in the IMF	03, 23	871.3	1 341.2	− 469.9
International payment instruments	04, 23	4 495.5	4 406.2	+ 89.3
Monetary assistance loans	05, 23	210.3	155.4	+ 54.9
Claims from Swiss franc repo transactions	22	–	–	–
Swiss franc securities	06	3 956.2	3 997.6	− 41.4
Tangible assets	07	396.3	375.1	+ 21.2
Participations	08, 24	156.9	137.2	+ 19.7
Other assets	09, 26	601.1	584.8	+ 16.3
Total assets		**843 306.4**	**746 502.0**	**+ 96 804.4**

LIABILITIES

In CHF millions

	Item in Notes	31.12.2017	31.12.2016	Change
Banknotes in circulation	10	81 638.9	78 084.4	+3 554.5
Sight deposits of domestic banks		470 439.4	468 199.2	+2 240.2
Liabilities towards the Confederation	11	14 754.8	7 229.7	+7 525.1
Sight deposits of foreign banks and institutions		54 085.6	24 585.0	+29 500.6
Other sight liabilities	12	34 398.8	30 035.6	+4 363.2
Liabilities from Swiss franc repo transactions		–	–	–
SNB debt certificates		–	–	–
Foreign currency liabilities	13, 25	45 933.6	49 096.3	−3 162.7
Counterpart of SDRs allocated by the IMF	04	4 572.7	4 492.8	+79.9
Other liabilities	14, 26	314.8	251.6	+63.2
Equity				
Provisions for currency reserves[1]		62 771.2	58 121.5	+4 649.7
Share capital	15	25.0	25.0	–
Distribution reserve[1]		20 000.0	1 904.5	+18 095.5
Annual result		54 371.6	24 476.4	+29 895.2
Total equity		**137 167.8**	**84 527.4**	**+52 640.4**
Total liabilities		**843 306.4**	**746 502.0**	**+96 804.4**

1 Before appropriation of profit, cf. p. 168.

2
Income statement and appropriation of profit for 2017

INCOME STATEMENT

In CHF millions

	Item in Notes	2017	2016	Change
Net result from gold		3 093.7	3 933.7	–840.0
Net result from foreign currency positions	16	49 672.0	19 365.8	+30 306.2
Net result from Swiss franc positions	17	2 007.0	1 567.5	+439.5
Net result, other	18	13.1	13.6	–0.5
Gross income		**54 785.8**	**24 880.6**	**+29 905.2**
Banknote expenses		–97.8	–74.2	–23.6
Personnel expenses	19, 20	–165.6	–160.6	–5.0
General overheads	21	–120.3	–130.6	+10.3
Depreciation on tangible assets	07	–30.6	–38.8	+8.2
Annual result		**54 371.6**	**24 476.4**	**+29 895.2**

APPROPRIATION OF PROFIT

In CHF millions

	2017	2016	Change
– Allocation to provisions for currency reserves	–5 021.7	–4 649.7	–372.0
= Distributable annual result	**49 349.9**	**19 826.7**	**+29 523.2**
+ Profit carried forward (distribution reserve before appropriation of profit)	20 000.0	1 904.5	+18 095.5
= Net profit	**69 349.9**	**21 731.2**	**+47 618.7**
– Payment of a dividend of 6%	–1.5	–1.5	–
– Profit distribution to Confederation and cantons	–2 000.0	–1 729.7	–270.3
= Balance carried forward to following year's financial statements (distribution reserve after appropriation of profit)	**67 348.4**	**20 000.0**	**+47 348.4**

3
Changes in equity

In CHF millions

	Share capital	Provisions for currency reserves	Distribution reserve	Annual result	Total
Equity as at 1 January 2016	**25.0**	**56 759.3**	**27 518.8**	**–23 250.6**	**61 052.5**
Endowment of provisions for currency reserves pursuant to NBA		1 362.2		–1 362.2	
Release from distribution reserve			–25 614.3	25 614.3	
Distribution of dividends to shareholders				–1.5	–1.5
Profit distribution to Confederation and cantons				–1 000.0	–1 000.0
Annual result				24 476.4	24 476.4
Equity as at 31 December 2016 (before appropriation of profit)	**25.0**	**58 121.5**	**1 904.5**	**24 476.4**	**84 527.4**
Equity as at 1 January 2017	**25.0**	**58 121.5**	**1 904.5**	**24 476.4**	**84 527.4**
Endowment of provisions for currency reserves pursuant to NBA		4 649.7		–4 649.7	
Allocation to distribution reserve			18 095.5	–18 095.5	
Distribution of dividends to shareholders				–1.5	–1.5
Profit distribution to Confederation and cantons				–1 729.7	–1 729.7
Annual result				54 371.6	54 371.6
Equity as at 31 December 2017 (before appropriation of profit)	**25.0**	**62 771.2**	**20 000.0**	**54 371.6**	**137 167.8**
Proposed appropriation of profit					
Endowment of provisions for currency reserves pursuant to NBA		5 021.7		–5 021.7	
Allocation to distribution reserve			47 348.4	–47 348.4	
Distribution of dividends to shareholders				–1.5	–1.5
Profit distribution to Confederation and cantons				–2 000.0	–2 000.0
Equity after appropriation of profit	**25.0**	**67 792.9**	**67 348.4**	**–**	**135 166.3**

4 Notes to the annual financial statements as at 31 December 2017

4.1 ACCOUNTING AND VALUATION PRINCIPLES

GENERAL

Basic principles

The Swiss National Bank (SNB) is a special-statute joint-stock company with head offices in Berne and Zurich. This year's financial statements have been drawn up in accordance with the provisions of the National Bank Act (NBA) and the Swiss Code of Obligations (CO) as well as the accounting principles detailed in these notes. The statements present a true and fair view of the financial position and the results of operations of the SNB. Unless otherwise stated, the accounting principles are based on the Swiss GAAP FER standards (Accounting and Reporting Recommendations). Departures from Swiss GAAP FER occur only if an accounting principle runs counter to the provisions of the NBA or if the special nature of the SNB needs to be taken into account. In a departure from Swiss GAAP FER, no cash flow statement is prepared. The structure and designation of the items in the annual financial statements take into consideration the special character of the business conducted at a central bank.

At its meeting of 2 March 2018, the Bank Council approved the 2017 financial report for submission to the Federal Council and the General Meeting of Shareholders.

Changes from previous year

Compared with the previous year, no changes were made to the accounting and valuation principles.

Cash flow statement

In accordance with art. 29 NBA, the SNB is exempt from the requirement to prepare a cash flow statement.

Financial liabilities

Swiss GAAP FER 31 requires that the conditions for financial liabilities be disclosed. Given the special status of a central bank, such a disclosure is of limited informative value. The majority of the liabilities presented directly reflect the implementation of the SNB's monetary policy, i.e. the provision of liquidity to or the absorption of liquidity from the money market. By virtue of its exclusive right to issue banknotes, the SNB runs no liquidity or refinancing risks from liabilities in Swiss francs. Because the SNB can create the necessary liquidity and determine the level and structure of its financing itself, it is always in a position to meet its obligations. In light of this, the SNB will not be publishing a detailed report of the conditions which apply to its financial liabilities.

Consolidated financial statements

The SNB does not hold any material participating interests which are subject to consolidation. It therefore does not draw up consolidated financial statements.

Recording of transactions

The SNB's business transactions are recorded and valued on the day the transaction is concluded (trade date accounting). However, they are not posted until the value date. Transactions already concluded, with a value date after the balance sheet date, are stated under off-balance-sheet business.

Accrual accounting

Expenses are recognised in the financial year in which they are incurred, and income in the financial year in which it is earned.

Profit tax

Under art. 8 NBA, the SNB is exempt from taxation on profits. Tax exemption applies both to direct federal taxes and to cantonal and municipal taxes.

Transactions with related parties

The rights of the SNB's shareholders are restricted by law. The shareholders cannot exert any influence on financial or operational decisions. Banking services provided to members of the executive management are carried out at normal banking industry conditions. No banking services are provided to members of the Bank Council.

Foreign currency translation

Foreign currency positions are translated at year-end rates. Income and expenses in foreign currency are translated at the exchange rates applicable at the time when such income and expenses were posted to the accounts. All valuation changes are reported in the income statement.

BALANCE SHEET AND INCOME STATEMENT

Gold

Gold holdings consist of gold ingots and gold coins. The gold is stored in Switzerland (roughly 70%) and abroad (roughly 30%). These holdings are stated at market value. Valuation gains and losses are reported under net result from gold.

Foreign currency investments

Negotiable securities (money market instruments, bonds and equities) as well as credit balances (sight deposits and call money, time deposits) and claims from foreign currency repo transactions are recorded under foreign currency investments. Securities, which make up the bulk of the foreign currency investments, are stated at market value inclusive of accrued interest, while credit balances and claims from repo transactions are stated at nominal value inclusive of accrued interest. Negative interest is recorded as a reduction of interest income.

Gains and losses from revaluation at market value, interest income and expenses, dividends and exchange rate gains and losses are stated under net result from foreign currency positions.

The management of foreign currency investments also includes securities lending transactions. Securities lent by the SNB from its own portfolio are secured by appropriate collateral. The SNB receives interest on the securities loaned. Loaned securities remain in the foreign currency investments item and are disclosed in the notes to the annual financial statements. Interest income from securities lending is stated under net result from foreign currency positions.

Reserve position in the IMF

The reserve position in the International Monetary Fund (IMF) consists of the Swiss quota less the IMF's sight deposit account balance at the SNB as well as of claims based on the New Arrangements to Borrow (NAB) and the General Arrangements to Borrow (GAB).

The quota is Switzerland's portion of the IMF capital which is financed by the SNB. It is denominated in Special Drawing Rights (SDRs), the IMF's unit of account. Part of the quota has not been transferred to the IMF, but remains in a sight deposit account. The IMF can dispose of these Swiss franc assets at any time.

With the NAB and GAB, the IMF can – in the event of a crisis or if its own resources are in short supply – draw on credit lines from participants in these arrangements. Credit lines not drawn by the IMF are recorded as irrevocable lending commitments under the SNB's off-balance-sheet business.

The reserve position is stated at nominal value inclusive of accrued interest. The income from interest on the reserve position as well as the exchange rate gains and losses from a revaluation of the reserve position are stated under net result from foreign currency positions.

International payment instruments

International payment instruments comprise sight deposits in SDRs with the IMF. These deposits result from the allocation of SDRs and the purchase and sale of SDRs under the voluntary trading arrangement with the IMF. Sight deposits in SDRs are stated at nominal value inclusive of accrued interest. They attract interest at market conditions. Interest income and exchange rate gains and losses are stated under net result from foreign currency positions.

The liability entered into with the allocation is stated on the liabilities side of the balance sheet under counterpart of SDRs allocated by the IMF.

Monetary assistance loans

On the basis of the Monetary Assistance Act, Switzerland can participate in multilateral assistance operations aimed at preventing or remedying serious disruptions to the international monetary system. In such an event, the Confederation can instruct the SNB to grant a loan. Switzerland can also contribute to special funds or other IMF facilities, particularly those in favour of low-income countries, or grant bilateral monetary assistance loans to individual countries. In both of these cases, the Confederation can request that the SNB grant a loan. In return, the Confederation guarantees the SNB the interest and principal repayment on the loan in all of the above cases.

Claims currently outstanding are the loans to the Poverty Reduction and Growth Trust (PRGT) and from the bilateral loan to the National Bank of Ukraine. The PRGT is a fiduciary fund administered by the IMF which finances long-term loans at subsidised interest rates to low-income countries. These loans are stated at nominal value inclusive of accrued interest. Interest income and exchange rate gains and losses are stated under net result from foreign currency positions.

Claims from Swiss franc repo transactions

The SNB uses repo transactions in Swiss francs to provide the Swiss franc money market with liquidity or to withdraw liquidity from it.

Claims from repo transactions are fully backed by collateral eligible for SNB repos. They are stated at nominal value inclusive of accrued interest. Interest income is stated under net result from Swiss franc positions.

At the end of 2017, there were no outstanding claims from Swiss franc repo transactions.

Swiss franc securities

Swiss franc securities are made up exclusively of negotiable bonds. They are stated at market value inclusive of accrued interest. Valuation gains and losses and interest income are stated under net result from Swiss franc positions.

Tangible assets

Tangible assets comprise land and buildings, fixed assets under construction, software, and sundry tangible assets. For individual purchases, the minimum value for recognition as an asset is CHF 20,000. Other investments resulting in an increase in value (projects) are recognised as an asset from an amount of CHF 100,000. Tangible assets are stated at acquisition cost less required depreciation.

PERIOD OF DEPRECIATION

Land and buildings	
Land	No depreciation
Buildings (building structure)	50 years
Conversions (technical equipment and interior finishing work)	10 years
Fixed assets under construction[1]	No depreciation
Software	3 years
Sundry tangible assets	3–12 years

1 Finished fixed assets are reclassified under the corresponding tangible assets category once they are in operational use.

The recoverable value is checked periodically. If this results in a decrease in value, an impairment loss is recorded. Scheduled and unscheduled depreciations are reported in the income statement under depreciation on tangible assets.

Profits and losses from the sale of tangible assets are stated under net result, other.

Participations

In principle, participations are valued at acquisition cost less required value adjustments. However, the participation in Orell Füssli Holding Ltd is valued on the basis of the pro rata book value of equity. Income from participations is stated under net result, other.

Derivative financial instruments

The SNB uses forward foreign exchange transactions (including foreign exchange swaps), foreign exchange options, credit derivatives, futures and interest rate swaps to manage its foreign currency investments. These are used to manage positioning with regard to shares, interest rates, credit risk and currencies (cf. also accountability report, chapter 5.4). Whenever possible, derivative financial instruments are stated at market value. If no market value is available, fair value is determined in accordance with generally recognised actuarial methods. Positive or negative replacement values are stated under other assets or other liabilities respectively. Valuation changes are recorded in the income statement and stated under net result from foreign currency positions.

Accrued expenses and deferred income

The SNB does not state accrued expenses and deferred income as separate items in its balance sheet. For materiality reasons, they are reported under other assets or other liabilities, and are disclosed in the notes to the accounts.

The banknotes in circulation item shows the nominal value of all the banknotes issued from the current series as well as from recalled, still exchangeable series.

Banknotes in circulation

Sight deposit account balances of domestic banks in Swiss francs form the basis on which the SNB steers monetary policy. They also facilitate the settlement of cashless payments in Switzerland. These balances are stated at nominal value. The SNB can apply positive or negative interest on sight deposits. Negative interest is applied on balances that exceed a given exemption threshold, the level of which is to be determined by the SNB. Up until the introduction of an interest rate of –0.75% on 22 January 2015, sight deposit account balances did not bear interest. Interest income is recorded under net result from Swiss franc positions.

Sight deposits of domestic banks

The SNB holds sight deposit accounts in Swiss francs for the Confederation. These accounts did not bear interest in 2016 and 2017. In addition, the Confederation may place time deposits with the SNB at market rates. The liabilities towards the Confederation are stated at nominal value.

Liabilities towards the Confederation

The SNB holds sight deposits for foreign banks and institutions which facilitate payment transactions in Swiss francs. The accounting and valuation principles as well as the interest rate conditions are the same as those for sight deposits of domestic banks.

Sight deposits of foreign banks and institutions

The main components in other sight liabilities in Swiss francs are sight deposits of non-banks, the SNB pension fund's account and the accounts of active and retired SNB staff members.

Other sight liabilities

The accounting and valuation principles as well as the interest rate conditions for non-banks are the same as those for sight deposits of domestic banks, with the exception of the sight deposit account of 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), which does not bear interest.

The SNB pension fund account is stated at nominal value; the rate of negative interest applied is the same as that on sight deposits of domestic banks. Interest income is stated under net result from Swiss franc positions.

Accounts of active and retired staff members are stated at nominal value inclusive of accrued interest. These accounts bear interest. Interest expenses are stated under net result from Swiss franc positions.

Liabilities from Swiss franc repo transactions

The SNB uses repo transactions in Swiss francs to provide the Swiss franc money market with liquidity or to withdraw liquidity from it.

Liabilities arising from repo transactions are stated at nominal value inclusive of accrued interest. Interest expenses are stated under net result from Swiss franc positions.

At the end of 2017, there were no outstanding liabilities from Swiss franc repo transactions.

SNB debt certificates

To absorb liquidity from the market, the National Bank can issue its own, interest-bearing debt certificates (SNB Bills) in Swiss francs. Money market management requirements dictate the frequency, term and amount of these issues. SNB Bills are valued at issue price plus cumulative discount accretion (i.e. the discount is amortised over the term of the issue). Interest expenses are stated under net result from Swiss franc positions.

At the end of 2017, there were no SNB Bills outstanding.

Foreign currency liabilities

Foreign currency liabilities comprise different sight liabilities and short-term term liabilities as well as short-term repo transactions related to the management of foreign currency investments. The latter are carried out at market conditions. These repo transactions (temporary transfer of securities against sight deposits, with reverse settlement at maturity) result in a short-term increase in the balance sheet total. On the one hand, the securities remain on the SNB's books, while on the other, the cash received as well as the obligation to repay it at maturity are stated in the balance sheet. Foreign currency liabilities are stated at nominal value inclusive of accrued interest. Interest expenses and exchange rate gains and losses are stated under net result from foreign currency positions. Negative interest is recorded as a reduction of interest expenses.

Counterpart of SDRs allocated by the IMF

This item comprises the liability vis-à-vis the IMF for the SDRs allocated to Switzerland. The counterpart item attracts the same rate of interest as the SDRs on the assets side of the balance sheet. Interest expenses and exchange rate gains and losses are stated under net result from foreign currency positions.

Provisions for currency reserves

Art. 30 para. 1 NBA stipulates that the SNB set up provisions permitting it to maintain the currency reserves at a level necessary for monetary policy. In so doing, it must take into account economic developments in Switzerland. These special-law provisions are equity-like in nature and are incorporated in the 'Changes in equity' table (p. 169). The allocation is made as part of the profit appropriation. The Bank Council approves the level of these provisions annually.

Distribution reserve

With the exception of the dividend, which – pursuant to the NBA – may not exceed 6% of the share capital, the Confederation and the cantons are entitled to the SNB's remaining profit after adequate provisions for currency reserves have been set aside. To achieve a steady flow of payments in the medium term, the annual profit distributions are fixed in advance for a certain period in an agreement concluded between the Federal Department of Finance and the SNB. The distribution reserve contains profits that have not yet been distributed. It is offset against losses and can therefore also be negative.

Pension fund

The SNB's pension plans are incorporated into one pension fund scheme under the defined contribution system. In accordance with Swiss GAAP FER 16, any share of actuarial surplus or deficit (overfunding or underfunding) is shown on the assets side of the balance sheet or reported as a liability.

Events after the balance sheet date

There are no events after the balance sheet date which need to be mentioned or considered in the 2017 annual financial statements.

Valuation rates

VALUATION RATES

	31.12.2017 In CHF	31.12.2016 In CHF	Change In percent
1 euro (EUR)	1.1711	1.0723	+9.2
1 US dollar (USD)	0.9765	1.0164	–3.9
100 yen (JPY)	0.8678	0.8707	–0.3
1 pound sterling (GBP)	1.3205	1.2587	+4.9
1 Canadian dollar (CAD)	0.7775	0.7564	+2.8
1 Australian dollar (AUD)	0.7629	0.7347	+3.8
100 South Korean won (KRW)	0.0914	0.0845	+8.2
100 Danish kroner (DKK)	15.7284	14.4248	+9.0
100 Chinese yuan (CNY)	15.0138	14.6360	+2.6
1 Singapore dollar (SGD)	0.7306	0.7036	+3.8
100 Swedish kronor (SEK)	11.9051	11.2260	+6.0
1 Special Drawing Right (SDR)	1.3907	1.3664	+1.8
1 kilogram of gold	40 859.28	37 884.60	+7.9

4.2 NOTES TO THE BALANCE SHEET AND INCOME STATEMENT

Item 01

GOLD HOLDINGS

Breakdown by type

	31.12.2017		31.12.2016	
	In tonnes	In CHF millions	In tonnes	In CHF millions
Gold ingots	1 001.0	40 899.1	1 001.0	37 921.5
Gold coins	39.0	1 594.9	39.0	1 478.8
Total	**1 040.0**	**42 494.0**	**1 040.0**	**39 400.3**

FOREIGN CURRENCY INVESTMENTS

Item 02

Breakdown by investment type in CHF millions

	31.12.2017	31.12.2016	Change
Sight deposits and call money	18 527.4	17 648.2	+879.2
Claims from repo transactions	45 933.7	50 778.9	–4 845.2
Money market instruments	6 136.3	8 132.4	–1 996.1
Bonds[1]	566 121.6	489 111.4	+77 010.2
Equities	153 405.8	130 433.3	+22 972.5
Total	**790 124.8**	**696 104.2**	**+94 020.6**

1 Of which CHF 686.9 million (2016: CHF 717.9 million) lent under securities lending operations.

Breakdown by issuer and borrower category in CHF millions

	31.12.2017	31.12.2016	Change
Governments	563 412.7	502 224.7	+61 188.0
Monetary institutions[1]	23 450.4	21 801.1	+1 649.3
Corporations	203 261.7	172 078.4	+31 183.3
Total	**790 124.8**	**696 104.2**	**+94 020.6**

1 BIS, central banks and multilateral development banks.

Breakdown by currency[1] in CHF millions

	31.12.2017	31.12.2016	Change
EUR	339 523.5	309 314.2	+30 209.3
USD	268 485.3	231 503.2	+36 982.1
JPY	59 531.3	46 216.6	+13 314.7
GBP	50 400.9	46 064.5	+4 336.4
CAD	20 944.8	19 660.6	+1 284.2
AUD	11 522.3	9 693.0	+1 829.3
KRW	11 376.5	9 725.1	+1 651.4
DKK	7 732.8	6 838.5	+894.3
CNY	4 607.6	3 809.5	+798.1
SGD	3 350.9	2 688.8	+662.1
SEK	3 265.4	2 963.2	+302.2
Other	9 383.5	7 626.9	+1 756.6
Total	**790 124.8**	**696 104.2**	**+94 020.6**

1 Excluding foreign exchange derivatives.

Item 03

RESERVE POSITION IN THE IMF

In CHF millions

	31.12.2017	31.12.2016	Change
Swiss quota in the IMF[1]	8 025.9	7 885.6	+140.3
Less: IMF's Swiss franc sight deposit at the SNB[2]	−8 007.8	−7 867.9	−139.9
Claim from participation in the IMF	**18.1**	**17.7**	**+0.4**
Loan based on New Arrangements to Borrow (NAB)[3]	853.2	1 323.5	−470.3
Total reserve position in the IMF	**871.3**	**1 341.2**	**−469.9**

1 SDR 5,771.1 million; change due entirely to exchange rates.
2 Corresponds to the untransferred portion of the quota.
3 Including accrued interest.

Details: New Arrangements to Borrow (NAB) and General Arrangements to Borrow (GAB)[1] in CHF millions

	31.12.2017	31.12.2016	Change
Lending commitment[2]	7 705.4	7 570.8	+134.6
Amount drawn	853.2	1 323.5	−470.3
Amount not drawn	6 852.2	6 247.3	+604.9

1 Maximum lending commitments totalling SDR 5,540.7 million, arising from liabilities from NAB and GAB, in favour of the IMF for special cases; revolving and without a federal guarantee (cf. accountability report, chapter 7.2.1). The GAB in the amount of SDR 1,020 million can only be activated if agreement has not been reached under the NAB.
2 Change due entirely to exchange rates.

INTERNATIONAL PAYMENT INSTRUMENTS

Item 04

In CHF millions

	31.12.2017	31.12.2016	Change
SDRs from allocation[1]	4 572.7	4 492.8	+79.9
SDRs purchased/sold (net)	−77.2	−86.6	+9.4
Total	**4 495.5**	**4 406.2**	**+89.3**

1 Corresponds to the IMF's allocation of SDR 3,288 million. The liability entered into with the allocation is stated in the balance sheet under counterpart of SDRs allocated by the IMF.

Details: Exchange arrangement for international payment instruments (voluntary trading arrangement)[1]
in CHF millions

	31.12.2017	31.12.2016	Change
Purchase/sale commitment[2]	2 286.3	2 246.4	+39.9
SDRs purchased	–	–	–
SDRs sold	77.2	86.6	−9.4
Total commitment[3]	2 363.5	2 332.9	+30.6

1 The SNB has committed to purchase or sell SDRs against foreign currencies (USD, EUR) up to an agreed maximum of SDR 1,644 million.
2 Change due entirely to exchange rates.
3 Maximum purchase commitment.

Item 05

MONETARY ASSISTANCE LOANS

In CHF millions

	31.12.2017	31.12.2016	Change
Claims from PRGT loan[1, 2]	62.3	61.0	+1.3
Claims from interim PRGT loan[1, 2]	50.3	94.4	−44.1
Claims from bilateral loan	97.7	–	+97.7
Total	**210.3**	**155.4**	**+54.9**

1 Poverty Reduction and Growth Trust of the IMF.
2 Including accrued interest.

Details: Drawn lending commitments in CHF millions

	31.12.2017	31.12.2016	Change
Lending commitment to PRGT[1]	1 390.7	683.2	+707.5
Amount drawn	62.1	61.0	+1.1
Amount repaid	–	–	–
Claims[2]	62.3	61.0	+1.3
Amount not yet drawn	1 328.6	622.2	+706.4
Lending commitment to interim PRGT[1, 3]	347.7	341.6	+6.1
Amount drawn	347.7	341.6	+6.1
Amount repaid	297.3	247.2	+50.1
Claims[2]	50.3	94.4	−44.1
Amount not yet drawn	–	–	–
Lending commitment from bilateral loan[3, 4]	195.3	203.3	−8.0
Amount drawn	97.7	–	+97.7
Amount repaid	–	–	–
Claims	97.7	–	+97.7
Amount not yet drawn	97.7	203.3	−105.6

1 Poverty Reduction and Growth Trust; limited-term lending commitment to the IMF's trust fund; not revolving and with a federally guaranteed repayment of principal and payment of interest. PRGT amounted to SDR 1,000 million (2016: SDR 500 million); interim PRGT to SDR 250 million.
2 Including accrued interest.
3 Change due entirely to exchange rates.
4 Bilateral lending commitment to the National Bank of Ukraine in the maximum amount of USD 200 million; not revolving and with a federally guaranteed repayment of principal and payment of interest.

SWISS FRANC SECURITIES

Item 06

Breakdown by borrower category in CHF millions

	31.12.2017	31.12.2016	Change
Governments	1 776.4	1 737.3	+39.1
Corporations	2 179.7	2 260.4	−80.7
Total	**3 956.2**	**3 997.6**	**−41.4**

Breakdown of *governments* borrower category in CHF millions

	31.12.2017	31.12.2016	Change
Swiss Confederation	1 060.0	1 000.8	+59.2
Cantons and municipalities	517.4	529.7	−12.3
Foreign states[1]	199.0	206.8	−7.8
Total	**1 776.4**	**1 737.3**	**+39.1**

1 Including public authorities.

Breakdown of *corporations* borrower category in CHF millions

	31.12.2017	31.12.2016	Change
Domestic mortgage bond institutions	1 541.4	1 493.2	+48.2
Other domestic corporations[1]	51.1	67.7	−16.6
Foreign corporations[2]	587.3	699.4	−112.1
Total	**2 179.7**	**2 260.4**	**−80.7**

1 Primarily international organisations with their head office in Switzerland.
2 Banks, international organisations and other corporations.

Item 07

TANGIBLE ASSETS

In CHF millions

	Land and buildings[1]	Fixed assets under con-struction	Software	Sundry tangible assets[2]	Total
Historical cost					
1 January 2017	584.1	5.9	72.4	66.5	728.9
Additions	0.3	34.8	7.2	9.4	51.8
Disposals	–1.9	–	–7.2	–6.2	–15.3
Reclassified	1.8	–1.8	–	–	
31 December 2017	584.3	39.0	72.4	69.7	765.4
Cumulative value adjustments					
1 January 2017	239.6		62.3	51.9	353.8
Scheduled depreciation	12.1		9.3	9.1	30.6
Disposals	–1.9		–7.2	–6.2	–15.3
Reclassified	–		–	–	
31 December 2017	249.8		64.4	54.8	369.1
Net book values					
1 January 2017	344.5	5.9	10.1	14.6	375.1
31 December 2017	334.5	39.0	8.0	14.9	396.3

1 Insured value: CHF 632.9 million.
2 Insured value: CHF 60.9 million.

Tangible assets from previous year in CHF millions

	Land and buildings[1]	Fixed assets under con-struction	Software	Sundry tangible assets[2]	Total
Historical cost					
1 January 2016	619.4	2.7	65.4	68.3	755.7
Additions	1.9	3.3	7.4	4.8	17.3
Disposals	–37.1	–	–0.5	–6.5	–44.1
Reclassified	–	–	–	–	
31 December 2016	584.1	5.9	72.4	66.5	728.9
Cumulative value adjustments					
1 January 2016	258.7		51.7	48.5	359.0
Scheduled depreciation	17.9		11.0	9.9	38.8
Disposals	–37.1		–0.5	–6.5	–44.1
Reclassified	–		–	–	
31 December 2016	239.6		62.3	51.9	353.8
Net book values					
1 January 2016	360.6	2.7	13.7	19.7	396.7
31 December 2016	344.5	5.9	10.1	14.6	375.1

1 Insured value: CHF 591.9 million.
2 Insured value: CHF 60.9 million.

Item 08

PARTICIPATIONS

In CHF millions

	BIS[1]	Orell Füssli[2]	Landqart[3]	Other	Total
Equity interest	3%	33%	90%		
Book value as at 1 January 2016	90.2	45.2	–	0.0	135.5
Investments	–	–	–	–	–
Divestments	–	–	–	–	–
Valuation changes	–	1.7	–	–	1.7
Book value as at 31 December 2016	90.2	46.9	–	0.0	137.2
Book value as at 1 January 2017	90.2	46.9	–	0.0	137.2
Investments	–	–	19.4	–	19.4
Divestments	–	–	–	–	–
Valuation changes	–	0.4	–	–	0.4
Book value as at 31 December 2017	90.2	47.3	19.4	0.0	156.9

1 Interest in the BIS, based in Basel, is held for reasons of monetary policy collaboration.
2 Orell Füssli Holding Ltd, based in Zurich, whose subsidiary Orell Füssli Security Printing Ltd, also based in Zurich, produces Switzerland's banknotes.
3 Interest in the joint-stock companies Landqart AG and landqart management and services, which manufacture the special paper for the new Swiss banknote series; both are domiciled in Landquart.

Item 09

OTHER ASSETS

In CHF millions

	31.12.2017	31.12.2016	Change
Coins[1]	228.5	234.3	−5.8
Foreign banknotes	1.0	1.2	−0.2
Other accounts receivable	69.4	56.0	+13.4
Prepayments and accrued income	177.8	150.3	+27.5
Positive replacement values[2]	124.4	142.9	−18.5
Total	**601.1**	**584.8**	**+16.3**

1 Coins acquired from Swissmint destined for circulation.
2 Unrealised gains on financial instruments and on outstanding spot transactions (cf. item 26, p. 200).

BANKNOTES IN CIRCULATION

Item 10

Breakdown by issue in CHF millions

	31.12.2017	31.12.2016	Change
9th issue	3 691.6	1 837.5	+1 854.1
8th issue	76 851.6	75 130.1	+1 721.5
6th issue[1]	1 095.8	1 116.9	−21.1
Total	**81 638.9**	**78 084.4**	**+3 554.5**

1 Exchangeable at the SNB until 30 April 2020 (cf. accountability report, chapter 3.3 regarding the revocation of the exchange period for banknotes). The 7th banknote series, which was created as a reserve series, was never put into circulation.

LIABILITIES TOWARDS THE CONFEDERATION

Item 11

In CHF millions

	31.12.2017	31.12.2016	Change
Sight liabilities	13 754.8	6 229.7	+7 525.1
Term liabilities	1 000.0	1 000.0	–
Total	**14 754.8**	**7 229.7**	**+7 525.1**

OTHER SIGHT LIABILITIES

Item 12

In CHF millions

	31.12.2017	31.12.2016	Change
Sight deposits of non-banks[1]	34 037.3	29 700.8	+4 336.5
Deposit accounts[2]	361.4	334.8	+26.6
Total	**34 398.8**	**30 035.6**	**+4 363.2**

1 Clearing offices, insurance corporations, etc.
2 These mainly comprise accounts of active and retired employees, plus liabilities towards the SNB pension fund. Current account liabilities towards the latter amounted to CHF 48.3 million as at 31 December 2017 (2016: CHF 41.7 million).

Item 13

FOREIGN CURRENCY LIABILITIES

In CHF millions

	31.12.2017	31.12.2016	Change
Sight liabilities	4.5	0.5	+4.0
Liabilities from repo transactions[1]	45 929.1	49 095.8	−3 166.7
Total	**45 933.6**	**49 096.3**	**−3 162.7**

1 Relating to the management of foreign currency investments.

Item 14

OTHER LIABILITIES

In CHF millions

	31.12.2017	31.12.2016	Change
Other accounts payable	86.7	57.4	+29.3
Accrued liabilities and deferred income	28.2	13.2	+15.0
Negative replacement values[1]	200.0	181.1	+18.9
Total	**314.8**	**251.6**	**+63.2**

1 Unrealised losses on financial instruments and on outstanding spot transactions (cf. item 26, p. 200).

SHARE CAPITAL

Item 15

Shares[1]

	2017	2016	2015
Share capital in CHF	25 000 000	25 000 000	25 000 000
Nominal value in CHF	250	250	250
Number of shares	100 000	100 000	100 000
Ticker symbol/ISIN[2]			SNBN/CH0001319265
Closing price on 31 December in CHF	3 889	1 750	1 099
Market capitalisation in CHF	388 900 000	175 000 000	109 900 000
Annual high in CHF	4 724	2 120	1 400
Annual low in CHF	1 615	1 028	980
Average daily trading volume in number of shares	150	101	58

1 Swiss GAAP FER 31 requires the presentation of earnings per share. This has no informative value in view of the special statutory provisions for the SNB. Shareholders' rights are determined by the NBA and their dividends, in particular, may not exceed 6% of share capital (with a nominal value of CHF 250 per share, a maximum of CHF 15); the Confederation is entitled to one-third and the cantons to two-thirds of the remaining distributable profit. Therefore, no presentation of earnings per share is made.
2 Listed in the Swiss Reporting Standard on SIX Swiss Exchange.

Breakdown of share ownership as at 31 December 2017

	Cantons	Cantonal banks	Other public law corporations/ institutions[1]	Total public sector shareholders	Private shareholders	Total
Registered shareholders	**26**	**21**	**24**	**71**	**2 192**	**2 263**
Voting shares	**38 981**	**11 643**	**382**	**51 006**	**15 788**	**66 794**
In percent	58.36%	17.43%	0.57%	76.36%	23.64%	100.00%
Non-voting shares					**33 206**	**33 206**
Of which shares pending registration of transfer[2]					21 559	21 559
Of which registered shares held in trust[3]					2 064	2 064
Of which shares with statutory limitation of voting rights[4]					9 583	9 583
Total shares	**38 981**	**11 643**	**382**	**51 006**	**48 994**[5]	**100 000**

1 Other public law corporations include 21 municipalities.
2 Shares pending registration of transfer are registered shares not entered in the share register.
3 Registered shares held in trust are shares held on behalf of the beneficiary by a bank or asset manager, where the bank or asset manager is listed in the share register without voting rights.
4 Voting rights are limited to a maximum of 100 shares. This limitation shall not apply to Swiss public law corporations and institutions or to cantonal banks pursuant to Article 3a of the Federal Act of 8 November 1934 on Banks and Savings Banks (in accordance with art. 26 para. 2 NBA). In 2017, 19 shareholders, each with more than 100 shares, were affected by the statutory limitation of voting rights.
5 Of which 10,202 shares are in foreign ownership (accounting for 3.1% of voting rights).

Principal shareholders: Public law sector

	Number of shares	31.12.2017 Participation	Number of shares	31.12.2016 Participation
Canton of Berne	6 630	6.63%	6 630	6.63%
Canton of Zurich	5 200	5.20%	5 200	5.20%
Canton of Vaud	3 401	3.40%	3 401	3.40%
Canton of St Gallen	3 002	3.00%	3 002	3.00%

Principal shareholders: Private individuals[1]

	Number of shares	31.12.2017 Participation	Number of shares	31.12.2016 Participation
Theo Siegert, Düsseldorf	6 070	6.07%	6 720	6.72%

1 Subject to legal restrictions as a shareholder outside the public law sector (art. 26 NBA), i.e. voting rights are limited to 100 shares.

NET RESULT FROM FOREIGN CURRENCY POSITIONS

Item 16

Breakdown by origin in CHF millions

	2017	2016	Change
Foreign currency investments	49 648.9	19 404.9	+30 244.0
Reserve position in the IMF	25.0	–37.5	+62.5
International payment instruments	–4.8	0.1	–4.9
Monetary assistance loans	3.0	–1.6	+4.6
Total	**49 672.0**	**19 365.8**	**+30 306.2**

Breakdown by type in CHF millions

	2017	2016	Change
Interest income	9 267.0	8 311.6	+955.4
Price gain/loss on interest-bearing paper and instruments	–5 460.9	1 084.0	–6 544.9
Interest expenses	145.7	66.9	+78.8
Dividend income	3 203.3	2 992.6	+210.7
Price gain/loss on equity securities and instruments	21 516.3	8 613.3	+12 903.0
Exchange rate gain/loss	21 030.9	–1 675.9	+22 706.8
Asset management, safe custody and other fees	–30.2	–26.6	–3.6
Total	**49 672.0**	**19 365.8**	**+30 306.2**

Breakdown of overall net result by currency in CHF millions

	2017	2016	Change
EUR	27 188.7	2 586.7	+24 602.0
USD	9 539.5	13 736.6	–4 197.1
JPY	2 460.8	2 807.7	–346.9
GBP	3 582.3	–3 306.6	+6 888.9
CAD	932.0	2 021.2	–1 089.2
AUD	999.4	559.9	+439.5
KRW	1 233.9	253.0	+980.9
DKK	873.0	3.3	+869.7
CNY	89.5	–118.4	+207.9
SGD	256.3	41.1	+215.2
SEK	310.1	–8.3	+318.4
SDR	26.1	–39.0	+65.1
Other	2 180.4	828.7	+1 351.7
Total	**49 672.0**	**19 365.8**	**+30 306.2**

Breakdown of exchange rate gain/loss by currency in CHF millions

	2017	2016	Change
EUR	25 284.9	–3 338.6	+28 623.5
USD	–9 055.5	4 895.8	–13 951.3
JPY	–313.9	2 236.3	–2 550.2
GBP	2 371.2	–6 388.6	+8 759.8
CAD	567.6	995.4	–427.8
AUD	372.4	62.5	+309.9
KRW	830.0	–4.0	+834.0
DKK	625.0	–62.9	+687.9
CNY	113.4	–176.9	+290.3
SGD	118.9	–7.1	+126.0
SEK	183.1	–158.3	+341.4
SDR	16.8	–40.5	+57.3
Other	–83.0	311.0	–394.0
Total	**21 030.9**	**–1 675.9**	**+22 706.8**

NET RESULT FROM SWISS FRANC POSITIONS

Item 17

Breakdown by origin in CHF millions

	2017	2016	Change
Negative interest on sight deposit account balances	2 020.7	1 523.2	+497.5
Swiss franc securities	−11.9	45.5	−57.4
Liquidity-providing Swiss franc repo transactions	–	–	–
Liquidity-absorbing Swiss franc repo transactions	–	–	–
Liabilities towards the Confederation	–	–	–
SNB debt certificates	–	–	–
Other Swiss franc positions	−1.8	−1.2	−0.6
Total	**2 007.0**	**1 567.5**	**+439.5**

Breakdown by type in CHF millions

	2017	2016	Change
Negative interest on sight deposit account balances	2 020.7	1 523.2	+497.5
Interest income	54.7	60.6	−5.9
Price gain/loss on interest-bearing paper and instruments	−57.0	−6.1	−50.9
Interest expenses	−1.8	−1.2	−0.6
Trading, safe custody and other fees	−9.6	−8.9	−0.7
Total	**2 007.0**	**1 567.5**	**+439.5**

Item 18

NET RESULT, OTHER

In CHF millions

	2017	2016	Change
Commission income	4.2	4.0	+0.2
Commission expenses	–4.6	–4.1	–0.5
Income from participations	9.9	9.6	+0.3
Income from real estate	2.9	3.5	–0.6
Other income	0.7	0.6	+0.1
Total	**13.1**	**13.6**	**–0.5**

Item 19

PERSONNEL EXPENSES[1]

Breakdown by type in CHF millions

	2017	2016	Change
Wages, salaries and allowances	127.7	123.2	+4.5
Social security expenses	28.9	28.3	+0.6
Other personnel expenses[2]	9.0	9.1	–0.1
Total	**165.6**	**160.6**	**+5.0**

1 In terms of full-time equivalents, the number of employees averaged 811 for 2017 (2016: 796).
2 Various social benefits; expenses for staff development, training and recruitment; events, etc.

Remuneration for members of the Bank Council[1] **(excluding employer social security contributions)**
in CHF thousands

	2017	2016	Change
Jean Studer, President[2, 3, 4]	167.8	161.1	+6.7
Olivier Steimer, Vice President[3, 4]	74.8	74.1	+0.7
Monika Bütler[3]	47.8	47.8	–
Alfredo Gysi[6] (until 30 April 2016)	–	17.8	–17.8
Barbara Janom Steiner	45.0	45.0	–
Heinz Karrer[5]	59.0	56.2	+2.8
Daniel Lampart[6]	50.6	47.8	+2.8
Christoph Lengwiler[5]	68.0	62.2	+5.8
Shelby Robert du Pasquier[6]	59.6	55.1	+4.5
Ernst Stocker[5]	59.0	56.2	+2.8
Cédric Pierre Tille[4, 6]	50.6	47.8	+2.8
Christian Vitta (as of 1 May 2016)	45.0	30.0	+15.0
Total	**727.2**	**701.2**	**+26.0**

1 In accordance with SNB regulations; participation in committee meetings not held on the same day as Bank Council meetings is compensated at a rate of CHF 2,800 per meeting. Special assignments are compensated at a rate of CHF 2,800 per day or CHF 1,400 per half-day.
2 Excluding employer contributions for pension benefits in the amount of CHF 47,392 (2016: CHF 46,121).
3 Member of Compensation Committee.
4 Member of Nomination Committee.
5 Member of Audit Committee.
6 Member of Risk Committee.

Remuneration for members of the Regional Economic Councils in CHF thousands

	2017	2016	Change
Chairpersons[1, 3]	60.0	57.5	+2.5
Members[2, 3]	114.0	116.0	–2.0

1 Remuneration per chairperson (8 persons in total): CHF 7,500 per year.
2 Remuneration per member (20 persons in total): CHF 6,000 per year.
3 Changes due to vacancies.

The list of Regional Economic Councils can be found on pp. 214–215.

Remuneration for members of executive management[1] (excluding employer social security contributions) in CHF thousands

	Salaries	Miscellaneous[2]	**2017 Total remuneration**	2016 Total remuneration	Change
Three members of the Governing Board	2 629.5	200.4	**2 829.9**	2 756.0	+73.9
Thomas J. Jordan, Chairman[3]	876.5	103.3	**979.8**	906.5	+73.3
Fritz Zurbrügg, Vice Chairman	876.5	66.8	**943.3**	906.5	+36.8
Andréa M. Maechler	876.5	30.3	**906.8**	943.0	−36.2
Three alternate members of the Governing Board[4]	1 361.3	66.9	**1 428.2**	1 427.4	+0.8
Total	**3 990.8**	**267.4**	**4 258.2**	**4 183.4**	**+74.8**

Remuneration for members of executive management[1] (including employer social security contributions) in CHF thousands

	Total remuneration	Employer contributions to pension plans and Old Age and Survivors' Insurance Fund	2017 Total	2016 Total	Change
Three members of the Governing Board	2 829.9	774.2	3 604.1	3 538.4	+65.7
Thomas J. Jordan, Chairman[3]	979.8	246.5	1 226.3	1 153.0	+73.3
Fritz Zurbrügg, Vice Chairman	943.3	285.3	1 228.6	1 193.9	+34.7
Andréa M. Maechler	906.8	242.4	1 149.2	1 191.5	−42.3
Three alternate members of the Governing Board[4]	1 428.2	421.8	1 850.0	1 834.4	+15.6
Total	**4 258.2**	**1 196.0**	**5 454.2**	**5 372.8**	**+81.4**

1 All remuneration is specified in SNB regulations (cf. also 'Corporate governance', p. 145).
2 Representation expenses, General Abonnement travel card, jubilee benefits and further compensation in accordance with regulations.
3 Excluding remuneration in the amount of CHF 70,120 for serving as member of the Board of Directors at the BIS.
4 Excluding remuneration in the amount of CHF 36,302 for an alternate member of the Governing Board for serving as member of the Board of Directors of Orell Füssli Holding Ltd.

Like all employees, members of executive management are entitled to reduced-rate mortgage loans granted by the SNB pension fund as well as to preferential interest rates on the credit balances of their SNB staff accounts. No additional remuneration as defined by art. 663b^{bis} para. 1 CO was paid.

Of the members of executive management, Dewet Moser, Alternate Member of the Governing Board, held one SNB share as at 31 December 2017 (no change compared to previous year). In addition, as at 31 December 2017, a party related to Thomas J. Jordan, Chairman of the Governing Board, held one SNB share (as of the 2017 financial year).
In accordance with the 'Code of Conduct for members of the Bank Council', members of the Bank Council may not hold shares in the SNB.

EMPLOYEE BENEFIT OBLIGATIONS[1, 2]

Item 20

Share of overfundung/underfunding of pension plans[3] in CHF millions

	31.12.2017	31.12.2016	Change
Overfunding/underfunding in accordance with Swiss GAAP FER 26[3, 4]	–	67.0	–67.0
SNB's share of overfunding/underfunding in accordance with Swiss GAAP FER 16	–	–	–

1 The pension fund does not have any employer contribution reserves.
2 The pension fund by-laws contain a restructuring clause. The clause will come into effect if it appears likely that the pension fund coverage ratio will drop below 100%. In such a case, a restructuring concept must be drawn up to ensure that the shortfall in coverage can be remedied within a reasonable timeframe with the support of the SNB. The restructuring clause ensures a long-term solution to the problem of a shortfall.
3 The pension fund management decided, retroactively from 31 December 2016, to reduce the technical interest rate from 3% to 2%, and to adjust the actuarial principles (generation tables instead of period-based tables). In the process, the overfunding reported in the previous year was used in favour of the insured. The figure for 2016 has not been adjusted. The overfunding/underfunding of zero recorded as at 31 December 2017 is unaudited at the time of reporting.
4 Coverage ratio in accordance with art. 44 of the Ordinance on Occupational Old Age, Survivors' and Invalidity Pension Fund (BVV2) is 119.4% as at 31 December 2017, and is unaudited at the time of reporting.

Employee benefit expenses in CHF millions

	2017	2016	Change
Employer contributions	19.7	19.3	+0.4
Change in share of overfunding/underfunding	–	–	–
Employee benefit expenses as part of personnel expenses	19.7	19.3	+0.4

GENERAL OVERHEADS

Item 21

In CHF millions

	2017	2016	Change
Premises	21.7	39.3	–17.6
Maintenance of mobile tangible assets and software	18.7	16.7	+2.0
Consulting and other third-party support[1]	41.1	36.4	+4.7
Administrative expenses	21.0	21.0	0.0
Contributions[2]	7.0	7.4	–0.4
Other general overheads	10.8	9.8	+1.0
Total	**120.3**	**130.6**	**–10.3**

1 Auditing fees for the 2017 financial year totalled CHF 0.3 million (2016: CHF 0.3 million). In 2017, the Audit Board did not provide any consulting services, as in the previous year.
2 Mainly contributions towards the Study Center Gerzensee (SNB foundation).

4.3 NOTES REGARDING OFF-BALANCE-SHEET BUSINESS

Item 22

LIQUIDITY-SHORTAGE FINANCING FACILITY

The liquidity-shortage financing facility is a credit line for eligible counterparties to bridge unexpected short-term liquidity bottlenecks. Liquidity can be drawn by way of special-rate repo transactions. The amounts stated are the maximum amounts that can be drawn.

In CHF millions

	31.12.2017	31.12.2016	Change
Lending commitment	39 582.5	40 945.5	–1 363.0
Amount drawn	–	–	–
Amount not drawn	39 582.5	40 945.5	–1 363.0

Item 23

COMMITMENTS GRANTED IN THE CONTEXT OF INTERNATIONAL COOPERATION

Commitments to the IMF include irrevocable lending commitments and other commitments which the SNB has granted in the context of international cooperation. The amounts stated are the maximum liabilities arising from these commitments.

Overview: Undrawn lending commitments and exchange arrangement for international payment instruments in CHF millions

	31.12.2017	31.12.2016	Change
New Arrangements to Borrow (NAB) and General Arrangements to Borrow (GAB)[1]	6 852.2	6 247.3	+604.9
Lending commitment to PRGT[2]	1 328.6	622.2	+706.4
Bilateral lending commitment to National Bank of Ukraine[2]	97.7	203.3	–105.6
Bilateral lending commitment to IMF[3]	8 500.0	–	+8 500.0
Total undrawn lending commitments	**16 778.5**	**7 072.8**	**+9 705.7**
Exchange arrangement for international payment instruments (voluntary trading arrangement)[4]	2 363.5	2 332.9	+30.6

1 For further details, cf. item 03, p. 180.
2 For further details, cf. item 05, p. 182.
3 Bilateral lending commitment to the IMF in the maximum amount of CHF 8.5 billion; revolving and with a federally guaranteed repayment of principal and payment of interest (cf. accountability report, chapter 7.2.1).
4 For further details, cf. item 04, p. 181.

OTHER LIABILITIES NOT CARRIED ON BALANCE SHEET

Item 24

In CHF millions

	31.12.2017	31.12.2016	Change
Additional funding for the BIS[1]	89.8	88.2	+1.6
Liabilities from long-term rental, maintenance and leasing contracts[2]	71.6	76.6	–5.0
Contingent liabilities from procurement of banknotes	20.2	30.2	–10.0
Total	**181.5**	**195.1**	**–13.6**

1 BIS shares are 25% paid up. The additional funding obligation is stated in SDRs.
2 Including leasehold interest on Metropol building in Zurich.

ASSETS PLEDGED OR ASSIGNED AS COLLATERAL FOR SNB LIABILITIES

Item 25

In CHF millions

	Book value	31.12.2017 Liabilities or amount drawn	Book value	31.12.2016 Liabilities or amount drawn
Foreign currency investments in EUR	40 531.4	39 380.7	36 872.2	36 140.2
Foreign currency investments in USD	5 932.7	5 937.1	10 894.4	10 605.6
Foreign currency investments in GBP	146.4	146.4	1 599.0	1 583.8
Foreign currency investments in CAD	464.9	464.9	765.1	766.1
Total[1]	**47 075.5**	**45 929.1**	**50 130.7**	**49 095.8**

1 Mainly collateral lodged in connection with repo transactions and futures.

Item 26

OUTSTANDING FINANCIAL INSTRUMENTS[1]

In CHF millions

	31.12.2017			31.12.2016		
	Contract value	Replacement value		Contract value	Replacement value	
		Positive	Negative		Positive	Negative
Interest rate instruments	**26 811.3**	**92.4**	**26.8**	**27 518.0**	**80.9**	**38.7**
Repo transactions in CHF[2]	1 000.0	–	–	1 000.0	–	–
Forward contracts[1]	487.9	0.0	0.1	1 923.9	1.7	0.2
Interest rate swaps	9 375.1	91.6	26.3	7 879.5	78.9	38.3
Futures	15 948.3	0.8	0.5	16 714.6	0.3	0.2
Foreign exchange	**3 844.7**	**25.8**	**172.7**	**10 301.4**	**50.0**	**135.5**
Forward contracts[1]	3 524.6	25.8	172.1	9 328.7	50.0	133.3
Options	320.1	–	0.7	972.6	–	2.2
Equities/indices	**9 759.1**	**6.3**	**0.0**	**4 431.1**	**11.9**	**2.4**
Forward contracts[1]	1.4	0.0	0.0	19.4	0.1	0.1
Futures	9 757.7	6.2	–	4 411.7	11.8	2.3
Credit instruments	**21.5**	**0.0**	**0.4**	**321.7**	**–**	**4.5**
Credit default swaps	21.5	0.0	0.4	321.7	–	4.5
Total	**40 436.7**	**124.4**	**200.0**	**42 572.2**	**142.9**	**181.1**

1 Including spot transactions with value date in the new year.
2 Only transactions to be settled in the new year.

FIDUCIARY INVESTMENTS

Item 27

Fiduciary business covers investments which the SNB makes in its own name but on the basis of a written contract exclusively for the account of and at the risk of the counterparty (mainly the Confederation). The transactions are stated at nominal value inclusive of accrued interest.

In CHF millions

	31.12.2017	31.12.2016	Change
Fiduciary investments for the Confederation	691.0	612.7	+78.3
Other fiduciary investments	6.5	5.2	+1.3
Total	**697.6**	**618.0**	**+79.6**

5
Report of the Audit Board for the General Meeting of Shareholders

REPORT OF THE STATUTORY AUDITOR ON THE FINANCIAL STATEMENTS

As statutory auditor, we have audited the financial statements of the Swiss National Bank, which comprise the balance sheet, income statement, statement of changes in equity and notes (pp. 165–201 of the financial report) for the year ended 31 December 2017.

Bank Council's responsibility

The Bank Council is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the accounting principles detailed in the notes. Unless otherwise stated, the accounting principles are based on the Swiss GAAP FER standards. Departures from Swiss GAAP FER occur only if the special nature of the Swiss National Bank needs to be taken into account. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Bank Council is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. These standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making these risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the financial statements for the year ended 31 December 2017 comply with Swiss law and give a true and fair view of the financial position and the results of operations in accordance with the accounting and valuation principles detailed in the notes.

Opinion

REPORT ON KEY AUDIT MATTERS BASED ON THE CIRCULAR 1/2015 OF THE FEDERAL AUDIT OVERSIGHT AUTHORITY

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Foreign currency investments

Key audit matter: In absolute figures, foreign currency investments constitute the Swiss National Bank's most important balance sheet position. Due to their composition and amount, even small changes to the negotiable securities prices and the Swiss franc exchange rates can lead to material effects on the valuation in the balance sheet as well as on gross income, and therefore also on the Swiss National Bank's equity. Therefore, the valuation of the negotiable securities within foreign currency investments was considered to be an area of focus in our audit.

Our audit approach for the foreign currency investments comprised, among others, the following main audit procedures: we compared the valuation of the negotiable securities (money market instruments, bonds and equities) included within foreign currency investments with reference values that we obtained by applying our own valuation approach. The valuation methodology we used took into account, among other things, market liquidity and other characteristics relevant to the valuation of the individual negotiable securities. Further, we tested the valuation approach used in the relevant IT applications.

Further information on foreign currency investments can be found in items 02 and 25 of the notes to the annual financial statements.

REPORT ON OTHER LEGAL REQUIREMENTS

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (art. 47 NBA in conjunction with art. 728 CO and art. 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with art. 728a para. 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Bank Council.

We further confirm that the proposed appropriation of available earnings complies with the provisions of the National Bank Act and recommend that the financial statements submitted to you be approved.

KPMG LTD

PHILIPP RICKERT
Licensed Audit Expert
Auditor in Charge

PIETRO DI FLURI
Licensed Audit Expert

Zurich, 2 March 2018

Proposals of the Bank Council

Proposals of the Bank Council to the General Meeting of Shareholders

At its meeting of 2 March 2018, the Bank Council approved the financial report for 2017 for submission to the Federal Council and to the General Meeting of Shareholders.

The Audit Board signed its report on 2 March 2018.
On 21 March 2018, the Federal Council approved the financial report.

The Bank Council presents the following proposals to the General Meeting of Shareholders:

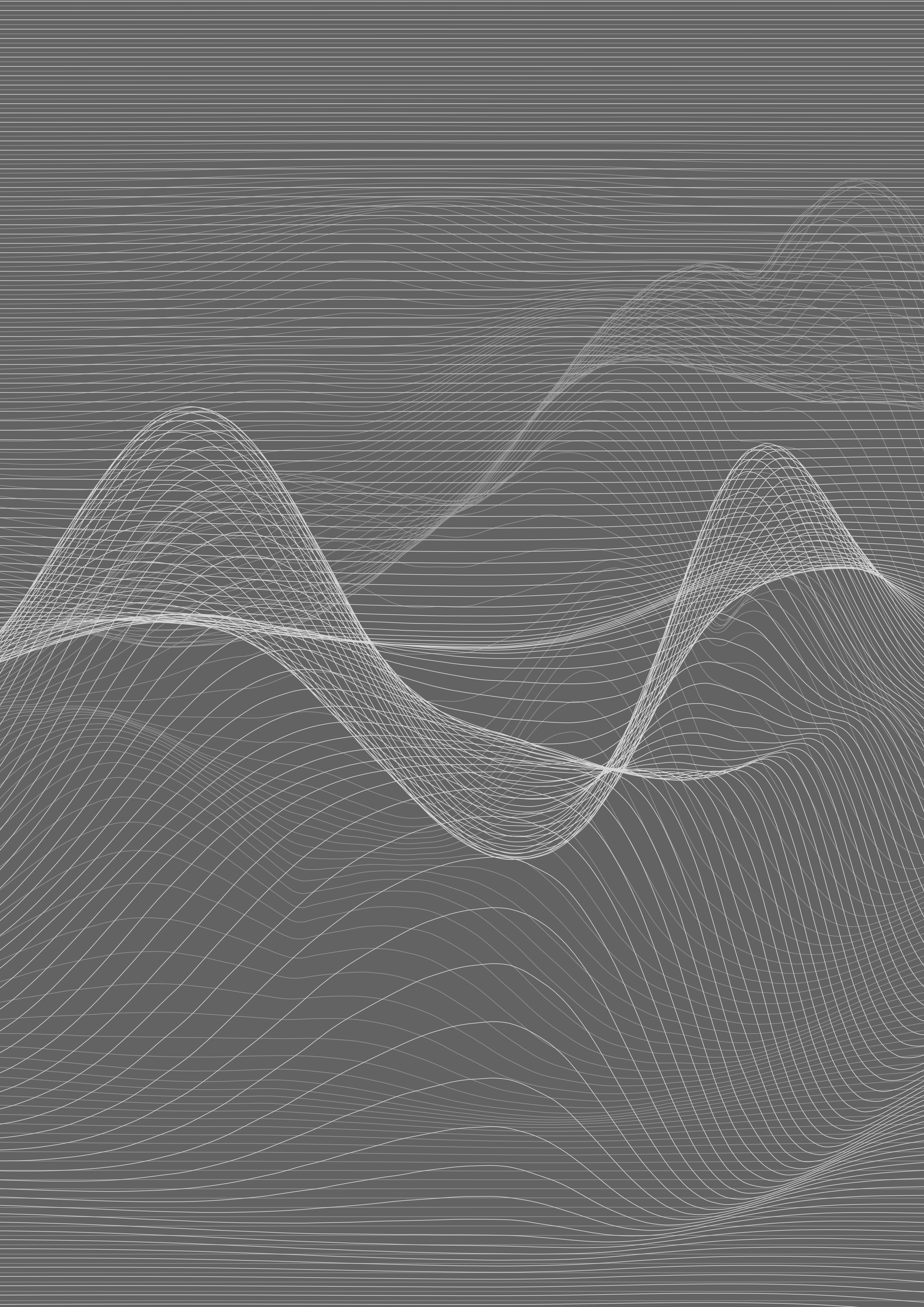
1. that the financial report for 2017 be approved;
2. that a dividend totalling CHF 1.5 million be paid to shareholders as part of the profit appropriation;
3. that the Bank Council be granted discharge;
4. that KPMG Ltd be appointed as the Audit Board for the 2018–2019 term of office.

APPROPRIATION OF PROFIT

In CHF millions

	2017
Annual result (art. 29 NBA)	**54 371.6**
– Allocation to provisions for currency reserves (art. 30 para. 1 NBA)	–5 021.7
= Distributable annual result (art. 30 para. 2 NBA)	**49 349.9**
+ Profit carried forward (distribution reserve before appropriation of profit)	20 000.0
= Net profit (art. 31 NBA)	**69 349.9**
– Payment of a dividend of 6% (art. 31 para. 1 NBA)	–1.5
– Profit distribution to Confederation and cantons (art. 31 para. 2 NBA)[1]	–2 000.0
= Balance carried forward to 2018 financial statements (distribution reserve after appropriation of profit)	**67 348.4**

1 Profit distribution agreement of 9 November 2016 between the Federal Department of Finance and the Swiss National Bank.



Selected information

1
Chronicle of monetary events in 2017

March

On 6 March, the SNB reports a profit of CHF 24.5 billion for 2016. For the financial year just ended, it sets the allocation to the provisions for currency reserves at CHF 4.6 billion. After taking into account the distribution reserve of CHF 1.9 billion, net profit comes to CHF 21.7 billion. This allows the payment of the legally stipulated maximum dividend of CHF 15 per share, as well as a profit distribution to the Confederation and the cantons of CHF 1 billion. The Confederation and the cantons also receive a supplementary distribution of CHF 0.7 billion (cf. *Annual Report 2016*, pp. 149–155).

At its quarterly assessment of 16 March, the SNB maintains its expansionary monetary policy. The target range for the three-month Libor is unchanged at between –1.25% and –0.25%, and interest on sight deposits at the SNB remains at –0.75%. The negative interest rate and the SNB's willingness to intervene in the foreign exchange market are intended to make Swiss franc investments less attractive, thereby easing pressure on the currency (pp. 39–49).

May

On 10 May, the SNB presents the new 20-franc note, the second of six denominations in the new banknote series, the inspiration behind which is 'The many facets of Switzerland'. The 20-franc note, which showcases Switzerland's creativity, enters into circulation on 17 May (p. 67).

June

At its quarterly assessment of 15 June, the SNB maintains its expansionary monetary policy. Interest on sight deposits at the SNB remains at –0.75% and the target range for the three-month Libor is unchanged at between –1.25% and –0.25% (pp. 39–49).

August

On 4 August, the SNB announces that it will conduct a survey on payment methods in Switzerland for the first time in 2017. The aim of the survey is to obtain representative information on the Swiss population's use of various payment methods and to identify any possible changes in this respect. The results are due to be published in the second quarter of 2018 (p. 68).

On 16 August, the Federal Council launches the consultation procedure for a partial revision of the Currency and Payment Instruments Act (CPIA). The revision is aimed at revoking the exchange period for all banknote series from the sixth series onwards (p. 68).

On 22 August, the SNB signs a loan agreement with the International Monetary Fund (IMF) in the amount of SDR 500 million. The loan contributes to the financing of the activities of the Poverty Reduction and Growth Trust (PRGT).

September

At its quarterly assessment of 14 September, the SNB maintains its expansionary monetary policy. With the currency having weakened over the summer months, the SNB states that the Swiss franc 'remains highly valued' (previously: 'significantly overvalued'). Interest on sight deposits at the SNB is unchanged at –0.75% and the target range for the three-month Libor remains at between –1.25% and –0.25% (pp. 39–49).

October

On 11 October, the SNB presents the new 10-franc note, the third denomination in the new banknote series. The 10-franc note, which showcases Switzerland's organisational talent, enters into circulation on 18 October (p. 67).

November

On 1 November, the Federal Council puts into force the revised Monetary Assistance Act (MAA). The revision addresses changes in lending at the multilateral level, and ensures that Switzerland can continue to participate in measures to stabilise the international monetary and financial system (p. 119).

Based on the MAA, on 1 November the SNB opens a credit line of CHF 8.5 billion for the IMF on behalf of the Confederation. The corresponding loans are guaranteed by the Confederation.

December

At its quarterly assessment of 14 December, the SNB maintains its expansionary monetary policy. Interest on sight deposits at the SNB remains at –0.75% and the target range for the three-month Libor is unchanged at between –1.25% and –0.25% (pp. 39–49).

On 21 December, the SNB announces that it has acquired 90% of the shares in Landqart AG and 90% of the shares in the patent-holding company, landqart management and services, for a total of CHF 19.4 million. The SNB decided to acquire the company because, otherwise, the supply of special paper (Durasafe® substrate) used in the new Swiss banknotes would not have been guaranteed across the entire production stream (p. 66).

2
Bank supervisory and management bodies, Regional Economic Councils

as at 1 April 2018

BANK COUNCIL

(2016–2020 term of office)

Jean Studer	Attorney-at-law, President of the Bank Council, Head of the Nomination Committee, Member of the Compensation Committee, 2007/2016 [1, 2]
* Olivier Steimer	Member of the board of directors at various companies, Vice President of the Bank Council, Head of the Compensation Committee, Member of the Nomination Committee, 2009/2016 [1]
* Monika Bütler	Professor at the University of St. Gallen, Member of the Compensation Committee, 2010/2016 [1]
Barbara Janom Steiner	Member of the Cantonal Government and Head of the Department of Finance and Communal Affairs of the Canton of Graubünden, 2015/2016 [1]
* Heinz Karrer	President of economiesuisse (Swiss Business Federation), Member of the Audit Committee, 2014/2016 [1]
* Daniel Lampart	Chief Economist and Head of the Secretariat of the Swiss Federation of Trade Unions, Member of the Risk Committee, 2007/2016 [1, 2]
Christoph Lengwiler	Professor at the Lucerne University of Applied Sciences and Arts, Head of the Audit Committee, 2012/2016 [1]
Shelby R. du Pasquier	Attorney-at-law and Partner at Lenz & Staehelin, Head of the Risk Committee, 2012/2016 [1]
Ernst Stocker	Member of the Cantonal Government and Head of the Department of Finance of the Canton of Zurich, Member of the Audit Committee, 2010/2016 [1]
* Cédric Pierre Tille	Professor at the Graduate Institute of International and Development Studies, Geneva, Member of the Nomination and Risk Committees, 2011/2016 [1]
Christian Vitta	Member of the Cantonal Government and Head of the Department of Finance and Economic Affairs of the Canton of Ticino, 2016 [1]

In line with art. 40 para. 1 NBA, all members of the Bank Council hold Swiss citizenship.
* Elected by the General Meeting of Shareholders.
1 Initial and current election to the Bank Council.
2 Elected until completion of maximum permitted term of office for Bank Council members.

RELEVANT AFFILIATIONS OF BANK COUNCIL MEMBERS

Further relevant affiliations of the Bank Council members are listed on the SNB website at www.snb.ch, *The SNB, Supervisory and executive bodies, Bank Council*.

AUDIT BOARD

(2017–2018 term of office)

KPMG Ltd

GOVERNING BOARD

(2015–2021 term of office)

Thomas J. Jordan	Chairman of the Governing Board, Head of Department I, Zurich
Fritz Zurbrügg	Vice Chairman of the Governing Board, Head of Department II, Berne
Andréa M. Maechler	Member of the Governing Board, Head of Department III, Zurich

In line with art. 44 para. 1 NBA, all members of the Governing Board hold Swiss citizenship and are resident in Switzerland.

ENLARGED GOVERNING BOARD

(2015–2021 term of office)

Thomas J. Jordan	Chairman of the Governing Board, Head of Department I, Zurich
Fritz Zurbrügg	Vice Chairman of the Governing Board, Head of Department II, Berne
Andréa M. Maechler	Member of the Governing Board, Head of Department III, Zurich
Thomas Moser	Alternate Member of the Governing Board, Department I, Zurich
Thomas Wiedmer	Alternate Member of the Governing Board, Department II, Berne
Dewet Moser	Alternate Member of the Governing Board, Department III, Zurich

In line with art. 44 paras. 1 and 3 NBA, all members and alternate members of the Governing Board hold Swiss citizenship and are resident in Switzerland.

RELEVANT AFFILIATIONS OF THE ENLARGED GOVERNING BOARD

Further relevant affiliations of the Enlarged Governing Board are listed on the SNB website at www.snb.ch, *The SNB, Supervisory and executive bodies, Enlarged Governing Board.*

BANK MANAGEMENT

For a comprehensive list, cf. www.snb.ch, *The SNB, Supervisory and executive bodies, Bank management.*

REGIONAL ECONOMIC COUNCILS

(2016–2020 term of office)

Central Switzerland	Thomas Herbert, CEO of The Globe Stores Ltd, Chairperson
	Alain Grossenbacher, Chairman of the Board of Directors and CEO of Eberli Sarnen AG
	Norbert Patt, CEO of Bergbahnen Engelberg-Trübsee-Titlis AG
	Adrian Steiner, Member of the Board of Directors and CEO of Thermoplan AG
Eastern Switzerland	Andreas Züllig, Manager of the Hotel Schweizerhof, Lenzerheide, Chairperson
	Andreas Schmidheini, Co-owner and CEO of Varioprint Ltd
	Christoph Tobler, Member of the Board and CEO of Sefar Holding Inc
	Franziska A. Tschudi Sauber, Delegate of the Board of Directors and CEO of Wicor Holding AG
Fribourg/ Vaud/Valais	Hélène Béguin, Partner, Member of the Board of Directors of KPMG Holding Ltd, Head of Audit Western Switzerland, Head of National Market Western Switzerland, Chairperson
	Alain Métrailler, Managing Director of Dénériaz SA Sion
	Aude Pugin, CEO of APCO Technologies SA
Geneva/Jura/ Neuchâtel	Carole Hübscher Clements, President of the Board of Caran d'Ache SA, Chairperson
	Pierre Aebischer, Co-founder and Managing Partner of blue-infinity (Switzerland) SA
	Jean-Marc Thévenaz, Managing Director of easyJet Switzerland SA
Italian-speaking Switzerland	Alessandra Alberti, Managing Director of Chocolat Stella SA, Chairperson
	Roberto Ballina, Member of the Board and CEO of Tensol Rail SA
	Enzo Lucibello, CEO of Media Markt Grancia SA
Mittelland	Stephan Maeder, Chairman of the Board of Bernensis Hotel AG and Managing Director of the Carlton-Europe Hotel, Interlaken, Chairperson
	Josef Maushart, CEO and Chairman of the Board of Fraisa Holding AG
	Peter Schmid, Head of the Sales Region NWZZ (Northwestern Switzerland/Central Switzerland/Zurich) of Coop Cooperative

Northwestern Switzerland	Stefano Patrignani, Managing Director of Migros Basel, Chairperson
	Thomas Ernst, Delegate of the Board of Directors and CEO of VINCI Energies Switzerland Ltd
	Thomas Knopf, CEO of Ultra-Brag Ltd
	Monika Walser, Co-owner and CEO of de Sede AG
Zurich	Isabelle Welton-Lalive d'Epinay, Member of the Board of Directors of Aktiengesellschaft für die Neue Zürcher Zeitung, Chairperson
	Patrick Candrian, Managing Director and Member of Group Management of SV (Switzerland) Ltd
	Valentin Vogt, Chairman of the Board of Directors of Burckhardt Compression Holding Ltd

3
Organisational chart

as at 1 April 2018

GENERAL MEETING OF SHAREHOLDERS	**AUDIT BOARD**
BANK COUNCIL	**INTERNAL AUDIT**

GOVERNING BOARD

ENLARGED GOVERNING BOARD

BOARD OF DEPUTIES

DEPARTMENT I

Secretariat General	Secretariat Supervisory and Management Bodies
	Communications
	Documentation
	Research Coordination and Economic Education
Economic Affairs	Monetary Policy Analysis
	Inflation Forecasting
	Economic Analysis
International Monetary Cooperation	Multilateral Coordination
	International Policy Analysis
	Bilateral Cooperation
Statistics	Balance of Payments and Swiss Financial Accounts
	Banking Statistics
	Publications and Data Banks
Legal Services	
Compliance	
Human Resources	
Premises and Technical Services	

DEPARTMENT II

Financial Stability	Banking System
	Systemically Important Banks
	Oversight
Cash	Specialist Support
	Procurement and Logistics
	Cash Circulation, East
	Cash Circulation, West
Central Accounting	
Controlling	
Risk Management	
Operational Risk and Security	

DEPARTMENT III

Money Market and Foreign Exchange	Money Market
	Foreign Exchange and Gold
Asset Management	Portfolio Management
	Portfolio Trading
Banking Operations	Banking Operations Analysis
	Middle Office
	Back Office
Information Technology	Banking Applications
	Business Support Processes
	Economic Information Systems
	Infrastructure
Financial Market Analysis	
Singapore	

4
Publications and other resources

Unless otherwise noted, the publications and other resources are available on the SNB website at www.snb.ch, *Publications*.

ANNUAL REPORT
The *Annual Report* is published at the end of March (online) and at the beginning of April (print) in German, French, Italian and English.

QUARTERLY BULLETIN
The *Quarterly Bulletin* contains the 'Monetary policy report' used for the Governing Board's quarterly monetary policy assessment and the 'Business cycle signals – Results of the SNB company talks'. The *Quarterly Bulletin* is published at the end of March, June, September and December in German, French and Italian (print and online) and English (online).

FINANCIAL STABILITY REPORT
The *Financial Stability Report* assesses the stability of Switzerland's banking sector. It is published annually in June in English, and in August in German and French (print and online).

IMPORTANT MONETARY POLICY DATA
The SNB publishes important monetary policy data on its website on a weekly basis, including the SNB's reference interest rates and the Swiss Average Rates, as well as information on the sight deposits with the SNB and the minimum reserves. The data are available in German, French, Italian (from mid-2018) and English.

STATISTICAL DATA
The SNB releases its statistical data on its data portal, data.snb.ch.

STATISTICAL PUBLICATIONS
The publications *Banks in Switzerland*, *Swiss Financial Accounts*, *Swiss Balance of Payments and International Investment Position* and *Direct Investment* are published annually in German, French and English (print and online).

BANKS IN SWITZERLAND
Banks in Switzerland is a commentated collection of statistical source material on the development and structure of the Swiss banking sector. It is compiled mainly from surveys of banks conducted by the SNB. *Banks in Switzerland* is published mid-year in German, French and English (print and online).

SWISS FINANCIAL ACCOUNTS

The report *Swiss Financial Accounts* reflects the volume and structure of financial assets and liabilities held by the different institutional sectors of the domestic economy, both in Switzerland and abroad. The report also contains a balance sheet of households. It is published in autumn in German, French and English (print and online).

SWISS BALANCE OF PAYMENTS AND INTERNATIONAL INVESTMENT POSITION, DIRECT INVESTMENT

The report *Swiss Balance of Payments and International Investment Position* is published once a year in May (print and online). The section on the balance of payments reviews the development of economic transactions between residents and non-residents. The section on Switzerland's international investment position describes developments in foreign assets, foreign liabilities and Switzerland's net investment position. *Direct Investment* examines the developments in Switzerland's direct investments abroad as well as the changes in foreign direct investment in Switzerland. It is published once a year in December. Both reports are available in German, French and English (print and online).

HISTORICAL TIME SERIES

The *Historical Time Series* publications examine various monetary policy themes from a long-term perspective and provide the associated data. The series of publications consists of five brochures which were issued to mark the SNB's centennial year. The brochures are available in German, French and English (print and online).

SNB ECONOMIC STUDIES, SNB WORKING PAPERS AND SNB RESEARCH REPORT

SNB Economic Studies (print and online) and *SNB Working Papers* (online only) present articles on economic issues and research results at irregular intervals. They appear in one language only, typically English. The annual *SNB Research Report* provides an overview of the SNB's research activities in the past year (in English, online only).

ENVIRONMENTAL REPORT

The SNB's annual environmental report contains data and indicators on the use of resources and on greenhouse gas emissions. It describes the foundations upon which the SNB's environmental management is based, explains the SNB's strategy in connection with climate change and lists measures and projects aimed at improving its environmental performance. It is available in German and French (print and online).

THE SWISS NATIONAL BANK 1907–2007

The commemorative publication marking the 100th anniversary of the Swiss National Bank deals with the SNB's history and various monetary policy topics. It is available in bookshops in Italian and English; the German and French versions are out of print. All four language versions are available on the SNB website at www.snb.ch, *The SNB*, *History*, *Publications*. Commemorative publications in connection with earlier anniversaries can be accessed there in German and French.

THE SWISS NATIONAL BANK IN BERNE – AN ILLUSTRATED CHRONICLE

A chronicle of the Swiss National Bank in Berne entitled *Die Schweizerische Nationalbank in Bern – eine illustrierte Chronik* was published in collaboration with the Society for Art History in Switzerland to mark the 100th anniversary of the inauguration of the SNB's head office in Berne at Bundesplatz 1. The bilingual (German and French), illustrated book is available in bookshops and at www.snb.ch, *SNB, History, Publications*.

MONETARY ECONOMIC ISSUES TODAY

The Festschrift in honour of Ernst Baltensperger covers a cross-section of monetary economics and offers an insight into current research questions. It comprises 27 articles written in German, French and English. The SNB issued the work to mark Ernst Baltensperger's 75th birthday, and it is available from bookshops.

SPEECHES

The members of the Governing Board regularly give speeches on monetary policy issues. These are available at www.snb.ch, *Suggested pages*, *Speeches*, and are usually published in German, French or English, with a summary in German, French, English and Italian.

PRESS RELEASES

All SNB press releases have been available in German, French and English at www.snb.ch since mid-1997. Since autumn 2016, they have also been published in Italian.

OUR NATIONAL BANK

Our National Bank is a resource for schools and the general public providing easily accessible information on subjects including the SNB and its monetary policy, the importance of price stability and the history of the minimum exchange rate. It can be found at our.snb.ch, and a brochure is also available in all four languages (print and online).

YOUTUBE CHANNEL/VIDEOS

The SNB's YouTube channel offers an extensive range of videos. There are numerous films showing the design and security features of the new banknotes and how they are made. The SNB film 'The Swiss National Bank – What it does and how it works', which lasts about 15 minutes, takes a behind-the-scenes look at the National Bank and its monetary policy. The videos are produced in German, French, Italian and English. There are also recordings of the news conferences and general meetings of shareholders (Web TV) as well as SNB research events (Research TV). The YouTube channel and the individual videos can be accessed via the SNB website.

ICONOMIX

Iconomix is the SNB's web-based educational programme. It offers a range of teaching material that can be either downloaded or ordered. It is aimed at teachers of economics and humanities at upper secondary schools. Iconomix is free of charge and is available in full in German, French and Italian, and partially in English, at www.iconomix.ch.

THE SWISS NATIONAL BANK IN BRIEF

The Swiss National Bank in Brief gives an overview of the SNB's tasks, its organisation and the legal basis of its activities. It is published in German, French, Italian and English (print and online).

GLOSSARY

The online glossary explains important terms from the world of finance and monetary policy. It is available in German, French, Italian and English at www.snb.ch.

QUESTIONS AND ANSWERS

The online questions and answers deal with topics of importance to the SNB. They are available in German, French, Italian and English at www.snb.ch, *General public*, *Questions and answers*.

OBTAINABLE FROM

Swiss National Bank, Library

E-mail:	library@snb.ch
Telephone:	+41 58 631 11 50
Postal address:	P.O. Box, 8022 Zurich
Address:	Börsenstrasse 10, 8001 Zurich

5
Addresses

HEAD OFFICES

Berne	Bundesplatz 1 P.O. Box 3003 Berne SNB counter during renovation work: Bank EEK, Amthausgasse 14, Monday–Friday, 8.30–12.00 Offices during SNB renovation: Laupenstrasse 18 3008 Berne	Telephone Fax E-mail	+41 58 631 00 00 +41 58 631 50 00 snb@snb.ch
Zurich	Börsenstrasse 15 P.O. Box 8022 Zurich	Telephone Fax E-mail	+41 58 631 00 00 +41 58 631 50 00 snb@snb.ch

REPRESENTATIVE OFFICES

Basel	Freie Strasse 27 P.O. Box 4001 Basel	Telephone E-mail	+41 58 631 40 00 basel@snb.ch
Geneva	Rue de la Croix-d'Or 19 P.O. Box 1211 Geneva 3	Telephone E-mail	+41 58 631 40 20 geneve@snb.ch
Lausanne	Avenue de la Gare 18 P.O. Box 1001 Lausanne	Telephone E-mail	+41 58 631 40 10 lausanne@snb.ch
Lucerne	Münzgasse 6 P.O. Box 6007 Lucerne	Telephone E-mail	+41 58 631 40 40 luzern@snb.ch
Lugano	Via Pioda 6 P.O. Box 6901 Lugano	Telephone E-mail	+41 58 631 40 60 lugano@snb.ch
St Gallen	Neugasse 43 P.O. Box 9004 St Gallen	Telephone E-mail	+41 58 631 40 70 st.gallen@snb.ch

AGENCIES

The Swiss National Bank maintains agencies operated by cantonal banks in Altdorf, Appenzell, Chur, Fribourg, Geneva, Glarus, Liestal, Lucerne, Sarnen, Schaffhausen, Schwyz, Sion, Stans and Zug.

BRANCH OFFICE

Singapore	8 Marina View #35-02 Asia Square Tower 1 Singapore 018960 UEN T13FC0043D	Telephone E-mail	+65 65 80 8888 singapore@snb.ch

LIBRARY

Zurich	Börsenstrasse 10 8001 Zurich	Telephone Fax E-mail	+41 58 631 11 50 +41 58 631 50 48 library@snb.ch

WEBSITE

www.snb.ch

6 Rounding conventions and abbreviations

ROUNDING CONVENTIONS

The figures in the income statement, balance sheet and tables are rounded; totals may therefore deviate from the sum of individual items.

The figures 0 and 0.0 are rounded values representing less than half of the unit used, yet more than zero (rounded zero).

A dash (–) in place of a number stands for zero (absolute zero).

ABBREVIATIONS

AIP	Approval in Principle
AOA	Auditor Oversight Act
AUD	Australian dollar
BIS	Bank for International Settlements
BPM	Balance of Payments and International Investment Position Manual (IMF)
CAD	Canadian dollar
CBDC	Central bank digital currencies
CCP	Central counterparties
CCyB	Countercyclical capital buffer
CGFS	Committee on the Global Financial System
CHF	Swiss franc
CLS	Continuous Linked Settlement
CMF	Committee on Financial Markets
CNY	Chinese yuan (renminbi)
CO	Swiss Code of Obligations
CPI	Consumer price index
CPIA	Currency and Payment Instruments Act
CPMI	Committee on Payments and Market Infrastructures
CSSP	Committee on Statistics and Statistical Policy
DKK	Danish krone
DLT	Distributed ledger technology
ECB	European Central Bank
EPC	Economic Policy Committee
ESMA	European Securities and Markets Authority
EUR	Euro
FCA	Federal Customs Administration
FCA	Financial Conduct Authority (UK)
FDF	Federal Department of Finance
FER	Swiss Accounting and Reporting Recommendations (Swiss GAAP FER)
FFA	Federal Finance Administration
FINMA	Swiss Financial Market Supervisory Authority
FMI	Financial market infrastructure

FMIA	Federal Market Infrastructure Act
FOH	Federal Office for Housing
FSB	Financial Stability Board
GAAP	Generally Accepted Accounting Principles
GAB	General Arrangements to Borrow
GBP	Pound sterling
GDP	Gross domestic product
IBOR	Interbank Offered Rate (Libor, Tibor and Euribor)
ICS	Internal control system
ILO	International Labour Organization
IMF	International Monetary Fund
IMFC	International Monetary and Financial Committee
IOSCO	International Organization of Securities Commissions
ISDA	International Swaps and Derivatives Association
ISIN	International Securities Identification Number
JPY	Japanese yen
KRW	South Korean won
LCH	LCH.Clearnet Ltd
LCR	Liquidity coverage ratio
LER	Large exposure reporting
Libor	London Interbank Offered Rate
MAA	Monetary Assistance Act
MMDRC	Money market debt register claims
NAB	New Arrangements to Borrow
NBA	National Bank Act
NBO	National Bank Ordinance
NWG	National working group on Swiss franc reference rates
OECD	Organisation for Economic Co-operation and Development
PBC	People's Bank of China
PFMI	Principles for Financial Market Infrastructures
PPI	Producer price index
PRGT	Poverty Reduction and Growth Trust (IMF)
Repo	Repurchase agreement
SARON	Swiss Average Rate Overnight
SBA	Stand-By Arrangement
SDDS	Special Data Dissemination Standard (IMF)
SDR	Special Drawing Right
SECO	State Secretariat for Economic Affairs
SEK	Swedish krona
SFSO	Swiss Federal Statistical Office
SGD	Singapore dollar
SIC	Swiss Interbank Clearing

SIF	State Secretariat for International Financial Matters
SNA	System of National Accounts
SR	Official Compilation of Federal Laws and Decrees
SNB	Swiss National Bank
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TBTF	Too big to fail
TLAC	Total-loss absorbing capacity
USD	US dollar

Published by
Swiss National Bank
CH-8022 Zurich
Telephone +41 58 631 00 00

Languages
German, French, Italian and English

Design
Interbrand Ltd, Zurich

Typeset and printed by
Neidhart+Schön Group AG, Zurich

Publication date
April 2018

ISSN 1421-6477 (printed version)
ISSN 1662-176X (online version)

SCHWEIZERISCHE NATIONALBANK
BANQUE NATIONALE SUISSE
BANCA NAZIONALE SVIZZERA
BANCA NAZIUNALA SVIZRA
SWISS NATIONAL BANK