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Quarterly Bulletin  
1/2018 March

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





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Quarterly Bulletin  
1/2018 March

Volume 36



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# Monetary policy report

Report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2018.

The report describes economic and monetary developments in Switzerland and explains the inflation forecast. It shows how the SNB views the economic situation and the implications for monetary policy it draws from this assessment. The first section ('Monetary policy decision of 15 March 2018') is an excerpt from the press release published following the assessment.

This report is based on the data and information available as at 15 March 2018. Unless otherwise stated, all rates of change from the previous period are based on seasonally adjusted data and are annualised.

# 1 Monetary policy decision of 15 March 2018

## Swiss National Bank leaves expansionary monetary policy unchanged

The Swiss National Bank (SNB) is maintaining its expansionary monetary policy, with the aim of stabilising price developments and supporting economic activity. Interest on sight deposits at the SNB is to remain at  $-0.75\%$  and the target range for the three-month Libor is unchanged at between  $-1.25\%$  and  $-0.25\%$ . The SNB will remain active in the foreign exchange market as necessary, while taking the overall currency situation into consideration.

Since the last monetary policy assessment in December, the Swiss franc has appreciated slightly overall on the back of the weaker US dollar. The Swiss franc remains highly valued. The situation in the foreign exchange market is still fragile and monetary conditions may change rapidly. The negative interest rate and the SNB's willingness to intervene in the foreign exchange market as necessary therefore remain essential. This keeps the attractiveness of Swiss franc investments low and eases pressure on the currency.

The SNB's conditional inflation forecast has shifted slightly downwards as a result of the somewhat stronger Swiss franc (cf. chart 1.1). The forecast for the current year has decreased marginally to  $0.6\%$ , from  $0.7\%$  in the previous quarter. For 2019, the SNB now expects inflation of  $0.9\%$ , compared to  $1.1\%$  last quarter. For 2020, it anticipates an inflation rate of  $1.9\%$ . The conditional inflation forecast is based on the assumption that the three-month Libor remains at  $-0.75\%$  over the entire forecast horizon.

The international economic environment is currently favourable. In the fourth quarter of 2017, the global economy continued to exhibit solid, broad-based growth. International trade remained dynamic. Employment registered a further increase in the advanced economies, which is also bolstering domestic demand.

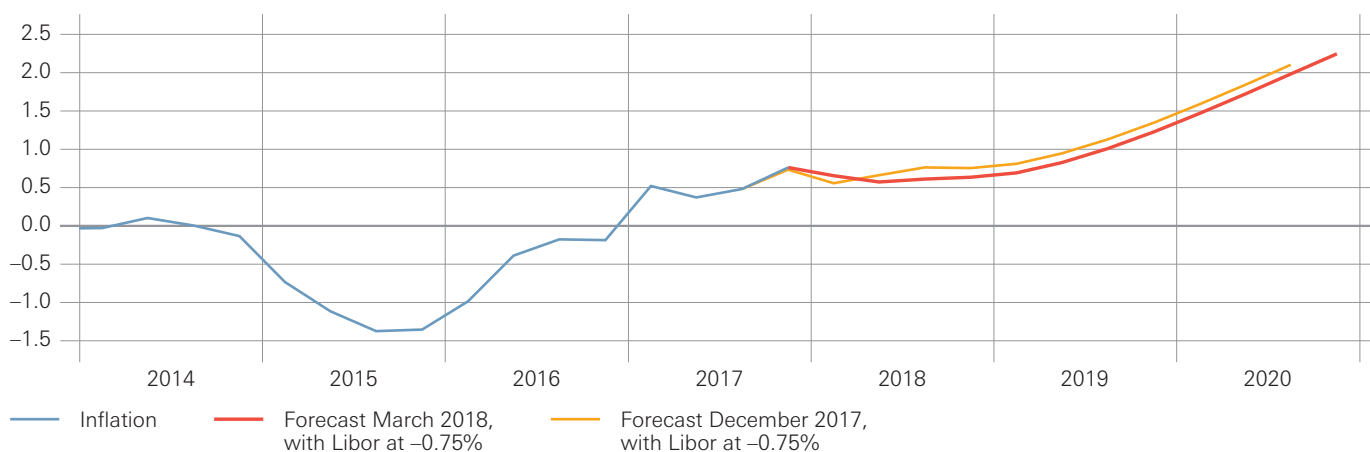
The SNB expects global economic growth to remain above potential in the coming quarters. Given the robust economic situation, the US Federal Reserve plans to continue its gradual normalisation of monetary policy. In the euro area and Japan, by contrast, monetary policy is likely to remain highly expansionary.

In Switzerland, GDP grew in the fourth quarter at an annualised  $2.4\%$ . This growth was again primarily driven by manufacturing, but most other industries also made a positive contribution. In the wake of this development, capacity utilisation in the economy as a whole improved further. The unemployment rate declined again slightly through to February. The SNB continues to expect GDP growth of around  $2\%$  for 2018 and a further gradual decrease in unemployment.

Chart 1.1

## CONDITIONAL INFLATION FORECAST OF MARCH 2018

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



Sources: SFSO, SNB

Imbalances on the mortgage and real estate markets persist. While growth in mortgage lending remained relatively low in 2017, prices for single-family houses and owner-occupied apartments began to rise more rapidly again. Residential investment property prices also rose, albeit at a somewhat slower pace. Owing to the strong growth in recent years, this segment in particular is subject to the risk of a price correction over the medium term. The SNB will continue to monitor developments on the mortgage and real estate markets closely, and will regularly reassess the need for an adjustment of the countercyclical capital buffer.

### Monetary policy strategy at the SNB

The SNB has a statutory mandate to ensure price stability while taking due account of economic developments.

The SNB has specified the way in which it exercises this mandate in a three-part monetary policy strategy. First, it regards prices as stable when the Swiss consumer price index (CPI) rises by less than 2% per annum. This allows it to take account of the fact that the CPI slightly

overstates actual inflation. At the same time, it allows inflation to fluctuate somewhat with the economic cycle. Second, the SNB summarises its assessment of the situation and of the need for monetary policy action in a quarterly inflation forecast. This forecast, which is based on the assumption of a constant short-term interest rate, shows how the SNB expects the CPI to move over the next three years. Third, the SNB sets its operational goal in the form of a target range for the three-month Swiss franc Libor.

Table 1.1

### OBSERVED INFLATION IN MARCH 2018

	2014				2015				2016				2017				2015	2016	2017
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Inflation	0.0	0.1	0.0	-0.1	-0.7	-1.1	-1.4	-1.4	-1.0	-0.4	-0.2	-0.2	0.5	0.4	0.5	0.8	-1.1	-0.4	0.5

Source: SFSO

### CONDITIONAL INFLATION FORECAST OF MARCH 2018

	2017				2018				2019				2020				2018	2019	2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Forecast December 2017, with Libor at -0.75%					0.7	0.6	0.7	0.8	0.8	0.8	0.9	1.1	1.3	1.6	1.8	2.1	0.7	1.1	
Forecast March 2018, with Libor at -0.75%					0.7	0.6	0.6	0.6	0.7	0.8	1.0	1.2	1.5	1.7	2.0	2.2	0.6	0.9	1.9

Source: SNB



## 2 Global economic environment

The global economy exhibited solid, broad-based growth in the fourth quarter. International trade also remained dynamic (cf. chart 2.1). Employment registered a further increase in the advanced economies, which helped buoy household confidence.

In the US, capacity in the economy as a whole is now well utilised, and inflation has moved closer to the target level set by the US Federal Reserve. Against this backdrop, the latter plans to continue its gradual normalisation of monetary policy. By contrast, the European Central Bank (ECB) intends to persist with its asset purchases until at least September 2018, and to leave its key rates unchanged beyond this horizon. Meanwhile, Japan is also likely to maintain its highly expansionary monetary policy.

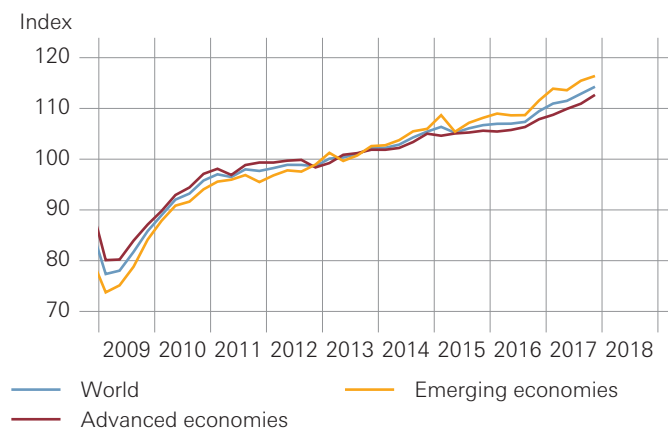
The economic signals for the coming months are positive. The SNB expects global economic growth to remain above potential, and it has raised its forecasts slightly for most countries.

The favourable baseline scenario for the global economy is subject to risks. In the short term, good household and business confidence may mean that growth is even stronger than forecast in the baseline scenario. Over the medium term, however, the risks are still more to the downside, including political developments in certain countries as well as potential international tension and protectionist tendencies. The gradual tightening of

Chart 2.1

### GLOBAL EXPORTS OF GOODS

Average of depicted period = 100



Sources: CPB Netherlands Bureau for Economic Policy Analysis (CPB), Thomson Reuters Datastream

Table 2.1

### BASELINE SCENARIO FOR GLOBAL ECONOMIC DEVELOPMENTS

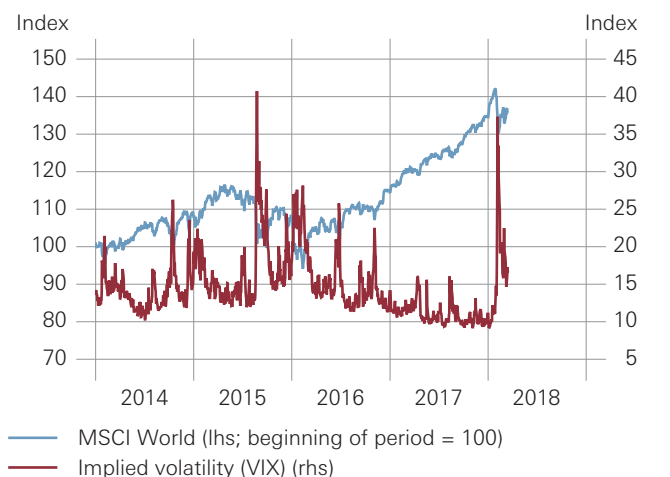
	2014	2015	2016	2017	Scenario	
					2018	2019
<b>GDP, year-on-year change in percent</b>						
Global <sup>1</sup>	3.6	3.5	3.3	3.9	4.0	3.8
US	2.6	2.9	1.5	2.3	2.7	2.3
Euro area	1.4	2.0	1.8	2.5	2.3	1.5
Japan	0.3	1.4	0.9	1.7	1.2	0.7
<b>Oil price in USD per barrel</b>						
	99.0	52.5	43.8	54.3	69.0	69.0

<sup>1</sup> PPP-weighted (US, euro area, UK, Japan, China, South Korea, India, Brazil and Russia).

Sources: SNB, Thomson Reuters Datastream

Chart 2.2

**STOCK MARKETS**



Source: Thomson Reuters Datastream

Chart 2.3

**INTERNATIONAL LONG-TERM INTEREST RATES**

10-year government instruments

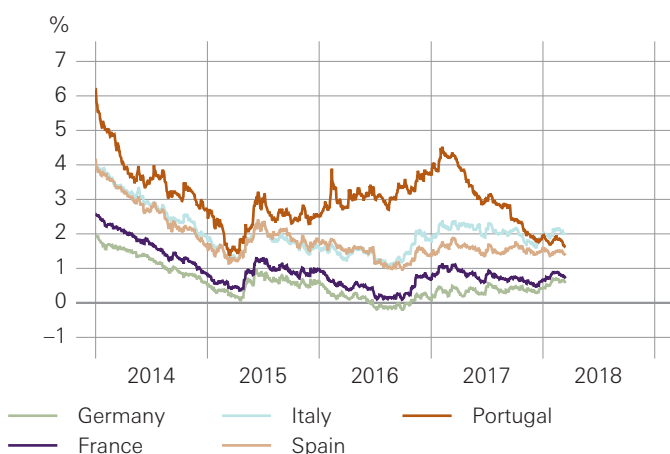


Source: Thomson Reuters Datastream

Chart 2.4

**EUROPEAN LONG-TERM INTEREST RATES**

10-year government instruments



Source: Thomson Reuters Datastream

monetary policy in the advanced economies will also pose challenges. In particular, capital market interest rates and risk premia could rise abruptly again, as witnessed at the beginning of February.

The SNB's forecasts for the global economy are based on assumptions about oil prices and the EUR/USD exchange rate. It is assuming a price for Brent crude of USD 69 per barrel, which is USD 8 higher than in December's baseline scenario (cf. table 2.1), and an exchange rate of USD 1.23 to the euro, compared with USD 1.17 in December. Both correspond to the 20-day average when the current baseline scenario was drawn up.

**INTERNATIONAL FINANCIAL AND COMMODITY MARKETS**

The international financial markets have been volatile since the monetary policy assessment of mid-December 2017. Market expectations that monetary policy – particularly in the US – could be tightened more quickly than previously assumed prompted a correction in stock market prices. Having hit an all-time high at the end of January, the MSCI World Index fell by around 8% in the space of just a few days, and by mid-March was at roughly the level recorded in mid-December. The volatility of US stocks as measured by option prices (VIX) – which serves as a gauge of market uncertainty – spiked temporarily after having reached historical lows (cf. chart 2.2).

The expectations of a more rapid normalisation of monetary policy also had an impact on the bond markets. Long-term government bond yields rose significantly in virtually all the major advanced economies, with the strongest increases coming in the US. In Japan, meanwhile, yields on ten-year government bonds persisted close to the Bank of Japan's target of 0% (cf. charts 2.3 and 2.4).

In the wake of the equity market correction, the US dollar initially weakened on a trade-weighted basis, but recouped some ground by mid-March. Against the euro, it temporarily hit its lowest level since the end of 2014. The euro, pound sterling and yen all trended somewhat firmer on a trade-weighted basis (cf. chart 2.5).

The heightened risk perception on the financial markets also weighed temporarily on commodity prices. The latter's upward trend stretching back to mid-2017 remained intact overall, however, bolstered by the cyclically sensitive prices of industrial metals. Oil prices initially continued to rise in January, reaching a three-year high of just under USD 70 per barrel. However, following a marked increase in oil production in the US, it declined again and by mid-March had fallen to USD 65 (cf. chart 2.6).

## US

US GDP growth remained robust in the fourth quarter of 2017 at 2.5% (cf. chart 2.7), this figure also reflecting in particular the reconstruction efforts following the hurricanes in the previous quarter. The annual average came to 2.3%, compared with 1.5% in 2016. The higher growth was mainly attributable to dynamic momentum in equipment investment and exports. The expansion in employment has continued over the past few months, and in February unemployment stood at 4.1%, below the natural rate of 4.7% estimated by the Congressional Budget Office (CBO) (cf. chart 2.10).

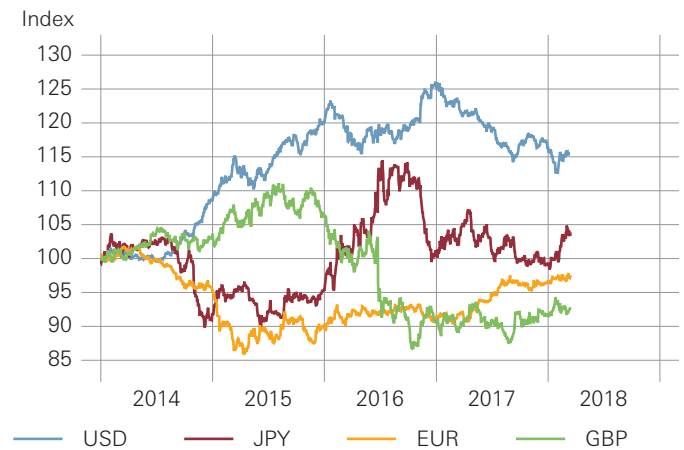
The outlook for the US economy has continued to improve slightly since the previous monetary policy assessment, and the environment remains conducive to solid domestic activity. As announced, the US government passed extensive tax cuts for households and companies in December, and these are likely to stimulate corporate investment and private consumption in the coming years. In February, Congress also approved a budget bill that will lead to a significant increase in public spending in 2018 and 2019. In light of the stronger momentum in the domestic economy and the impetus from fiscal policy, the SNB has made a slight upward revision to its forecasts for US GDP to 2.7% for 2018 and 2.3% for 2019 (cf. table 2.1).

US inflation is gradually moving closer to the Federal Reserve's target. At 2.2%, consumer price inflation was unchanged in February compared with November (cf. chart 2.11), while core inflation edged up to 1.8% (cf. chart 2.12). Against this backdrop, the Federal Reserve plans to continue the gradual normalisation of its monetary policy. Market expectations regarding a fresh interest rate hike in March have heightened in recent months.

Chart 2.5

### EXCHANGE RATES

Trade-weighted, beginning of period = 100



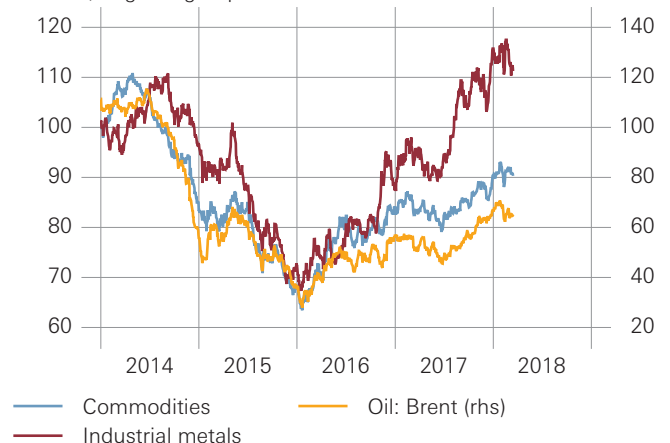
Source: Thomson Reuters Datastream

Chart 2.6

### COMMODITY PRICES

Index, beginning of period = 100

USD/barrel

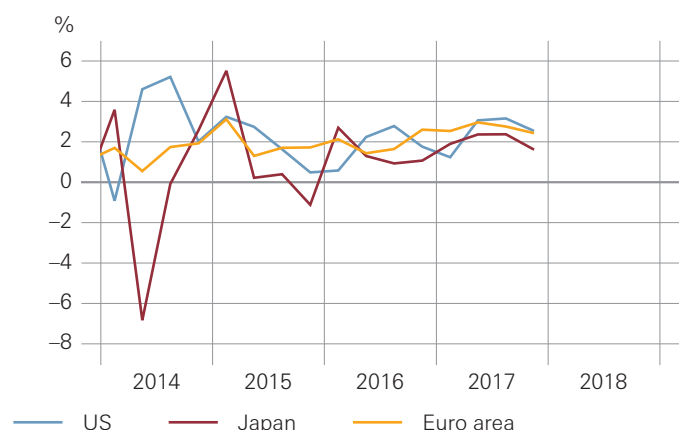


Source: Thomson Reuters Datastream

Chart 2.7

### REAL GDP: ADVANCED ECONOMIES

Change from previous period

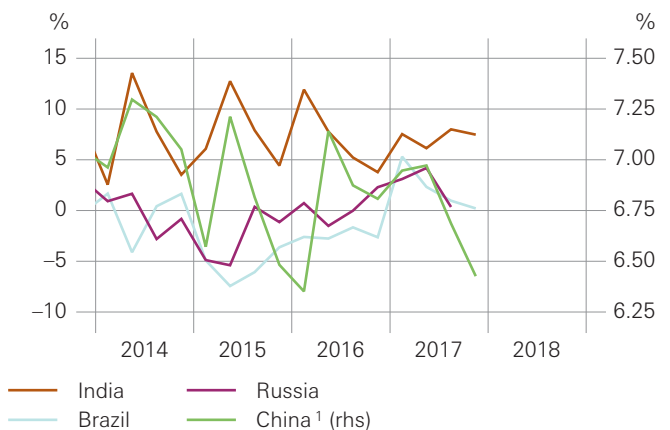


Source: Thomson Reuters Datastream

Chart 2.8

**REAL GDP: EMERGING ECONOMIES**

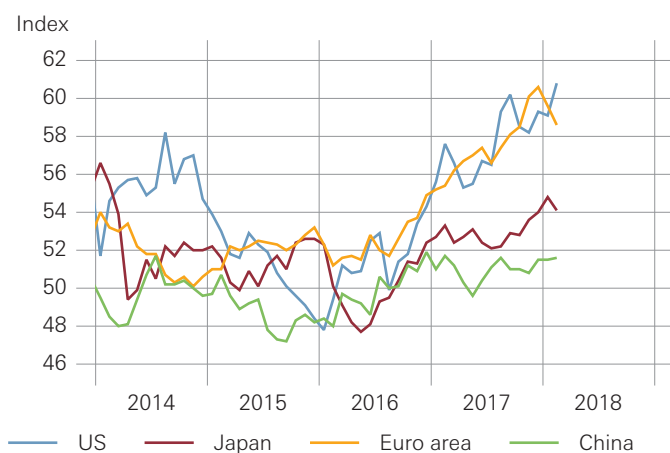
Change from previous period



1 Estimate: SNB.  
Source: Thomson Reuters Datastream

Chart 2.9

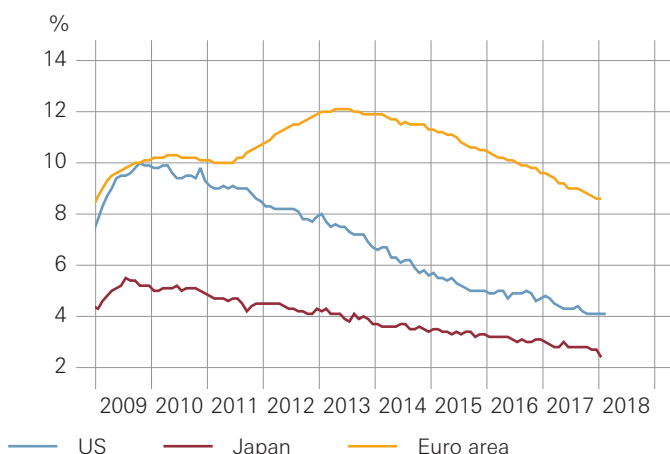
**PURCHASING MANAGERS' INDICES (MANUFACTURING)**



Source: Markit Economics Ltd 2009; all rights reserved

Chart 2.10

**UNEMPLOYMENT RATES**



Source: Thomson Reuters Datastream

**EURO AREA**

The economy in the euro area has fared well. Bolstered by a strong increase in exports and investment, GDP expanded by 2.4% in the fourth quarter, following on from the 2.8% posted in the previous quarter, this growth also still being broad-based across all member states. The result was an increase for 2017 as a whole of 2.5%, a ten-year high.

Industrial output continued to trend higher in recent months, with the purchasing managers' index for February reflecting further positive signs from manufacturing (cf. chart 2.9). The ongoing growth in employment contributed to very buoyant household confidence. Underpinned by favourable financing conditions, domestic demand is likely to remain dynamic. The positive economic outlook nevertheless remains subject to various risks, including political uncertainties such as the shape of future relations between the EU and the UK, and the formation of a government in Italy. The SNB has revised its forecasts for GDP growth in the euro area upwards slightly, to 2.3% for 2018 and 1.5% for 2019.

The trend in consumer price inflation in the euro area has been somewhat weaker in the past few months, and in February it stood at 1.2% (cf. chart 2.11). Core inflation continued to fluctuate around 1.0% (cf. chart 2.12). According to consumer surveys, short-term inflation expectations have risen in recent months. Medium-term inflation expectations derived from financial market indicators also heightened further but were still below the ECB's target level of just under 2%. Despite the improvement on the labour market, wage growth in the euro area remained modest.

The ECB left its key rates unchanged. As announced in October, it halved its monthly asset purchases to EUR 30 billion in January. The ECB intends to continue these purchases until at least the end of September 2018, and expects its key rates to remain unchanged well beyond that horizon.

## JAPAN

In Japan, GDP grew by 1.7% in 2017, the strongest increase since 2013. The upswing in export demand coupled with the accommodative financial conditions contributed to a solid trend in corporate investment, and there was further positive impetus from an economic stimulus package launched in summer 2016. However, growth fluctuated markedly from quarter to quarter, with GDP increasing by 1.6% in the fourth quarter (cf. chart 2.7). Aggregate economic capacity is well utilised, and at 2.4% in January unemployment was well below the estimated natural rate of 3.6%.

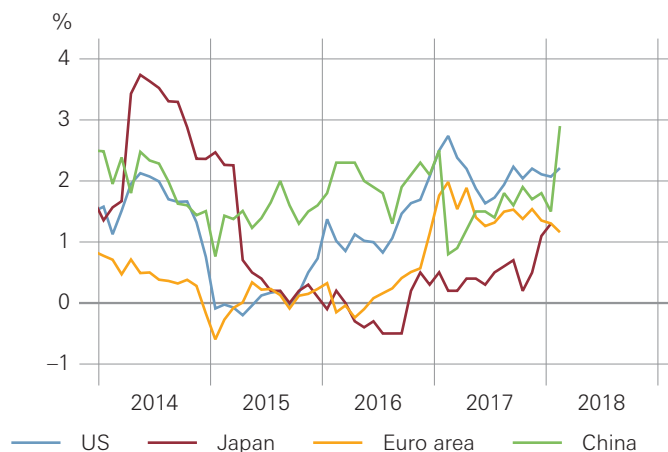
Solid global manufacturing and investment in infrastructure and tourism in the run-up to the 2020 Olympic Games in Tokyo are likely to keep the Japanese economy on track in the coming quarters. Furthermore, new tax incentives should encourage companies to significantly increase wages, which is likely to lend support to private consumption. The existing fiscal policy stimuli are set to taper off gradually, however. The SNB expects GDP growth to slightly exceed potential, forecasting 1.2% for 2018 and 0.7% for 2019 (cf. table 2.1).

Inflation momentum is improving gradually. The consumer price index excluding energy and food prices has risen in recent months and was up slightly year-on-year in January (cf. chart 2.12). The trimmed mean calculated by the Bank of Japan, which excludes the products with the greatest price changes, rose to 0.8%. There was also a marked increase in food prices. The overall rate of inflation thus rose to 1.4% in January (cf. chart 2.11). Mounting overall capacity utilisation coupled with higher oil prices are likely to see inflation rise further in the coming months. Meanwhile, the longer-term inflation expectations derived from company surveys trended sideways and remained significantly below the Japanese central bank's inflation target of 2%. Under these conditions, the Bank of Japan is maintaining its expansionary monetary policy.

Chart 2.11

### CONSUMER PRICES

Year-on-year change

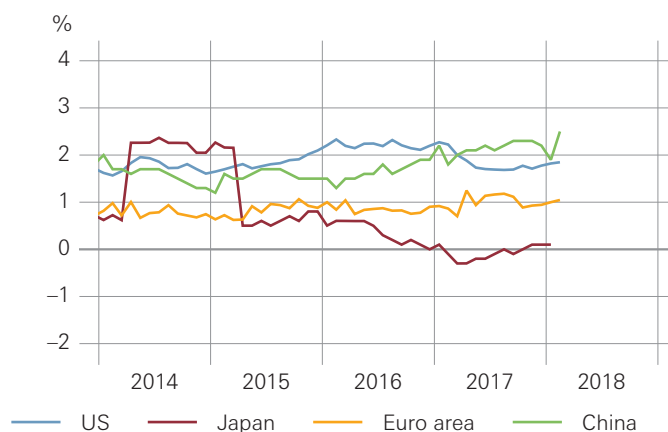


Source: Thomson Reuters Datastream

Chart 2.12

### CORE INFLATION RATES <sup>1</sup>

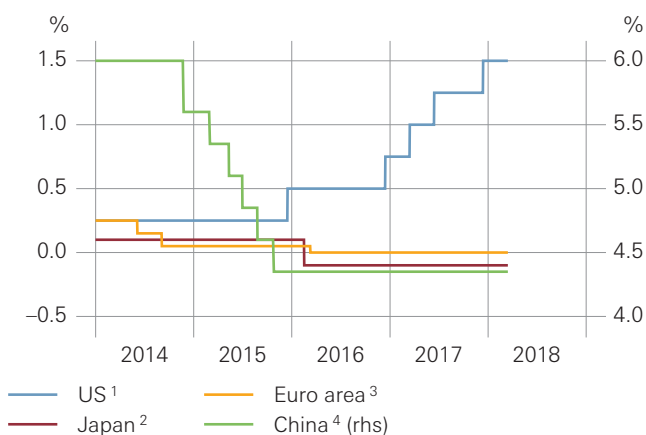
Year-on-year change



<sup>1</sup> Excluding food and energy.

Source: Thomson Reuters Datastream

Chart 2.13

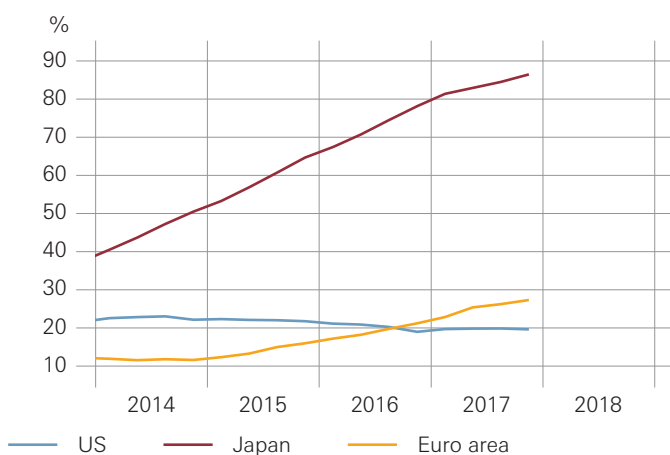
**OFFICIAL INTEREST RATES**

1 Federal funds rate (upper limit of target range). 3 Main refinancing rate.  
 2 Call money target rate. 4 One-year lending rate.  
 Source: Thomson Reuters Datastream

Chart 2.14

**MONETARY BASE**

Relative to GDP



Source: Thomson Reuters Datastream

**CHINA**

In China, GDP growth in the fourth quarter was less pronounced than in the previous quarter; the annualised average increase of 6.9% was on a par with 2016 (cf. chart 2.8). Looking back over the year, consumption was one of the drivers, while foreign trade made a positive contribution to GDP growth for the first time since 2014. Investment lost momentum, however.

The economic outlook for China remains essentially unchanged from the assessment three months ago. The purchasing managers' indices point to persistently robust growth in manufacturing and the services sector alike. Exports are also likely to continue to benefit from the healthy global economy. The gradual tightening in financial market regulation since the end of 2016 and the rise in capital market interest rates over the course of 2017 have led to a further slowdown in credit growth, however, and this is likely to curb activity in real estate and construction in particular. The SNB anticipates GDP growth of 6.5% for 2018. By 2020 the Chinese government aims to have doubled GDP from the level set in 2010, which implies a growth target averaging 6.3% per annum for the next three years.

There has been little change in the underlying inflation momentum. However, owing to a calendar effect of the Chinese New Year annual inflation rose to 2.9% in February, and core inflation to 2.5% (cf. charts 2.11 and 2.12). The People's Bank of China has left its reference rate unchanged since the most recent lowering at the end of 2015. Moreover, since January it has been granting a reduction in the minimum reserve rate of up to 150 basis points to commercial banks that increase their lending to small companies or agricultural enterprises. This measure is aimed at providing targeted support to businesses that have previously received insufficient loans.

**BRAZIL, INDIA AND RUSSIA**

India posted a strong increase in GDP in the fourth quarter, at 7.5%, and the dampening impact of the VAT reform implemented in July 2017 appears to have been digested. Russia and Brazil are showing firming signs of recovery from the deep recession, although GDP growth in Brazil was weaker than expected in the fourth quarter (cf. chart 2.8).

The positive trend is likely to continue this year. In India, a more expansionary economic policy will stimulate growth. In particular, weak, quasi-governmental credit institutions will be recapitalised and infrastructure improved. In Russia, private consumption is likely to benefit from low unemployment and rising real incomes. Moreover, the higher oil prices should encourage investment activity in the energy industry. In Brazil, the easing of monetary policy in recent quarters is acting as a stimulus.



# 3 Economic developments in Switzerland

In Switzerland, the recovery continued as expected. GDP grew in the fourth quarter, again significantly above its estimated potential rate. This was chiefly driven by manufacturing, which benefited from the favourable economic situation abroad.

On the back of solid growth, capacity utilisation in the economy as a whole increased further and the unemployment rate declined again through to February.

Leading indicators suggest that the economic recovery will continue. The SNB continues to forecast GDP growth of roughly 2% for the current year with a further gradual reduction in unemployment.

## OUTPUT AND DEMAND

The SNB takes a wide range of information into account when assessing the economic situation. According to this information, the favourable economic momentum continued in the fourth quarter.

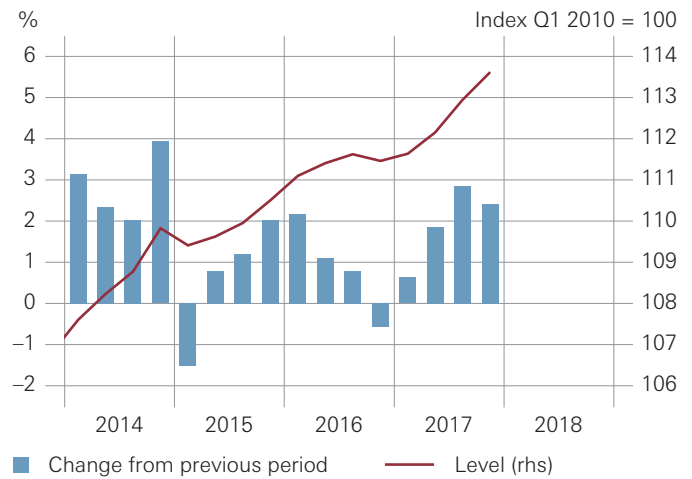
### Robust GDP growth in the fourth quarter of 2017

According to a provisional estimate by the State Secretariat for Economic Affairs (SECO), GDP growth remained robust at 2.4% in the fourth quarter (cf. chart 3.1).

With the fourth quarter estimate released, initial provisional annual figures for 2017 are also now available. These show that annual average GDP grew by 1.0%, a slightly slower pace than in the previous year (1.4%). This was due to a dip in growth in the second half of 2016 and first quarter of 2017.

Chart 3.1

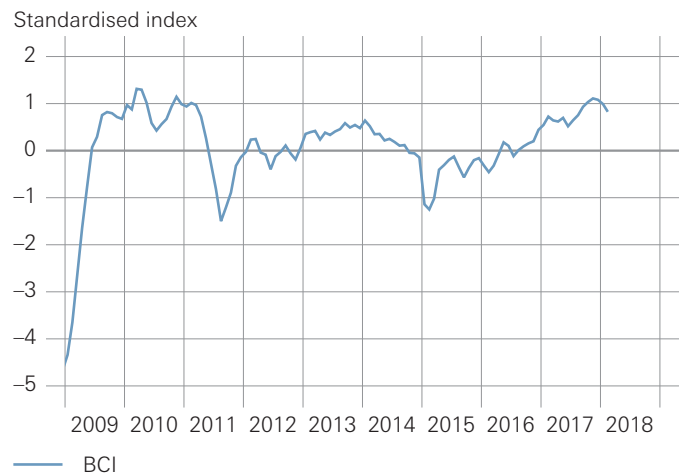
### REAL GDP



Source: State Secretariat for Economic Affairs (SECO)

Chart 3.2

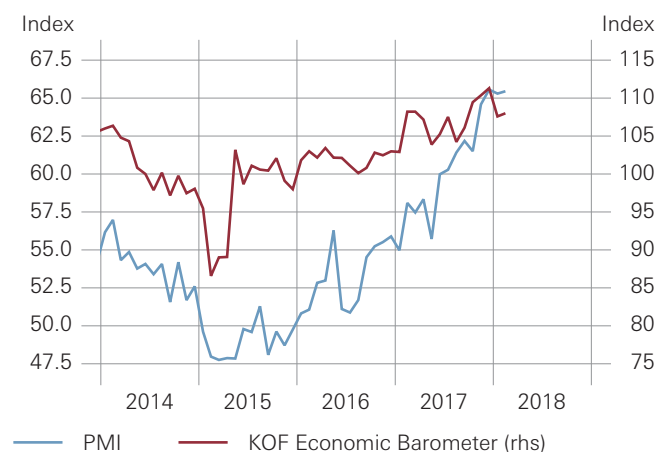
### SNB BUSINESS CYCLE INDEX



Source: SNB

Chart 3.3

### MANUFACTURING PMI AND KOF ECONOMIC BAROMETER



Sources: Credit Suisse, KOF Swiss Economic Institute

On the output side, annual growth for 2017 was driven primarily by manufacturing, where value added recorded its largest increase since 2011, up by 4.4%. Hospitality and financial services also registered above-average growth. In the other services industries, developments were generally subdued.

On the expenditure side, growth was broad based in 2017. Given the favourable global economy, goods exports, in particular, expanded vigorously. On the back of the improvement in utilisation, equipment investment also continued to rise.

### Positive economic indicators

In addition to GDP, other economic indicators are on a positive trend. In the fourth quarter of 2017, the Business Cycle Index calculated by the SNB, which offers a comprehensive overview of business cycle dynamics (cf. chart 3.2 and box on page 15), attained its highest level since 2010. The KOF Economic Barometer and the PMI have been at very high levels in recent months (cf. chart 3.3).

The discussions with company representatives conducted by the SNB's delegates for regional economic relations since the beginning of the year have confirmed the positive economic picture (cf. 'Business cycle signals', p. 28). According to the most recent talks, the positive momentum continued in the first quarter.

Table 3.1

### REAL GDP AND COMPONENTS

Growth rates on previous period in percent, annualised

	2014	2015	2016	2017	2016				2017			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Private consumption	1.3	1.8	1.5	1.2	2.0	0.9	1.2	3.3	0.1	0.6	1.5	0.8
Government consumption	2.2	1.2	1.6	0.9	2.9	1.8	1.0	1.7	-0.1	0.5	1.6	2.1
Investment in fixed assets	3.0	2.2	3.1	3.0	6.5	1.3	3.9	0.4	6.0	3.4	3.6	-1.4
Construction	3.2	1.6	0.9	1.9	1.7	-2.2	5.5	-1.6	2.3	4.1	1.0	4.5
Equipment	2.9	2.6	4.5	3.8	9.7	3.5	3.0	1.6	8.4	2.9	5.3	-4.9
Domestic final demand	1.9	1.8	1.9	1.6	3.3	1.1	1.9	2.3	1.7	1.3	2.1	0.4
Change in inventories <sup>1</sup>	-0.5	-0.3	-1.9	-0.9	-7.9	-4.3	5.6	-6.2	-5.0	7.3	-7.9	7.9
Total exports <sup>2</sup>	5.2	2.3	6.8	2.7	16.0	6.9	-10.0	14.1	1.2	-0.7	14.1	-7.3
Goods <sup>2</sup>	5.8	2.6	6.2	4.4	30.0	3.1	-14.6	-3.8	22.9	1.5	18.0	-5.6
Goods excluding merchanting <sup>2</sup>	4.0	0.7	6.6	5.1	7.8	4.4	4.7	-7.5	15.4	7.1	5.8	6.0
Services	4.0	1.7	7.9	-0.5	-7.1	15.0	-0.4	54.5	-28.5	-4.7	6.9	-10.3
Total imports <sup>2</sup>	3.3	3.2	4.7	2.2	2.8	-2.1	3.0	9.1	-8.2	15.1	-3.2	4.2
Goods <sup>2</sup>	1.7	0.0	4.4	3.6	4.1	0.7	1.6	-3.0	-2.0	22.3	-3.6	18.7
Services	6.8	9.6	5.4	-0.2	0.4	-7.1	5.7	34.7	-18.2	3.0	-2.7	-19.0
Net exports <sup>3</sup>	1.3	-0.1	1.6	0.5	7.1	4.5	-6.5	3.5	4.1	-6.6	8.9	-5.8
<b>GDP</b>	<b>2.4</b>	<b>1.2</b>	<b>1.4</b>	<b>1.0</b>	<b>2.2</b>	<b>1.1</b>	<b>0.8</b>	<b>-0.6</b>	<b>0.6</b>	<b>1.9</b>	<b>2.9</b>	<b>2.4</b>

1 Contribution to growth in percentage points (including statistical discrepancy).

2 Excluding valuables (non-monetary gold and other precious metals, precious stones and gems as well as works of art and antiques).

3 Contribution to growth in percentage points.

Source: SECO



## SNB Business Cycle Index

The GDP growth rate, which is published every quarter, is the most important measure of the economic growth of an economy. However, the GDP figure also captures elements that are not directly linked to the development of an economy, for example public sector spending and value added in the healthcare industry. Furthermore, short-term special effects can occur such as extraordinary weather events; these affect GDP although they are not related to the business cycle.

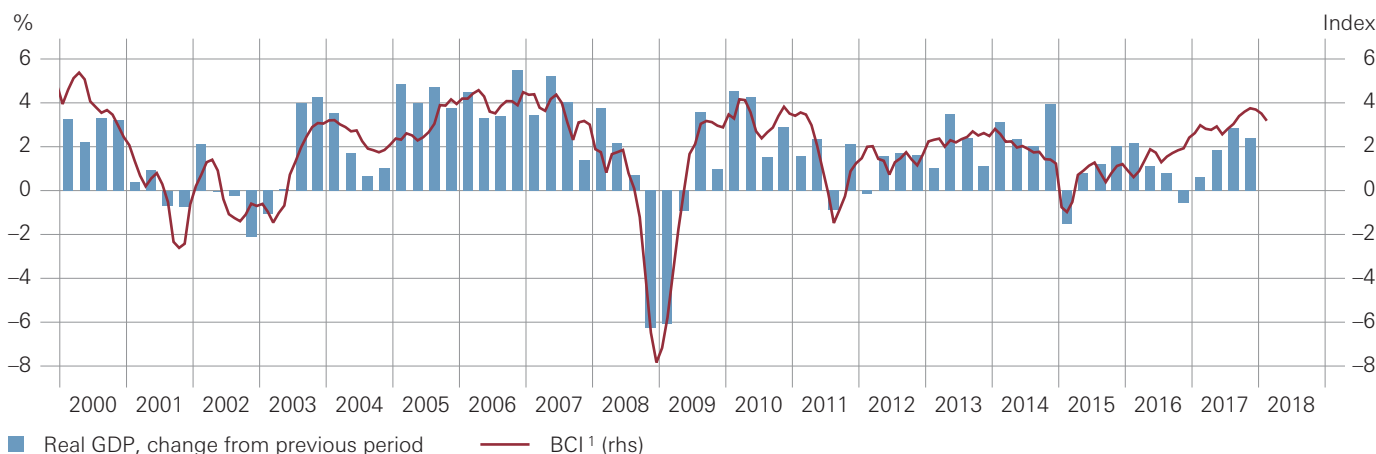
Thus, for a comprehensive assessment of the situation, other economic variables besides GDP need to be taken into account. So-called factor models are primarily used to assess such variables. These are econometric approaches that measure the co-movement of a number of indicators.

The Business Cycle Index (BCI) presented here takes this approach. It is based on a dynamic factor model and thus assumes that all indicators for the economy are driven by an underlying momentum, which can be represented by a few factors.

The data set used for the BCI is based on around 650 indicators. They include official statistics, business and household surveys, financial market variables and foreign indicators. These comprise not just monthly indicators, but also others only available on a quarterly basis. The model is therefore designed to allow for different observation frequencies. The resulting economic indicator provides a good general reflection of the GDP growth cycle, but may deviate from quarter to quarter (cf. chart).

A more detailed description of the methodology can be found in Galli, A. (2017), *Which indicators matter? Analysing the Swiss business cycle using a mixed-frequency dynamic factor model*, SNB Working Papers, 8/2017.

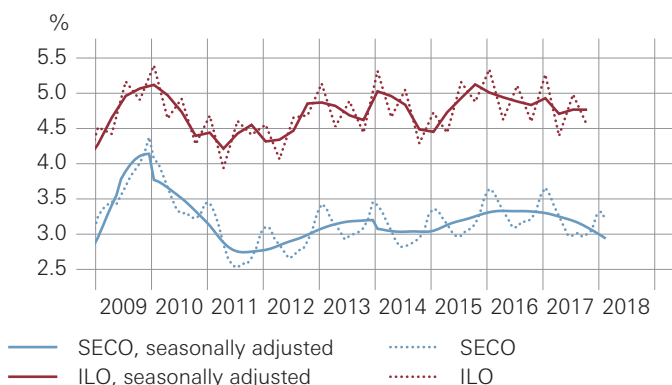
## SNB BUSINESS CYCLE INDEX



<sup>1</sup> Normalised to GDP growth since 2002.  
Source: SNB

Chart 3.4

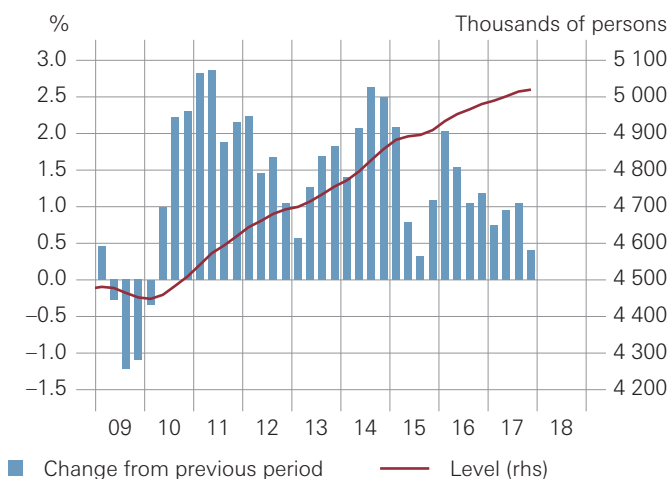
### UNEMPLOYMENT RATE



SECO: Unemployed registered with the regional employment offices, as a percentage of the labour force according to the 2000 and 2010 censuses and the 2012 to 2014 structural surveys.  
 ILO: Unemployment rate based on International Labour Organization definition.  
 Sources: Swiss Federal Statistical Office (SFSO), SECO

Chart 3.5

### EMPLOYED PERSONS

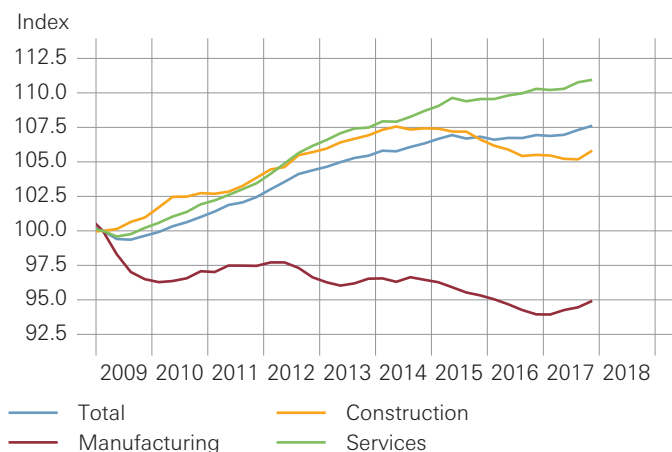


Source: SFSO; seasonal adjustment: SNB

Chart 3.6

### FULL-TIME EQUIVALENT JOBS

Beginning of period = 100



Source: SFSO; seasonal adjustment: SNB

## LABOUR MARKET

The recovery on the labour market continued. Unemployment has receded further in the past few months, and the number of employed persons has registered moderate growth.

### Ongoing decline in unemployment

Excluding seasonal fluctuations, the number of people registered as unemployed with regional employment offices stood at 132,000 at the end of February. Jobless figures thus declined further. The seasonally adjusted unemployment rate published by SECO stood at 2.9% at the end of February (cf. chart 3.4).

In addition, the Swiss Federal Statistical Office (SFSO) calculates unemployment figures in line with the International Labour Organization (ILO) definition, based on data provided by the Swiss Labour Force Survey (SLFS), a household survey conducted quarterly. It includes people who are unemployed (although looking for work) but not registered, or no longer registered, with the regional employment offices. The SFSO unemployment rate calculated in accordance with the ILO definition is therefore higher than the one published by SECO. In the fourth quarter of 2017, the seasonally adjusted unemployment rate amounted to 4.8%, which was below the peak reached at the end of 2015. It is thus similar to SECO's unemployment rate.

### Moderate employment growth

The Employment Statistics (ES), which are also based on SLFS data, measure the number of employed persons on the household side. These statistics suggest that, having grown close to its long-term average in the previous quarters, the number of gainfully employed persons rose only slightly in the fourth quarter (cf. chart 3.5).

The national job statistics, which are based on a survey of firms, measure employment on the company side. They thus complement the ES, especially with regard to developments at industry level. According to these statistics, the moderate growth in the number of full-time equivalent positions remained constant in the fourth quarter (cf. chart 3.6). Both in services and in manufacturing, the modest increase in the number of jobs continued. In construction, employment climbed significantly again for the first time in three years.

## CAPACITY UTILISATION

### Output gap narrows further

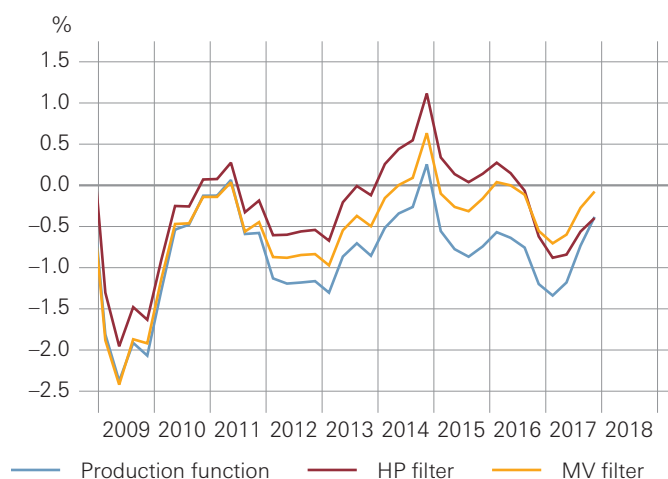
The output gap, which is defined as the percentage deviation of actual GDP from estimated aggregate potential output, shows how well the production factors in an economy are being utilised. The negative output gap has narrowed further recently. Potential output as estimated by means of a production function showed an output gap of  $-0.4\%$  for the fourth quarter, compared with  $-0.7\%$  in the previous quarter. Estimates using other methods to establish potential output (Hodrick-Prescott filter and multivariate filter) confirm that the gap has narrowed considerably in recent quarters (cf. chart 3.7).

### Surveys suggest normal utilisation

According to the KOF survey, utilisation of technical capacity in manufacturing increased to  $84.0\%$  in the fourth quarter. Owing to this significant increase, capacity utilisation in manufacturing slightly exceeded its long-term average for the first time since 2011 (cf. chart 3.8). Machine utilisation in construction recorded a slight rise, thus remaining above its long-term average (cf. chart 3.9). As for the different services industries, the surveys point to an average level of capacity utilisation. Overall, these indicators of utilisation thus show a more positive picture than GDP-based measures of the output gap.

Chart 3.7

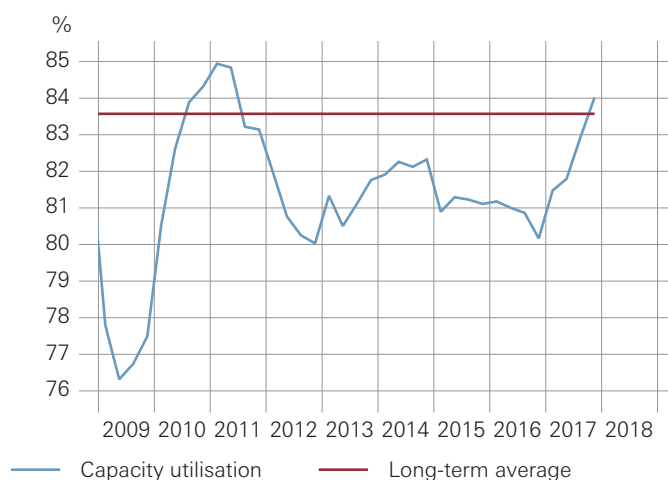
### OUTPUT GAP



Source: SNB

Chart 3.8

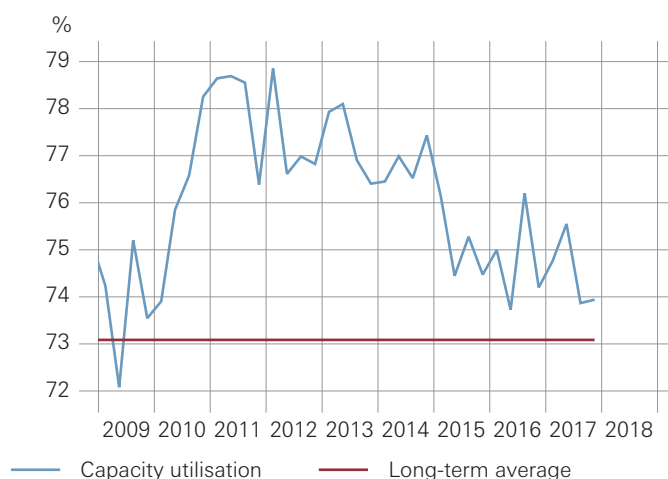
### CAPACITY UTILISATION IN MANUFACTURING



Source: KOF Swiss Economic Institute

Chart 3.9

### CAPACITY UTILISATION IN CONSTRUCTION

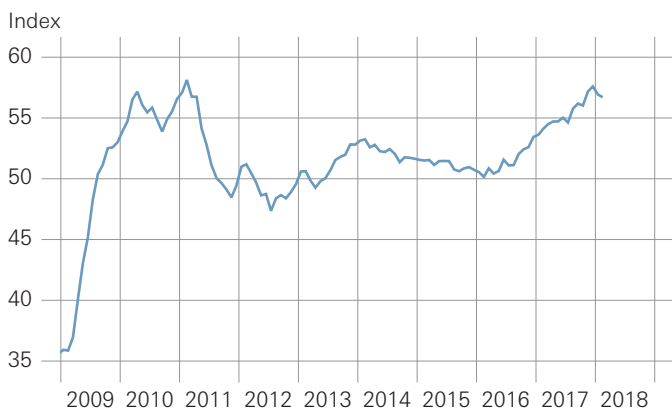


Source: KOF Swiss Economic Institute

Chart 3.10

### MANUFACTURING PMI ABROAD

Export-weighted, 27 countries

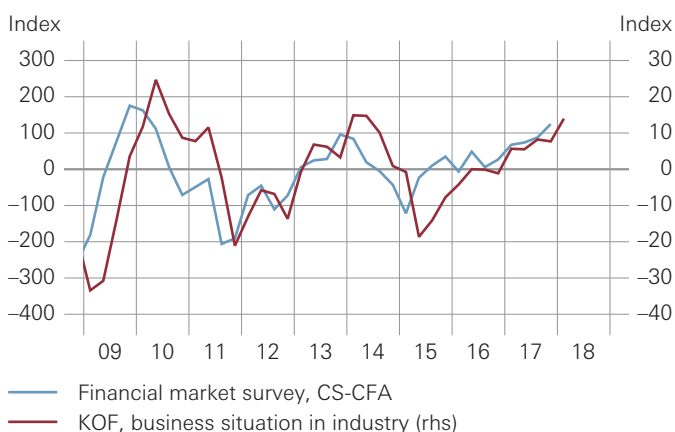


Sources: International Monetary Fund – Direction of Trade Statistics (IMF – DOTs), SNB, Thomson Reuters Datastream

Chart 3.11

### ECONOMIC OUTLOOK

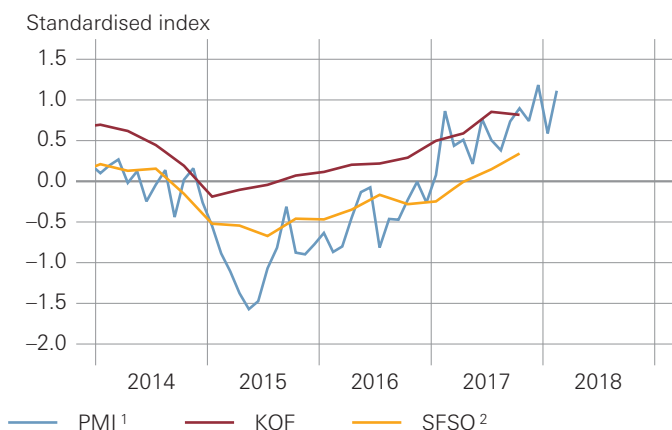
Next 6 months



Sources: Chartered Financial Analyst Society Switzerland (CFA), Credit Suisse, KOF Swiss Economic Institute

Chart 3.12

### EMPLOYMENT LEADING INDICATORS



1 Monthly figures.

2 Seasonal adjustment: SNB.

Sources: Credit Suisse, KOF Swiss Economic Institute, SFSO

### OUTLOOK

In view of the favourable global economic environment, the outlook for Switzerland remains positive. Accordingly, the currently available indicators paint an optimistic picture for the short term. The export-weighted PMI abroad is close to the peak values reached in 2010 and 2011 (cf. chart 3.10). Export-oriented industries in Switzerland, in particular, benefit from the stimulus from abroad. Manufacturing companies are thus optimistic about the future (cf. chart 3.11). Consequently, activity in the services industries is also likely to pick up momentum. On the labour market too, there are signs of further improvement (cf. chart 3.12).

The SNB expects positive and broad-based economic growth in Switzerland in the medium term, too. This favourable outlook is based on a number of factors. First, according to the baseline scenario (cf. chapter 2), global economic developments will continue to stimulate the Swiss economy. Second, despite the recent appreciation in the Swiss franc, the exchange rate situation has eased considerably year-on-year. Third, the solid population growth is likely to persist for the time being. Fourth, low interest rates are supporting this growth.

For 2018, the SNB continues to expect GDP growth of around 2%. Growth in exports and equipment investment, in particular, is likely to remain dynamic. As usual, this forecast is subject to major uncertainties, mostly in connection with developments abroad (cf. chapter 2).

## 4

# Prices and inflation expectations

Inflation measured in terms of consumer prices had weakened slightly by the start of 2018 and was thus only marginally above the annual inflation rate of the previous year. The core inflation rates were again a little below the unadjusted rates.

Inflation expectations are in the low positive range, thereby remaining consistent with the objective of price stability, which the SNB equates to a rise in consumer prices of less than 2% per year.

## CONSUMER PRICES

### Inflation slower

The annual inflation rate as measured by the national consumer price index (CPI) slowed slightly in the first two months of 2018. It stood at 0.6% in February, down from 0.8% in December 2017 (cf. table 4.1). Import goods still made a greater contribution to inflation than domestic goods, despite the share of import goods amounting to only about one-quarter of the CPI (cf. chart 4.1).

### Decline in inflation for imported goods and services

In February, the prices of imported goods and services were 1.8% above their year-back level. Compared to December, however, they have declined significantly. Contributing factors were oil products as well as other imported goods and services.

### Stable inflation for domestic goods and services

The inflation rate for domestic goods remained unchanged at 0.3% in January and February. The contribution made by the individual components (goods, housing rents, other services) was, in February, also almost the same as in December (cf. chart 4.2). Influenced by falling prices for hospital services, however, the inflation rate for public services fell slightly further into negative territory (cf. table 4.1).

Table 4.1

### SWISS CONSUMER PRICE INDEX AND COMPONENTS

Year-on-year change in percent

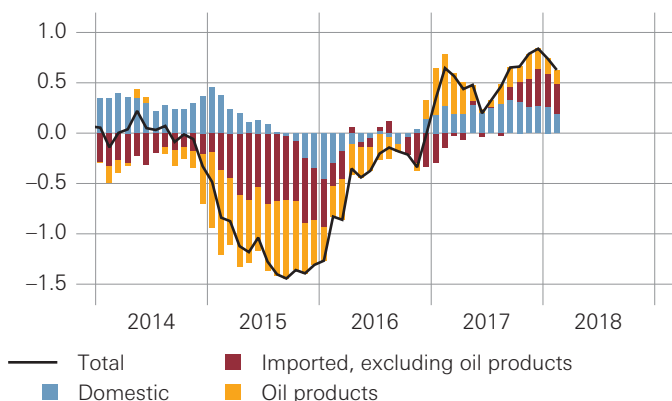
	2017	2017				2017	2018	
		Q1	Q2	Q3	Q4	December	January	February
<b>Overall CPI</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.6</b>
Domestic goods and services	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3
Goods	-0.2	0.0	-0.3	-0.3	-0.1	0.1	0.5	0.0
Services	0.5	0.4	0.4	0.6	0.5	0.4	0.3	0.3
Private services excluding housing rents	0.3	0.2	0.4	0.3	0.4	0.5	0.5	0.6
Housing rents	1.1	1.1	1.1	1.3	0.9	0.7	0.7	0.6
Public services	-0.1	-0.4	-0.4	0.1	0.1	-0.2	-1.0	-0.9
Imported goods and services	1.2	1.3	0.6	0.8	2.0	2.4	2.0	1.8
Excluding oil products	0.2	-0.7	-0.1	0.2	1.3	1.8	1.6	1.4
Oil products	8.8	17.3	6.1	5.5	6.8	6.7	4.9	4.6

Sources: SFSO, SNB

Chart 4.1

**CPI: DOMESTIC AND IMPORTED GOODS AND SERVICES**

Year-on-year change in CPI in percent. Contribution of individual components, in percentage points.

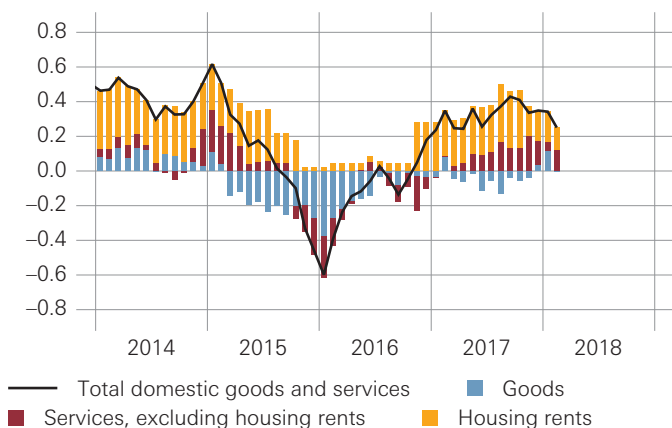


Sources: SFSO, SNB

Chart 4.2

**CPI: DOMESTIC GOODS AND SERVICES**

Year-on-year change in domestic CPI in percent. Contribution of individual components, in percentage points.

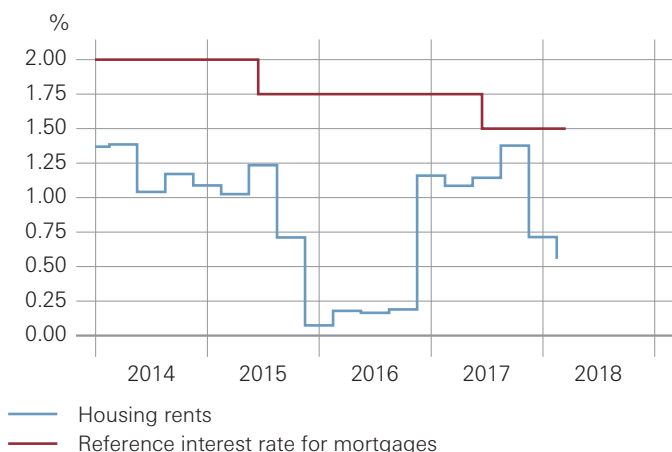


Sources: SFSO, SNB

Chart 4.3

**HOUSING RENTS**

Year-on-year change



Sources: Federal Office for Housing (FOH), SFSO

**Slight decline in inflation for rents**

The data on housing rents is collected on a quarterly basis in February, May, August and November. Although housing rents were at the same level in February 2018 as they had been in November 2017, base effects caused the rate of change to fall slightly below that of the previous year.

The change in rents between November and February is in line with the reference interest rate, which is based on the average of current mortgage interest rates, and has been at 1.5% since June 2017 (cf. chart 4.3).

**Core inflation rates below CPI inflation rate**

Similar to the CPI annual inflation rate, core inflation rates have declined slightly since the beginning of the year (cf. chart 4.4). The SFSO core inflation rate 1 (SFSO1) stood at 0.5% in February, while the SNB's trimmed mean (TM15) came in at 0.4%. Both measures of core inflation were thus slightly below the annual CPI inflation rate of 0.6%.

The core inflation rates are based on the prices of a reduced basket of goods and services. When calculating SFSO1, fresh and seasonal products as well as energy and fuel are excluded. TM15 excludes the products with the most extreme price changes every month (15% at either end of the distribution curve of annual rates of change in product prices).

**PRODUCER AND IMPORT PRICES**

**Stabilisation of producer and import price inflation**

In January 2018, the index of producer and import prices was 1.8% higher than its year-back value, as had already been the case in November and December 2017. While producer price inflation continued to rise gently with the economic recovery, import price inflation was down slightly. The effects of the weakening of the Swiss franc registered in summer 2017 seem to be slowly diminishing with regard to import prices. The inflation rate for import prices, however, remains above the rate for producer prices.

## INFLATION EXPECTATIONS

### Inflation expectations in price stability territory

Inflation expectations continue to be in the positive range, thus remaining consistent with price stability, which the SNB equates to a rise in the CPI of less than 2% per year.

### Short-term expectations somewhat higher than in the previous quarter

The quarterly survey of households conducted by SECO shows that, in January 2018, half of the respondents anticipated an increase in prices over the next 12 months (cf. chart 4.6), 40% expected prices to remain the same, and 10% expected prices to go down. These figures have changed only slightly from the previous quarter and suggest unchanged to slightly higher prices overall.

Similar to previous months, somewhat more than half of the analysts questioned in February for the joint monthly financial market survey by CFA Society Switzerland and Credit Suisse expected inflation rates to rise in the next six months. Almost none of the respondents anticipated that inflation rates would go down.

Talks held by the SNB's delegates for regional economic relations with companies from all sectors present a similar picture. On average, in the first quarter, the company representatives expected the annual inflation rate to come in at 0.7% in six to twelve months, compared to 0.6% in the previous quarter.

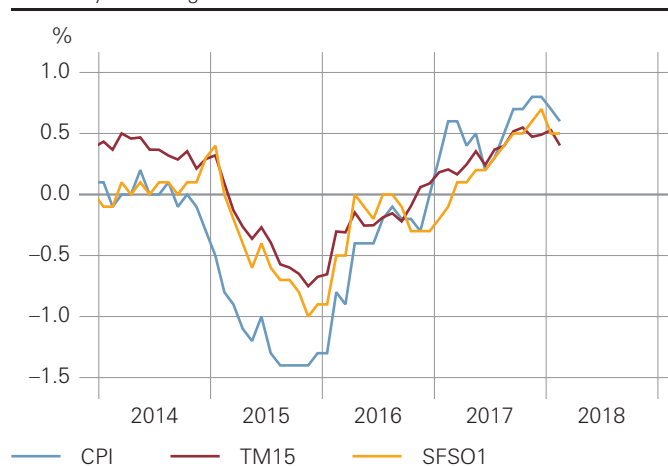
### Longer-term expectations slightly above short-term expectations

Longer-term inflation expectations were again slightly higher than short-term inflation expectations. Company representatives interviewed by the SNB's delegates in the first quarter put the rate of inflation in three to five years at 1.1%, down from the 1.2% predicted in the previous quarter.

Chart 4.4

### CORE INFLATION RATES

Year-on-year change

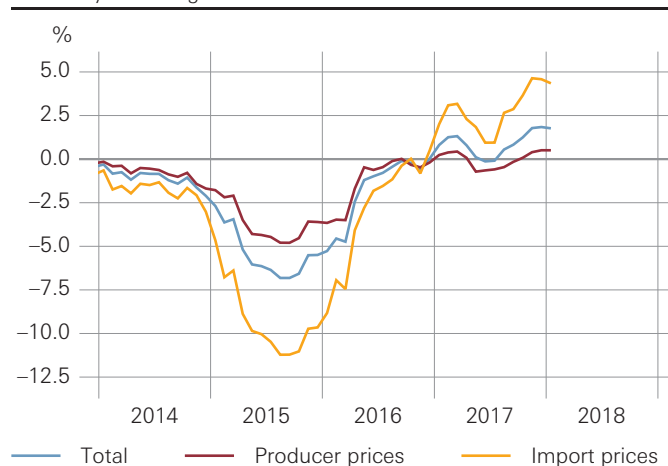


Sources: SFSO, SNB

Chart 4.5

### PRODUCER AND IMPORT PRICES

Year-on-year change

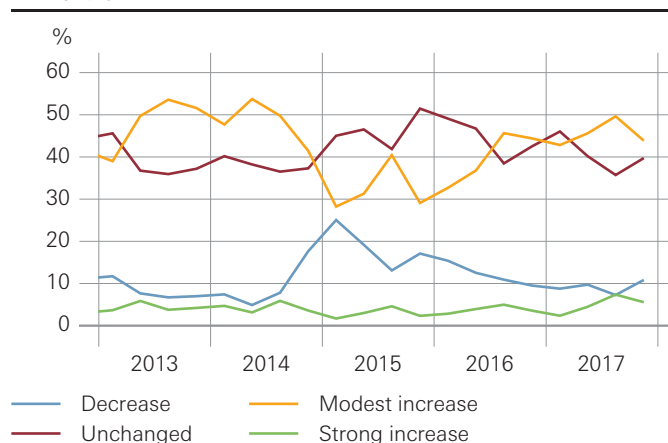


Source: SFSO

Chart 4.6

### PRICE EXPECTATIONS

Survey of households on expected movements in prices for coming 12 months



Sources: SECO, SNB



# 5

## Monetary developments

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At its monetary policy assessment of mid-December 2017, the SNB left its expansionary monetary policy unchanged. This means that, over the last three months, monetary policy has continued to be based on the negative interest rate on sight deposits held at the SNB and on the SNB's willingness to intervene in the foreign exchange market as necessary.

Money market interest rates remained at the same level as the SNB's negative interest rate, while long-term interest rates rose in line with developments on the global finance markets. Stock market prices declined.

The Swiss franc gained in value against the US dollar. With short-term interest rates virtually unchanged, monetary conditions have therefore tightened somewhat.

As in the previous quarter, the M3 monetary aggregate and bank loans have grown at a moderate pace.

### SUMMARY OF MONETARY POLICY SINCE THE LAST ASSESSMENT

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#### **Expansionary monetary policy remains unchanged**

The SNB confirmed its expansionary monetary policy stance at its assessment on 14 December 2017. It decided to leave the target range for the three-month Libor unchanged at between  $-1.25\%$  and  $-0.25\%$ . It also left unchanged, at  $-0.75\%$ , the interest rate on sight deposits held by banks and other financial market participants at the SNB which exceed a given threshold. Furthermore, the SNB reaffirmed that it will remain active in the foreign exchange market as necessary, while taking the overall currency situation into consideration.

The negative interest rate and the SNB's willingness to intervene in the foreign exchange market serve to ease upward pressure on the Swiss franc. The SNB's monetary policy thus helps to stabilise price developments and support economic activity.

#### **Sight deposits at SNB virtually unchanged**

Since the monetary policy assessment of December 2017, total sight deposits held at the SNB have remained virtually unchanged. In the week ending 9 March 2018 (last calendar week before the mid-March assessment), they stood at the same level as in the last calendar week preceding the mid-December 2017 assessment, namely at CHF 575.9 billion. Between the assessments in mid-December 2017 and mid-March 2018, sight deposits at the SNB averaged CHF 574.8 billion. Of this amount, CHF 467.7 billion was accounted for by the sight deposits of domestic banks and the remaining CHF 107 billion by other sight deposits.

#### **High level of banks' surplus reserves**

Statutory minimum reserves averaged CHF 16.1 billion between 20 November 2017 and 19 February 2018. Overall, banks exceeded the minimum reserve requirement by an average of some CHF 458.4 billion (previous period: CHF 459.3 billion). Banks' surplus reserves have thus hardly changed.



## MONEY AND CAPITAL MARKET INTEREST RATES

### Money market interest rates stable

As in previous quarters, money market interest rates have remained largely unchanged in the past three months (cf. chart 5.1). Interest rates on both secured (SARON) and unsecured (three-month Libor) money market transactions consistently tracked close to the interest rate on sight deposits held at the SNB, which has been set at  $-0.75\%$  since January 2015.

### Increase in long-term interest rates

Capital market interest rates have risen since the monetary policy assessment in December 2017. These movements are largely in line with developments in long-term interest rates abroad. The yields on ten-year Confederation bonds have been back in positive territory since mid-January; in mid-March they stood at  $0.1\%$ , compared to  $-0.1\%$  at the time of the last monetary policy assessment.

### Steeper yield curve

The yield curve for Confederation bonds steepened somewhat between mid-December and mid-March (cf. chart 5.2), due to increasing long-term yields at a time of stable short-term interest rates. Yields on Swiss Confederation bonds with maturities under nine years remained in negative territory.

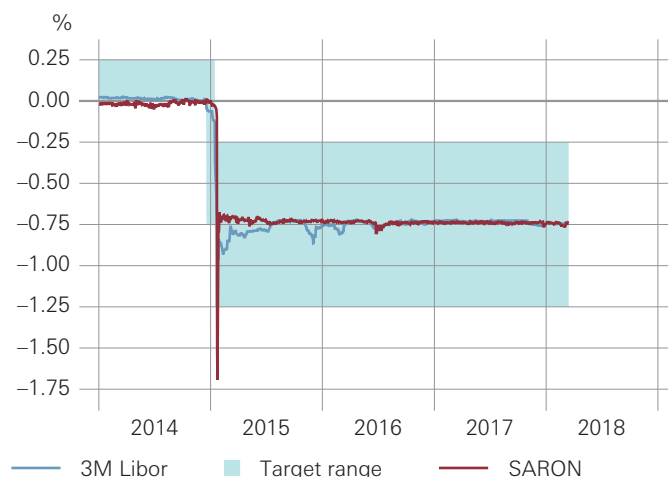
### Long-term real interest rates low

In March 2018, the estimated long-term real interest rate persisted at a low, positive level (cf. chart 5.3). The slight increase over December 2017 is due to the rise in long-term nominal interest rates, since inflation expectations have hardly changed over the same period.

The real interest rate estimate is based on the development of the ten-year yields on Confederation bonds and inflation expectations for the same time horizon estimated with a vector autoregressive (VAR) model.

Chart 5.1

### MONEY MARKET RATES

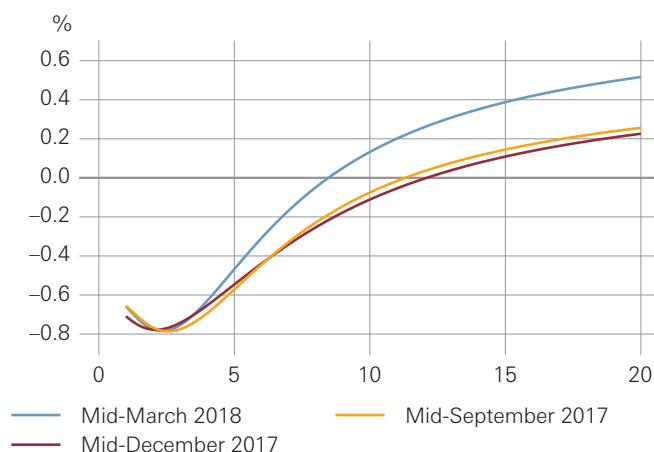


Sources: Bloomberg, SIX Swiss Exchange Ltd, SNB

Chart 5.2

### TERM STRUCTURE OF CONFEDERATION BONDS

Years to maturity (hor. axis); Nelson-Siegel-Svensson method

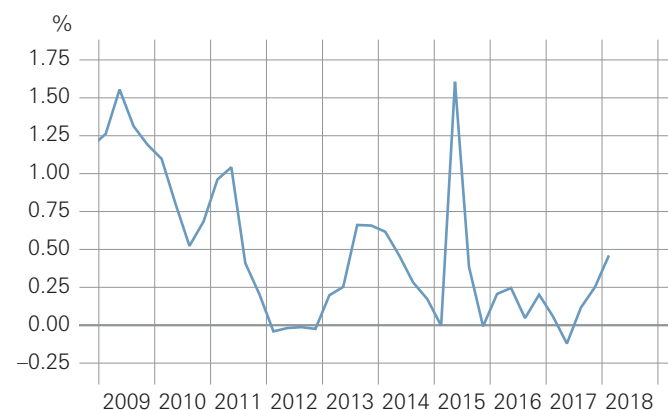


Source: SNB

Chart 5.3

### ESTIMATED REAL INTEREST RATE

10-year Confederation bonds  
Inflation expectations estimated with VAR model



Source: SNB

Chart 5.4

**EXCHANGE RATES**



Source: SNB

Chart 5.5

**NOMINAL EXTERNAL VALUE OF SWISS FRANC**

December 2000 = 100

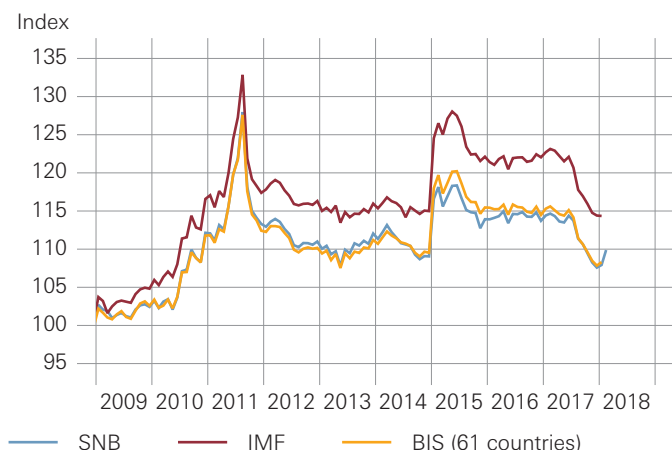


Source: SNB

Chart 5.6

**REAL EXTERNAL VALUE OF SWISS FRANC**

December 2000 = 100



Sources: Bank for International Settlements (BIS), IMF, SNB

**EXCHANGE RATES**

**Swiss franc gains against US dollar**

Since the monetary policy assessment in December 2017, the Swiss franc has gained in value against the US dollar by around 4% (cf. chart 5.4). This appreciation occurred against a backdrop of general US dollar weakness, which became more pronounced at the end of January following statements by the US Treasury Secretary about the advantages of a weak US dollar for the American economy. At times, the USD/CHF exchange rate declined to its lowest level since mid-2015.

**Fluctuations in Swiss franc exchange rate to euro**

Initially, the Swiss franc depreciated somewhat against the euro. At times in mid-January, the price of the euro was CHF 1.18, the highest value since the discontinuation of the minimum exchange rate. Thereafter, however, the Swiss franc strengthened again. This appreciation occurred against a backdrop of growing market uncertainty, which was also reflected in share price performance. In mid-March, one euro cost CHF 1.17, which was practically the same level as at the time of the monetary policy assessment in December.

**Slight increase in Swiss franc's trade-weighted external value**

On a nominal trade-weighted basis, the Swiss franc has increased by more than 1% since mid-December (cf. chart 5.5). This was mainly due to its marked appreciation against the US dollar.

**Real external value of Swiss franc still at a high level**

Since autumn 2017, the real trade-weighted exchange rate index calculated by the SNB has been at roughly the same level as before the discontinuation of the minimum exchange rate. It thereby remains above its long-term average. The same is true for the indices calculated by the Bank for International Settlements (BIS) and the International Monetary Fund (IMF) (cf. chart 5.6).

## SHARE AND REAL ESTATE PRICES

### Share prices decline

Following the monetary policy assessment in December 2017, the Swiss Market Index (SMI) initially continued along its upward path, and even attained a new all-time high on 9 January. However, the end of January and beginning of February saw a significant slump in global share prices (cf. chart 5.7). This was partially due to investor fears that inflation in the US could increase more strongly than previously anticipated. After a partial recovery in the second half of February, share prices declined again temporarily following the announcement of US import duties on steel and aluminium imports.

### Sharp increase in market uncertainty

The volatility index derived from options on SMI futures contracts is used to gauge uncertainty on the stock market. Following the considerable slump in share prices at the end of January and beginning of February, the volatility index doubled. A major part of this upsurge was lost in the second half of February, after which, however, the index temporarily recorded another substantial increase.

### Significant differences at times between SPI sub-indices since beginning of year

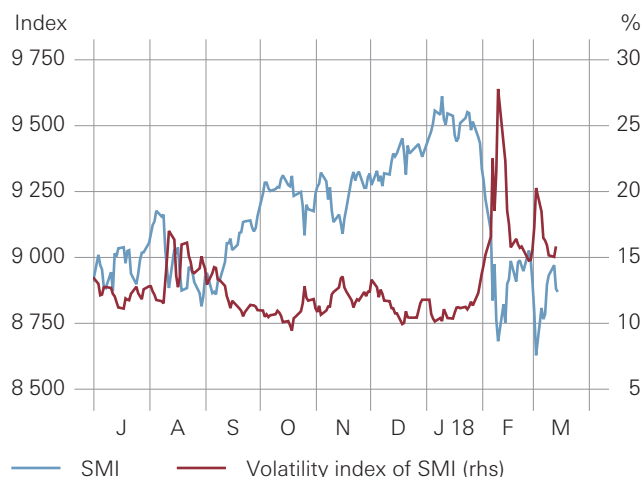
The main sub-indices of the Swiss Performance Index (SPI) moved on largely parallel paths during the second half of 2017 (cf. chart 5.8). However, since the beginning of 2018, the differences between them have grown significantly. The industrials and financials sub-indices recorded above-average gains in the first half of January, before suffering the most substantial price losses at the beginning of both February and March.

### Slight rise in residential real estate prices

Overall, the available price indices for residential property rose slightly in the fourth quarter, with prices of privately owned apartments increasing more strongly than those of single-family houses. The prices of apartment buildings (residential investment property) also rose somewhat (cf. chart 5.9). The transaction prices in all three segments were generally at a historically high level, while remaining virtually unchanged since the end of 2015.

Chart 5.7

### SHARE PRICES AND VOLATILITY

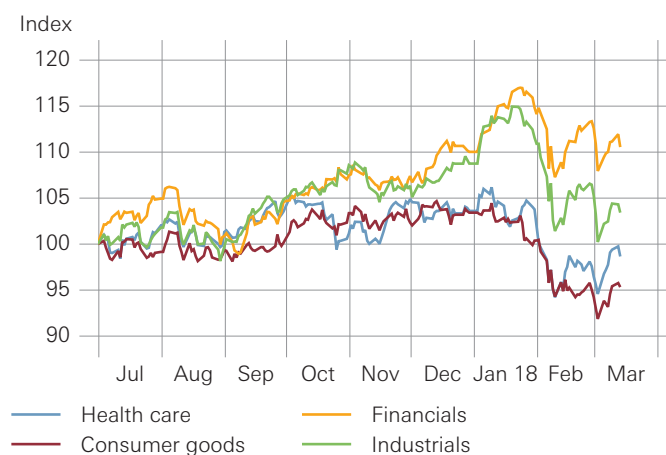


Sources: Bloomberg, Thomson Reuters Datastream

Chart 5.8

### SELECTED SPI SECTORS

1 July 2017 = 100

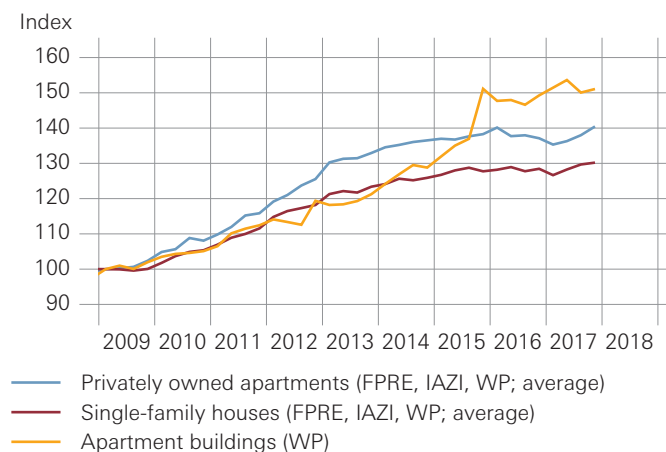


Source: Thomson Reuters Datastream

Chart 5.9

### HOUSING TRANSACTION PRICES

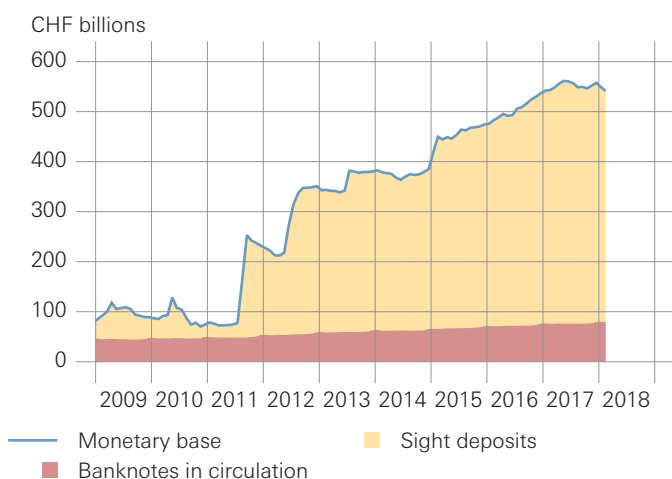
Nominal (hedonic), beginning of period = 100



Sources: Fahländer Partner Raumentwicklung (FPRE), IAZI, Wüest Partner (WP)

Chart 5.10

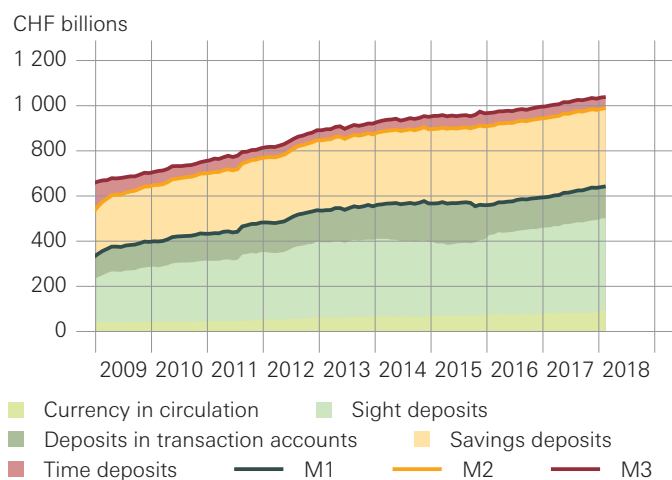
**MONETARY BASE**



Source: SNB

Chart 5.11

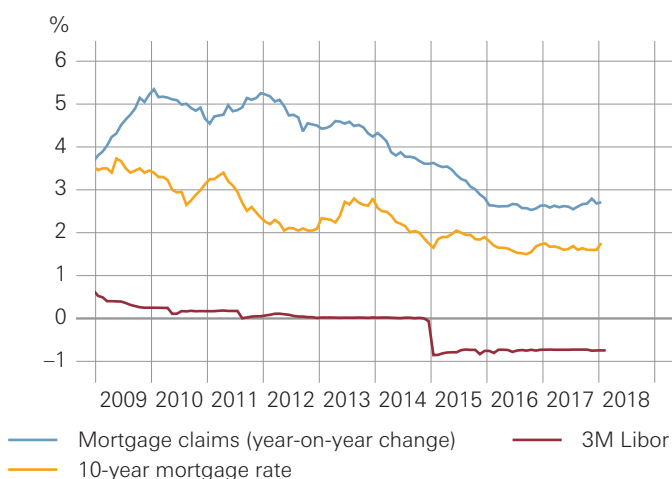
**MONETARY AGGREGATES**



Source: SNB

Chart 5.12

**MORTGAGE CLAIMS AND INTEREST RATES**



Sources: Bloomberg, SNB

**MONETARY AND CREDIT AGGREGATES**

**Monetary base largely unchanged**

The monetary base, which consists of banknotes in circulation and sight deposits of domestic banks held at the SNB, has remained largely stable in recent quarters, and averaged CHF 541.3 billion in February 2018 (cf. chart 5.10).

The sight deposits of domestic banks fluctuated slightly, while declining overall by CHF 12.6 billion between November 2017 and February 2018. However, the same period saw an increase in the other sight deposits held at the SNB, with the result that total sight deposits at the SNB remained largely unchanged.

**Stable growth of M3 money aggregate**

The M3 money aggregate (which comprises cash in circulation, sight deposits and transaction accounts, plus savings and time deposits) continued along its path of moderate growth; in February, it stood at 3.7% above its year-back level. This growth was mainly due to an increase in the sight deposits, with the more narrowly defined M1 aggregate rising more steeply than the M2 and M3 aggregates (cf. table 5.1).

The M1, M2 and M3 monetary aggregates are different measurements of the money supply held by the public (cf. chart 5.11). Their movements are currently occurring independently of fluctuations in the monetary base, since banks have a very large amount of liquidity; that is to say, sight deposits held by banks significantly exceed the statutory minimum reserve requirement.

**Stable lending growth**

Banks' mortgage claims, which make up roughly 85% of all bank lending to domestic customers, recorded a 2.6% year-on-year increase in the fourth quarter of 2017 (cf. table 5.1). Between 2012 and 2015, growth in these claims had halved, and since then has remained more or less stable (cf. chart 5.12). While mortgage interest rates initially rose slightly, they continued to persist close to their all-time lows.

In the fourth quarter, the volume of other loans was 2.0% above its year-back level. Aside from short-term fluctuations, the trend line for other loans has remained flat since the onset of the financial crisis in 2008. The decline in unsecured other loans recorded over this period has been largely offset by the rise in secured other loans (cf. chart 5.13).

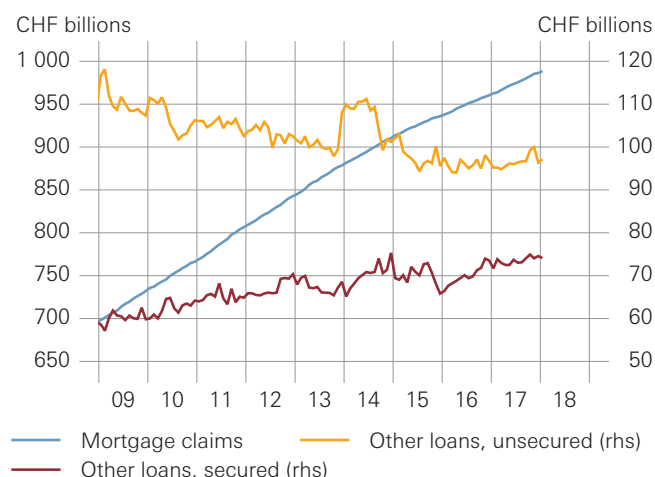
## Lending growth by sector

Both households and non-financial companies have benefited from favourable financing conditions since the beginning of the financial and economic crisis, as shown by a continuous rise in bank loans extended to these two important customer groups (cf. chart 5.14).

At the end of January 2018, loans to households recorded a year-on-year increase of CHF 19.3 billion (2.6%) and loans to non-financial companies a rise of CHF 4.3 billion (1.5%). Loans to financial companies, which exhibit greater volatility at a significantly lower volume, advanced by CHF 5.5 billion (11.8%) compared to the previous year.

Chart 5.13

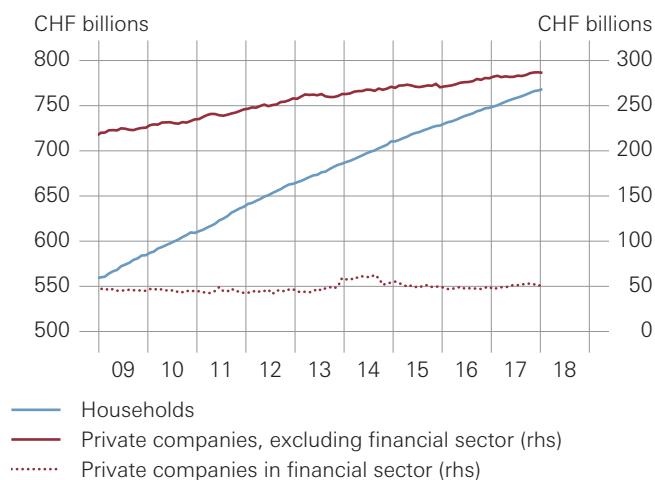
## MORTGAGE CLAIMS AND OTHER LOANS



Source: SNB

Chart 5.14

## LOANS TO HOUSEHOLDS AND COMPANIES



Source: SNB

Table 5.1

## MONETARY AGGREGATES AND BANK LOANS

Year-on-year change in percent

	2017	2017				2017	2018	
		Q1	Q2	Q3	Q4	December	January	February
<b>M1</b>	<b>6.6</b>	<b>5.8</b>	<b>6.4</b>	<b>6.6</b>	<b>7.4</b>	<b>7.3</b>	<b>7.6</b>	<b>7.6</b>
<b>M2</b>	<b>4.2</b>	<b>3.7</b>	<b>4.1</b>	<b>4.4</b>	<b>4.4</b>	<b>4.0</b>	<b>4.3</b>	<b>4.3</b>
<b>M3</b>	<b>3.7</b>	<b>3.1</b>	<b>3.7</b>	<b>4.1</b>	<b>4.0</b>	<b>3.6</b>	<b>4.0</b>	<b>3.7</b>
<b>Bank loans, total</b> <sup>1,3</sup>	<b>2.6</b>	<b>2.7</b>	<b>2.5</b>	<b>2.6</b>	<b>2.6</b>	<b>2.3</b>	<b>2.7</b>	
Mortgage claims <sup>1,3</sup>	2.6	2.6	2.6	2.6	2.7	2.7	2.7	
Households <sup>2,3</sup>	2.6	2.6	2.6	2.5	2.6	2.5	2.5	
Private companies <sup>2,3</sup>	3.4	3.2	3.2	3.5	3.7	3.4	3.3	
Other loans <sup>1,3</sup>	2.4	2.9	2.2	2.3	2.0	0.4	2.6	
Secured <sup>1,3</sup>	4.8	8.0	5.0	4.6	1.9	1.2	3.3	
Unsecured <sup>1,3</sup>	0.6	-0.7	0.2	0.7	2.1	-0.2	2.0	

1 Monthly balance sheets (domestic bank offices, domestic positions, all currencies).

2 Credit volume statistics (domestic bank offices, domestic positions, all currencies).

3 Growth rates for the bank loans item and its components include information provided by banks on changes in their classification practices. Consequently, they may deviate from growth rates published on the SNB's data portal, data.snb.ch.

Source: SNB

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# Business cycle signals

## Results of the SNB company talks

### **First quarter of 2018**

Report submitted to the Governing Board of the Swiss National Bank for its quarterly assessment.

The appraisals presented here are based on discussions between the SNB's delegates for regional economic relations and company managers. A total of 240 company talks were conducted between mid-January and the end of February.

#### **Regions**

Central Switzerland  
Eastern Switzerland  
Fribourg/Vaud/Valais  
Geneva/Jura/Neuchâtel  
Italian-speaking Switzerland  
Mittelland  
Northwestern Switzerland  
Zurich

#### **Delegates**

Walter Näf  
Urs Schönholzer  
Aline Chabloz  
Jean-Marc Falter  
Fabio Bossi  
Roland Scheurer  
Daniel Hanimann  
Rita Kobel

## Key points

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- Discussions with company representatives indicate that growth in the Swiss economy remained robust and broad-based in the first quarter of 2018 and that the outlook is favourable. Risk is perceived to have eased and companies are focusing on opportunities.
- Quarter-on-quarter and relative to the same quarter a year earlier, real turnover once again increased noticeably, and utilisation of technical production capacity has normalised in many industries.
- Margins improved considerably, especially in manufacturing, thanks to higher turnover, productivity increases, price rises and the stronger euro since mid-2017; overall, they are now at the level that company representatives regard as normal.
- Company representatives expect the positive dynamic in real turnover to be sustained over the coming six months, due in large part to the favourable economic environment internationally.
- Companies say they are planning to hire more staff and increase investment slightly, however they also drew attention to the shortage of specialised personnel more frequently than in the past.

## CURRENT SITUATION

### Ongoing strong turnover growth

Many companies continued to benefit from the positive momentum apparent at the end of 2017 in the first quarter of 2018 – indeed, in some cases, their position even strengthened. The company talks confirm that business performance remains buoyant – particularly in manufacturing, as in the previous quarters.

Company representatives report robust quarter-on-quarter growth in real turnover, i.e. turnover adjusted for changes in sale prices (cf. chart 1; for guidance on interpreting the charts, see the relevant section at the end of this report). A comparison with the corresponding quarter a year ago also points to vigorous growth, with all three sectors – services, manufacturing and construction – contributing to this favourable development.

Export industries continue to perform strongly; company representatives attribute this to trade with Europe (including Eastern Europe), North America and Asia. There are signs of improvement in Russia, and positive signals are emanating from India. Companies supplying capital goods as well as goods for the automotive and medtech industries recorded particularly solid results.

### Utilisation of production capacity normal overall

Overall, utilisation of technical production capacity, which had been recovering since the second half of 2016 (cf. chart 2), has now normalised.

Around half of the companies interviewed rated their technical capacity utilisation as normal. A further 30% reported slight or substantial overutilisation. Certain firms have added more shifts to meet increased demand and avoid delivery backlogs; more orders are to be delivered immediately and in full rather than in tranches.

### Staff numbers on the low side

At present, staff numbers in all three sectors are judged to be slightly too low. The situation has thus tightened quarter-on-quarter. A third of the companies interviewed described their staffing as somewhat low or much too low.

Recruitment problems became more pronounced in manufacturing during the quarter under review. This is partly due to improved labour market conditions in Switzerland and partly to the fact that it has become harder to recruit staff from neighbouring countries as their economies have picked up. It is proving particularly difficult to recruit engineers, professionals and – in all industries – IT specialists. Companies are also reporting that they are finding it increasingly challenging to source enough apprentices.

### Margins normalise

Discussions with company representatives indicate that profit margins have returned to normal. In manufacturing in particular, the situation has improved considerably since mid-2017. Higher turnover and potential for price increases in some areas have played a big role here. Margins are now at roughly the same level as before the discontinuation of the minimum exchange rate against the euro.

Chart 1

### TURNOVER COMPARED TO PREVIOUS QUARTER



Developments in real turnover compared to the previous quarter. Positive (negative) index values signal an increase (decrease).  
Source: SNB

Chart 2

### CAPACITY UTILISATION



Current utilisation of technical capacity or infrastructure compared to a normal level. A positive (negative) index value signals a higher (lower) utilisation than normal.  
Source: SNB



## DEVELOPMENTS IN INDIVIDUAL INDUSTRIES

The challenges posed by structural changes, notably the accelerating shift to e-commerce, remain an important topic. The course of business is currently pleasing, with real turnover slightly up quarter-on-quarter and with respect to the same period a year earlier; retail trade has even performed slightly better than wholesale. Nonetheless, retailers continue to report below-normal margins. The decline in sales prices, which was still evident in many areas in 2017, is now only apparent in the non-food segment. There are also some signs that cross-border shopping is tapering off.

Finance once again made a positive showing, with all business lines contributing. Higher trading volumes on the stock markets have been an important driver here, helping to lift the first-quarter margins of companies active in this area significantly. The managers interviewed described their margins as ‘within the normal range’ overall.

Business in the hospitality industry improved notably. Real turnover was significantly higher quarter-on-quarter and markedly higher compared to the same quarter the previous year. Most regions recorded an uptick in tourism, particularly from Asia and the US – but also increasingly from Germany and the Netherlands. This positive development was due to a general improvement in the economic environment, exceptional weather and snow conditions (a base effect, as weather conditions were much less favourable the previous year), the exchange rate situation and Switzerland’s reputation as a safe destination. Although margins at hotels the SNB visited were higher than normal, margins at restaurants were still slightly below normal levels.

Transportation and logistics companies as well as law firms, fiduciary companies, consultancies and facility management services reported favourable results.

Momentum in the information and communications technology industry, which had been very high, seems to have moderated slightly, and margin pressure remains on the high side. The key business drivers continue to be digitalisation, automation and regulation.

In manufacturing, all industries reported higher turnover than in the previous quarter. For the first time in five years, company representatives judged capacity utilisation to be above normal; it was particularly high in metals manufacturing and processing. The trend of noticeably improved performance in the watchmaking industry and its suppliers was maintained in the first quarter of 2018. Having improved substantially, mechanical engineering is now very well placed and deems its margins to be somewhat higher than normal. By contrast, companies in printing and packaging continued to report tighter-than-usual margins.

Momentum in construction remains relatively high, both in the building industry and in ancillary trades. In the quarter under review, this was not primarily due to residential construction, but to activity in the finishing trade and – owing to favourable weather – civil engineering work. Margin pressure persists, especially in structural engineering. There are few signs that construction activity may be slowing, however it should be noted that the supportive effect of public infrastructure projects is substantial.

Chart 3

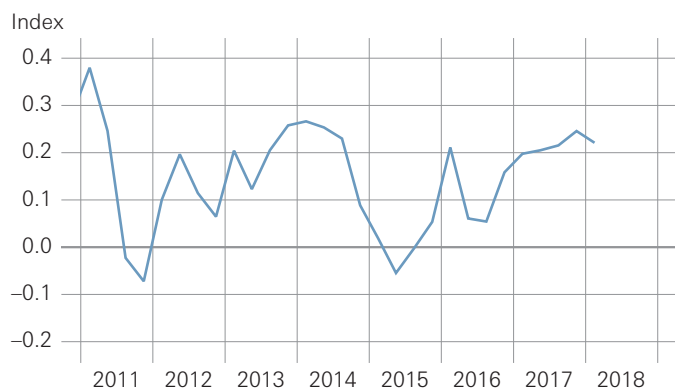
**EXPECTED TURNOVER**



Expected developments in real turnover in the coming six months. Positive (negative) index values indicate higher (lower) turnover expectations. Source: SNB

Chart 4

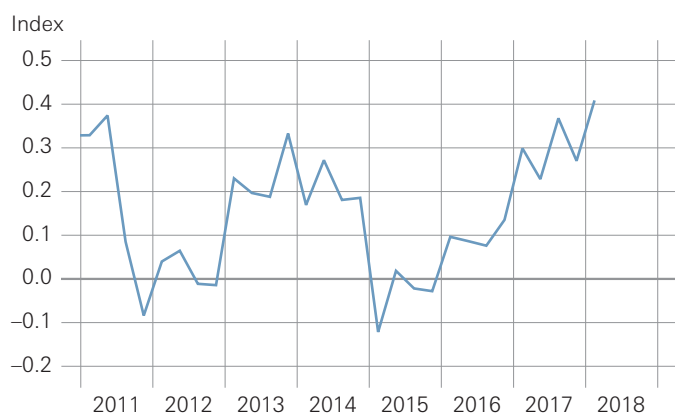
**EXPECTED CAPACITY UTILISATION**



Expected developments in utilisation of technical capacity or infrastructure in the coming six months. Positive (negative) index values indicate higher (lower) utilisation expectations. Source: SNB

Chart 5

**EXPECTED EMPLOYMENT**



Expected developments in staff numbers in the coming six months. Positive (negative) index values indicate higher (lower) expectations. Source: SNB

**OUTLOOK**

**Widespread confidence**

The company managers interviewed by the SNB delegates remain markedly optimistic about their business prospects for the coming six months. Overall, real turnover is expected to rise (cf. chart 3) in all three sectors. Factors contributing to this optimism include the favourable international economic situation, intensified market development efforts, improved exchange rate conditions, and the possibility of pushing through price increases in some areas. Orders for 2018 (and beyond in some cases) are looking very solid for many companies.

The confidence of the business community is also reflected in higher expected utilisation of technical production capacity and/or infrastructure in the next two quarters (cf. chart 4). Companies are thus planning to invest slightly more in both equipment and buildings. More than a quarter of the companies investing in equipment are simultaneously expanding their production capacity. With the exception of the pharmaceutical industry, manufacturing companies in particular are intending to make larger investments.

**Slight price rises**

As in the fourth quarter of 2017, company representatives anticipate that both purchase and sales prices will rise in the coming six months. They typically expect rises in purchase prices to be linked to demand-induced increases in raw material prices and to a weakening of the Swiss franc relative to last year. Any such price increases are normally passed on to customers. Managers claim that it has generally become easier to push through price increases, some of which were even implemented at the beginning of 2018.

**Significant staff increases planned**

The indications of personnel shortages and the prospect of higher capacity utilisation are affecting companies' recruitment plans: managers from all three sectors are planning to increase staff numbers in 2018 (cf. chart 5). More temporary hires are being contracted on a permanent basis. Many firms are focusing on in-house training and apprenticeships in an effort to attract and retain personnel. No industry indicated plans to cut staff.

**Rising wages**

Based on information obtained in the talks, salary increases already granted or planned for 2018 average 1.1%, and many companies are intending to pay general bonuses – a rarity in recent years. Above-average wage increases are being offered in the IT industry.

## ENVIRONMENT AND RISKS

Not only do companies rate uncertainty in their operating environment as relatively low, they also say that they are actively looking for opportunities given the favourable economic situation. They highlight the increasing shortage of specialist staff and delivery bottlenecks (commodities) as risks in this regard.

Internationally, potential hazards mentioned include geopolitical risks and protectionist trends. With respect to Europe, a number of company representatives pointed to unsolved structural problems.

Many company representatives continue to find the complex domestic regulatory environment very burdensome. A renewed appreciation of the Swiss franc is also seen as a risk. Digitalisation is being actively debated and explored in many industries; most company representatives believe opportunities outweigh any risks. On the other hand, they express unease about the impact of low interest rates on the real estate market, where the number of vacant housing units is on the rise.

Most managers describe the weakening of the Swiss franc against the euro since the summer of 2017 as 'helpful'.

## INFLATION EXPECTATIONS

As part of the exchange of views, the delegates regularly ask company representatives about their short and long-term inflation expectations as consumers, as measured by the consumer price index.

### About this report

#### Approach

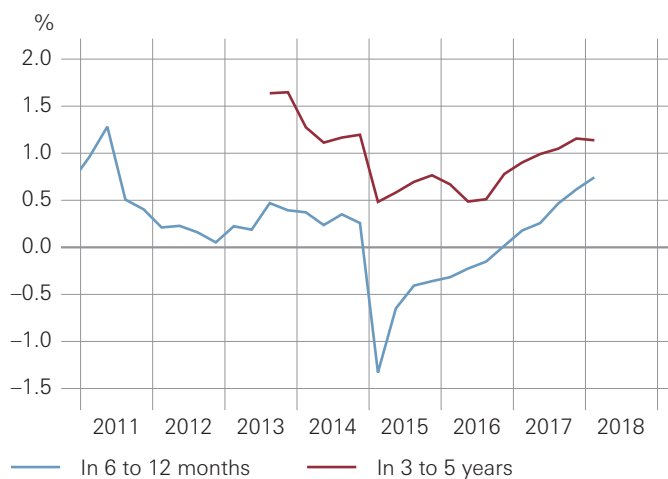
Each quarter, the SNB's delegates for regional economic relations hold talks with managers of companies throughout Switzerland. The main results of these discussions are summarised in the 'Business cycle signals' report.

Approximately 240 companies are visited every quarter. The selection of companies reflects the industrial structure of the Swiss economy based on GDP and employment. Industries subject to stronger cyclical fluctuations are somewhat over-represented, while the public sector and agriculture are not taken into consideration. Different companies are visited from one quarter to the next.

In the talks, the SNB's delegates capture primarily qualitative information. The discussions are nevertheless structured in such a way as to allow the delegates to grade part of the qualitative information received according to a numeric scale. This enables the results to be aggregated and represented graphically.

Chart 6

## EXPECTED INFLATION



Source: SNB

In the first quarter of 2018, the upward trend in short-term inflation expectations, which had begun during 2015, continued: expectations for the next six to twelve months now average 0.7%, compared to 0.6% in the previous quarter (blue line in chart 6). The rising trend of mid-term inflation expectations (time horizon of 3–5 years) since 2016 has flattened out: company representatives expect inflation to average 1.1% over this period, whereas they had projected 1.2% in the previous quarter (red line in chart).

The five-tier scale ranges from 'substantially higher' or 'much too high' (+2), 'slightly higher' or 'somewhat high' (+1), 'the same' or 'normal' (0), 'slightly lower' or 'somewhat low' (-1), to 'substantially lower' or 'much too low' (-2).

#### Interpreting the charts

The charts are to be regarded as a numeric summary of the qualitative information received. The index value shown represents the average of the findings from all companies visited. When interpreting the curves, particular relevance should be attached to their overall development, rather than to their numeric level or individual changes.

#### Additional information

Further information on the 'Business cycle signals' report is available at [www.snb.ch](http://www.snb.ch), *The SNB*, *SNB regional network*.

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# Chronicle of monetary events

The chronicle summarises the most recent monetary events. For events dating further back, please refer to SNB press releases and the Annual Report at [www.snb.ch](http://www.snb.ch)

<p>At its quarterly assessment of 15 March 2018, the SNB leaves the interest rate on sight deposits with the SNB at <math>-0.75\%</math> and its target range for the three-month Libor at between <math>-1.25\%</math> and <math>-0.25\%</math>. The SNB reaffirms that it will remain active in the foreign exchange market, as necessary. In the SNB's view, the Swiss franc is still highly valued, and the situation on the foreign exchange market continues to be fragile. The negative interest rate and the SNB's willingness to intervene in the foreign exchange market as necessary are intended to keep the attractiveness of Swiss franc investments low and ease pressure on the currency. The expansionary monetary policy aims to stabilise price developments and support economic activity.</p>	<p>March 2018</p>
<p>At its quarterly assessment of 14 December 2016, the SNB leaves the interest rate on sight deposits with the SNB at <math>-0.75\%</math> and its target range for the three-month Libor unchanged at between <math>-1.25\%</math> and <math>-0.25\%</math>. The SNB reaffirms that it will remain active in the foreign exchange market, as necessary. The depreciation of the Swiss franc reflects the fact that safe havens are currently less sought after. The situation on the foreign exchange market continues to be fragile. In the SNB's view, the Swiss franc remains highly valued. The negative interest rate and the SNB's willingness to intervene in the foreign exchange market as necessary remain essential. The expansionary monetary policy aims to stabilise price developments and support economic activity.</p>	<p>December 2017</p>
<p>At its quarterly assessment of 14 September 2017, the SNB leaves the interest rate on sight deposits with the SNB at <math>-0.75\%</math> and its target range for the three-month Libor at between <math>-1,25\%</math> and <math>-0,25\%</math>. The SNB reaffirms that it will remain active in the foreign exchange market, as necessary. In the SNB's view, the Swiss franc is still highly valued, and the situation on the foreign exchange market is still fragile. 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 upward pressure on the currency. The expansionary monetary policy aims to stabilise price developments and support economic activity.</p>	<p>September 2017</p>
<p>At its quarterly assessment of 15 June 2017, the SNB leaves the interest rate on sight deposits with the SNB at <math>-0.75\%</math> and its target range for the three-month Libor at between <math>-1,25\%</math> and <math>-0,25\%</math>. The SNB reaffirms that it will remain active in the foreign exchange market, as necessary. In the SNB's view, the Swiss franc is still significantly overvalued. 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 upward pressure on the currency. The expansionary monetary policy aims to stabilise price developments and support economic activity.</p>	<p>June 2017</p>
<p>At its quarterly assessment of 16 March 2017, the SNB leaves the interest rate on sight deposits with the SNB at <math>-0.75\%</math> and its target range for the three-month Libor at between <math>-1.25\%</math> and <math>-0.25\%</math>. The SNB reaffirms that it will remain active in the foreign exchange market, as necessary. In the SNB's view, the Swiss franc is still significantly overvalued. 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 upward pressure on the currency. The expansionary monetary policy aims to stabilise price developments and support economic activity.</p>	<p>March 2017</p>
<p>On 19 December 2016, the SNB announces the further strengthening of provisions for currency reserves. The annual allocation will continue to be determined on the basis of double the average nominal economic growth rate over the previous five years. However, a minimum annual allocation of 8% of the provisions will now also apply. 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. Since nominal GDP growth over the last five years has averaged just 1.9%, the minimum rate of 8% will be applied for the 2016 financial year.</p>	<p>December 2016</p>

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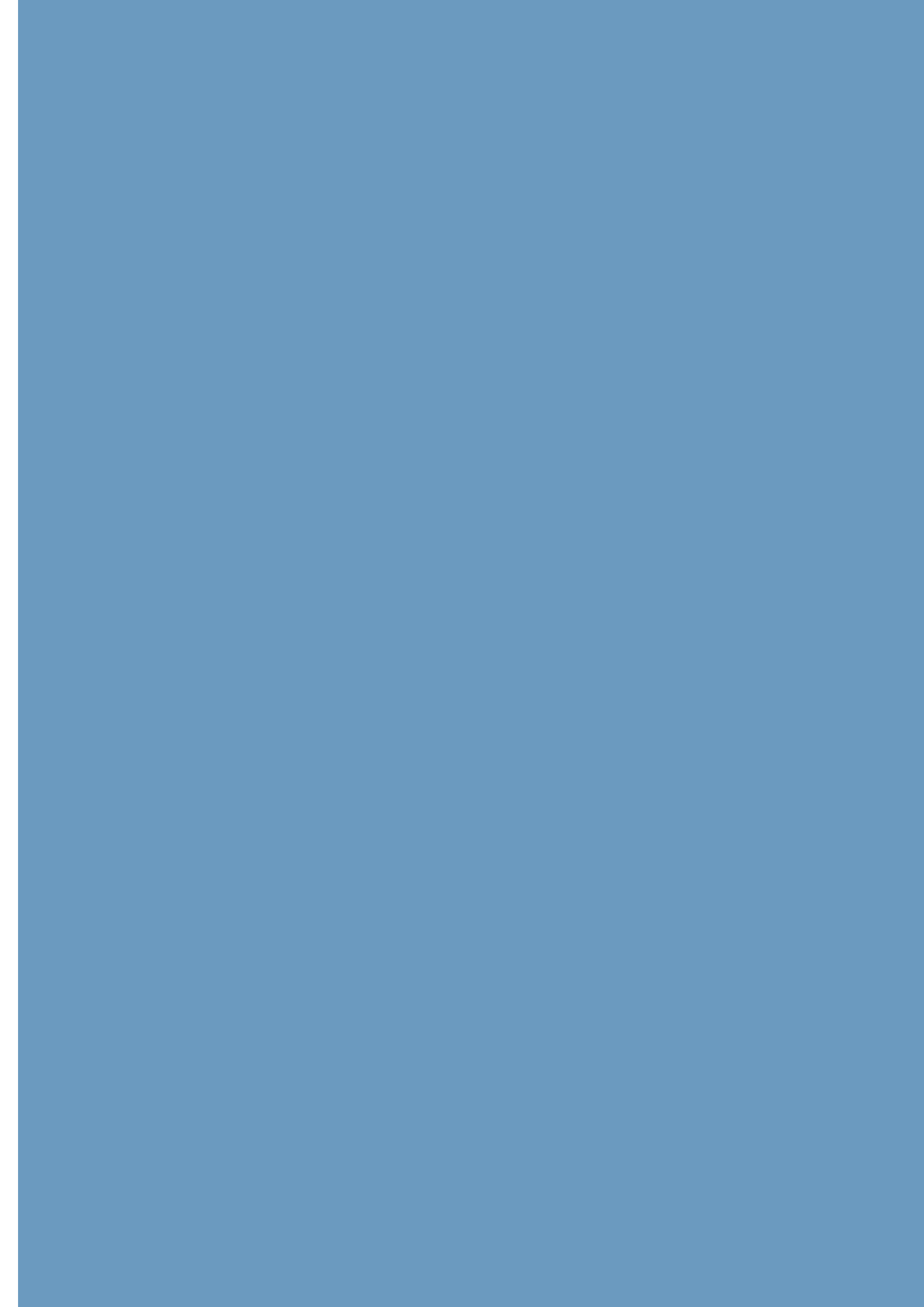
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