

Quarterly Bulletin
1/2015 March

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



Quarterly Bulletin
1/2015 March

Volume 33

Contents

	Page
Monetary policy report	4
1 Monetary policy decision of 19 March 2015	5
Monetary policy strategy at the SNB	6
2 Global economic environment	7
3 Economic developments in Switzerland	13
4 Prices and inflation expectations	18
5 Monetary developments	22
Business cycle trends	30
The effect of the monetary base expansion on the balance sheet of domestic banks	34
Chronicle of monetary events	46

Monetary policy report

Report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2015.

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 19 March 2015') is an excerpt from the press release published following the assessment.

This report is based on the data and information available as at 19 March 2015. 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 19 March 2015

Swiss National Bank leaves monetary policy unchanged

The Swiss National Bank (SNB) is leaving the target range for the three-month Libor (3M-Libor) unchanged at between -1.25% and -0.25% . The interest rate on sight deposits with the SNB remains at -0.75% and the exemption thresholds remain unchanged. Negative interest helps to make it less attractive to hold investments in Swiss francs. Overall, the Swiss franc is significantly overvalued and should continue to weaken over time. The SNB will continue to take account of the exchange rate situation, and its impact on inflation and economic developments, in formulating its monetary policy. It will therefore remain active in the foreign exchange market, as necessary, in order to influence monetary conditions.

The SNB's conditional inflation forecast has been adjusted substantially downwards compared to the December forecast (cf. chart 1.1, table 1.1). Together with the sharp fall in oil prices, the appreciation of the Swiss franc since the minimum exchange rate was discontinued moves inflation further into negative territory for a short period. For 2015, the SNB has revised its inflation forecast

downwards by 1% percentage point to -1.1% . Inflation reaches its low point in the third quarter of 2015, at -1.2% . Thereafter, forecast inflation rises more rapidly than in the December forecast, due to the interest rate reductions since the last monetary policy assessment. Nevertheless, in 2016, inflation will amount to -0.5% , which is 0.8 percentage points lower than in the December forecast. Not until 2017 will inflation move into positive territory again, at 0.4% . The conditional forecast assumes that the three-month Libor remains at -0.75% over the entire forecast horizon, and that the Swiss franc weakens.

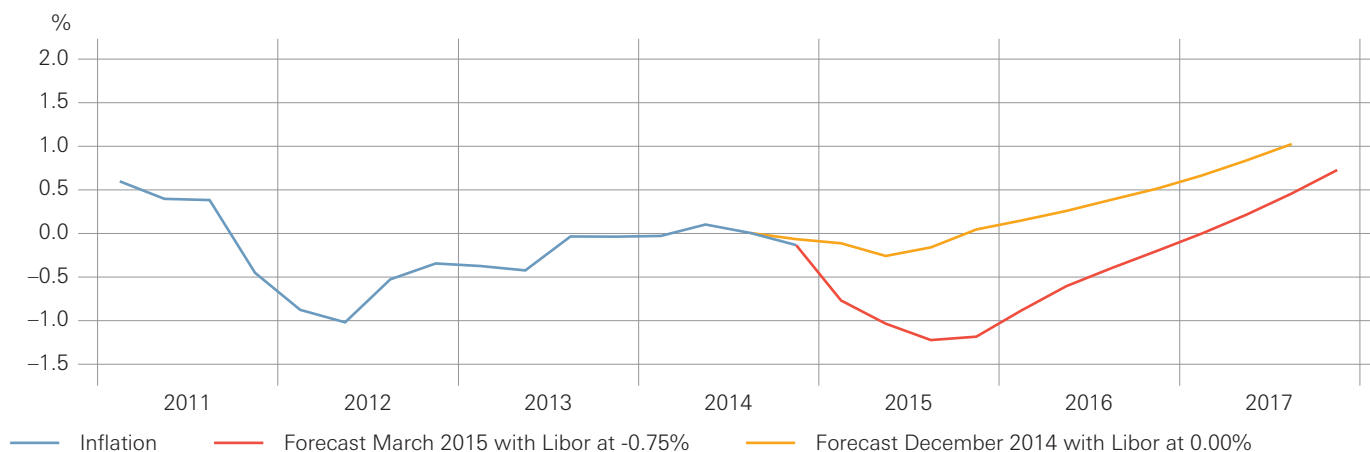
The global economic recovery is continuing. In the fourth quarter of 2014, growth in the US remained above potential. The favourable momentum of the economy there is also reflected in the sound growth in employment. The economy picked up somewhat in the euro area. This was primarily due to strong quarterly growth in Germany. In Japan, too, demand increased. Consumer price inflation edged down worldwide due to lower oil prices. In many advanced economies, inflation moved into negative territory at the beginning of 2015.

During the course of the year, the growth of the global economy is likely to firm gradually. Several factors are supporting this growth. First, the significant decline in oil prices is helping to increase demand. Second, monetary policy in the advanced economies remains very expansionary. The euro area, in particular, is likely to benefit from the further decline in interest rates as well as the marked depreciation of the euro. Recently, an easing in European banks' lending conditions, which were very restrictive, has also been observed.

Chart 1.1

CONDITIONAL INFLATION FORECAST OF MARCH 2015

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



Source: SNB

Despite these favourable developments, the outlook for the global economy is still uncertain. Overall, substantial risks remain, with the focus on issues relating to the economic outlook for Greece and the Ukraine conflict.

In the fourth quarter, the Swiss economy again grew faster than expected. On the output side, growth was relatively broad-based, with manufacturing being the main driver. Value added also rose significantly in the banking industry and the public sector. On the demand side, both consumption and equipment investment recorded favourable developments. By contrast, exports of goods and services stagnated.

In December, the SNB expected annual growth of some 2% for 2015. With the appreciation of the Swiss franc since mid-January, this forecast has had to be revised.

A noticeable weakening in the economy may be expected, particularly in the first half of the year. For the year as a whole, the SNB now only expects real GDP to increase by just under 1%. Given this weakening, appreciable underutilisation of production capacity may be expected in the short term. Unemployment is likely to increase moderately. The anticipated strengthening in the global recovery will have a supportive effect.

Mortgage lending growth weakened further in the fourth quarter. Meanwhile, growth in real estate prices remained more or less unchanged. Overall, the imbalances that have built up on these markets in recent years are still just as high as before. The SNB is monitoring the situation closely, and regularly assesses 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 2015

	2011				2012				2013				2014				2012	2013	2014
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Inflation	0.6	0.4	0.4	-0.5	-0.9	-1.0	-0.5	-0.3	-0.4	-0.4	0.0	0.0	0.0	0.1	0.0	-0.1	-0.7	-0.2	0.0

CONDITIONAL INFLATION FORECAST OF MARCH 2015

	2014				2015				2016				2017				2015	2016	2017
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Forecast December 2014, with Libor at 0.00%					-0.1	-0.1	-0.3	-0.2	0.0	0.1	0.3	0.4	0.5	0.7	0.8	1.0	-0.1	0.3	
Forecast March 2015, with Libor at -0.75%					-0.8	-1.0	-1.2	-1.2	-0.9	-0.6	-0.4	-0.2	0.0	0.2	0.5	0.7	-1.1	-0.5	0.4

Source: SNB

2 Global economic environment

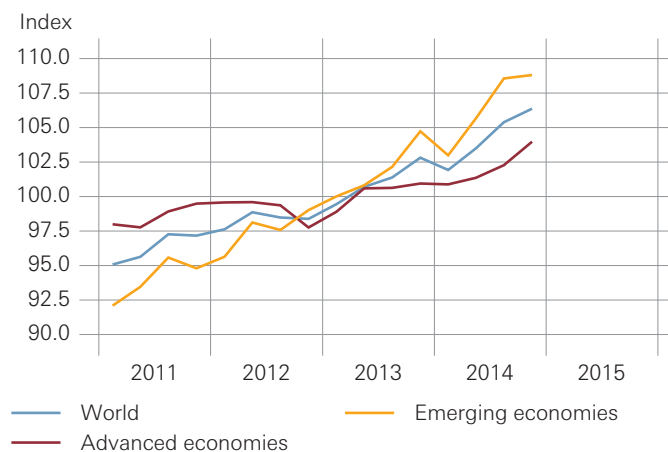
The recovery of the global economy continued in the fourth quarter of 2014. Expansionary monetary policy in the advanced economies and the significant decline in the oil price helped to boost demand. Global trade firmed (cf. chart 2.1). As a result of lower oil prices, annual inflation as measured by consumer prices edged down, slipping into negative territory in many advanced economies at the beginning of 2015.

Growth was still above potential in the US in the fourth quarter. Utilisation of economic capacity continued to rise, which was evidenced by solid growth in employment. The economy picked up in the euro area. This was primarily due to surprisingly strong quarterly growth in Germany. In addition, the currently very restrictive lending conditions began to ease. In Japan, too, demand increased. Economic developments in the large emerging economies were mixed.

Chart 2.1

GLOBAL EXPORTS

Period average = 100

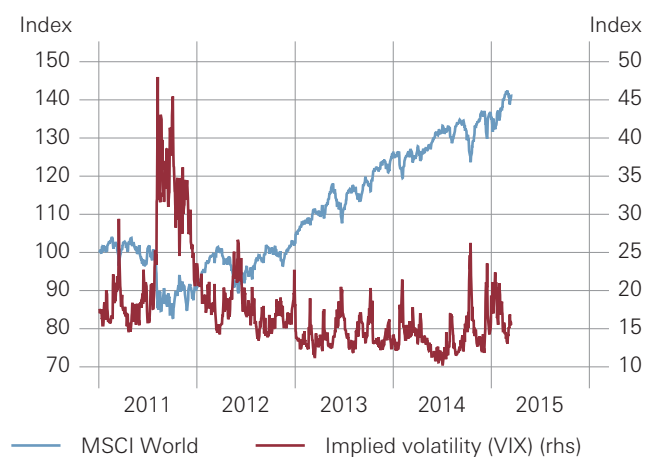


Sources: CPB, Thomson Reuters Datastream

Chart 2.2

STOCK MARKETS

Beginning of period = 100 (lhs)



Source: Thomson Reuters Datastream

Table 2.1

BASELINE SCENARIO FOR GLOBAL ECONOMIC DEVELOPMENTS

	2011	2012	2013	2014	Scenario	
					2015	2016
GDP, year-on-year change in percent						
Global ¹	4.1	3.4	3.3	3.5	3.7	4.1
US	1.6	2.3	2.2	2.4	3.3	3.3
Euro area	1.6	-0.8	-0.5	0.9	1.3	2.0
Japan	-0.4	1.7	1.6	-0.1	0.9	1.6
Oil price in USD per barrel ²						
	111.4	111.7	108.7	99.0	55.0	55.0

¹ PPP-weighted (US, euro area, UK, Japan, China, South Korea, Taiwan, Hong Kong, Singapore, India, Brazil and Russia).

² Level.

Sources: SNB, Thomson Reuters Datastream

Chart 2.3

INTERNATIONAL LONG-TERM INTEREST RATES

10-year government instruments

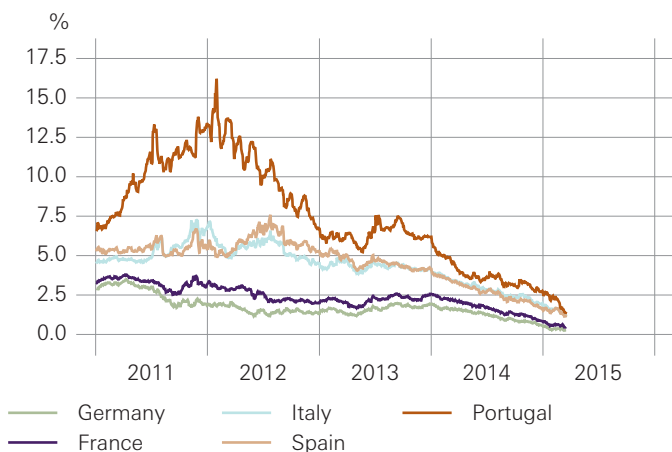


Source: Thomson Reuters Datastream

Chart 2.4

EUROPEAN LONG-TERM INTEREST RATES

10-year government instruments



Source: Thomson Reuters Datastream

Chart 2.5

EXCHANGE RATES

Trade-weighted, beginning of period = 100



Source: Thomson Reuters Datastream

During the course of the year, global economic growth is likely to firm gradually. However, the outlook remains uncertain and a number of risks remain. The focus is on the fiscal outlook for Greece and the Ukraine conflict. In addition, some emerging economies are struggling with serious structural problems.

The SNB's forecasts are based on assumptions about the oil price and the EUR/USD exchange rate. The SNB is assuming an oil price for Brent crude of USD 55 per barrel (cf. table 2.1) and an exchange rate of USD 1.14 to the euro. This corresponds to the 20-day average when the baseline scenario was drawn up.

INTERNATIONAL FINANCIAL AND COMMODITY MARKETS

Since the monetary policy assessment in December, financial markets have remained volatile. Supported by the favourable economic developments in the US, lower commodity prices and the securities purchase programme announced by the ECB, global stock markets continued to make gains. The US S&P 500 stock market index and the German DAX reached new all-time highs, while the Japanese Nikkei 225 climbed to a 15-year high. Tensions surrounding the refinancing of Greece and the escalation of the Ukraine crisis caused increased uncertainty on the stock markets at times. The VIX implied volatility index for US shares – which serves as an indicator of market uncertainty and is derived from option prices – registered a temporary increase at the beginning of the year (cf. chart 2.2).

Yields on long-term government bonds in the advanced economies trended downwards for the most part (cf. chart 2.3). In the euro area, they reached new lows in some cases as a result of the ECB's monetary policy easing (cf. chart 2.4), while in Greece persistent uncertainty was a factor in further pushing up yields. Developments on the foreign exchange markets were shaped by the divergence in the direction of monetary policy in the advanced economies. The US dollar appreciated on a trade-weighted basis, while the euro continued to lose ground in trade-weighted terms (cf. chart 2.5), dropping to its lowest level against the US dollar in over ten years.

Due to plentiful supply and modest demand, the price of many commodities continued to fall (cf. chart 2.6). One exception was oil prices, which began to rise again somewhat at the beginning of the year.

UNITED STATES

The US economy continued to follow a positive trend. However, after strong growth in the preceding period (5%), GDP registered a more moderate fourth-quarter rise, at 2.2% (cf. chart 2.7). The impact of the stronger US dollar since mid-2014 was a factor in this development. Averaged over the year, GDP growth was 2.4% – much the same as in the previous two years. Employment advanced at a faster pace over the course of the year, and the unemployment rate decreased to 5.5% by February 2015 (cf. chart 2.10). However, a low participation rate and increased part-time work suggest that the labour market is not yet fully utilised. Despite the favourable economic developments, the economy has spare capacity overall.

Lower petrol prices as well as growth in employment are likely to have a stimulating effect on activity in the next few quarters. In addition, the continuation of an expansionary monetary policy provides positive stimuli. The SNB expects economic growth of 3.3% for both 2015 and 2016 (cf. table 2.1). As a result of the stronger US dollar and a slight downward revision of estimated growth potential, the forecast is lower than three months ago.

Measured in terms of consumer prices, annual inflation receded significantly in the past few months, with prices in January 0.2% below their year-back level (cf. chart 2.11). Core inflation, however, declined only slightly, to 1.6% (cf. chart 2.12). As a result of lower oil prices, the overall rate of inflation is likely to continue falling over the next few months.

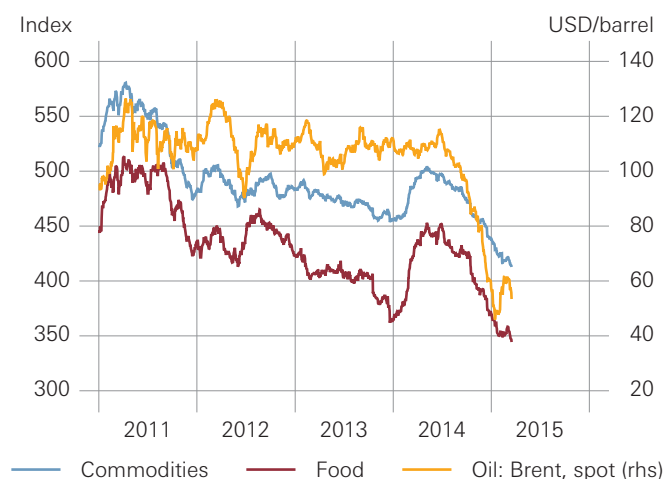
Since the Federal Reserve (Fed) discontinued its securities purchase programme at the end of October 2014, it has been reinvesting redemptions of maturing bonds, thereby keeping its balance sheet total constant. It has left the target range for the federal funds rate unchanged at 0.0–0.25% since December 2008 (cf. chart 2.13). As seen by the Fed, the US economy will possibly require lower-than-normal interest rates for some time to come – even after price stability and full employment have been achieved.

EURO AREA

The economy in the euro area has regained momentum. GDP expanded by 1.3% in the fourth quarter (cf. chart 2.7), which was still roughly 2% below the level recorded before the beginning of the global economic crisis in early 2008, however. Averaged over the year, GDP expanded for the first time in two years (0.9%). The most significant growth stimuli came from Germany and Spain, while France and Italy stagnated. Unemployment decreased to 11.2% in January, which is still a very high level (cf. chart 2.10).

Chart 2.6

COMMODITY PRICES

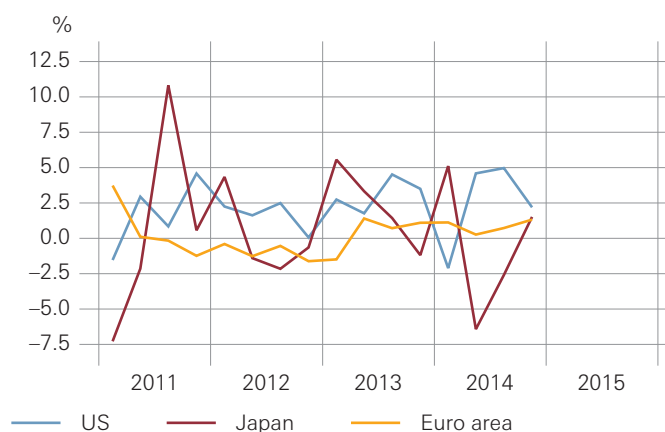


Source: Thomson Reuters Datastream

Chart 2.7

REAL GDP: ADVANCED ECONOMIES

Change from previous period

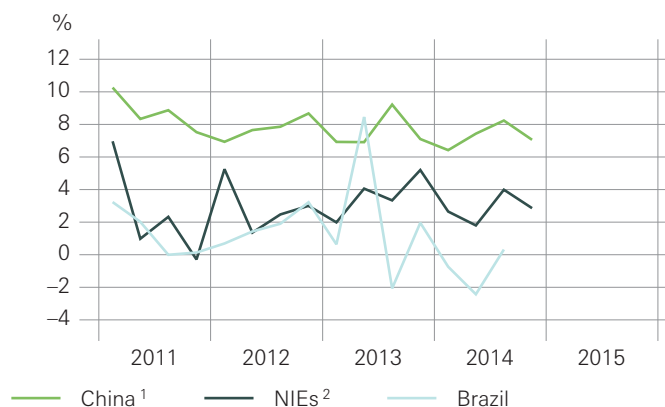


Source: Thomson Reuters Datastream

Chart 2.8

REAL GDP: EMERGING ECONOMIES

Change from previous period



¹ Estimate: SNB.

² PPP-weighted (South Korea, Taiwan, Hong Kong, Singapore).

Source: Thomson Reuters Datastream

Chart 2.9

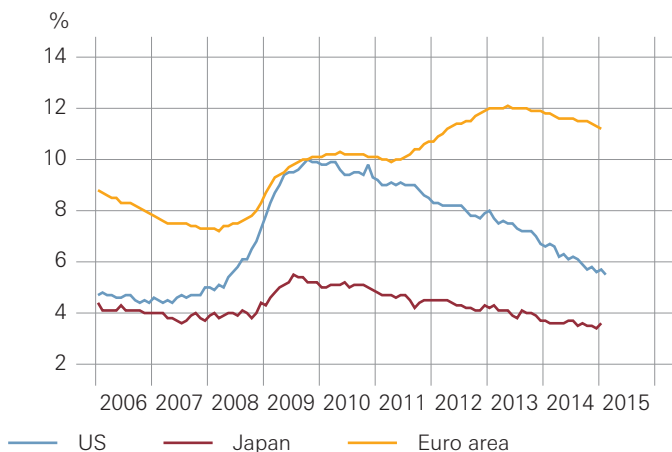
PURCHASING MANAGERS' INDICES (MANUFACTURING)



Source: Markit Economics Ltd 2009; all rights reserved

Chart 2.10

UNEMPLOYMENT RATES



Source: Thomson Reuters Datastream

Chart 2.11

CONSUMER PRICES

Year-on-year change



Source: Thomson Reuters Datastream

The economic outlook for the euro area has brightened somewhat. Significantly lower energy prices, the weaker euro and the further easing of monetary policy are likely to have a positive impact on economic growth this year overall. This is reflected in the slightly more positive economic outlook of private households and companies since the beginning of the year. Supported by improved financing conditions, corporate investment is therefore likely to be less restrained. In addition, slight growth stimuli might come from the European Commission's Investment Plan for Europe (European Fund for Strategic Investments – EFSI). The SNB has revised its growth forecast for the euro area slightly upwards, and is forecasting GDP growth of 1.3% (c.f. table 2.1). However, given the Ukraine conflict and the difficult economic situation in Russia, there is still considerable downside risk for the economy. General political uncertainty in the euro member states, including tensions with regard to financial help for Greece, also pose an ongoing threat to recovery.

As a result of the sharp decline in energy prices, consumer price inflation slipped into negative territory and stood at -0.3% in February (cf. chart 2.11). Core inflation remained at 0.7% (cf. chart 2.12). After having fallen steadily in 2014, inflation expectations calculated on the basis of financial indicators stabilised at the beginning of the year.

The ECB left its key rate unchanged (cf. chart 2.13) in the quarter under review. In January, however, it reduced banks' funding costs for targeted longer-term refinancing operations (TLTRO) slightly. In addition, it announced a substantial expansion of its asset purchase programme to include bonds of member states and of selected European institutions. The ECB's programme had previously been limited to purchases of asset-backed securities (ABS) and covered bonds. At the beginning of March – together with the national central banks – the ECB began to purchase securities in the amount of EUR 60 billion per month. The purchase programme is to be continued until there is a sustained adjustment in the path of inflation consistent with the medium-term price stability objective of just under 2%, but at least until September 2016.

JAPAN

In Japan, GDP stagnated in 2014, although economic output fluctuated significantly in the course of the year. Following the decline in the second and third quarter due to the increase in VAT introduced on 1 April 2014, the economy saw a slight recovery towards the end of the year (cf. chart 2.7). Exports rose sharply in the fourth quarter and domestic demand picked up slightly. However, GDP remained 0.8% below the previous year's level overall.

Buoyed by the weak yen, cheaper energy imports and another economic stimulus package in the amount of 0.7% of GDP, the recovery is set to continue. Exports and industrial output continued to rise markedly in January, and sentiment in the export industry became more upbeat. The situation for industries in areas with a domestic focus is likely to remain difficult, however, especially as private consumption continues to recover only gradually as a result of the recent loss of real earnings. Based on lower oil prices, the SNB raised its growth forecast for 2015 somewhat.

Japanese consumer price inflation declined in the past few months. In January, annual inflation stood at 2.4% (cf. chart 2.11). If the estimated effect of the VAT increase is excluded, this figure is only 0.4%. Inflation is likely to continue receding temporarily and may briefly fall below zero. In the past few months, long-term inflation expectations have continued to stagnate below the Japanese central bank's inflation target of 2%.

Since its monetary policy easing at the end of October, the Bank of Japan has not made any further adjustments. The monetary base is still to be increased through purchases of long-maturity Japanese government bonds of approximately JPY 80 trillion (roughly 16% of GDP) per year (cf. chart 2.14). This measure is intended to support inflation expectations and to lift annual inflation to 2% in the foreseeable future.

EMERGING ECONOMIES

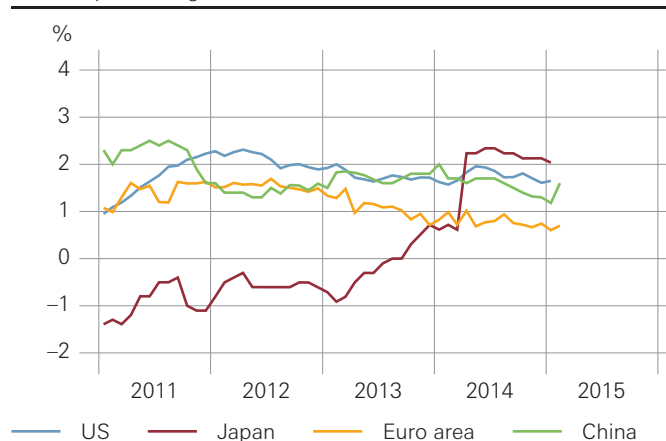
Momentum in the emerging economies slowed in the fourth quarter (cf. chart 2.8). Performance in Russia and Brazil was particularly lacklustre. Russia suffered from the impact of economic sanctions and the lower price of oil, while economic activity in Brazil weakened as a result of lower commodity prices.

The growth outlook for the coming quarters is subdued. In China, expansionary monetary and fiscal policies are likely to shore up domestic demand. There is still downside risk emanating from the Chinese housing market. In India, the planned economic reforms should provide positive stimuli. By contrast, the outlook for Brazil remains muted due to tight monetary policy and the precarious fiscal situation. The Russian economy, which is dependent on oil and gas exports, is expected to slip into recession, owing

Chart 2.12

CORE INFLATION RATES ¹

Year-on-year change

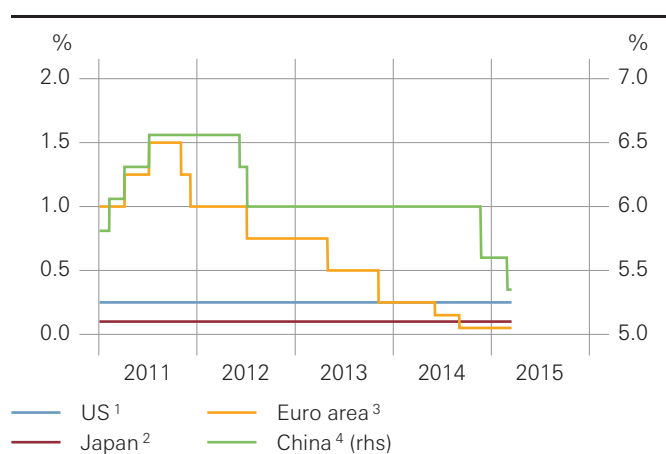


¹ Excluding food and energy.

Source: Thomson Reuters Datastream

Chart 2.13

OFFICIAL INTEREST RATES



¹ Federal funds rate.

² Call money target rate.

Source: Thomson Reuters Datastream

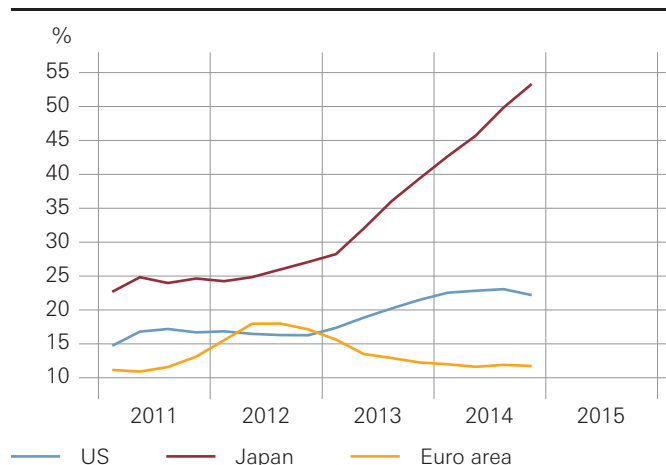
³ Main refinancing rate.

⁴ One-year lending rate.

Chart 2.14

MONETARY BASE

Relative to GDP



Source: Thomson Reuters Datastream

to the low commodity prices and the continued uncertainty caused by the Ukraine crisis.

Inflation in the emerging economies presented a mixed picture. In China, falling commodity prices and overcapacity in some areas of the economy were a factor in an inflation rate considerably below the central bank target of 3.5% for 2014 (cf. chart 2.11). In India, too, inflation receded perceptibly as a result of falling food prices. In Brazil and Russia, by contrast, inflation remained at an extraordinarily high level. This is due in part to their weak currencies.

As a result, these countries also had diverging monetary policies. In an effort to counter weak inflation developments, China's central bank again lowered its key interest rates and the minimum reserve ratio for banks (cf. chart 2.13). In a bid to support the economy, Russia partially rolled back the increases in the key interest rate of October and November. By contrast, Brazil raised its key interest rate further in order to combat inflation and the depreciation of the Brazilian real.

3 Economic developments in Switzerland

Economic growth in Switzerland in the fourth quarter proved more robust than had been anticipated in December. Manufacturing remained the most important driving force, but value added increased in most other industries, too. GDP growth for 2014 as a whole was relatively broad-based and amounted to 2.0%.

The negative output gap continued to narrow in the fourth quarter. Employment figures were up, although unemployment registered only a marginal decrease.

Due to the appreciation of the Swiss franc since the minimum exchange rate was discontinued in mid-January, the short-term outlook for the Swiss economy deteriorated noticeably. Foreign trade in particular is likely to suffer in the first half of 2015. The SNB now only expects GDP for 2015 to increase by just under 1%. At the monetary policy assessment of December 2014, i.e. before the minimum exchange rate was discontinued, the SNB had expected growth of about 2%.

AGGREGATE DEMAND AND OUTPUT

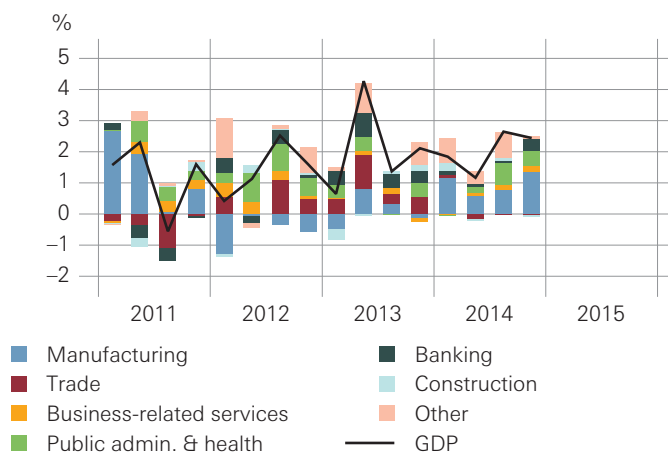
Robust growth continues

Nearly all industries developed positively in the fourth quarter (cf. chart 3.1). The robust GDP growth was driven primarily by manufacturing, with significant contributions also coming from banking and the public sector. Only in transport and communications and in the construction industry was value added lower than in the previous quarter.

Chart 3.1

CONTRIBUTIONS TO GROWTH, BY SECTOR

Change from previous period

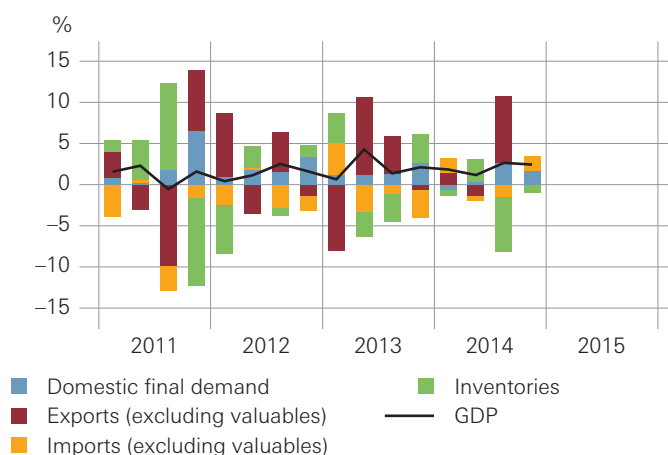


Source: State Secretariat for Economic Affairs (SECO)

Chart 3.2

CONTRIBUTIONS TO GROWTH IN DEMAND

Change from previous period

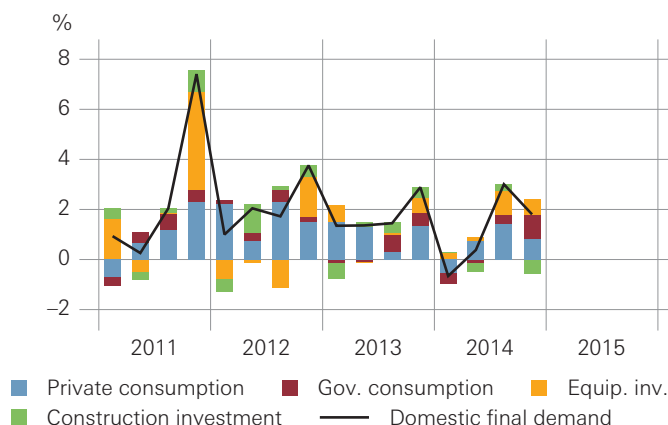


Source: SECO

Chart 3.3

DOMESTIC FINAL DEMAND, GROWTH CONTRIBUTIONS

Change from previous period



Source: SECO

Positive foreign trade contribution

Following a strong increase in the previous three months, exports of goods and services stagnated in the fourth quarter. Rising demand from the US was largely offset by weak export demand from other countries. Since imports of goods and services receded in the same period, the result was a positive foreign trade contribution to GDP growth, as in the preceding quarter. For 2014 as a whole, too, the contribution from foreign trade was positive (cf. table 3.1).

Moderate increase in domestic demand

Domestic final demand increased somewhat more moderately than in the previous quarter (cf. chart 3.3 and table 3.1). Despite brisk retail business during the Christmas season, favourable income developments and robust immigration, private consumer spending registered below-average growth. Thanks to sound foreign demand, equipment investment continued to recover. Construction investment, however, receded, with the decrease showing particularly clearly in residential construction.

Table 3.1

REAL GDP AND COMPONENTS

Growth rates on previous period in percent, annualised

	2011	2012	2013	2014	2013				2014			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Private consumption	0.9	2.8	2.2	1.0	2.4	2.1	0.5	2.2	-0.9	1.2	2.3	1.4
Government consumption	2.1	2.9	1.4	1.1	-1.0	-0.8	5.7	3.9	-3.2	-1.2	2.8	7.6
Investment in fixed assets	4.4	2.5	1.8	1.7	-0.1	0.7	1.8	4.0	1.1	-0.8	4.6	0.2
Construction	2.5	2.9	1.3	0.9	-6.5	2.1	4.0	4.3	0.4	-3.4	3.0	-5.6
Equipment	5.5	2.3	2.1	2.3	4.1	-0.2	0.5	3.9	1.5	0.9	5.7	3.9
Domestic final demand	1.9	2.7	2.0	1.2	1.3	1.4	1.5	2.9	-0.7	0.4	3.0	1.8
Change in inventories ¹	0.3	-1.0	0.7	-0.4	3.7	-3.0	-3.4	3.6	-0.8	2.8	-6.7	-1.0
Total exports ²	3.5	2.6	0.0	3.9	-15.3	18.6	8.8	-1.2	2.6	-2.7	15.8	0.2
Goods ²	6.2	0.9	-2.3	4.8	-20.0	16.2	14.9	-2.8	-2.4	3.9	21.6	-0.9
Services	-2.3	6.1	4.7	2.4	-5.4	23.4	-2.1	2.0	13.0	-14.2	4.9	2.4
Total imports ²	5.0	4.2	1.5	1.6	-9.0	8.0	2.6	8.0	-4.3	1.4	3.5	-4.1
Goods ²	3.1	2.3	0.7	1.3	-3.9	4.6	0.8	14.8	-11.4	7.4	3.9	-6.8
Services	8.5	8.1	3.3	2.1	-19.3	16.0	6.5	-5.5	13.0	-10.3	2.5	1.9
Net exports ³	-0.1	-0.3	-0.6	1.4	-4.3	6.0	3.5	-4.0	3.2	-2.0	6.7	1.8
GDP	1.8	1.1	1.9	2.0	0.6	4.3	1.4	2.1	1.8	1.2	2.6	2.4

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

LABOUR MARKET

The positive momentum on the labour market continued, with the number of employed persons recording a robust increase in the fourth quarter, while unemployment again declined slightly.

Solid rise in employment

According to the employment statistics of the Swiss Federal Statistical Office, the number of employed persons advanced by 2.6% in the fourth quarter (cf. chart 3.4). This translates into a net increase of 31,500 more people in the labour force than in the previous quarter. In particular, the number of women in employment has risen considerably, with a higher percentage now participating in the job market.

Based on the national job statistics (JOBSTAT), more new jobs were created in the services sector, whereas job creation stagnated in construction and receded slightly in manufacturing (cf. chart 3.5).

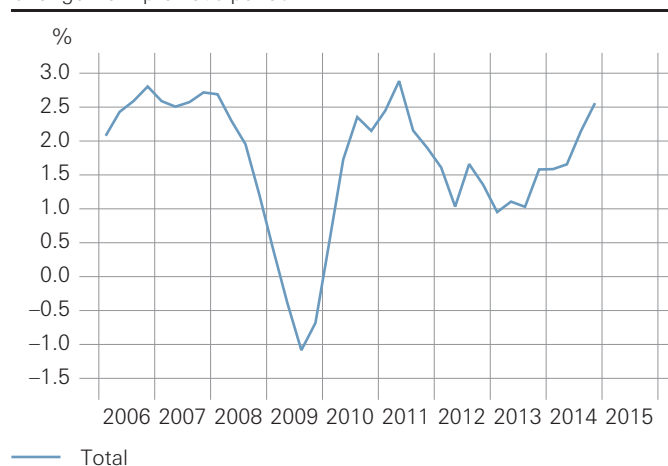
Slight fall in unemployment

The number of people registered as unemployed with regional employment offices has been decreasing very slowly on a seasonally adjusted basis since the middle of 2013. In February 2015, about 150,000 persons were registered as unemployed. The seasonally adjusted rate of unemployment came to 3.2%, as has been the case since May 2013 (cf. chart 3.6).

Chart 3.4

EMPLOYED PERSONS

Change from previous period

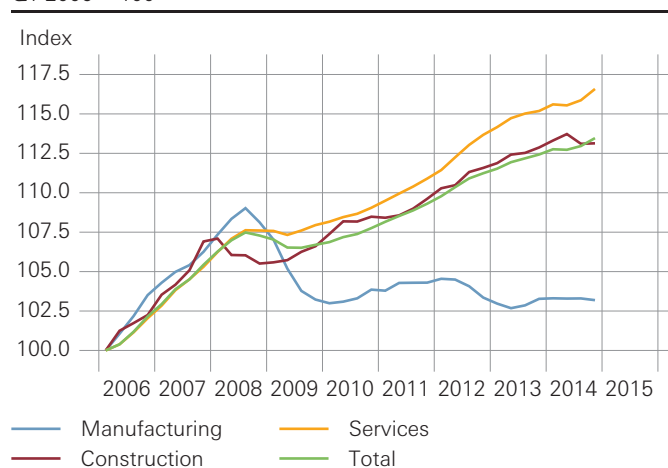


Source: Swiss Federal Statistical Office (SFSO); seasonal adjustment: SNB

Chart 3.5

FULL-TIME EQUIVALENT JOBS

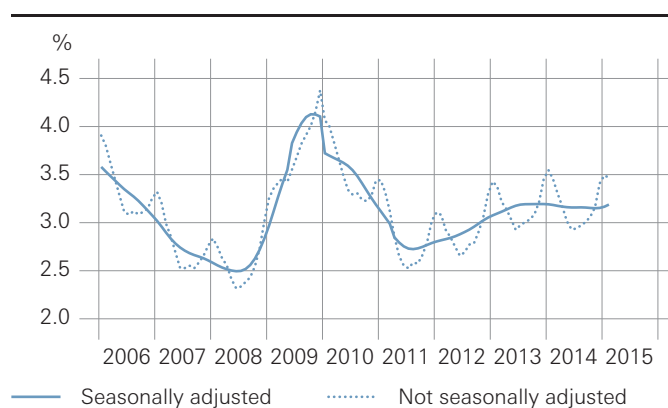
Q1 2006 = 100



Source: SFSO; seasonal adjustment: SNB

Chart 3.6

UNEMPLOYMENT RATE

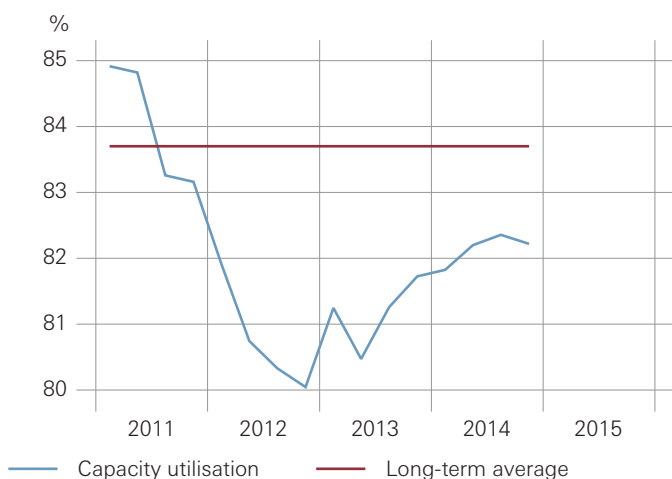


Unemployed registered with the regional employment offices, as a percentage of the labour force according to the 2000 census (labour force: 3,946,988 persons) up to 2009, and according to the 2010 census (labour force: 4,322,899 persons) from 2010.

Source: SECO

Chart 3.7

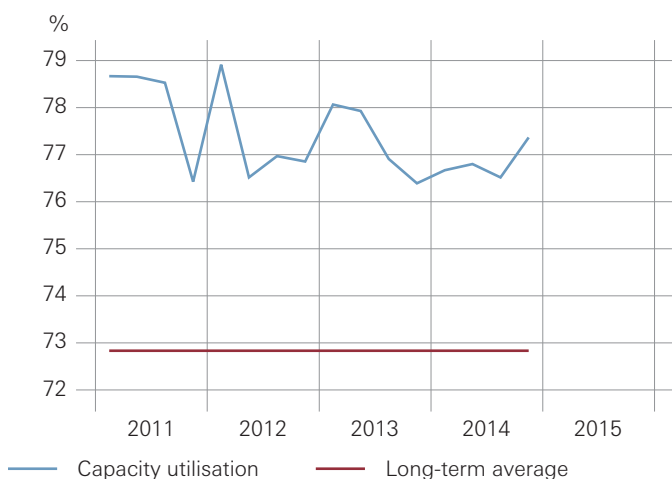
CAPACITY UTILISATION IN MANUFACTURING



Source: KOF Swiss Economic Institute

Chart 3.8

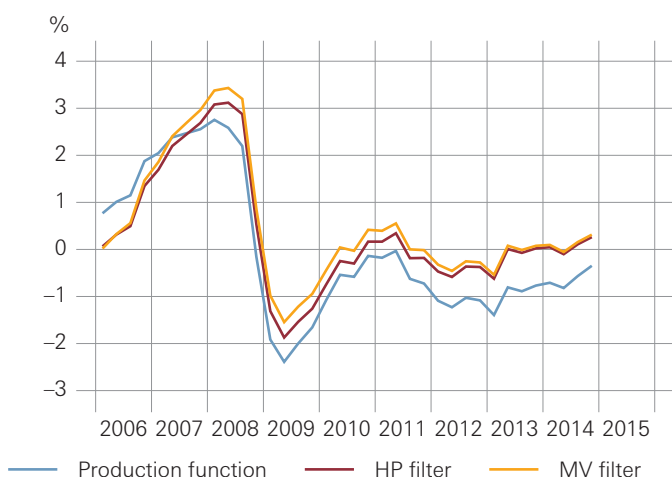
CAPACITY UTILISATION IN CONSTRUCTION



Source: KOF Swiss Economic Institute

Chart 3.9

OUTPUT GAP



Source: SNB

CAPACITY UTILISATION

Underutilisation in manufacturing

According to the survey by KOF Swiss Economic Institute, utilisation of technical capacity in manufacturing decreased slightly in the fourth quarter to 82.2%, thus remaining below the long-term average. Compared to the previous year, however, capacity utilisation has improved (cf. chart 3.7). Machine utilisation in the construction industry increased significantly in the fourth quarter. Unlike the situation in manufacturing, capacity utilisation in construction is clearly above the long-term average (cf. chart 3.8). As to the services sector, surveys continue to suggest average utilisation.

Negative output gap

The output gap, which is defined as the percentage deviation of observed GDP from estimated aggregate potential output, shows how well the production factors in an economy are being utilised. This gap narrowed in the fourth quarter due to the robust GDP growth, but remained slightly negative. Estimated potential output calculated by means of a production function showed an output gap of -0.3% for the fourth quarter. Estimates using other methods to establish potential output (Hodrick-Prescott filter and multivariate filter) suggest a slightly positive output gap (cf. chart 3.9).

OUTLOOK FOR THE REAL ECONOMY

As a result of the new exchange rate situation, the outlook for the year 2015 has deteriorated. Consequently, business confidence has become more subdued since the minimum exchange rate was discontinued (cf. chart 3.10).

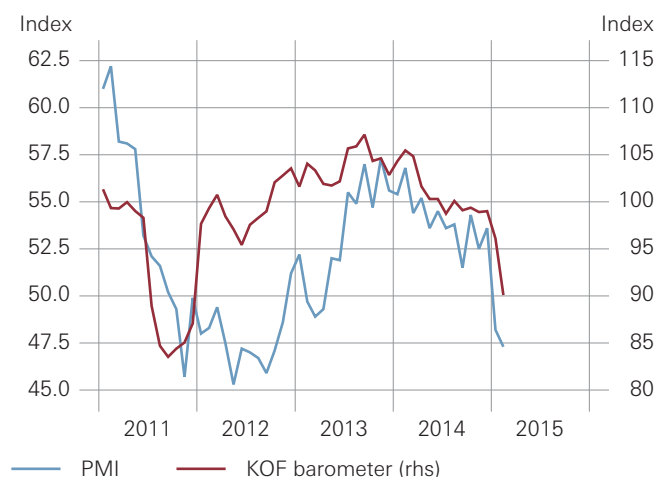
The economic impact of an appreciation shock is complex and varies greatly from one industry to another. Adversely affected are not only companies operating in the export business, but also those exposed to import competition. In the short term, the negative impact on sales volumes can be mitigated to a certain extent by lower profit margins. In the medium term, however, the new situation is likely to have an adverse effect on companies' recruitment and remuneration policies. Moreover, companies are generally less willing to invest when profits decline.

In its baseline scenario for the world economy, the SNB expects the global recovery to strengthen, particularly also in Europe. This should gradually revitalise foreign demand for Swiss goods and services, and counteract the adverse impact of the Swiss franc appreciation. In addition, negative inflation will have a beneficial effect on the real disposable income of households and on consumer spending in real terms.

The SNB now only expects GDP for the current year to increase by just under 1%. In December 2014, it had still expected growth of about 2%. The largest drop is expected to occur in the first half of 2015. A temporary decline in GDP cannot be ruled out. Based on the new forecast, the negative output gap will widen in the short term, and unemployment is likely to rise again somewhat as a consequence.

Chart 3.10

LEADING INDICATORS

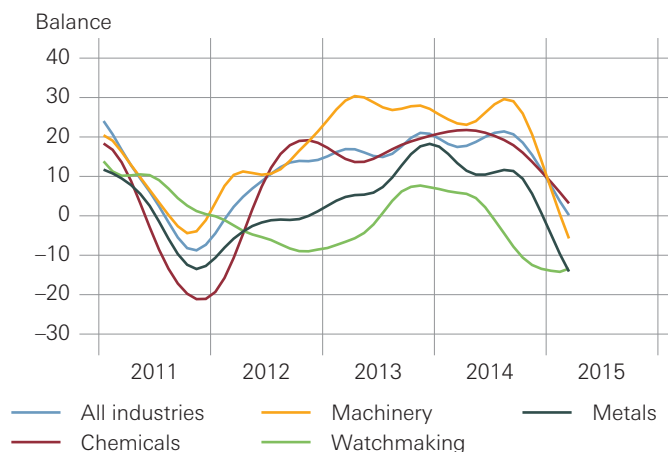


Source: Credit Suisse, KOF Swiss Economic Institute

Chart 3.11

EXPECTED NEW ORDERS

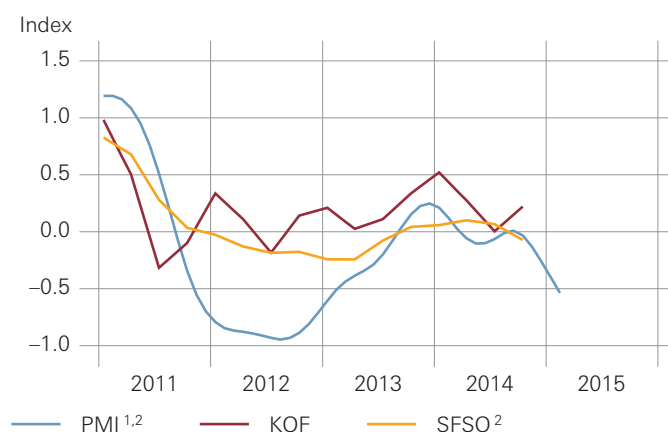
Trend component



Source: KOF Swiss Economic Institute

Chart 3.12

EMPLOYMENT LEADING INDICATORS



1 Monthly figures

2 Trend component: SNB

Sources: Credit Suisse, KOF Swiss Economic Institute, SFSO

4 Prices and inflation expectations

At the end of 2014 and the beginning of 2015, the decline in prices for oil and oil products led to a decrease in annual inflation rates for both consumer prices and producer and import prices in Switzerland. With the discontinuation of the minimum exchange rate and the appreciation of the Swiss franc that followed, downward pressure on inflation rates continued to increase. These are now clearly in negative territory.

The effects of the appreciation of the Swiss franc are likely to affect producer and import prices more markedly and more quickly than prices at the downstream consumer level. The sharp reaction of exchange rates to the discontinuation of the minimum exchange rate could, however, mean that the exchange rate pass-through to consumer prices happens more promptly than would usually be the case.

The discontinuation of the minimum exchange rate and the associated decline in rates of inflation influenced inflation expectations. Overall, the available survey results suggest that short and medium-term inflation expectations have declined significantly.

CONSUMER PRICES

CPI inflation dominated by falling oil prices and discontinuation of minimum exchange rate

Between December and February, the annual inflation rate as measured by the national consumer price index (CPI) moved further into negative territory (cf. table 4.1). Developments in December and January can largely be explained by the sharp drop in prices for oil and oil products. The Swiss franc appreciation associated with the discontinuation of the minimum exchange rate of CHF 1.20 per euro subsequently contributed to the fact that the annual inflation rate decreased further to -0.8% in February 2015.

The discontinuation of the minimum exchange rate influenced the monthly values of the CPI as of February. The January figures were not affected because consumer prices are collected during the first two weeks of the month.

Table 4.1

SWISS CONSUMER PRICE INDEX AND COMPONENTS

Year-on-year change in percent

	2014	2014				2014	2015	
		Q1	Q2	Q3	Q4	December	January	February
Overall CPI	0.0	0.0	0.1	0.0	-0.1	-0.3	-0.5	-0.8
Domestic goods and services	0.4	0.5	0.5	0.3	0.4	0.5	0.6	0.5
Goods	0.3	0.4	0.5	0.3	0.2	0.1	0.5	0.2
Services	0.4	0.5	0.4	0.3	0.5	0.6	0.7	0.6
Private services excluding rents	0.4	0.3	0.3	0.3	0.6	0.8	0.8	0.8
Rents	1.2	1.4	1.2	1.1	1.1	1.1	1.1	1.0
Public services	-0.8	-0.5	-0.5	-0.9	-1.2	-0.8	-0.8	-0.8
Imported goods and services	-1.2	-1.5	-0.9	-0.9	-1.6	-2.6	-3.6	-4.7
Excluding oil products	-1.0	-1.3	-1.3	-0.7	-0.8	-0.9	-0.9	-1.7
Oil products	-2.4	-2.4	1.1	-1.8	-6.7	-12.6	-19.1	-21.6

Sources: SFSO, SNB

Decline in prices of foreign goods accelerates

The decline in prices of foreign goods has accelerated in recent months. Until January, the development of the inflationary contribution of foreign goods was dominated by prices for oil products. In February, exchange rate developments meant that inflation rates of other imported goods increasingly contributed to the downward pressure (cf. chart 4.1).

Slight rise in inflation for domestic goods

Annual inflation for domestic goods has risen slightly since October and remains in positive territory. Price changes for services excluding rents made the largest contribution to this rise. Rent inflation remained largely unchanged but still made the greatest contribution to annual inflation for domestic goods (cf. chart 4.2).

Zero core inflation

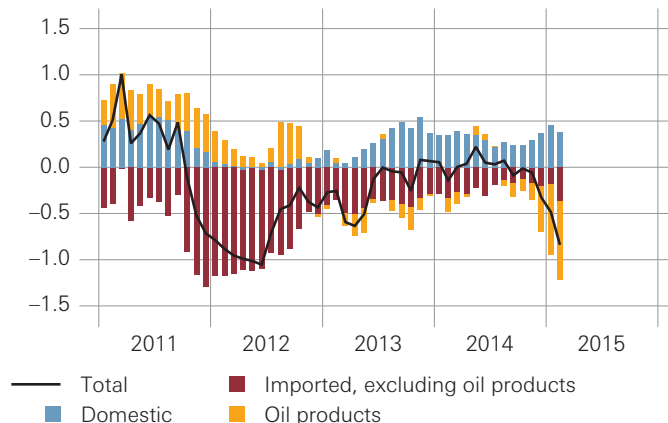
In contrast to annual CPI inflation, over the past few months core inflation rates have not been negative. In February 2015, the SFSO core inflation rate 1 (SFSO1) was 0%, after a temporary slight rise in December and January. The trimmed mean calculated by the SNB (TM15) was 0.1%.

The difference from annual CPI inflation can be explained by the fact that core inflation rates are based on a reduced basket of goods. When calculating SFSO1, fresh and seasonal products as well as energy and fuel are excluded, whereas TM15 factors out those 15% of goods with the highest and those 15% with the lowest annual price increases from the CPI basket.

Chart 4.1

CPI: DOMESTIC AND IMPORTED GOODS

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

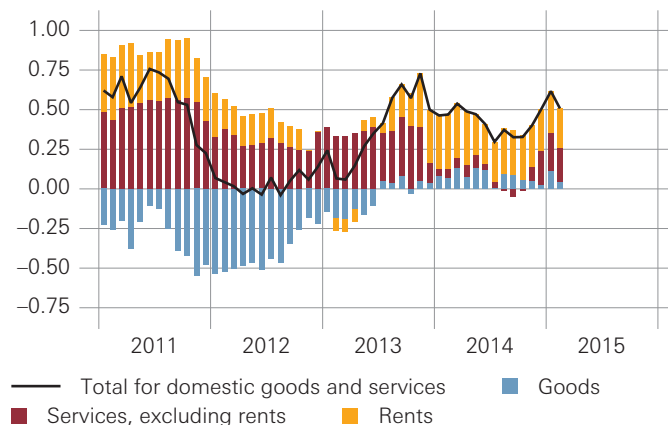


Source: SFSO

Chart 4.2

CPI: DOMESTIC GOODS AND SERVICES

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

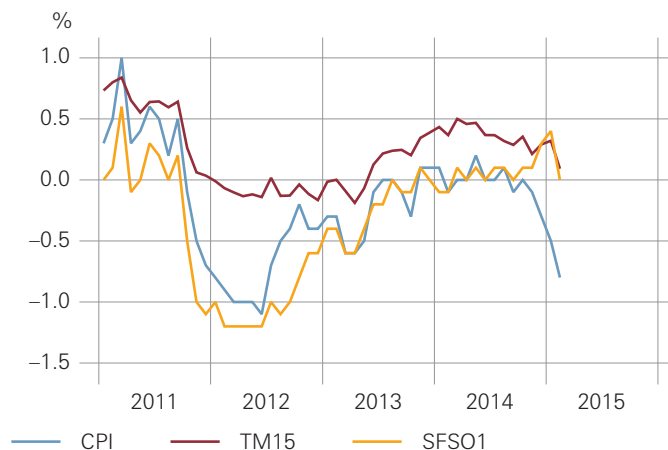


Sources: SFSO, SNB

Chart 4.3

CORE INFLATION RATES

Year-on-year change

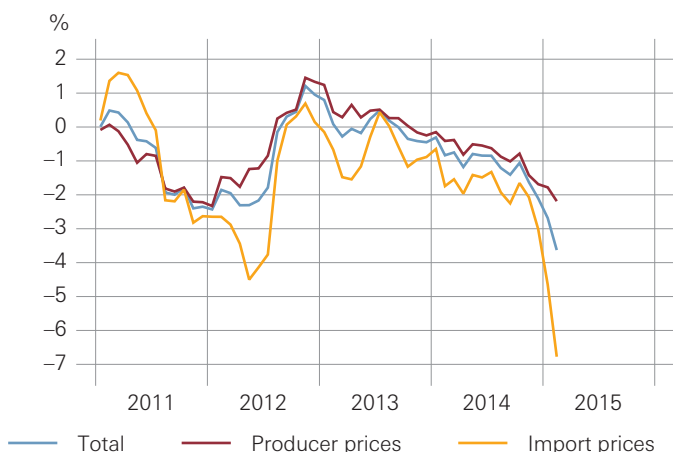


Sources: SFSO, SNB

Chart 4.4

PRODUCER AND IMPORT PRICES

Year-on-year change

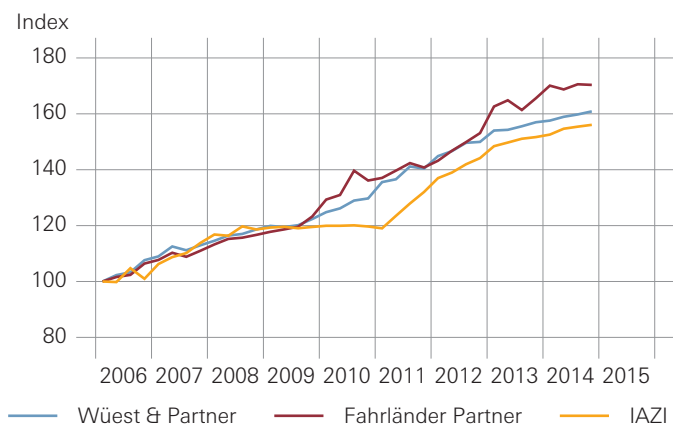


Source: SFSO

Chart 4.5

TRANSACTION PRICES, OWNER-OCCUPIED APARTMENTS

Nominal (hedonic), beginning of period = 100

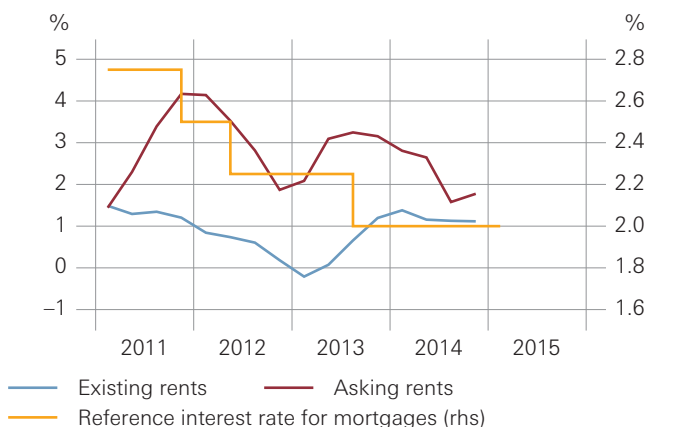


Sources: Fahrländer Partner, IAZI, Wüest & Partner

Chart 4.6

APARTMENT RENTS AND REFERENCE INTEREST RATE

Nominal, year-on-year change (lhs)



Sources: Federal Office for Housing (FOH), SFSO, Wüest & Partner

PRODUCER AND IMPORT PRICES

Declining supply prices

The decline in supply prices has clearly accelerated in recent months. After the total index for producer and import prices fell by just over 1% in the 12 months from October 2013 to October 2014, it fell by a further 3.1% in the four months to February 2015 alone. The decline over the past four months was mainly attributable to lower prices for oil and oil products.

The total index fell by 3.6% year-on-year as at February 2015 (cf. chart 4.4). Import prices declined by 6.8%, while producer prices receded by 2.2% in the same period.

The discontinuation of the minimum exchange rate affected the monthly values of the supply price indices as of February 2015. The January figures were not affected because supply prices are collected during the first week of the month.

REAL ESTATE PRICES

Moderate rise in residential property prices

According to most available indices, residential property prices rose moderately in the fourth quarter of 2014. Chart 4.5 shows three price indices for owner-occupied apartments, two of which recorded a slight increase in prices and the third of which stagnated in the fourth quarter. Taken over the whole of 2014, all price indices for residential property grew at a slower pace than in the previous three to four years.

At regional level, trends evident in the previous quarters continued. In the Lake Geneva region, prices for residential property have remained largely unchanged since 2013, while prices have risen in almost all other regions.

Continued moderate rise in existing rents

The annual inflation on asking rents recorded by Wüest & Partner (rents for apartments offered on the market) rose slightly in the fourth quarter of 2014. Annual inflation for these rents thus remained above inflation for the rents recorded in the CPI, which may be regarded as a benchmark for existing rents (cf. chart 4.6). Inflation in existing rents is slowed by the steady decline in the mortgage reference rate used for calculating rents. This has remained unchanged at 2% since 3 September 2013.

INFLATION EXPECTATIONS

Significant correction in short and medium-term inflation expectations

The available survey results on price and inflation trends show a significant reduction in short and medium-term inflation expectations.

The quarterly survey of households conducted by SECO shows that, in January 2015, 18% of respondents expected prices to fall over the next twelve months. Last October, the share was only 8%. The January results are, however, skewed by the fact that some surveys were conducted before and some after 15 January 2015, the day when the minimum exchange rate was discontinued. If only the answers after 15 January 2015 are taken into account, almost half of the respondents expect prices to fall.

The majority of the financial analysts surveyed for the Credit Suisse ZEW Financial Market Report in February 2015 foresee a decline in the inflation rate over six months. Under the influence of falling oil prices, this proportion had already increased from 5% in November to 42% in December 2014. In February 2015, it reached 62%. With a few exceptions, the remaining respondents expect inflation rates to remain unchanged.

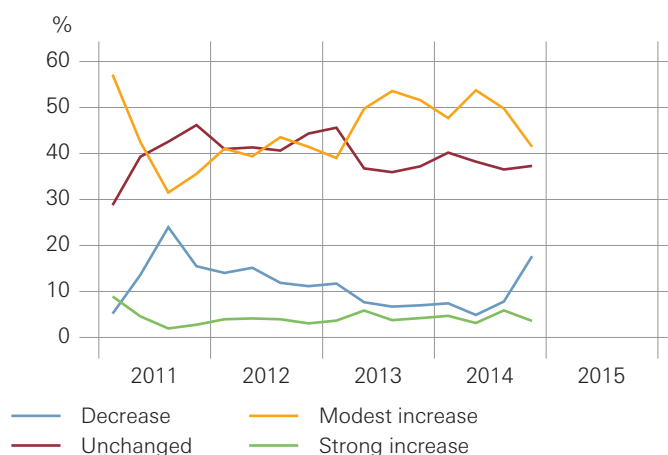
Talks between the SNB delegates for regional economic relations and company representatives from all sectors of the economy indicate that, in the first quarter of 2015, the respondents surveyed expect the inflation rate to be -1.3% in six to twelve months (fourth quarter 2014 expectation: 0.3%). Expectations for the next three to five years also decreased sharply, from 1.1% to 0.5% . Almost all of the talks held in the first quarter took place after the discontinuation of the minimum exchange rate in mid-January.

No survey results that take account of the discontinuation of the minimum exchange rate are currently available for long-term inflation expectations.

Chart 4.7

PRICE EXPECTATIONS

Survey on expected movements in prices for coming 12 months



Sources: SECO, SNB

5 Monetary developments

In recent quarters, the exchange rate situation has been mainly driven by diverging developments in the US and the euro area. These differences are evident first and foremost in monetary policy. While in the US a start to monetary policy normalisation is in sight, the European Central Bank (ECB) has now launched a further substantial easing of its monetary policy – its quantitative easing programme. Since the first indications of quantitative easing by the ECB in spring last year, the euro has depreciated sharply against the US dollar. In the short period since the monetary policy assessment in December, the euro has lost around 15% against the US dollar – and since May 2014 as much as 25%.

Given this situation, it was clear that the minimum exchange rate of CHF 1.20 against the euro was no longer sustainable. In the weeks before 15 January, when the minimum exchange rate was discontinued, the necessary level of intervention on the foreign exchange markets was already high and climbing rapidly. Following the discontinuation of the minimum exchange rate, the Swiss franc initially appreciated sharply against all currencies. In recent weeks this appreciation has lessened somewhat. Overall, however, the Swiss franc is still significantly overvalued. The SNB expects that this will be corrected with time.

Following the interest rate reductions since the last monetary policy assessment, the reference interest rate is now negative for the first time in the history of the SNB. Negative interest makes holding investments in Swiss francs less attractive for Swiss and foreign investors. This creates incentives to reduce inflows to the Swiss franc, and reinvest Switzerland's traditional current account surplus abroad. Negative interest thus contributes to a weakening of the Swiss franc.

The interest rate reductions had a rapid effect. As expected, the negative interest rate imposed on banks by the SNB was transmitted to the entire spectrum of money and capital market interest rates. However, low or negative interest rates are not limited to Switzerland. Low interest rates are a global phenomenon and some other countries, especially in the euro area, also have negative rates. Switzerland cannot disassociate itself from such developments. With the interest rate reduction in Switzerland, the interest rate differential to the major currency areas, which had declined to virtually zero in recent years, has now increased again.

SUMMARY OF MONETARY POLICY SINCE THE LAST ASSESSMENT

Introduction of negative interest rates and discontinuation of the minimum exchange rate

On 18 December 2014, the SNB announced that it would be imposing an interest rate of -0.25% on sight deposits held by banks and other financial market participants at the SNB which exceeded a given exemption threshold. This measure was scheduled to enter into force on 22 January 2015, following a change to the SNB's Terms of Business. The SNB also expanded the target range for the three-month Libor to between -0.75% and 0.25% (previously 0% – 0.25%). The announcement of the negative interest rate was intended to increase the interest rate differential to other currencies, and thereby decrease the attractiveness of Swiss franc investments and support the minimum exchange rate.

One month later, on 15 January 2015, the SNB discontinued the minimum exchange rate of CHF 1.20 per euro (cf. 'The discontinuation of the minimum exchange rate' on p. 23). This step was taken against a backdrop of a growing divergence between the monetary policies of the major currency areas. The SNB also lowered the interest rate on sight deposit account balances once again, to -0.75% (applicable as of 22 January 2015), and moved the target range for the three-month Libor to between -1.25% and -0.25% . The purpose of the interest rate reduction was to cushion the effects of the discontinuation of the minimum exchange rate and further reduce the attractiveness of Swiss franc investments.

Increase in sight deposits at the SNB

Since the monetary policy assessment of December 2014, total sight deposits held at the SNB have again increased considerably. They were up by CHF 73.8 billion, from CHF 369.2 billion to CHF 443.4 billion, as measured in the last calendar week before the assessments in mid-December 2014 and mid-March 2015, respectively. Between the assessments in mid-December 2014 and mid-March 2015, sight deposits averaged CHF 420.8 billion, of which CHF 360.0 billion was accounted for by domestic banks and the remaining CHF 60.8 billion by other financial market participants.

High level of banks' surplus reserves

Between 20 November 2014 and 19 February 2015, statutory minimum reserves averaged CHF 14.6 billion. They were therefore virtually unchanged from the preceding period (20 August 2014 to 19 November 2014). Overall, banks exceeded the requirement by some CHF 336.3 billion (previous period: CHF 304.6 billion). Banks' surplus reserves have thus again increased somewhat.

The discontinuation of the minimum exchange rate

On 15 January 2015, the SNB discontinued its minimum exchange rate of CHF 1.20 per euro, thereby marking the end of a three-and-a-half year period during which the measure had constituted the key element in maintaining appropriate monetary conditions. At the same time, the SNB lowered the interest rate on sight deposit account balances at the SNB to -0.75% , in order to reduce the attractiveness of holding Swiss franc investments.

The minimum exchange rate was introduced in September 2011, at a time when the Swiss economy was facing very difficult conditions. It was intended as a temporary measure, and communicated as such. The global economy had just emerged from the worst recession since the Great Depression of the 1930s. The sovereign debt crisis in the euro area had exacerbated uncertainty as to the future of the single currency, and the US dollar was trending towards weakness. Despite the SNB strongly expanding liquidity and reducing money market interest rates to almost zero, within a few years the euro fell against the Swiss franc, from around CHF 1.60 to virtual parity. This overvaluation was partially corrected by the SNB's minimum exchange rate of CHF 1.20 per euro.

The minimum exchange rate served the Swiss economy well, providing it with time to adjust to the new conditions. Production and employment recovered faster than in many other countries. These positive results were also reflected in companies' balance sheets and stock market values. The situation was therefore considerably different when the minimum exchange rate was discontinued in January 2015, compared to its introduction in September 2011.

The minimum exchange rate was discontinued against a backdrop of growing divergence between the

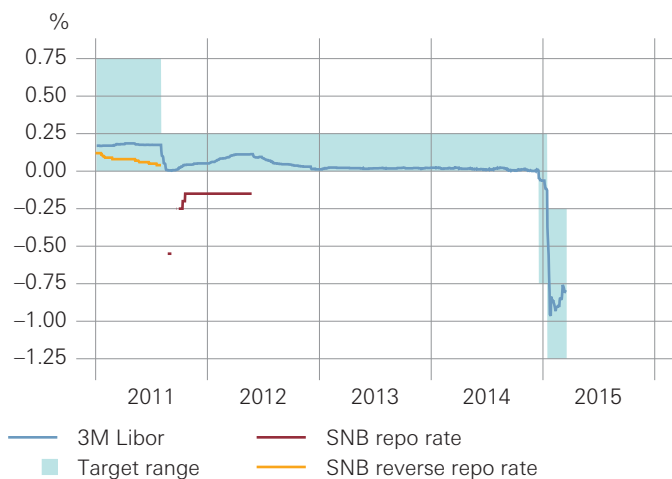
monetary policies of the major currency areas. While in the US the prospect of a rise in interest rates became increasingly likely, the euro area saw a further easing of monetary policy conditions from mid-2014 onwards. The euro weakened very substantially against the US dollar, and the Swiss franc largely followed suit, due to the minimum exchange rate. In the first half of January 2015, the pressure on the Swiss franc rose, requiring the SNB to make substantial and rapidly increasing interventions on the foreign exchange market. The minimum exchange rate of CHF 1.20 per euro was no longer sustainable, and a change of course was necessary.

Had the SNB delayed the discontinuation of the minimum exchange rate, this would only have been at the expense of an uncontrollable expansion of the SNB balance sheet by hundreds of billions of Swiss francs, and potentially by several times Swiss GDP. Such an expansion would have severely impaired the SNB's future ability to conduct monetary policy and jeopardised the fulfilment of its mandate in the long term. Moreover, given the fact that the minimum exchange rate was no longer sustainable, further intervention would have been pointless, and the enormous losses arising from it could not have been justified.

The discontinuation of the minimum exchange rate took many market participants by surprise. However, the SNB could not announce its intention to discontinue the minimum exchange rate in advance without triggering the kind of speculative capital flows that the discontinuation was intended to prevent. Even mere hints of an imminent discontinuation of the minimum exchange rate would have opened up possibilities of achieving practically risk-free speculative gains.

Chart 5.1

MONEY MARKET RATES

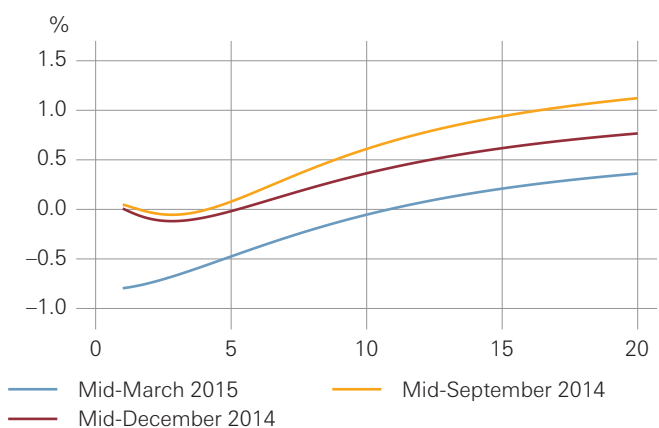


Sources: Bloomberg, SNB

Chart 5.2

TERM STRUCTURE OF SWISS CONFEDERATION BONDS

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



Source: SNB

Chart 5.3

ESTIMATED REAL INTEREST RATE

10-year Confederation bonds
Inflation expectations estimated with VAR model



Source: SNB

MONEY AND CAPITAL MARKET INTEREST RATES

Money market interest rates in negative territory

The introduction of negative interest on sight deposits at the SNB led to a sharp fall in money market interest rates, with interest rates declining well into negative territory in both the secured and unsecured money markets (cf. chart 5.1).

Once the negative interest rates came into effect, the three-month Libor stood at around -0.9% . The interest rates on the secured money market (Swiss Average Rates) were somewhat higher, at roughly the level of the interest rate on sight deposits at the SNB of -0.75% . The issuing yields on money market debt register claims of the Swiss Confederation were, as usual, below the Libor.

Long-term interest rates negative at times

The lowering of short-term interest rates led at times to negative yields on long-term Confederation bonds. On 23 January 2015, the yield on 10-year Confederation bonds recorded a historical low of -0.3% . Since then it has recovered slightly, amounting to just under 0% in mid-March, compared to around 0.4% at the monetary policy assessment of December 2014.

Yield curves become steeper and shift downwards

The introduction of negative interest on sight deposits at the SNB led to a decline in interest rates across the entire spectrum of maturities. Accordingly, the yield curve on Swiss Confederation bonds shifted downwards (cf. chart 5.2). It also steepened, since the introduction of negative interest rates influenced short-term rates more strongly than long-term rates.

Further decline in real interest rates

The decline in long-term nominal interest rates to values around zero caused long-term real interest rates to move into negative territory. Mid-March saw the estimated ten-year real interest rate at just under -0.1% , compared to around 0.3% in the previous quarter (cf. chart 5.3). Calculation of this real interest rate is based on the ten-year yield on Confederation bonds and the estimated inflation expectations for the same time horizon, determined using a vector autoregressive (VAR) model.

EXCHANGE RATES

Strong appreciation of Swiss franc after discontinuation of minimum rate

On 15 January 2015, immediately after the discontinuation of the minimum exchange rate, the Swiss franc appreciated sharply against all currencies. In the first few minutes after the SNB announcement, the price of the euro in Swiss francs on the interbank market dipped to an all-time low of CHF 0.85 per euro, but rapidly recovered, and by that afternoon was trading at close to parity. The price of the US dollar in Swiss francs fell for a short time to almost the same extent as the euro (cf. chart 5.4).

In the weeks following the discontinuation of the minimum exchange rate, exchange rates in Swiss francs continued to rise, with volatility high at times. Following a continual strengthening over the course of 2014, the US dollar, especially, gained ground, and by March 2015 the USD/CHF exchange rate was already slightly higher than at the start of the year.

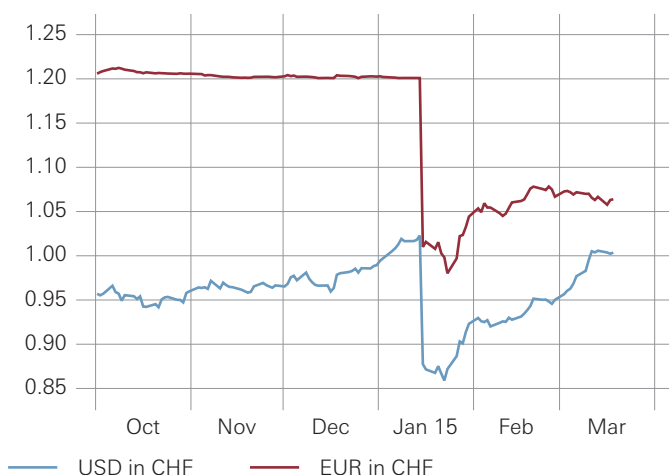
By contrast, the EUR/CHF exchange rate persisted at considerably lower than the level recorded before the discontinuation of the minimum exchange rate; in mid-March 2015 it was at CHF 1.06 per euro, constituting a 12% appreciation against the minimum exchange rate of CHF 1.20 per euro in place until mid-January.

More restrictive monetary conditions due to currency appreciation

The appreciation of the Swiss franc has resulted in a significant tightening of monetary conditions, although the SNB has lowered short-term interest rates. The Monetary Conditions Index (MCI) in chart 5.5 combines changes in the three-month Libor with the nominal export-weighted external value of the Swiss franc to provide a measure of monetary conditions. To take account of uncertainty regarding the relative impact of changes in interest rates and exchange rates, two versions of the index are used, with each version assigning a different weighting to the two components. The index is reset to zero at the time of the last monetary policy assessment. Positive values of the MCI indicate a tightening of monetary policy.

Chart 5.4

EXCHANGE RATES



Source: SNB

Chart 5.5

MCI NOMINAL



Source: SNB

Real external value of the Swiss franc at very high level

The higher valuation of the Swiss franc on the foreign exchange market – triggered by the discontinuation of the minimum exchange rate – led to a sharp rise in the real export-weighted external value of the Swiss franc, which has since remained at a very high level (cf. chart 5.6).

The real external value of the Swiss franc continues to be lower than in summer 2011. While the euro against the Swiss franc is about as low as it was then, the same period has seen the US dollar appreciate. Furthermore, the inflation differential between Switzerland and other countries indicates that in the period under observation, the real external value of the Swiss franc developed more weakly than the nominal value.

STOCK MARKETS

Sharp, temporary decline in share prices in January

The Swiss Market Index (SMI), which comprises the twenty largest companies in the more comprehensive Swiss Performance Index (SPI), dipped sharply following the discontinuation of the minimum exchange rate (cf. chart 5.7). The percentage decrease was initially almost the same as the export-weighted appreciation of the Swiss franc. Since this very substantial decline, the SMI has recovered much ground, on the back of a weaker Swiss franc on the foreign exchange market, as well as

encouraging economic data from the US and an announcement by the ECB of a programme of quantitative easing. The same period saw the major share indices in the US, Europe and Japan also rise considerably.

The expected volatility of the SMI, which is calculated using option prices, initially almost doubled following the discontinuation of the minimum exchange rate in mid-January 2015 (cf. chart 5.7). Nevertheless, the volatility index remained well below the level recorded at the height of the financial crisis of 2008/9, or during the European debt crisis of 2010/11. Since January, the volatility index has once more largely normalised.

Chart 5.6

REAL EXTERNAL VALUE OF SWISS FRANC

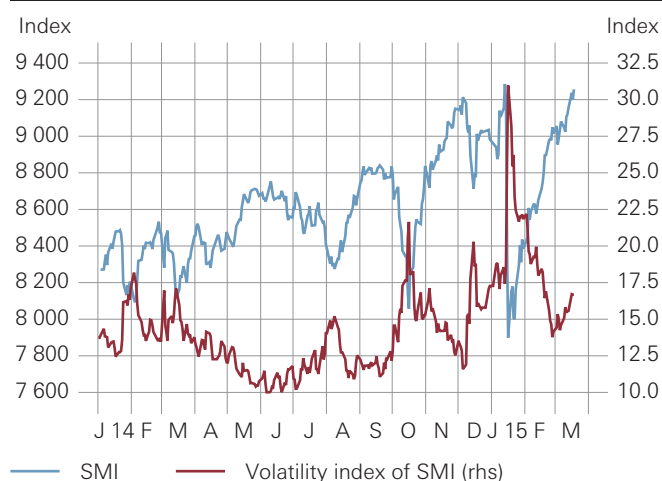
Export-weighted, January 1999 = 100



Source: SNB

Chart 5.7

SHARE PRICES AND VOLATILITY



Sources: Bloomberg, Thomson Reuters Datastream

Moderate differences between the paths of major sectoral indices

The SPI's decline in mid-January 2015 and its subsequent recovery were reflected across all of its major sectoral indices, with health care, industrials, consumer goods and financials all exhibiting similar trends. The movements of these four sub-indices are shown in chart 5.8, which was indexed at 100 on 14 January 2015 (the day before the discontinuation of the minimum exchange rate).

MONETARY AND CREDIT AGGREGATES

Rise in the monetary base

The monetary base rose sharply in December 2014 and January 2015 (cf. chart 5.9), averaging CHF 380 billion in November 2014 and CHF 450 billion in February 2015.

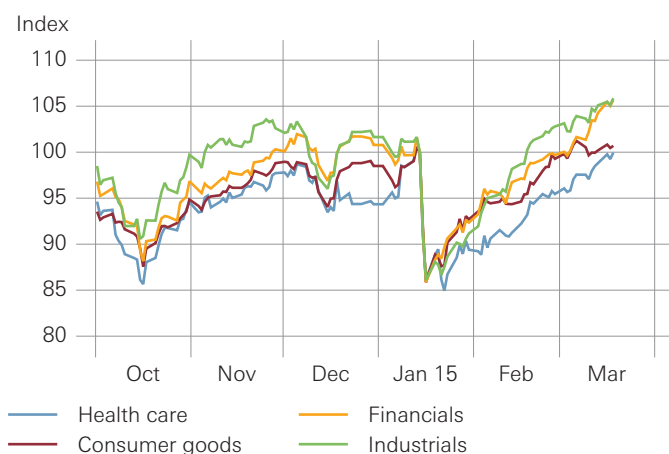
This rise was driven by sight deposit account balances held by domestic banks at the SNB, and mainly reflects foreign currency purchases made by the SNB to enforce the minimum exchange rate.

The second component of the monetary base, namely banknotes in circulation, increased considerably in December. However, at the beginning of the new year it declined less markedly than at the beginning of previous years.

Chart 5.8

SELECTED SPI SECTORS

14 January 2015 = 100

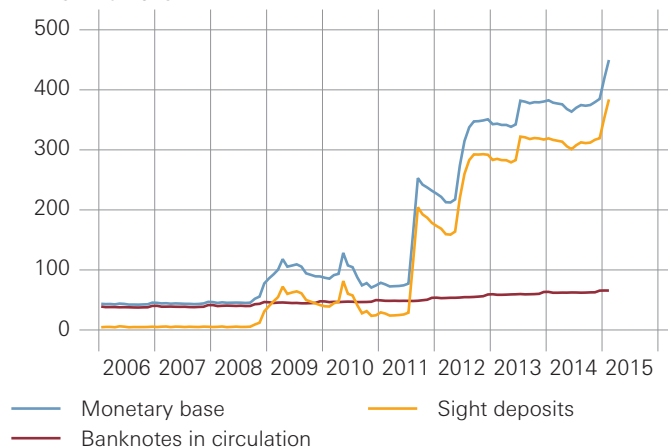


Source: Thomson Reuters Datastream

Chart 5.9

MONETARY BASE

In CHF billions



Source: SNB

Weaker growth of money supply

Recent quarters have seen a softening of growth in the broader monetary aggregates, which measure money stocks held by private households and companies (cf. chart 5.10 and table 5.1). In February 2015, the M1 monetary aggregate (notes and coins in circulation, sight deposits and transaction accounts) was up by 0.9% year-on-year to CHF 568 billion. In the same period, M2 (M1 plus savings deposits) increased by 1.5% to CHF 898 billion, and M3 (M2 plus time deposits) by 2.3% to CHF 955 billion.

Growth in money supply driven by lending

The expansion of the money supply since the financial and economic crisis is primarily attributable to bank lending. An analysis of the aggregate balance sheet of the domestic banks (components and counterparts of the M3 monetary aggregate) indicates that some two-thirds of the increase in the M3 monetary aggregate recorded since October 2008 (CHF 320 billion) is attributable to an increase in domestic Swiss franc lending (CHF 226 billion). The remaining third is due to the expansion of the monetary base (cf. 'The effect of the monetary base expansion on the balance sheets of domestic banks' by L. Altermatt and R. Baeriswyl on pp. 34 et seq.).

Table 5.1

MONETARY AGGREGATES AND BANK LOANS

Year-on-year change in percent

	2014	2014				2014	2015	
		Q1	Q2	Q3	Q4	December	January	February
M1 ¹	3.8	5.0	4.2	3.1	2.8	2.4	1.1	0.9
M2 ¹	3.5	4.2	3.7	3.1	2.9	2.6	1.8	1.5
M3 ¹	3.8	4.5	3.9	3.4	3.4	3.3	2.9	2.3
Bank loans, total ^{2, 4}	4.1	4.0	4.5	4.4	3.5	3.0	2.7	
Mortgage claims ^{2, 4}	3.9	4.2	3.8	3.8	3.6	3.6	3.6	
Households ^{3, 4}	3.5	3.7	3.6	3.4	3.3	3.4	3.5	
Private companies ^{3, 4}	4.8	5.8	4.5	4.5	4.4	4.3	4.2	
Other loans ^{2, 4}	5.3	3.1	7.7	8.0	2.6	0.0	-2.0	
Secured ^{2, 4}	4.3	-3.4	4.3	8.8	8.0	9.8	6.6	
Unsecured ^{2, 4}	6.0	7.5	10.0	7.5	-1.0	-6.3	-7.1	

1 On 26 June 2013, PostFinance was granted a banking licence. The growth rates are based on monetary aggregate figures adjusted retroactively for the period January 2005 to May 2013 (cf. *Monthly Statistical Bulletin*, table B2a online, and 'Information on SNB statistics', August 2013, p. III).

2 Monthly balance sheets.

3 Credit volume statistics.

4 Growth rates for the bank loans item and for its components include information provided by banks on changes in their classification practices. Consequently, they may deviate from growth rates published in the *Monthly Bulletin of Banking Statistics*.

Source: SNB

Slowdown in growth of mortgage lending

In the fourth quarter of 2014, banks' mortgage claims – which make up four-fifths of all bank lending – increased by 3.6% year-on-year (cf. table 5.1). This constituted a slowing of growth in mortgage lending to households and private companies; it thereby confirmed a trend which has been observable for some time now, despite the fact that mortgage rates are very low in historical comparison (cf. chart 5.11).

The weaker growth in mortgage lending has occurred against the background of various measures taken since 2012 to restrain the banks' appetite for risk and strengthen their resilience. These include the banks' own self-regulation measures, which subject mortgage lending to stricter minimum requirements. In addition, the countercyclical capital buffer, which was activated in 2013 and increased in 2014, and which requires banks to back their mortgage loans on residential property with additional capital, is still in place. The SNB's Bank Lending Survey also indicates a slight tightening of lending standards, as well as a decline in demand for loans among households and companies.

Flat trend in other loans category

Since the onset of the financial and economic crisis, other lending (loans not secured by mortgages) has trended flat (cf. chart 5.12). The period between December 2013 and October 2014 saw a significant temporary increase in other loans, due mainly to the issue and repayment of a large individual intragroup loan in the financial sector.

Chart 5.10

MONETARY AGGREGATES

Including PostFinance

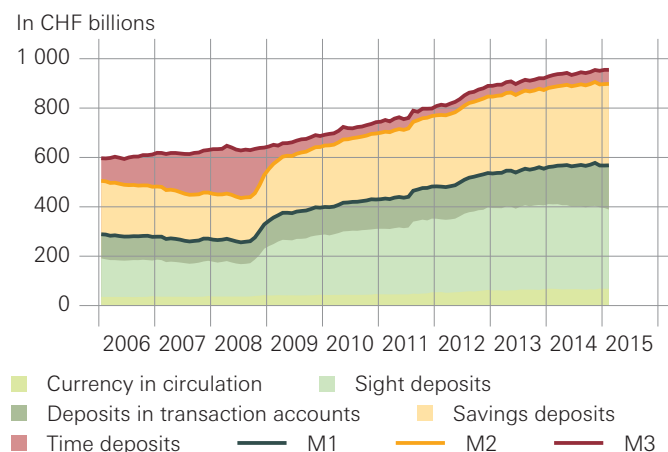


Chart 5.11

MORTGAGE CLAIMS AND 3M LIBOR

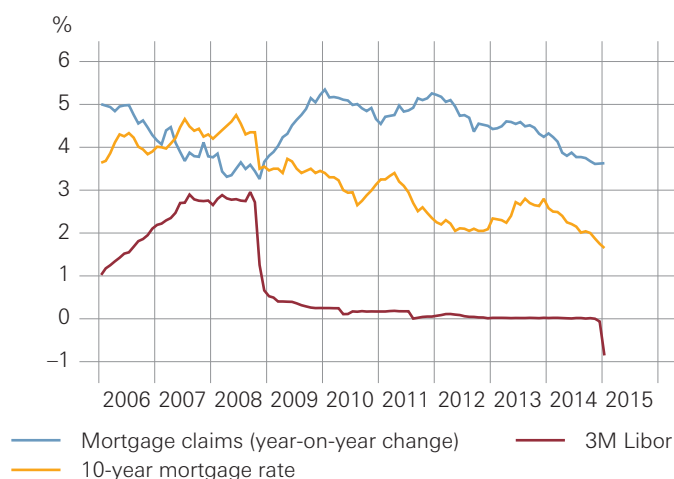
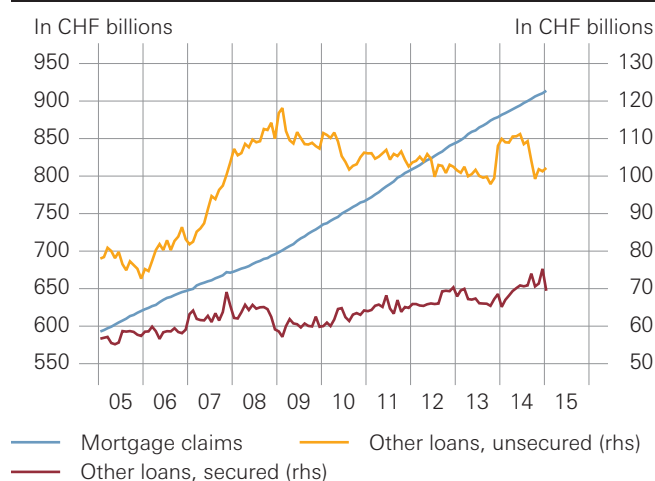


Chart 5.12

MORTGAGE CLAIMS AND OTHER LOANS



Business cycle trends

SNB regional network

Report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2015

First quarter of 2015

The Swiss National Bank's delegates for regional economic development are constantly in touch with companies from different areas of the economy. This report is based on discussions conducted from the middle of January to the beginning of March 2015 with 225 managers and entrepreneurs on the current and future situation of their companies and the economy in general. The selection of companies differs from one quarter to the next. It reflects the industrial structure of the Swiss economy, based on the breakdown of GDP (excluding agriculture and public services).

Regions

Central Switzerland
Eastern Switzerland
Geneva
Italian-speaking Switzerland
Mittelland
Northwestern Switzerland
Vaud-Valais
Zurich

Delegates

Walter Näf
Urs Schönholzer
Jean-Marc Falter
Fabio Bossi
Martin Wyss
Daniel Hanimann
Aline Chabloz
Markus Zimmerli

SUMMARY

The performance of the Swiss economy in the first quarter and the discussions conducted with managers and entrepreneurs from the middle of January to the beginning of March were shaped to a large degree by the discontinuation of the minimum exchange rate against the euro on 15 January 2015. According to this survey, which does not factor in the public sector, economic growth came to a standstill in the quarter under review. Margins worsened significantly for many companies, causing firms to resort to a wide range of countermeasures.

The new exchange rate situation poses a considerable challenge for many respondents, who say they first have to undertake an in-depth analysis of what repercussions it has for their companies. Such a reassessment takes time, and there is consequently a great deal more uncertainty about business trends going forward.

The outlook for real turnover growth in the coming months is visibly bleaker, especially in the manufacturing industry. Viewed across all sectors, however, it does not point to a contraction. Headcounts are expected to go down slightly overall and the investment volume will be lower than in the corresponding period in 2014.

BUSINESS ACTIVITY

Turnover maintained

In the manufacturing industry, real turnover generally stagnated against the previous quarter in most sectors, with the exception of the pharmaceutical industry. Year-on-year, however, a slight increase in sales was recorded.

The US as well as Asian and Arab countries are among the export markets enjoying relatively high momentum. Demand in Europe remains stable overall. A number of sectors are feeling the restrictive effects of the Russia-Ukraine crisis.

The construction sector reported slightly lower turnover (seasonally adjusted) than in the previous quarter. Compared to the year-back quarter, the decline in sales was significantly steeper, as the winter in early 2014 was unusually mild. Momentum appears to be levelling off further in the residential construction segment.

Business was rated as sluggish overall in the services sector as well. The retail, vehicle trade and catering sectors all reported a fairly substantial slowdown in business. The vehicle trade in particular practically ground to a halt in the days following the discontinuation of the minimum exchange rate. Business was rekindled by the announcement of large euro discounts, triggering substitution effects as demand shifted from second-hand vehicles to new ones. The retail trade faces a renewed increase in cross-border shopping by Swiss consumers.

The new exchange rate situation is causing a moderate decline in bookings in the hotel and catering trade; cancellations have remained limited so far. Sustained strong demand from tour groups from Asia is helping to cushion the negative effects. An increase in traveller numbers from the US and, to some degree, the UK was also observed.

CAPACITY UTILISATION

Similarly to previous periods, the companies surveyed rated production capacity as generally only slightly underutilised, reflecting the favourable order situation to date.

Just under 40% of responding companies in the manufacturing industry reported an underutilisation of capacity. Practically all sectors rated their capacity as slightly or even significantly lower than normal. Capacity utilisation was assessed as significantly lower than normal by producers of electrical equipment as well as in the chemical and food industries. By contrast, the metalworking companies surveyed stated that capacity utilisation was higher than normal thanks to a solid backlog of orders. In the watchmaking industry, capacity utilisation was reported as stabilising at a slightly lower level than in the preceding quarters owing to lower demand from China.

In the construction industry, utilisation of technical capacity was still rated as slightly higher than normal overall, due solely to the structural engineering sector. Though order books remained well filled, there are increasing signs that the slowdown is persisting. The vote to curb second-home ownership is having an increasingly noticeable impact at regional level.

In the services sector, utilisation of infrastructure (i.e. primarily office and retail space as well as transport capacity) was reported to be marginally lower than normal overall. The IT sector was an exception, rating infrastructure utilisation as slightly higher than normal.

DEMAND FOR LABOUR

Slight decrease in demand for staff

The discontinuation of the minimum exchange rate against the euro triggered numerous staffing policy measures, including hiring freezes, longer working hours for the same pay, and pay freezes – in some cases even after increases had already been communicated. A small proportion of companies are planning to reduce headcounts.

Respondents in the manufacturing industry reported that staff numbers were slightly too high. By comparison, the construction sector still considered headcounts to be appropriate. Within the services sector, retailers and transport companies rated headcounts as slightly too high. Most IT companies, on the other hand, are continuing to seek more staff.

Respondents in all three categories – manufacturing, construction and services – indicated that the lack of specialists had become somewhat less acute. Many companies continued to report that the level of spontaneous job applications was still high to very high,

above all in Ticino. Job advertisements also frequently attract a large number of applications.

PRICES, MARGINS AND EARNINGS SITUATION

Margins under pressure

In all three categories, margins overall were reported as being under serious pressure compared to the previous quarter. Many segments saw prices being pushed down sharply following the discontinuation of the minimum exchange rate. Price benefits are being passed on to counter the risk of losing customers.

60% of the respondent companies assessed their margins as lower than usual, while a further 30% of firms stated that margins were within the usual range. Numerous measures are being implemented to counter the tougher competitive situation.

In all sectors of the manufacturing industry, profit margins at the time of the survey were judged to be lower or even significantly lower than usual. In the construction industry, the companies surveyed reported margins to be lower than usual in both the main and ancillary segments, due in part to a falloff in regional demand as well as to projects being put on hold in the public sector.

Companies in the services sector also rated margins as lower than usual overall. The car trade, retailers and banks had to contend with particularly low margins. Numerous retailers were quick to offer price concessions in response to the discontinuation of the minimum exchange rate. In the banking sector, the appreciation of the Swiss franc led to a decrease in commission income, and margins are being impacted by the negative interest rates.

OUTLOOK

Stagnation expected

Overall, the exchange rate situation has resulted in greater uncertainty about the future development of the economy. Respondents' concerns were especially pronounced in the days immediately following the discontinuation of the minimum exchange rate.

Real turnover is expected to stagnate on the whole over the coming months, whereas in the preceding quarters companies were still projecting moderate growth. There are, however, considerable differences from one sector to another. Many respondents need to conduct a thorough reassessment of the situation in light of the more volatile exchange rate scenario, and this takes time. The majority of measures introduced to improve margins are therefore temporary.

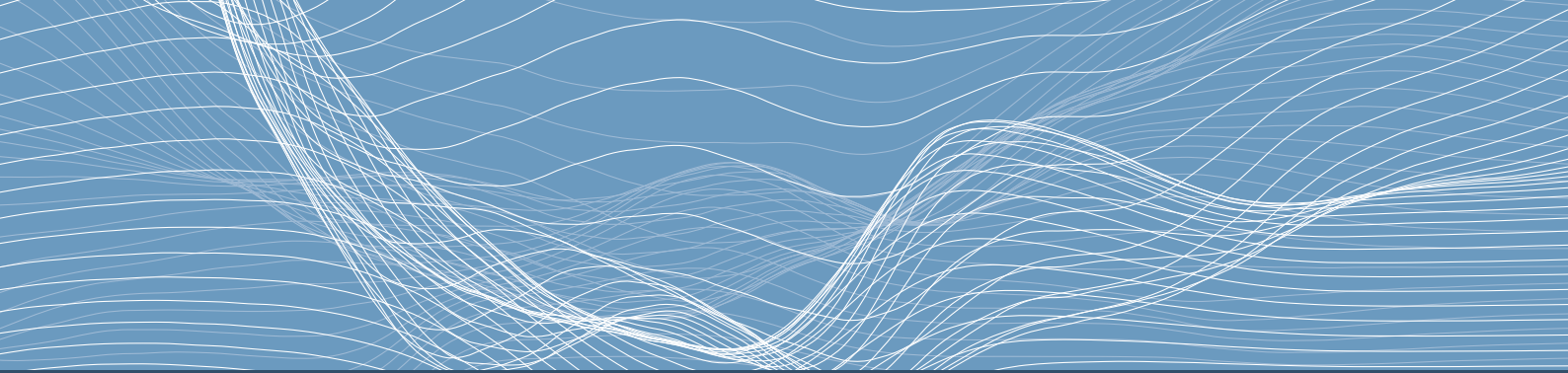
Respondents in all categories are predicting a marked fall in purchase and sales prices. Where feasible, however, companies are not reducing their selling prices as sharply as the drop in purchase prices in order to improve their margins again at least to a certain extent.

While survey participants in the manufacturing industry anticipate staff reductions, representatives of the services and construction sectors expect headcounts to remain unchanged. The sectors reporting the highest demand for staff are IT, legal and tax consultants, and auditors.

A lot of companies imposed an immediate freeze on investments following the discontinuation of the minimum exchange rate and now plan to thoroughly review their capital expenditure. Overall, planned investments in equipment as well as buildings are being scaled back substantially. Capital expenditure within Switzerland is incurred primarily to increase efficiency or to meet replacement needs rather than to expand capacity.

Respondents' inflation expectations – measured by the consumer price index – were considerably lower, dropping to –1.3% over the short term (6–12 months), as against around 0.3% in the previous survey. And at 0.5%, expectations over the longer time horizon of 3–5 years are also lower than in the last survey (1.1%).

With companies focusing primarily on the tight margin situation, concerns over geopolitical tensions have receded somewhat to the background, but are present nevertheless. The changes in operating conditions in Switzerland as a consequence of political initiatives and developments are still giving rise to critical comments, albeit to a lesser degree. Despite the current highly challenging exchange rate situation, discussions also revealed a measure of confidence in the adaptability of the Swiss economy.



The effect of the monetary base expansion on the balance sheet of domestic banks

Lukas Altermatt and Romain Baeriswyl¹

Summary

This paper describes the balance sheet counterparts of the increase in Swiss franc deposits held by domestic banks at the SNB, and of the growth in Swiss franc deposits held by the public at domestic banks. It traces the growth in Switzerland's monetary aggregates since 2008 to its various sources. The results indicate that about two-thirds of the increase in Swiss franc deposits held by the public at domestic banks results from loans granted by these banks to households and firms, whereas about one-third can be attributed directly to the market operations conducted by the SNB to expand the monetary base and thereby the banks' liquidity.

¹ We are grateful to Katrin Assenmacher, Dirk Faltin, Daniel Heller, Christian Hepenstrick, Robert Müller, Reto Nyffeler, Enzo Rossi and Mathias Zurlinden for their useful comments.

1 Introduction

In the wake of the recent financial crisis, the SNB substantially increased the monetary base to provide the money market with liquidity and limit the appreciation of the Swiss franc. The expansion in the monetary base essentially appears in the form of an increase in sight deposits held by domestic banks at the SNB. This paper describes the effect of the monetary base expansion on the balance sheets of domestic banks.

First, the paper identifies the counterparts of the increase in liquidity on the balance sheets of domestic banks. When the SNB intervenes on the foreign exchange market, the different types of SNB counterparties on the market have different effects on the balance sheets of domestic banks. For example, if the SNB buys foreign currency from domestic customers, the growth in Swiss franc liquidity held by domestic banks at the SNB will coincide with an expansion in deposits of domestic customers at domestic banks, i.e. with an increase in monetary aggregates. By contrast, if the SNB buys foreign currency from customers of foreign banks which do not have a sight deposit account at the SNB, the increase in Swiss franc liquidity will be credited to the sight deposit accounts of domestic banks in favour of these foreign banks. The growth in Swiss franc liquidity held by domestic banks at the SNB will then coincide with an expansion in amounts due to foreign banks from domestic banks, leaving Switzerland's monetary aggregates unaffected. Overall, the counterparts of the increase in Swiss franc liquidity held by domestic banks can be assigned to domestic customers, foreign banks, foreign customers and a currency mismatch. The latter indicates that the growth in Swiss franc liquidity has not been balanced by equivalent growth in Swiss franc liabilities on the balance sheets of domestic banks.

Second, the paper traces the growth in monetary aggregates to its various sources. The analysis shows that, since 2008, about one-third of the increase in monetary aggregates can be attributed to the expansion of banks' Swiss franc liquidity by the SNB. The remaining two-thirds has resulted from the granting of loans by domestic banks to businesses and consumers. This means that the bank lending transmission mechanism is effective at stimulating the economy in Switzerland and that only a small proportion of the growth in monetary aggregates reflects an increase in the monetary base.

Analysing the balance sheet counterparts of movements in a given position is not completely straightforward because asset and liability positions of banks vis-à-vis different groups of economic agents may move in parallel. The paper therefore presents the method step by step. Section 2 shows how the SNB's expansion of the monetary base since 2008 has affected the Swiss franc liquidity of domestic banks. Section 3 presents an aggregated balance sheet for domestic banks. Both assets and liabilities are split into their main components, each of which is split further according to whether it is denominated in Swiss francs or foreign currency. In section 4, asset positions of the aggregated balance sheet are netted against their appropriate liability positions in order to derive suitable net positions for the domestic banks. These net positions trace back the sources and uses of bank funding with respect to different groups of agents, and serve as a basis for the counterpart analysis. Section 5 discusses the counterparts of the increase in Swiss franc liquidity held by domestic banks at the SNB, and the counterparts of the increase in Swiss franc deposits held by domestic customers at domestic banks. Section 6 concludes.

2 The expansion of the monetary base and banks' liquidity since 2008

In the wake of the recent financial crisis, the SNB substantially increased the monetary base to provide the money market with liquidity and to limit the appreciation of the Swiss franc. The monetary base is defined as the sum of the banknotes in circulation and the deposits held by banks and non-banks at the SNB. Chart 1 illustrates the development of the liability side of the SNB's balance sheet from January 1997 to October 2014. The expansion in the monetary base essentially appears in the form of an increase in sight deposits held by domestic banks at the SNB.

Domestic banks' liquidity consists of coins and banknotes held by these banks in their vaults plus their sight deposits at the SNB. Chart 2 plots the development of the Swiss franc liquidity from January 1997 to October 2014, as reported by domestic banks in the *Monthly Bulletin of Banking Statistics* published by the SNB. The rise in the banks' Swiss franc liquidity again reflects the measures taken by the SNB since 2008. A number of episodes can be identified:

- Banks' liquidity started to rise significantly in the last quarter of 2008 with the substantial provision of liquidity by the SNB and the introduction of Swiss franc swap facilities. In spring 2009, the SNB engaged in additional repo operations and purchased Swiss franc bonds as well as foreign currencies on the foreign exchange markets.
- The second significant increase in liquidity took place in spring 2010 with the escalation of the sovereign debt crisis in Europe, as the SNB intervened on the foreign exchange market to counter the resulting substantial upward pressure on the Swiss franc. This increase in liquidity was short-lived since it was reversed soon afterwards by way of reverse repo operations and the issuance of SNB Bills (short-term money market instruments issued by the SNB to withdraw liquidity).
- The third significant increase in liquidity occurred in August 2011 against the backdrop of a massive appreciation of the Swiss franc. The SNB adopted various measures to expand the monetary base, including the non-renewal of reverse repos and SNB Bills that fell due, the repurchase of outstanding SNB Bills, and the implementation of foreign exchange swap transactions. The SNB then set a minimum exchange rate of CHF 1.20 per euro on 6 September 2011.
- The fourth significant increase in liquidity occurred in mid-2012, reflecting foreign exchange market interventions necessary to defend the floor against the euro.

Chart 1

LIABILITIES OF THE SNB

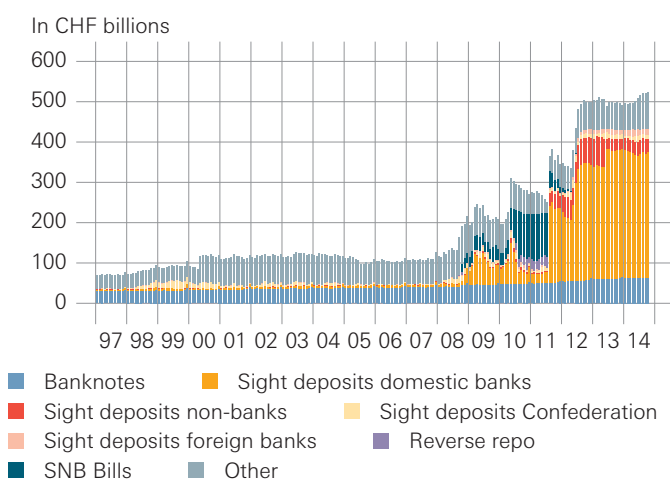
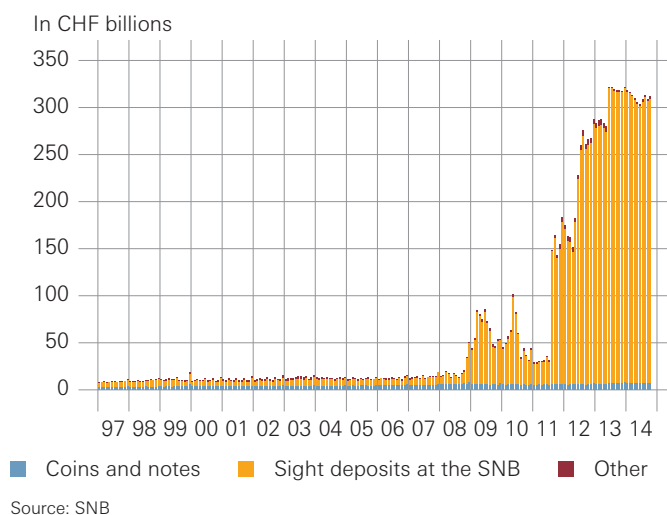


Chart 2

SWISS FRANC LIQUIDITY OF DOMESTIC BANKS



- The last significant increase in banks' liquidity up to October 2014 was in mid-2013. In contrast to the episodes described above, it was not caused by monetary policy measures. PostFinance Ltd was granted a banking licence in June 2013. As a consequence, its sight deposits at the SNB are now reported under sight deposits of domestic banks, rather than under sight deposits of non-banks.²

A comparison of charts 1 and 2 shows that the monetary base exceeds the Swiss franc liquidity of domestic banks. The difference can be explained to a large extent by banknotes held by non-banks, and by deposits held at the SNB by institutions other than domestic banks.

3 Aggregated balance sheet of domestic banks

For the sake of convenience, this section presents the structure of an aggregated balance sheet for domestic banks and the development of this balance sheet over time. This is a natural starting point for analysing the balance sheet counterparts of the increase in liquidity and in monetary aggregates.

Chart 3 shows an aggregated balance sheet of domestic banks (worldwide offices) for domestic and foreign positions as of December 2013. Positions are broken down according to their denomination: Swiss franc or foreign currency. The asset side is composed of (i) liquidity, (ii) money market claims and amounts due from banks, (iii) loans, (iv) trading assets and (v) other assets. The liability side, in turn, comprises (i) money market liabilities and amounts due to banks, (ii) deposits by non-banks, (iii) bonds issued by banks, (iv) other liabilities and (v) equity. A more detailed account of the underlying data and the definition of the various positions is given in Box 1.

Chart 4 illustrates the development of the aggregated balance sheet of domestic banks from January 1997 to October 2014. The structure of the aggregated balance sheet is the same as in chart 3. Asset positions are represented by positive bars and liability positions by negative bars. The upper panel plots positions in all currencies, the middle panel positions in Swiss francs, and the lower panel positions in foreign currency. As foreign currency positions are valued in Swiss francs, they are affected by changes in the exchange rate.

Although the present paper focuses on positions denominated in Swiss francs, it is important to keep track of positions in foreign currency because assets and liabilities in Swiss francs need not necessarily balance. An imbalance between assets and liabilities in Swiss francs and other currencies is referred to as a 'currency mismatch', as discussed below.

Positions in Swiss francs expanded steadily throughout the period. Positions in foreign currency, however, followed a cyclical pattern, expanding significantly from the second half of the 1990s up to the dot-com crisis as well as from 2003 up to the subprime crisis, and shrinking markedly thereafter.

The significant increase in Swiss franc liquidity since 2008 is clearly visible in the middle panel of chart 4. The lower panel shows that foreign currency liquidity held

² See *SNB Quarterly Bulletin*, September 2013, for more details on the effect of the granting of a banking licence to PostFinance Ltd on monetary aggregates.

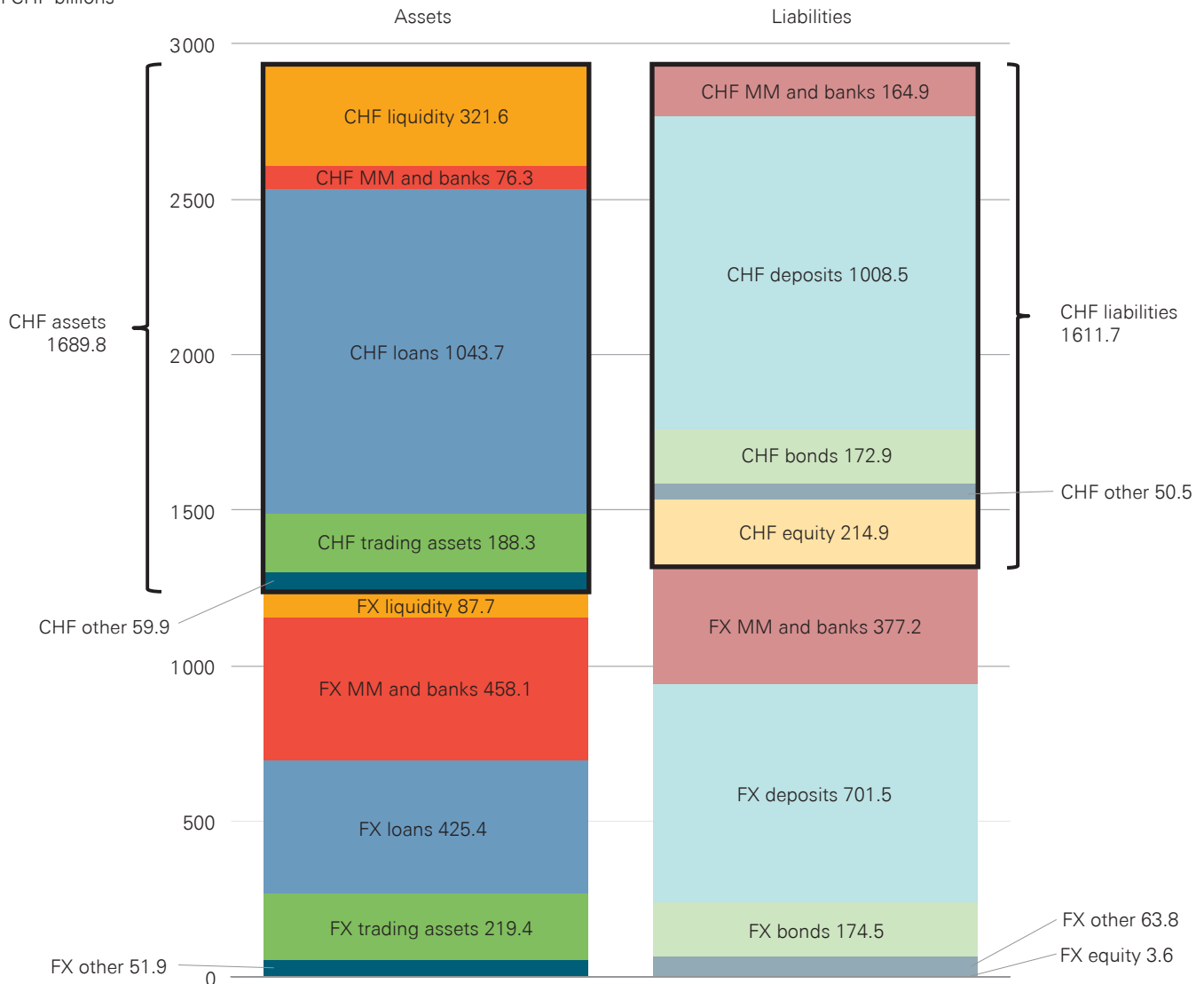
by domestic banks also expanded in the wake of the recent financial crisis. However, the effect of the growth in liquidity on other balance sheet positions is difficult to assess at first sight. In the next section, asset positions

are netted against their corresponding liability positions to obtain appropriate net positions of banks. This will then allow us to identify how net positions have evolved with the increase in liquidity.

Chart 3

AGGREGATED BALANCE SHEET OF DOMESTIC BANKS, DECEMBER 2013: WORLDWIDE OFFICES, DOMESTIC AND FOREIGN POSITIONS

In CHF billions



Box 1

STRUCTURE OF BANKS' BALANCE SHEETS

Assets

Banks' assets are grouped into six positions, reflecting different business activities. *Liquidity* consists of cash and sight deposits held by domestic banks at central banks or at their correspondent banks.¹ *Money market (MM)* claims

consist of money market instruments held by domestic banks, whereas *Banks* stands for amounts due from other banks. For the sake of simplicity, money market and bank positions are lumped together in charts 3, 4, and 5. *Loans* represents amounts lent to customers. *Trading assets* consists of trading portfolios, precious metals, financial investments and participating interests. *Other assets* comprises tangible fixed assets, accrued income and prepaid expenses, other assets and unpaid capital.

¹ Up to May 2013, Swiss franc liquidity also included postal accounts. PostFinance Ltd was granted a banking licence in June 2013.

Liabilities

Liabilities are also grouped into six positions, corresponding to different sources of funding. *Money market (MM)* liabilities consist of money market instruments issued by domestic banks. *Banks* stands for amounts due to other banks. *Deposits* represents amounts due to customers as sight, savings or term deposits. *Bonds* comprises bonds issued by domestic banks, such as cash bonds, standard bonds and mortgage-backed bonds. *Other liabilities* consists of accrued expenses, deferred income and other liabilities. *Equity* includes value adjustments and provisions, reserves for general banking risks, bank capital, general legal reserve, reserve for own shares, revaluation reserve, other reserves as well as profit and loss carried forward and accrued.

Office location

The *Monthly Bulletin of Banking Statistics* contains balance sheet data from banks located in Switzerland. However, these banks may have offices in Switzerland as well as branches abroad. *Domestic offices* includes only balance sheet positions originating in bank offices located in Switzerland and in the Principality of Liechtenstein, while *Worldwide offices* additionally includes positions originating in branches abroad.

Counterparty residence

Balance sheet positions also indicate the place of residence of the counterparty. This criterion applies to all balance sheet positions, regardless of whether the counterparty is a creditor, debtor or issuer of securities. *Domestic positions* describes balance sheet positions for which the counterparty has its residence in Switzerland or in the Principality of Liechtenstein. *Foreign positions* consists of balance sheet positions for which the counterparty has its residence abroad.

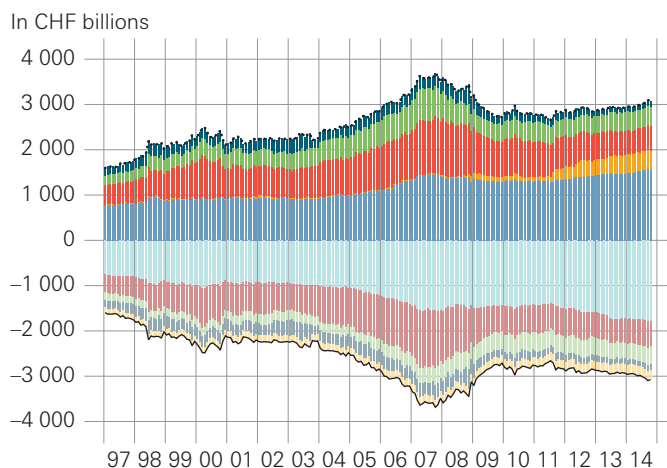
Currency

The banking sector's balance sheet is also structured according to currency denomination. Positions are broken down into *Swiss francs* and *foreign currency*. Foreign currency positions are expressed in Swiss francs.

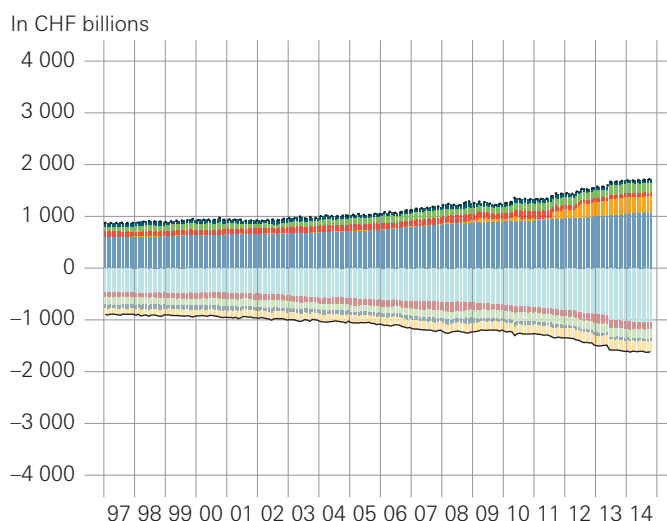
Chart 4

BALANCE SHEET OF BANKS: WORLDWIDE OFFICES

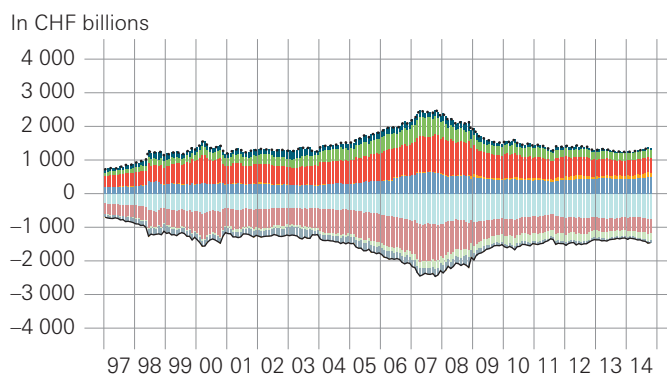
Domestic and foreign positions in all currencies



Domestic and foreign positions in CHF



Domestic and foreign positions in foreign currency



■ Loans ■ Liquidity ■ Due from MM and banks
■ Trading assets ■ Other assets ■ Deposits
■ Due to MM and banks ■ Bonds ■ Other liabilities
■ Equity Total assets — Total liabilities

Source: SNB

4 Netted balance sheet of domestic banks

As observed in the previous section, the effect of the increase in liquidity on other positions is hard to depict from the aggregated balance sheet in chart 4. Therefore, asset positions are netted against their corresponding liability positions to identify the net positions of banks vis-à-vis different groups of economic agents. This allows us to trace back the sources and uses of bank funding with respect to different groups of agents. The netting procedure serves as an intermediate step to perform the counterpart analysis presented in section 5. Therefore, this section merely describes the procedure and briefly elaborates on the interpretation of the netted balance sheet.

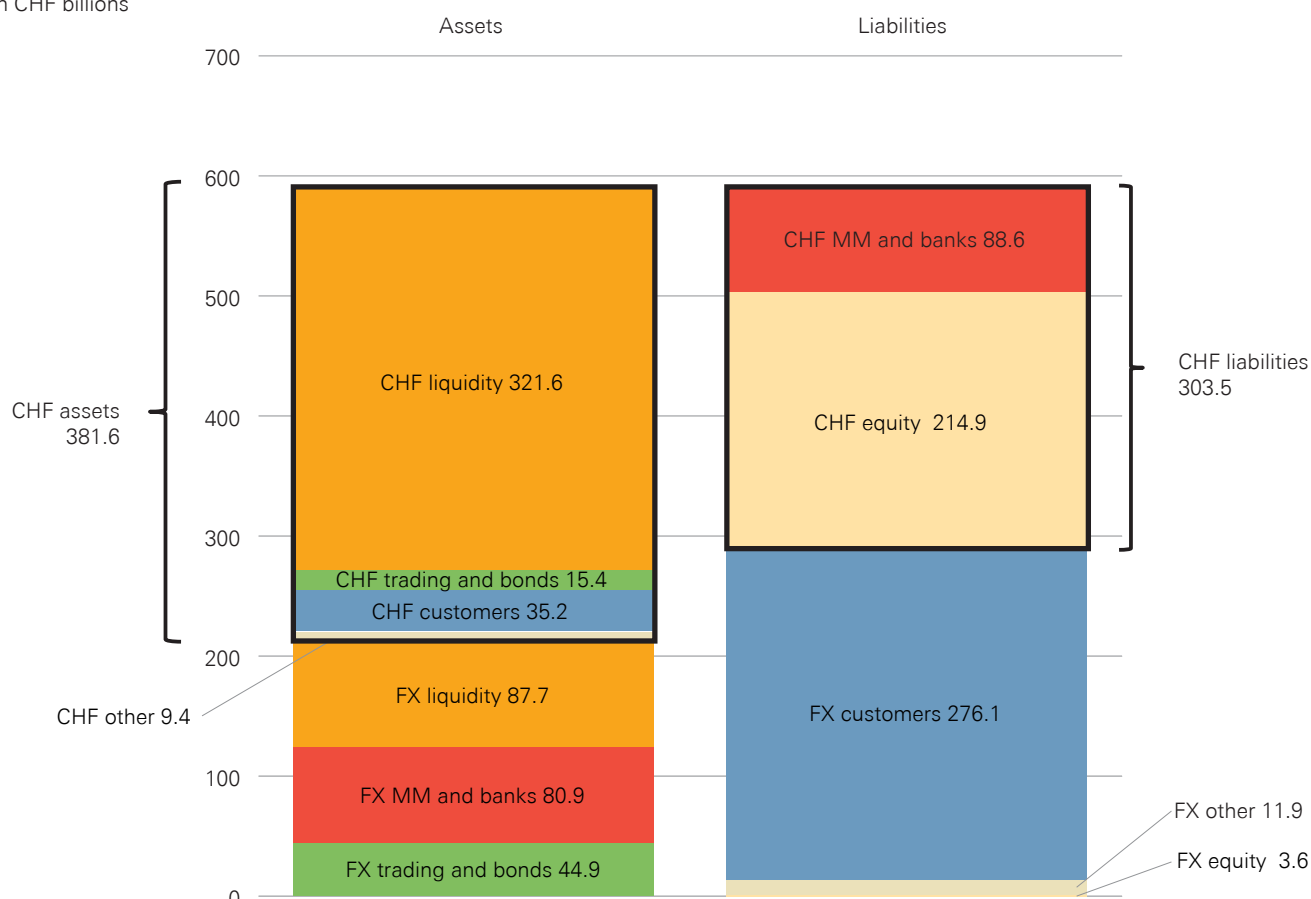
When asset and liability positions are netted against each other, the aggregated balance sheet of domestic banks in chart 3 reduces to the netted balance sheet shown in chart 5. Positions are netted as follows:

- Money market instruments held by domestic banks (assets) are netted with money market instruments issued by domestic banks (liabilities) to reveal the net position of domestic banks vis-à-vis the *money market*.
- Amounts due from banks (assets) are netted with amounts due to banks (liabilities) to reveal the net position of domestic banks vis-à-vis other *banks*. For simplicity, in charts 3, 4 and 5 money market and bank positions are consolidated.
- Customer loans granted by domestic banks (assets) are netted with customer deposits at domestic banks (liabilities) to reveal the net position of domestic banks vis-à-vis *customers*.

Chart 5

NETTED BALANCE SHEET OF DOMESTIC BANKS, DECEMBER 2013: WORLDWIDE OFFICES, DOMESTIC AND FOREIGN POSITIONS

In CHF billions



- Trading assets held by domestic banks (assets) are netted with bonds issued by domestic banks (liabilities) to reveal the net position of domestic banks vis-à-vis the capital market. The corresponding net position is called *trading and bonds*.
- Other assets are netted with other liabilities, the net position being called *other*.
- *Liquidity* and *equity* are reported on the netted balance sheet at their gross amount.

The netting procedure can be applied to subsections of the aggregated balance sheet, for example according to office location, counterparty residence or currency.

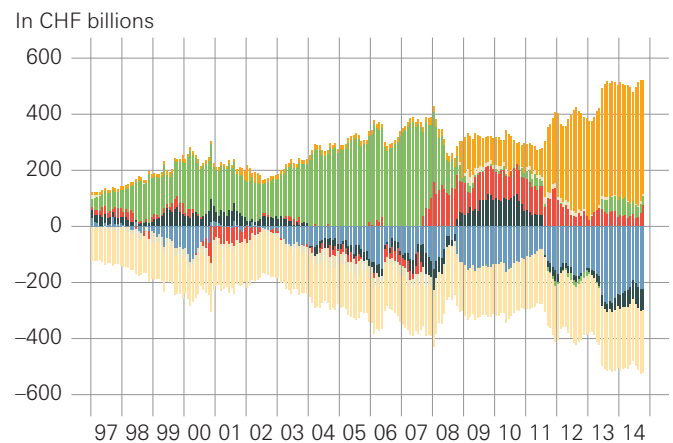
Chart 6 shows how the netted balance sheet of domestic banks illustrated in chart 5 has evolved since 1997. It also corresponds to the aggregated balance sheet in chart 4 after application of the netting procedure just described. A positive net position (positive bars) indicates that assets are larger than the corresponding liabilities, whereas a negative net position (negative bars) indicates an excess of liabilities over assets. The upper panel plots net positions in all currencies, the middle panel net positions in Swiss francs, and the lower panel net positions in foreign currency.

The development of net positions helps us to understand how the sources and uses of funds evolve across different groups of agents. For instance, the positive net Swiss franc position *Customers* (chart 6, middle panel, blue bars) indicates that the volume of customer loans exceeds that of customer deposits. The decline in this net asset position from 2008 onwards reveals that loans have expanded less rapidly than deposits since then. On the other hand, the significant increase in the net position *Money market* from mid-2010 to mid-2011 (chart 6, middle panel, dark blue bars) reflects the holding of SNB Bills by domestic banks. In foreign currency, the net liability position *Customers* (chart 6, lower panel, blue bars) shows that the volume of customer deposits exceeds that of customer loans. This net liability position funded the net asset position *Trading and bonds* in foreign currency (chart 6, lower panel, green bars). Whereas trading assets in foreign currency significantly exceeded bonds in foreign currency issued by these banks, this net asset position has declined markedly since 2007, as trading assets and bonds have become more balanced.

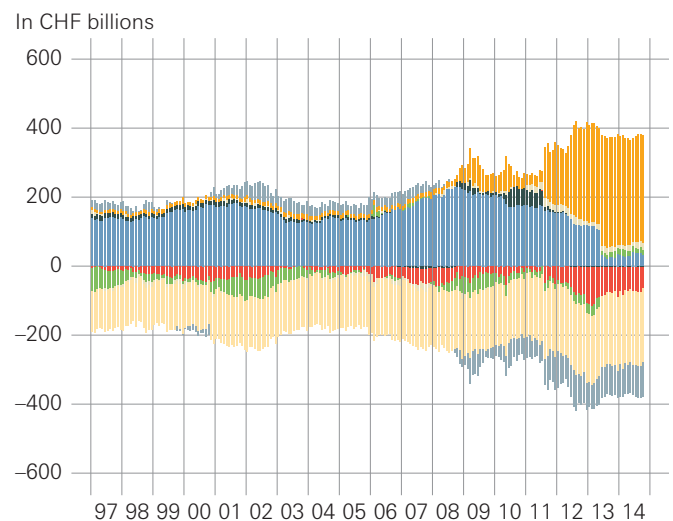
Chart 6

NETTED BALANCE SHEET OF BANKS: WORLDWIDE OFFICES

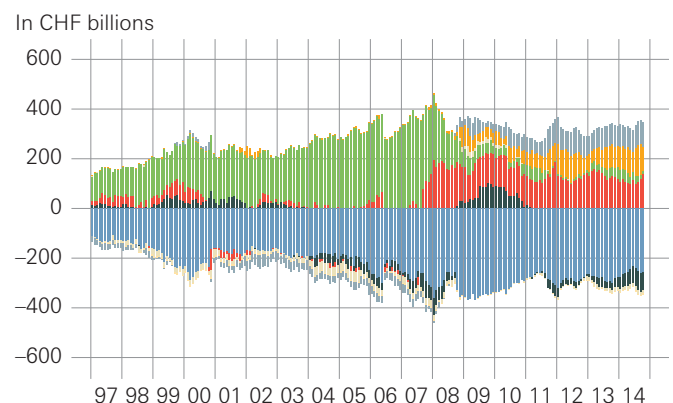
Domestic and foreign net positions in all currencies



Domestic and foreign net positions in CHF



Domestic and foreign net positions in foreign currency



- Customers
- Money market
- Banks
- Trading and bonds
- Other
- Liquidity
- Equity
- Currency mismatch

Source: SNB

5

Counterpart analysis

In the middle and lower panels, the difference between assets and liabilities in Swiss francs and in foreign currency, respectively, indicates a currency mismatch. Up to 2008, the netted balance sheet in Swiss francs (middle panel) exhibits a positive currency mismatch, meaning that assets in Swiss francs were smaller than liabilities in Swiss francs. In other words, on balance Swiss franc liabilities were used to finance foreign currency assets. The currency mismatch appears with the opposite sign in the netted foreign currency balance sheet (lower panel).

In the wake of the strong growth in Swiss franc liquidity, the currency mismatch is reversed, and then appears on the liabilities side. This reflects the fact that the increase in Swiss franc liquidity (assets) following the SNB's monetary base expansion has not been balanced by an equivalent increase in Swiss franc liabilities. This observation is important when analysing the effect of the monetary base expansion on the balance sheets of domestic banks. Note, however, that the currency mismatch does not reflect the effective foreign exchange exposure of domestic banks. Such exposure can also be influenced by derivatives, which are only stated at their replacement value in banks' balance sheets.

Based on the netted balance sheet derived in the previous section, the counterpart analysis traces the cumulative change in a given position to the cumulative change in various sources and uses of funding. The counterpart analysis tracks how changes in a given position balance with changes in other net positions. The method can be applied to any balance sheet position. In the following, the focus is on the counterparts of the increase in banks' Swiss franc liquidity and on the counterparts of the increase in monetary aggregates. The cumulative changes in the net Swiss franc positions are derived from chart 6, middle panel. Cumulative changes in these net positions are then computed since the starting point of the analysis in October 2008.

5.1 THE COUNTERPARTS OF SWISS FRANC LIQUIDITY

Chart 7 plots the counterparts of the increase in Swiss franc liquidity held by domestic banks, cumulated since the monetary base started to significantly expand in October 2008. The black line plots the cumulative changes in liquidity. In addition, the chart shows separately the changes in net positions vis-à-vis domestic customers, foreign customers, domestic banks and foreign banks. Since liquidity is an asset position, an expansion in liquidity must be balanced either by an increase in liability positions or by a decrease in other asset positions. A decrease in net positions is illustrated by positive bars and an increase in net positions by negative bars.

Note that the net position of the domestic banking sector vis-à-vis domestic banks is typically not zero, as one would expect, because the *Monthly Bulletin of Banking Statistics* does not include the balance sheet of all domestic banks, or the balance sheet of the SNB. Therefore, positions of domestic banks (reporting to the statistics) vis-à-vis the SNB, such as those resulting from repo operations, entail a non-zero net position vis-à-vis domestic banks.

The process by which changes in liquidity are implemented by the SNB determines which counterparts on the balance sheet of domestic banks are affected. When liquidity is increased through repo operations, for instance, one may expect the counterpart of the expansion in liquidity on the balance sheet of domestic banks to be *domestic banks*. Repo operations cause the amount due to domestic banks (i.e. the SNB) to rise. Therefore, the net position of domestic banks (reporting to the statistics) vis-à-vis domestic banks (including the SNB) should decrease. This is what can be observed in March 2009

(positive red bar), when part of the expansion in liquidity was due to repo operations. From mid-2010 to mid-2011, liquidity was withdrawn by means of both reverse repo operations and SNB Bills, leading to an increase in the net position vis-à-vis *domestic banks* (negative red bars), as well as in the net position vis-à-vis the *money market* (negative dark blue bars).

Counterparts are more difficult to predict when liquidity is increased through interventions on the foreign exchange market, as in the first half of 2010 and from the second half of 2011 onwards. This is so because different types of agents can be the economic counterparty of the SNB on the foreign exchange market, leading to different effects on the balance sheet of domestic banks. There are four cases:

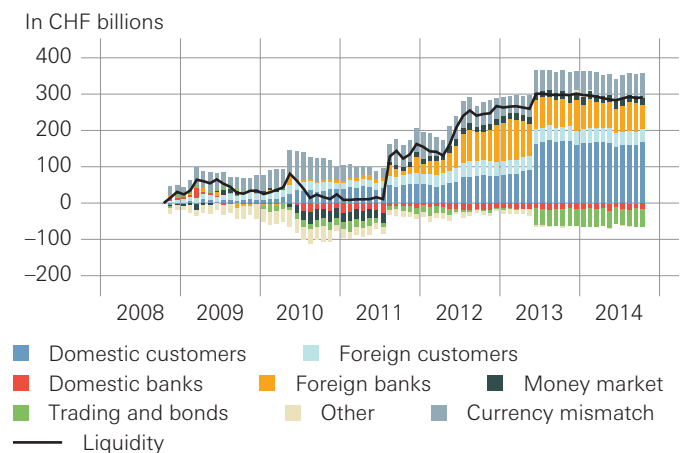
- When the SNB expands the monetary base by purchasing foreign currency from *domestic customers* of domestic banks, the SNB credits the sight deposit account of domestic banks in favour of domestic customers. The net position of domestic banks vis-à-vis domestic customers decreases because deposits of domestic customers grow more (or decline less) than loans to domestic customers. Correcting for the break caused by the inclusion of PostFinance Ltd in the banking statistics in June 2013, the mid-blue bars in Chart 7 indicate that approximately one-third of the increase in liquidity (about CHF 100 billion out of CHF 300 billion) has been balanced by a decrease in the net position vis-à-vis domestic customers.
- When the SNB purchases foreign currency from *foreign customers* of domestic banks, the SNB credits the sight deposit account of domestic banks in favour of foreign customers. The net position of domestic banks vis-à-vis foreign customers decreases because deposits of foreign customers increase more (or decrease less) than loans to foreign customers. This is captured by the light blue bars in chart 7, indicating that about CHF 40 billion of the increase in liquidity has been balanced by a decrease in the net position of domestic banks vis-à-vis foreign customers.
- When the SNB purchases foreign currency from agents who are customers of *foreign banks*, these banks will hold their Swiss franc liquidity at domestic banks because they do not have a sight deposit account at the SNB. When such transactions are settled, the SNB credits the sight deposit accounts of domestic banks in favour of foreign banks. Thus, the net position of domestic banks against foreign banks decreases because amounts due to foreign banks increase more (or decrease less) than amounts due from foreign banks. This is illustrated by the orange bars in chart 7, indicating that about CHF 80 billion of the increase in liquidity has been balanced by a decrease in the net position of domestic banks vis-à-vis foreign banks.

- When the SNB purchases foreign currency from domestic banks themselves, a substitution of foreign currency liquidity for Swiss franc liquidity takes place on their balance sheet, giving rise to changes in the *currency mismatch*. Such transactions, however, are not the only possible cause of changes in the currency mismatch. Foreign exchange derivatives, such as FX forwards, FX swaps and currency swaps, also lead to changes in the currency composition of the balance sheet. Therefore, the currency mismatch illustrated by the grey bars in chart 7 does not reflect the effective foreign exchange exposure of domestic banks.

Chart 7

LIQUIDITY COUNTERPARTS SINCE OCT 2008

Worldwide offices, domestic and foreign positions in CHF

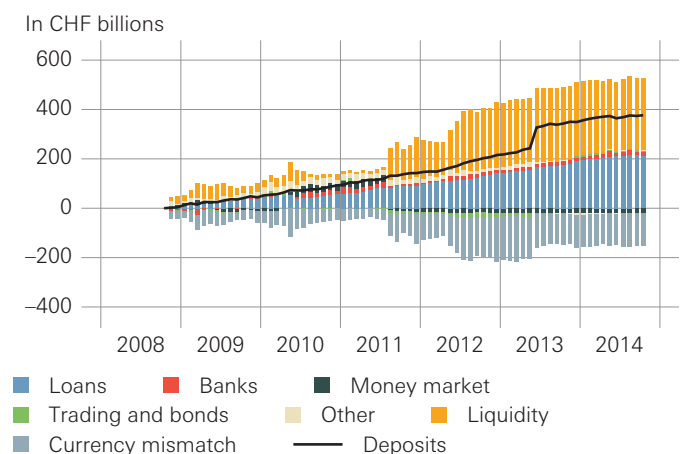


Source: SNB

Chart 8

DEPOSIT COUNTERPARTS SINCE OCT 2008

Domestic offices, domestic positions in CHF



Source: SNB

To sum up, this analysis shows that counterparts of the expansion in liquidity of domestic banks can be assigned to, in order of importance: domestic customers, foreign banks and foreign customers. The currency mismatch also indicates that the growth in Swiss franc liquidity has not been balanced by equivalent growth in Swiss franc liabilities. A portion of the liquidity expansion led directly to an increase in deposits of domestic customers (i.e. monetary aggregates) in excess of the increase in loans. However, as the next section shows, the bulk of the increase in deposits of domestic customers can be traced back to loans granted by domestic banks to domestic businesses and consumers, rather than directly to the expansion in liquidity.

5.2 THE COUNTERPARTS OF SWISS FRANC DEPOSITS

Using the same method as in the previous section, chart 8 plots the counterparts of the growth in Swiss franc deposits held by domestic customers at domestic banks, cumulated since October 2008. Since monetary aggregates include only the deposits held by domestic customers, chart 8 is derived from positions of domestic banks vis-à-vis domestic residents only, and ignores foreign positions of domestic banks. The black line now plots the cumulative growth in Swiss franc deposits held by domestic customers, which broadly correspond to M3 less currency in circulation. Since deposits are liabilities, an increase in deposits must be balanced either by an increase in asset positions or by a decrease in other liability positions. An increase in net positions is illustrated by positive bars and a decrease in net positions by negative bars.

Chart 8 shows that *loans* are the most significant counterpart of deposits. When banks grant loans, they credit the deposit account of borrowers, which entails a simultaneous increase in loans and deposits. Correcting for the break caused by the inclusion of PostFinance Ltd in the banking statistics in June 2013, about two-thirds of the increase in deposits has been balanced by an increase in loans. Deposits have grown by more than loans because of the expansion in *liquidity*, as highlighted in the previous section and illustrated by the orange bars in Chart 8.³ Movements in liquidity, however, have only had a limited impact on deposits. For instance, the withdrawal of liquidity in the second half of 2010 did not prevent deposits growing further in line with loans. And the significant expansion in liquidity in the second half of 2011 had a subdued effect on deposits.

Overall, about two-thirds of the increase in monetary aggregates results from the conventional bank lending transmission mechanism, while about one-third reflects the liquidity expansion by the SNB.

³ The difference between the increase in deposits and the increase in loans in chart 8 corresponds to the position *Domestic customers* in chart 7.

6

Conclusion

This paper has tracked the effect of the increase in liquidity on the balance sheets of domestic banks since October 2008. The netting procedure proves helpful in identifying the sources and uses of bank funding with respect to different groups of agents. It also allows us to trace changes in liquidity and customer deposits to changes in their various counterparts.

First, the analysis identifies four categories for the counterparts of the increase in Swiss franc liquidity held by domestic banks: (i) domestic customers, indicating that deposits of domestic customers rose more than loans to domestic customers, (ii) foreign banks, indicating that amounts due to foreign banks grew by more than amounts due from foreign banks, (iii) foreign customers, indicating that deposits of foreign customers at domestic banks increased more than loans by these banks to foreign customers, and (iv) a currency mismatch, indicating that the growth in Swiss franc liquidity has not been balanced by equivalent growth in Swiss franc liabilities.

Second, the paper shows that the increase in Swiss franc liquidity accounts for only one-third of the increase in Swiss franc deposits held by domestic customers, with the remaining two-thirds resulting from the granting of loans. This means that bank lending effectively stimulated the Swiss economy throughout the recent financial crisis.

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.

At its quarterly assessment of 19 March 2014, the SNB leaves the target range for the three-month Libor unchanged at between -1.25% and -0.25% . The interest rate on sight deposits with the SNB remains at -0.75% and the exemption thresholds remain unchanged. Negative interest helps to make it less attractive to hold investments in Swiss francs. In the view of the SNB, the Swiss franc is significantly overvalued overall and should continue to weaken over time. The SNB affirms that it will continue to take account of the exchange rate situation and its impact on inflation and economic developments. It will therefore remain active in the foreign exchange market, as necessary, in order to influence monetary conditions.

March 2015

On 15 January, the SNB discontinues the minimum exchange rate of CHF 1.20 per euro. At the same time, it lowers the interest rate on sight deposit account balances at the SNB that exceed a given exemption threshold by 0.5 percentage points, to -0.75% , with effect from 22 January 2015. The target range for the three-month Libor now amounts to between -1.25% and -0.25% (previously between -0.75% and 0.25%). The reduction in interest rates is aimed at ensuring that the discontinuation of the minimum exchange rate does not lead to an inappropriate tightening of monetary conditions. The SNB stresses that it will continue to take account of the exchange rate situation in future. If necessary it will therefore remain active in the foreign exchange market.

January 2015

On 18 December, the SNB announces that it will impose an interest rate of -0.25% on sight deposit account balances at the SNB from 22 January 2015. Negative interest will be levied on balances exceeding a given exemption threshold. The SNB's aim is to take the three-month Libor into negative territory. The target range for the three-month Libor now amounts to between -0.75% and 0.25% (previously $0-0.25\%$). The introduction of negative interest rates makes it less attractive to hold Swiss franc investments, and thereby supports the minimum exchange rate.

December 2014

At its quarterly assessment of 11 December 2014, the SNB reaffirms that it will maintain the minimum exchange rate of CHF 1.20 per euro. The SNB will continue to enforce the minimum exchange rate with the utmost determination. If necessary, it is prepared to purchase foreign currency in unlimited quantities, and to take further measures as required. The target range for the three-month Libor remains unchanged at $0.0-0.25\%$. In the view of the SNB, deflation risks have increased once again and the Swiss franc is still high. With the three-month Libor at zero, the minimum exchange rate continues to be the key instrument to avoid an undesirable tightening of monetary conditions.

December 2014

At its quarterly assessment of 18 September 2014, the SNB reaffirms that it will maintain the minimum exchange rate of CHF 1.20 per euro. The SNB will continue to enforce the minimum exchange rate with the utmost determination. If necessary, it is prepared to purchase foreign currency in unlimited quantities, and to take further measures as required. The target range for the three-month Libor remains unchanged at $0.0-0.25\%$. In the view of the SNB, the Swiss franc is still high. With a three-month Libor close to zero, the minimum exchange rate continues to be the key instrument to avoid an undesirable tightening of monetary conditions.

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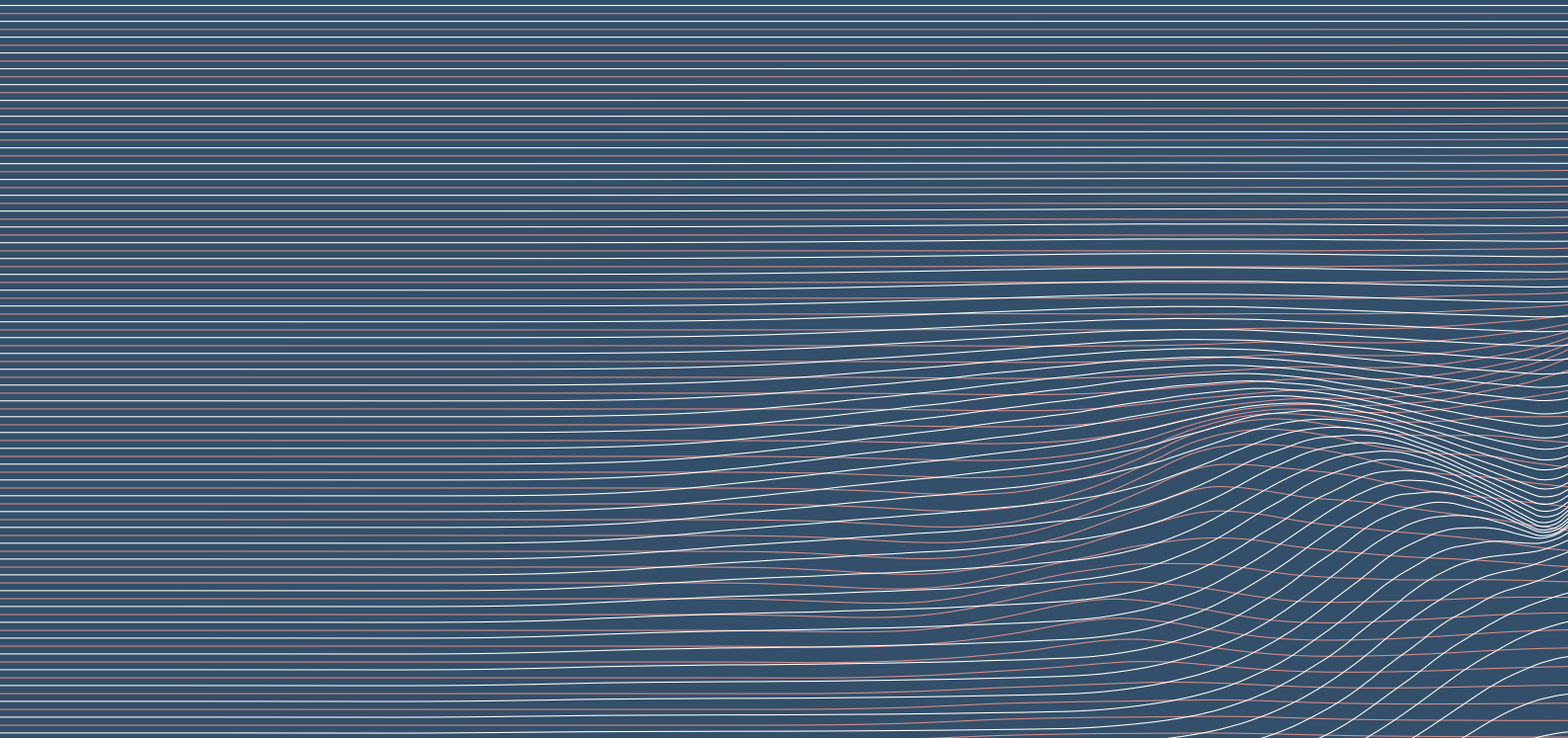
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