

# Swiss National Bank Quarterly Bulletin

March

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## Sectional breakdown of bulletin Q1/2009

### **Monetary policy report (p. 6)**

The international economy has continued to deteriorate. Economic activity has declined sharply in the US, where consumption and exports have fallen. The European economy has also undergone a significant contraction. The Asian economies, far from remaining unscathed by these developments, have also been heavily affected. The crisis that started in the financial markets of developed countries has spilled over to the real economy and is now impacting on the entire global economy. As a result, the SNB has made a substantial downward revision to its growth forecasts for the major economies in 2009.

In Switzerland too, the economic situation has experienced a clear and rapid deterioration over the last six months. In the fourth quarter of 2008, real GDP dropped by 1.2% in annualised terms. While the contraction in economic activity appeared to be less pronounced in Switzerland than in the major European countries, this figure nevertheless obscures the extent of the collapse in global demand, in particular in the manufacturing industry, with the concomitant sharp drop in exports. Expenditure on equipment investment was cut significantly. Overall, final demand declined substantially.

Against this background, the SNB is revising its GDP growth forecast downwards for the year under review. It now expects real GDP to fall by between 2.5% and 3%. The rapid deterioration in the economic situation and the decline in commodity prices have also led to a clear downward revision of the inflation forecast. Average annual inflation is expected to be -0.5% in 2009.

At its quarterly assessment of March 2009, the SNB decided to take forceful action to relax monetary conditions. It announced that it would act to bring about another reduction in interest rates and to prevent any further appreciation of the Swiss franc against the euro. To this end, the SNB will increase liquidity substantially by engaging in additional repo operations and purchasing foreign currency and Swiss franc bonds issued by private sector borrowers. The National Bank also announced that it was lowering the target range for the three-month Libor by 25 basis points, to 0-0.75%. Thus, the target range for the Libor has narrowed from 100 basis points to 75 basis points.

### **The economic situation from the vantage point of the delegates for regional economic relations (p. 42)**

The rapid and pronounced downturn in the economy was reflected in the discussions conducted by the SNB delegates for economic relations between December 2008 and February 2009 with representatives of different industries and economic sectors. The discussions confirmed that demand has fallen off sharply and rapidly across the board, affecting export-oriented producers of investment products. However, almost all sectors are expecting turnover to weaken. A rapidly growing number of firms have applied for short-time working. The beginning of the year also saw a rise in redundancies. Many companies expressed concerns about margins. These have come under pressure as a result of the appreciation of the Swiss franc against the euro and the pound sterling, as well as higher electricity prices and wage increases.

### **Companies' inventory policy undergoing a process of change: Results of a structural report (p. 46)**

Jean-Pierre Jetzer's report on inventory policy is based on interviews conducted by SNB delegates for regional economic relations with representatives of 47 Swiss companies. The report confirms the impression that inventory-to-sales ratios have fallen considerably over the past 10 to 15 years. The reasons for this include the change from a sellers' to a buyers' market, the rapid development of information technology and better education. Inventories have tended to shift from the sales side to the purchaser or supplier side. Furthermore, the influence of the EU single market has caused international companies to cut back their regional inventories in favour of large central inventories.

### **SNB Working Papers (p. 54)**

Abstracts of four papers: Katrin Assenmacher-Wesche and Stefan Gerlach, 'Financial structure and the impact of monetary policy on asset prices', *SNB Working Paper 2008-16*; Ernst Fehr, Martin Brown and Christian Zehnder, 'On reputation: a microfoundation of contract enforcement and price rigidity', *SNB Working Paper 2008-17*; Raphael Auer and Andreas M. Fischer, 'The effect of low-wage import competition on US inflationary pressure', *SNB Working Paper 2008-18*; Christian Beer, Steven Ongena and Marcel Peter, 'Borrowing in foreign currency: Austrian households as carry traders', *SNB Working Paper 2008-19*.

# Monetary policy report

Report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2009

This report is based primarily on the data and information available as at mid-March 2009.

## Monetary policy report

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## About this report

The Swiss National Bank (SNB) has a statutory mandate to pursue a monetary policy serving the interests of the country as a whole. It ensures price stability while taking due account of economic developments.

It is a particular concern of the SNB that its monetary policy be understood by a wider public. However, it is also obliged by law to inform the public regularly of its policy and to make its intentions known. This monetary policy report performs both of these tasks. It describes economic and monetary developments in Switzerland and explains the inflation forecast. It shows how the SNB views the economic situation and what conclusions it draws from this assessment.

Sections 1–3 of the present report were drawn up for the Governing Board's assessment of March 2009. The sections headed 'Monetary policy decision' and 'SNB inflation forecast' take due account of the Governing Board's monetary policy decision of mid-March 2009.

Unless otherwise stated, all rates of change from the previous period are based on seasonally adjusted data and are annualised.



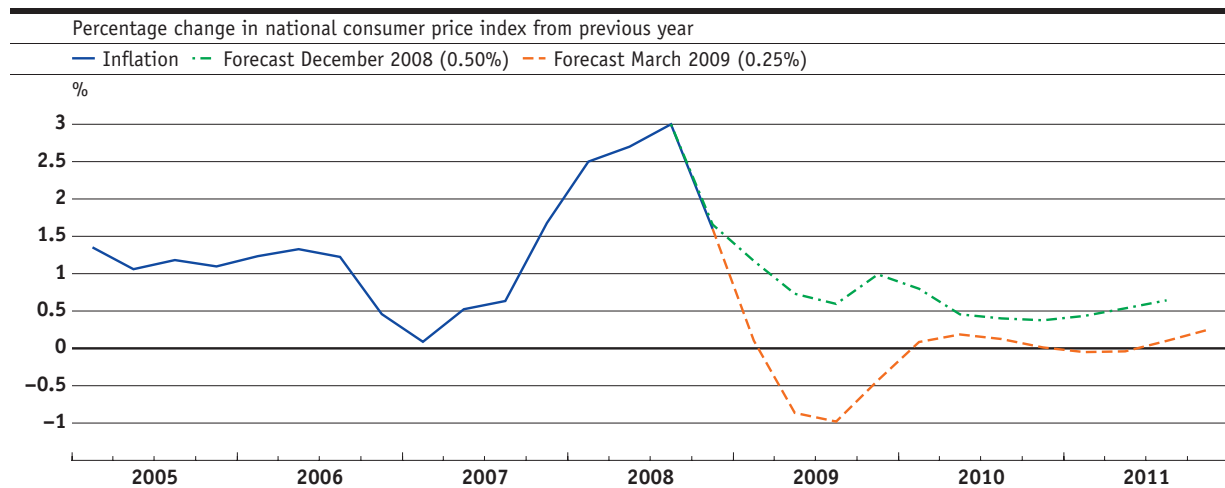
## Monetary policy decision

At its quarterly assessment on 12 March 2009, the Swiss National Bank (SNB) announced that it would take forceful action to ease monetary conditions. It decided to make another interest rate cut and act to prevent any further appreciation of the Swiss franc against the euro. To this end, the SNB will increase liquidity substantially by engaging in additional repo operations, buying Swiss franc bonds issued by private sector borrowers and purchasing foreign currency on the foreign exchange markets.

The Swiss National Bank also announced that it was lowering the target range for the three-month Libor by 25 basis points, narrowing it to 0–0.75%, with immediate effect. It will use all means at its disposal to gradually bring the Libor down to the lower end of the new target range, i.e. to approximately 0.25%. Thus, the Libor now has a narrower target range of 75 basis points, compared with 100 previously.

With these exceptional measures, the SNB is helping to cushion the effects of the economic and financial crisis, and is limiting the risk of deflation. The SNB has a mandate to ensure price stability, while taking economic developments into account. This objective encompasses the prevention of both deflation and inflation. In carrying out its mandate, the SNB will – as it has in the past – base its decisions on an inflation forecast.

Inflation forecast of December 2008 with Libor at 0.50% and of March 2009 with Libor at 0.25%



Source: SNB

### Inflation forecast of December 2008 and March 2009

Average annual inflation in percent	2009	2010	2011
Inflation forecast of December 2008, Libor 0.50%	0.9	0.5	
Inflation forecast of March 2009, Libor 0.25%	-0.5	0.1	0.1

Source: SNB

# 1 Developments in the global economy

The development of the global economy since September 2008 has been marked by a deterioration of the credit crisis and a swift and steep decline in overall economic demand. In the fourth quarter of 2008, most industrialised countries registered a sharp drop in their economic performance measured in terms of GDP. Sales in the manufacturing sector were particularly strongly affected, impacting above all major exporting countries such as Germany, Japan and South Korea. Other countries, including the US, the UK and Spain, were additionally hit by the ongoing adjustments in the real estate markets. Numerous emerging economies are bearing the brunt of receding commodity prices and capital outflows. In most countries, global recession is going hand in hand with rapidly rising unemployment. Inflationary pressure has clearly receded, primarily in reaction to the drop in energy prices. Between mid and end-2008, annual inflation in the G7 countries came down from 4.6% to 0.7%.

The economic outlook remains gloomy, with the credit crunch and the widespread sense of insecurity in the business world continuing to hold back demand. High inventories and the low levels of leading indicators such as consumer and corporate confidence make a further decline in economic activity seem likely. Falling stock and house prices will continue to have a negative impact on consumption and investment.

However, the extraordinary monetary and fiscal policy measures taken to stimulate the economy

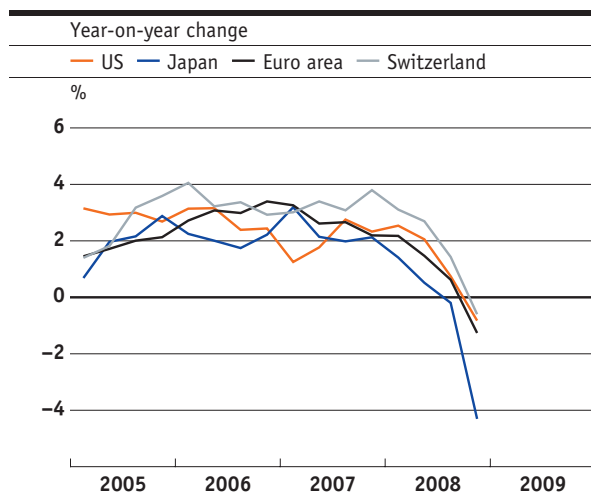
should have a positive effect in the second half of 2009, although economic recovery is likely to be gradual, since it will take time for credit markets to function smoothly again and for investor, corporate and consumer trust to be re-established.

The SNB has, against this background, significantly downgraded its forecasts for 2009. No more than a weak recovery is expected, with only the outlook for the US GDP upped slightly after the planned fiscal measures turned out to be more muscular than anticipated. In various countries, the extent of under-utilisation of production capacity is likely to reach proportions not seen in recessionary phases for the past fifty years.

The forecast risks are considerable, since high fluctuations in inventories can be expected, the extent and composition of state support packages tend to change quickly, and there is still considerable insecurity with regard to the macroeconomic impact of the credit shortage and the expansive fiscal policies.

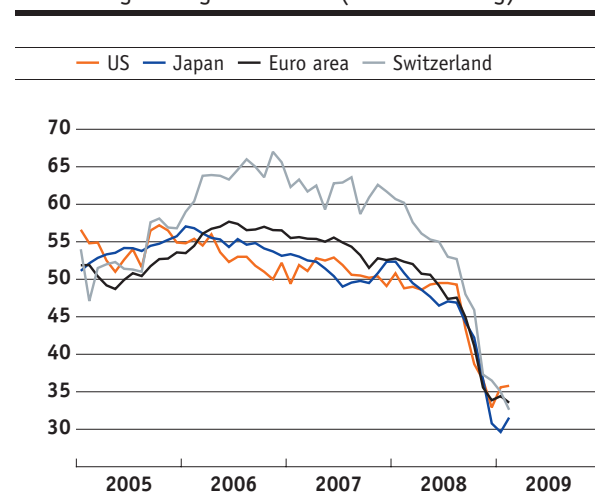
In the context of the global economic downturn, the vulnerability of some central and eastern European economies has become particularly pronounced. Significant exchange rate losses, limited foreign exchange reserves and high financing requirements have severely blighted the outlook for the region. The IMF has already coordinated emergency loans to ensure the solvency of some of these countries. A considerable risk is posed by the involvement, in some cases strong involvement, of western European banks in the region's local banking systems.

Chart 1.1  
Real GDP



Sources: State Secretariat for Economic Affairs (SECO), Thomson Datastream

Chart 1.2  
Purchasing managers' indices (manufacturing)



Source: Thomson Datastream

Given these circumstances, financial markets will continue to be fragile, with downside risks remaining dominant overall.

### Stark GDP decline in the US

Following a slight deterioration in the third quarter (-0.5%), fourth quarter GDP in the US slumped by 6.2%. Resulting from the drop-off in private consumption as well as in equipment and construction investment, this downturn in growth was the steepest since 1982. Contrary to the third quarter, exports no longer buffeted growth. The job market now reflects the economic difficulties. Since the onset of the recession at the end of 2007, 4.4 million jobs have been lost, more than half of which were cut in the past three months. The rate of unemployment rose from 6.8% in November to 8.1% in February.

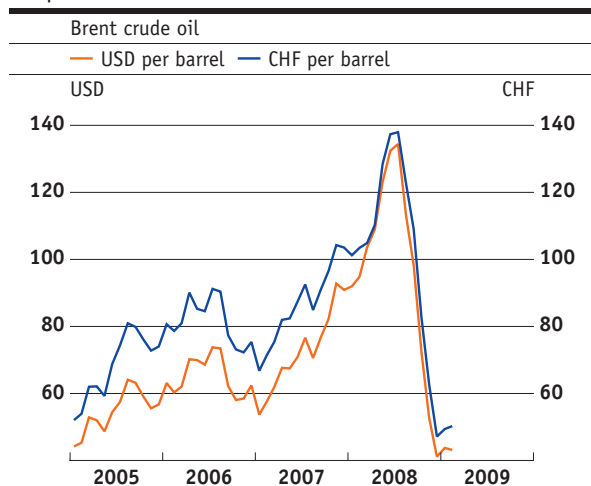
The downward trend is likely to continue over the coming quarters. The ongoing rise in unemployment and the high measure of insecurity will put further dampeners on consumption. As a result, companies have little call to expand capacities, which is again having a depressing effect on investment in equipment and business construction, both already burdened as it is by the tighter credit conditions. And owing to the drop in global demand, exports are no longer able to provide a stimulus for growth. State spending, however, will prove conducive to growth. The fiscal package worth USD 787 billion (5.5% of GDP) recently approved by Congress ought to show an initial effect already in 2009, paving the way for a gradual economic recovery in the second half of the year.

For the full year 2009, the SNB is assuming a 1.8% decline in GDP. Back in December, the forecast was a decline of 0.8%.

### Euro area recession deepens

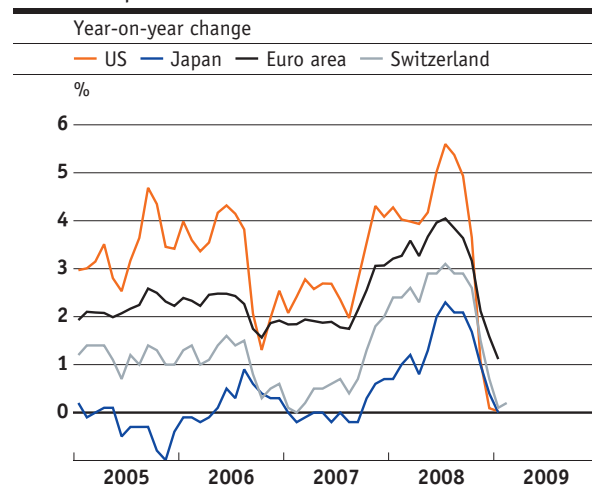
The economic downturn in the euro area has become increasingly pronounced. In the fourth quarter of 2008, GDP slumped by 5.8%. Numerous member states, and Germany in particular, experienced a steep decline in GDP. The global financial turbulence had an ever stronger impact on domestic and foreign demand. As a result of dwindling orders, manufacturers drastically cut production and were forced to downsize their workforce because of the ensuing excess in production capacity. Activity in the manufacturing and service sectors reached new low-water marks. In view of the increasingly critical situation in the job market, consumers in turn began to restrict their spending. Consumer confidence reached its lowest levels since the introduction of this indicator in 1985. Demand for loans slackened noticeably in the fourth quarter, due to the fact that companies were either cancelling or at least deferring planned investments. And owing to the difficulties experienced by numerous banks, credit supply is also likely to have tightened considerably, leading to a clear deterioration of the credit cycle. In December, loans granted by financial institutions to the private sector experienced a downturn for the first time in 17 years.

Chart 1.3  
Oil prices



Sources: Reuters, SNB

Chart 1.4  
Consumer prices



Sources: Swiss Federal Statistical Office (SFSO), Thomson Datastream

In the coming quarters, the economic situation is likely to improve only gradually. Surveys on expectations with regard to exports and investment in the manufacturing industry produced increasingly pessimistic results in the first quarter of 2009. Unemployment is expected to rise over the coming quarters, which in turn will depress private consumption even further. On the upside, consumers are benefiting from the slump in commodity prices. Fiscal stimulus measures, including the 'Konjunkturpaket II' submitted to parliament in Germany in January, will presumably show results only in the second half of 2009. A positive impact is expected especially for the construction industry. However, the poor functioning of the credit markets is increasing the downside risks with respect to further economic developments. For 2009, the SNB expects GDP to decline by 2.7%. In December, by comparison, the decline was forecast to be 0.8%.

### Economic slump in Asia

The Asian economies experienced a drastic deterioration between the end of 2008 and early 2009, reflected in particular by the marked reduction in international trade.

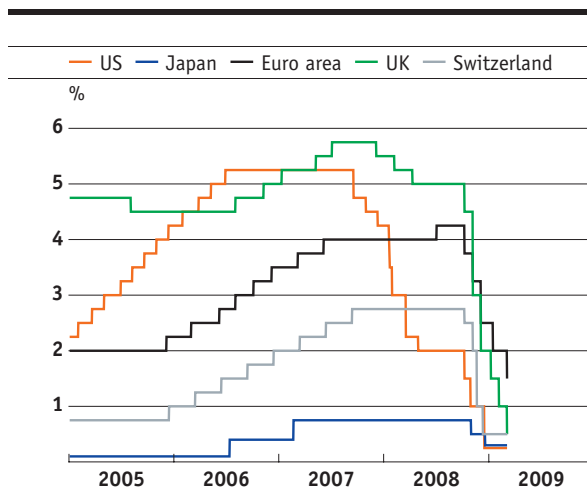
GDP in Japan, on a downward track since the second quarter of 2008, sagged by 12.1% in the fourth quarter of 2008, the strongest quarterly decline since 1974. The main reason was the sharp drop in exports coupled with an increase in imports, adding up to a massive decrease in the external contribution to GDP. Final domestic demand again

deteriorated. Since this slump in demand took companies by surprise, inventories ballooned in an unplanned manner. Over the entire year 2008, GDP shrank by 0.6%.

The recession, ongoing for over a year now, is unlikely to come to an end in the first half of 2009. A further substantial decrease in GDP is expected for the first quarter. The manufacturing sector is likely to see more drastic cuts in production and inventory reductions. Japanese exporters are suffering from the marked appreciation of the yen, which began in mid 2008 and continued in early 2009. Reduced earnings outlook will induce companies to cut back further on investment and costs, placing even more burden on the job market. On the other hand, tax relief measures for private households amounting to 1% of GDP and taking effect in the 2009 financial year, together with the recent decline in commodity prices, will somewhat ease the pressure on households and companies. The SNB anticipates a 3.9% deterioration in GDP for 2009, compared with a 0.4% drop predicted in December. This would amount to the sharpest decline in Japan since World War II.

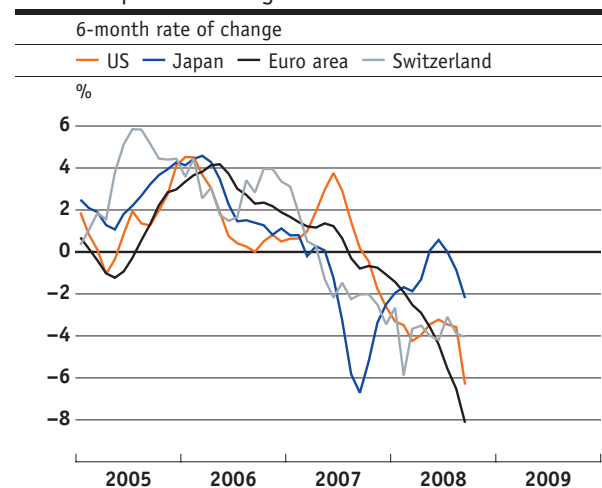
In China, growth in the fourth quarter shrank to 6.8% on a year-on-year basis, due primarily to plummeting exports and lower momentum in construction investment and private consumption. Receding real estate prices and an insecure job market outlook will dampen domestic demand, which nonetheless should continue to grow thanks to state incentives for private households.

Chart 1.5  
Official interest rates



Sources: SNB, Thomson Datastream

Chart 1.6  
OECD composite leading indicators



Source: OECD

Increased spending on infrastructure in connection with the fiscal measures planned for 2009 and 2010, but partly already implemented at the end of 2008, are helping to stabilise industrial output.

The other east Asian tiger economies, South Korea, Taiwan, Hong Kong and Singapore, also suffered from the strong fall in global demand. Exports and industrial output, which had been increasingly sagging from mid-2008 on, experienced a veritable collapse in the fourth quarter. GDP registered a year-on-year decline for the first time since the IT-related crisis in 2001. The downturn has since made itself felt in domestic demand, too. Unemployment figures mounted in the fourth quarter, but are still low by long-term standards. Generous fiscal packages and a swift relaxation of monetary policy in the past few months will provide support for the economy, but recovery will presumably only set in once demand in the US, Japan and Europe picks up again.

### **Marked decline in consumer price inflation**

Measured in terms of consumer prices, annual inflation recorded a sharp decline in the industrialised countries between October and January, in particular due to falling energy and food prices. Core inflation rates, which exclude energy and food prices, also tended downward. Base effects in connection with energy prices and the global economic slump make a further decrease in inflation likely, and price surveys, too, show that inflationary pressure has eased greatly over the past few months. In fact, numerous countries are likely to experience periods of below-zero inflation.

In the US, annual inflation came down from 3.7% in October to 0.0% in January. Over the same period, core inflation retreated from 2.2% to 1.7%. The euro area saw annual inflation recede by 2.1 percentage points to 1.1% and core inflation by 0.3 percentage points to 1.6%. Annual inflation in Japan fell by 1.7 percentage points to 0.0%. Core inflation remained close to zero (-0.2%). The Asian tiger economies, South Korea, Taiwan, Hong Kong and Singapore, registered a one percentage point drop in annual inflation to an average of under 3%. In China, inflation for domestic foodstuffs had been easing since March, bringing annual inflation down to 1%.

### **Measures to boost liquidity and further easing of monetary policy**

Economic decline and low inflation induced the Fed to leave the 0.0%-0.25% target range set in December for the key rate unchanged. To ease credit market pressure, the US Treasury extended its liquidity boosting measures in connection with the financial stability plan. In addition, a Public-Private Investment Fund is planned with the aim of creating a market for toxic assets, the main culprits of the current crisis. Very gradually, the monetary measures undertaken by the US seem to be taking effect. Risk premia in the money market, for instance, which reached a high-water mark in October, have come down quite a bit since, and the more broadly defined monetary aggregates have grown. However, a lot of credit markets have still not regained momentum. The ECB continued in its policy, adopted in October 2008, of relaxing monetary reins and lowered the main refinancing rate to 1.5% in two 50-basis-point steps, the first in January and the second in March, in reaction to receding inflationary pressure and the accelerated economic downturn. Due to a high demand for deposits, it continued to widen the gap between the rates for marginal lending facilities and deposit facilities, but on the other hand also continued to grant unlimited liquidity to banks in its money market operations. The Japanese central bank reduced its call money rate from 0.3% to 0.1% and again considerably downgraded its growth and inflation forecasts. It also decided to purchase commercial papers to the amount of JPY 3 billion (0.6% of GDP) and short-term bonds to the amount of JPY 1 billion by September 2009 in order to alleviate companies' short-term liquidity problems. In addition, the central bank resolved to buy shares held by financial institutions to strengthen their capital base and stabilise the financial system as a whole. Other Asian countries also loosened their monetary policy.

## 2 Developments in the Swiss economy

The global recession has now impacted heavily on Switzerland too. Growth was clearly negative in the fourth quarter, and the results for the third quarter have also been revised downwards. Real GDP in Switzerland has thus been contracting since mid-2008. The main reason has been a marked decline in exports and equipment investment.

Compared to most other countries, the decline in GDP was quite small. But the overall outcome was boosted by a strongly positive contribution from inventories. Since businesses had been surprised by the scale of the decline in demand, they were not able to fully adjust output to the new demand conditions. It is highly likely that this will impact negatively on output in the first quarter of the new year.

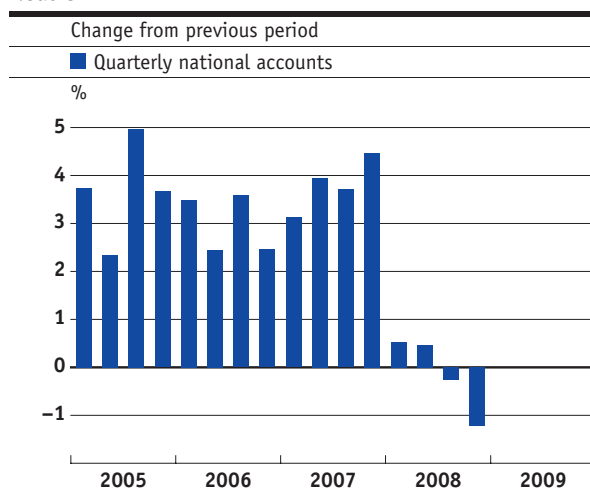
The employment trend has proved rather more resistant than in the euro area. This supporting factor is, however, likely to disappear in the coming months. The outlook for the labour market has become visibly gloomier in early 2009, and a rise in unemployment may be expected in the coming quarters.

Producer and consumer confidence deteriorated further in the first quarter. In fact, other leading indicators have now reached an all-time low. Accordingly, GDP can be expected to decline more strongly in the short term.

The rapid and marked downturn is also reflected in the talks which the SNB delegates for regional economic relations had with representatives of various sectors and industries between December and February. It is clear from these talks that demand was weakening rapidly and markedly across a broad base. The businesses most seriously affected are still export-oriented manufacturers of capital goods, but by now virtually all industries are expecting lower sales. A rapidly growing number of businesses have requested short-time working. Since the beginning of the year, more redundancies have also been announced. More companies are also worried about margins: they have come under additional pressure from the appreciation of the Swiss franc against the euro and sterling, from increases in electricity prices and from the pay increases agreed last autumn, which were based on the high rate of inflation prevailing at that time.

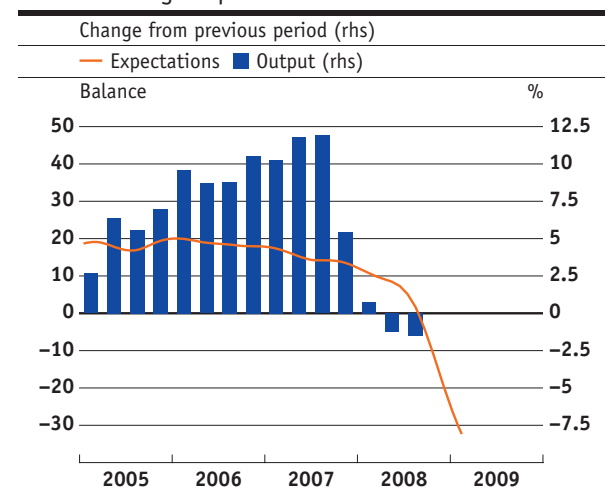
In order to counter this marked downward path, in February the federal government launched the second stage of the package of measures to stabilise the economy. In addition to the measures already launched in the first stage, this amounts to CHF 700 million, mainly consisting of investment in infrastructure that is to be brought forward; additional funds will also be made available for research, for the areas of energy and the environment, and for the Swiss export risk insurance scheme.

Chart 2.1  
Real GDP



Source: SECO

Chart 2.2  
Manufacturing output



Sources: Institute for Business Cycle Research at ETH Zurich (KOF/ETH), SFSO

## 2.1 GDP growth and outlook

According to estimates published by SECO, in the fourth quarter of 2008 real GDP fell by 1.2% compared with the previous quarter. This represented a 0.6% decline year-on-year.

While producing this quarterly estimate, SECO also revised the previous three quarters downwards. Annualised GDP growth in the first two quarters is estimated to have been only 0.5%, while growth in the third quarter was negative (-0.3%). For 2008 as a whole, the growth rate was thus 1.6%. This figure is primarily due to the high level of GDP in the early part of the year.

The downturn in aggregate demand was much greater than the decline in GDP. Exports (-28.5%) and equipment investment (-17.3%) contracted

sharply. Construction investment also fell (-4.1%), while private consumption rose by only 0.4%. A large positive contribution from inventories prevented an even greater contraction in GDP. The magnitude of the substantial deterioration in demand at the end of 2008 exceeded the value specified by the SNB in the *Quarterly Bulletin* Q4 2008.

On the output side, it was mainly the sharp contraction in added value in the financial sector (-12.6%), insurance (-4.1%) and the manufacturing industry (-4.2%) which impacted negatively on GDP. By contrast, positive contributions to growth came from consumer-related industries: wholesaling and retailing (+4.0%), transport and communications (+2.5%) and public services.

### Real GDP and components

Growth rates on previous period, annualised

Table 2.1

	2005	2006	2007	2008	2007				2008			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Private consumption	1.8	1.6	2.1	1.7	3.1	2.2	3.4	2.4	0.6	2.5	0.5	0.4
Government consumption	1.0	-0.9	-1.1	0.0	-0.4	-0.3	-6.1	-5.6	1.7	3.2	5.7	2.9
Investment in fixed assets	3.8	4.7	5.4	-1.7	3.8	13.7	-9.9	4.3	1.1	-2.9	-7.2	-12.0
Construction	3.5	-1.4	-1.5	-2.9	-0.2	-10.6	-3.7	5.9	-6.0	-2.6	-4.3	-4.1
Equipment	4.0	10.0	10.9	-0.8	7.3	35.4	-14.0	3.3	6.5	-3.1	-9.2	-17.3
<b>Domestic final demand</b>	<b>2.2</b>	<b>2.0</b>	<b>2.5</b>	<b>0.7</b>	<b>2.9</b>	<b>4.6</b>	<b>-1.1</b>	<b>1.9</b>	<b>0.9</b>	<b>1.2</b>	<b>-0.8</b>	<b>-2.3</b>
<b>Domestic demand</b>	<b>1.9</b>	<b>1.4</b>	<b>1.1</b>	<b>0.2</b>	<b>-2.6</b>	<b>3.3</b>	<b>1.1</b>	<b>5.6</b>	<b>-4.2</b>	<b>-1.1</b>	<b>-2.5</b>	<b>7.6</b>
Total exports	7.3	9.9	9.4	2.3	9.4	2.5	7.1	8.1	-2.7	14.0	1.1	-28.5
Goods	5.8	11.1	8.4	2.3	9.2	-3.3	6.3	5.8	-0.7	17.7	1.1	-32.7
Excluding valuables <sup>1</sup>	6.5	11.2	8.3	2.0	9.0	-2.2	6.5	6.5	-3.4	23.6	-4.9	-31.9
Services	11.3	6.8	12.1	2.5	10.0	19.4	9.3	13.9	-7.7	4.8	1.0	-16.5
<b>Aggregate demand</b>	<b>3.7</b>	<b>4.3</b>	<b>4.1</b>	<b>1.0</b>	<b>1.7</b>	<b>3.0</b>	<b>3.4</b>	<b>6.5</b>	<b>-3.6</b>	<b>4.6</b>	<b>-1.1</b>	<b>-8.0</b>
Total imports	6.6	6.5	5.9	-0.2	-1.5	1.0	2.6	11.2	-12.0	14.0	-2.9	-21.3
Goods	5.6	7.8	5.1	-0.4	-3.9	-1.5	0.1	8.5	-8.3	17.0	-4.1	-29.7
Excluding valuables <sup>1</sup>	5.3	7.4	6.7	-0.8	6.8	-2.0	2.6	5.5	-9.6	16.8	-4.5	-25.9
Services	11.3	0.5	10.0	0.8	11.4	13.5	15.0	24.1	-27.0	0.2	3.4	30.7
<b>GDP</b>	<b>2.5</b>	<b>3.4</b>	<b>3.3</b>	<b>1.6</b>	<b>3.1</b>	<b>3.9</b>	<b>3.7</b>	<b>4.5</b>	<b>0.5</b>	<b>0.5</b>	<b>-0.3</b>	<b>-1.2</b>

<sup>1</sup> Valuables: precious metals, precious stones and gems as well as objets d'art and antiques  
Source: SECO

## 2.2 Foreign trade, consumption and investment

### Slump in exports

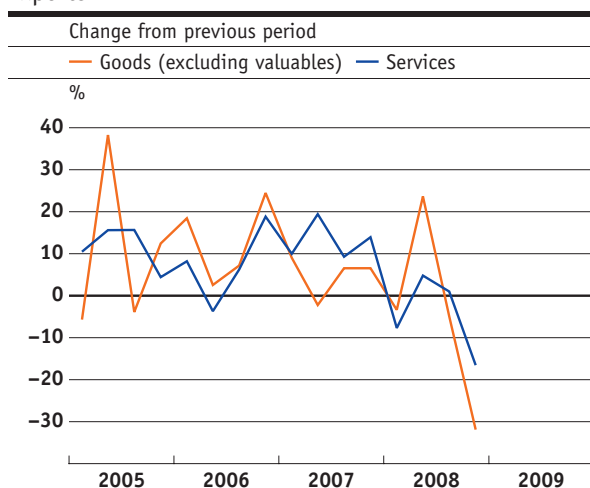
The global weakening of demand led to a slump in trade in the final months of last year. Switzerland could not escape this development either. Starting from the historically very high level in the third quarter, exports of goods and services fell sharply in the fourth quarter; export performance was also held back by a substantial appreciation of the Swiss franc. In the case of exports of goods (excluding valuables) the decline in sales extended to almost all sectors. Most seriously affected, however, were exports of raw materials and semi-finished goods. In the light of the crisis in the car manufacturing sector, exports of metal goods and base chemicals and chemical intermediates fell heavily. But exports of capital goods such as industrial and electrical machinery also contracted sharply as a result of the sharp deterioration in the orders situation in Switzerland's main export markets (especially the EU). In addition, exports of

precision instruments also fell for the first time. Equally affected were exports of consumer goods; exports of watches, in particular, saw dwindling demand (notably from oil-exporting countries).

Exports of services contracted sharply in the fourth quarter. This was mainly due to a downturn in income from merchanting, which suffered from the decline in commodity prices. Furthermore, the intensification of the financial crisis once again put a significant strain on banks' commission business with foreign clients in the fourth quarter, while receipts from tourism remained almost static.

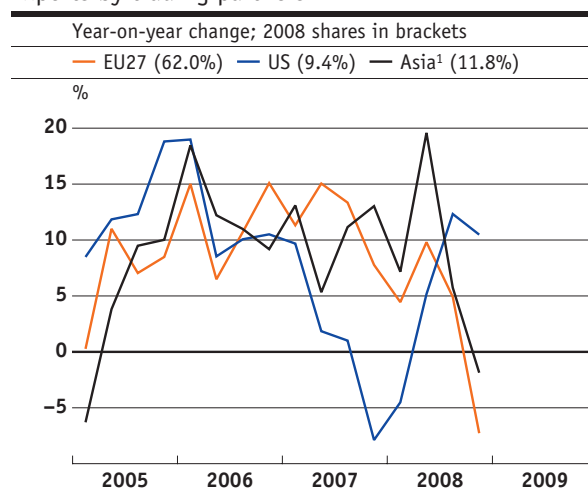
The downward path in exports of goods continued unabated in January. All categories of goods were affected by the sluggish demand. Exports also fell on a broad front regionally. The order-book situation and expectations of export-oriented industrial companies show no signs of improvement in the months ahead.

Chart 2.3  
Exports



Source: SECO

Chart 2.4  
Exports by trading partners



1 Asia: Japan, China, South Korea, Hong Kong, Singapore, Taiwan, Malaysia, Thailand, Philippines, Indonesia  
Source: Federal Customs Administration (FCA)



### Slackening of consumption growth

In the fourth quarter, growth in consumption weakened a little more. Quarter-on-quarter, private consumption rose by only 0.4%.

Spending on food, clothing and footwear, in particular, registered an increase. However, demand for consumer durables and services fell. There was a corresponding decline in consumption indicators such as new car registrations and domestic demand for hotel accommodation.

### Consumer sentiment still gloomy

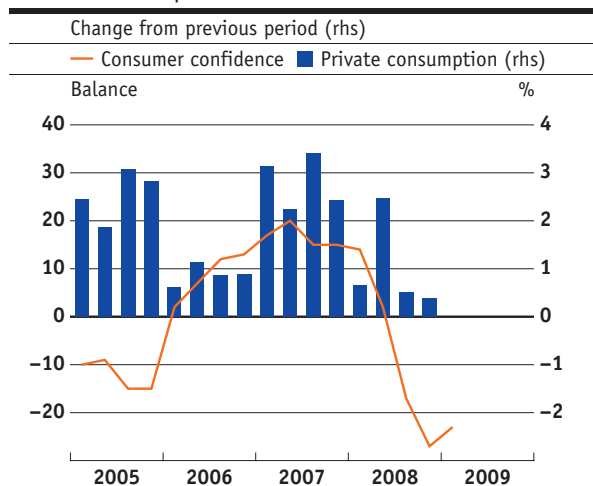
The consumer confidence index weakened in the autumn but rose again slightly in January, from -27 to -23. The improvement is mainly due to a more favourable assessment of people's personal financial situation, which is based on the decline in the rate of inflation. Because of the continuing upheavals on the international financial markets, the general economic situation in Switzerland was now considered to have deteriorated. As unemployment rises, job security was also given a more pessimistic rating.

### Falling construction and equipment investment

The downtrend in construction investment continued in the fourth quarter. Compared to the same period of the previous year, construction investment fell by 4.1%, having already fallen in the first three quarters of the year. Overall, this means that construction investment fell by 2.9% in 2008 compared to the previous year, although it is still at a relatively high level. This is also confirmed by the comparatively high capacity utilisation in the construction industry.

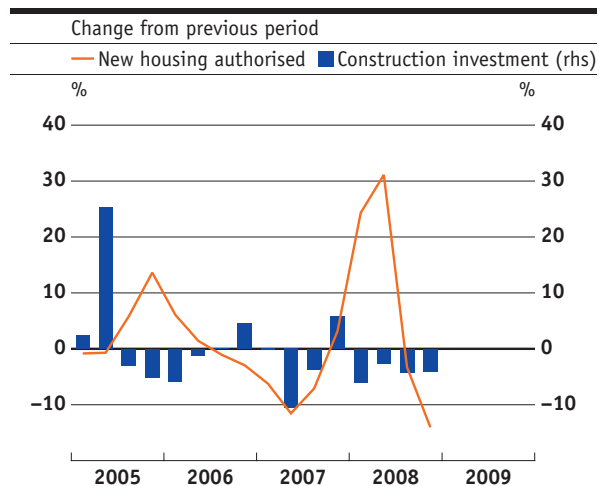
Equipment investment fell heavily in the fourth quarter compared to the same quarter of the previous year. Companies are holding back on new investment because of the sharp decline in the utilisation of their own technical capacity, their deteriorating earnings position, unfavourable borrowing terms and the great uncertainty regarding the economic outlook.

Chart 2.5  
Private consumption



Source: SECO

Chart 2.6  
Construction



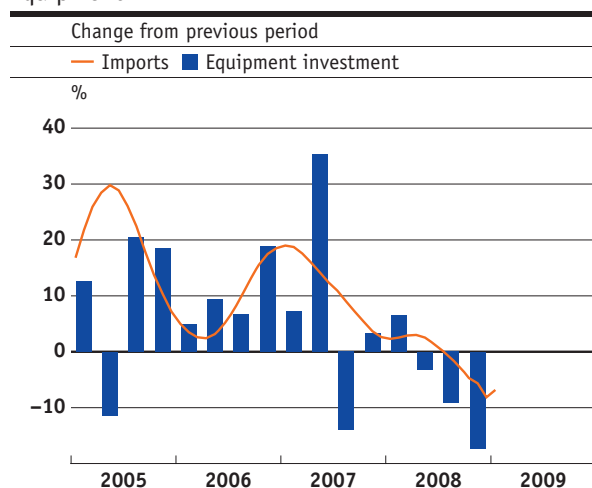
Sources: SFSO, SECO

### Increasing weakness of imports

In the light of the gloomier outlook for exports and the slowdown in the domestic economy, imports also fell sharply in the fourth quarter. This was due, firstly, to a marked fall in imports of raw materials and semi-finished goods, a large proportion of which are used in the export industry. Secondly, imports of capital goods such as machinery and electronic equipment fell appreciably, reflecting the increasing reluctance of domestic companies to invest. In line with the gradual slowing of private consumption, imports of typical consumer durables, such as cars and home furnishings, also weakened. By contrast, there was a strong increase in imports of services due to higher spending on transport services, licences and patents.

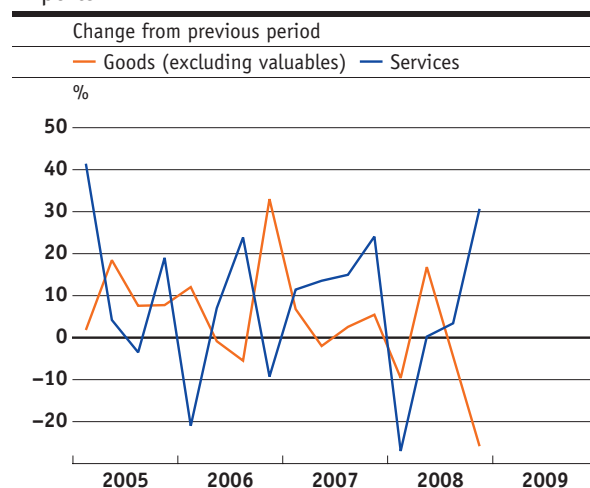
The drop in imports of goods accelerated slightly in January. Imports of raw materials, semi-finished goods and capital goods were particularly weak.

Chart 2.7  
Equipment



Sources: FCA, SECO

Chart 2.8  
Imports



Source: SECO

## 2.3 Employment and labour market

### Slower employment growth

The decline in real economic activity observed in the fourth quarter has led to a further slowing in employment growth. Full-time equivalent employment rose by 1.1%, having increased by 1.6% in the third quarter.

Developments were very different between industries, however. There was a sharp decline in employment in the manufacturing and construction industries. Employment increased in the service sector, although banks and insurance companies were major exceptions.

As employment growth slowed, the situation on the Swiss labour market also eased. The index of personnel recruitment problems compiled by the SFSO fell, having risen continuously since mid 2005.

### Falling demand

The number of job vacancies has fallen significantly in recent months. The deterioration has occurred mainly in manufacturing, banking, insurance, wholesaling and retailing. The leading indicators point to a further contraction in demand in the months ahead. The outlook is particularly unfavourable in the manufacturing industry, which had made a big contribution to employment growth in the boom years.

### Rising unemployment

On the unemployment front, the trend reversal that had already begun to emerge in the autumn months became more evident: between November 2008 and February 2009 the number of unemployed rose appreciably.

Seasonally-adjusted, unemployment rose to 3.1% in February, compared to 2.7% in November. The number of persons seeking employment, which, in addition to the registered unemployed, also includes people who are on training and employment programmes or have accepted an interim placement, also showed a clear increase. During the same period, the rate of unemployment in this group climbed from 4.0% to 4.4%. A far higher number of businesses have also requested short-time working since November 2008.

Chart 2.9  
Employment

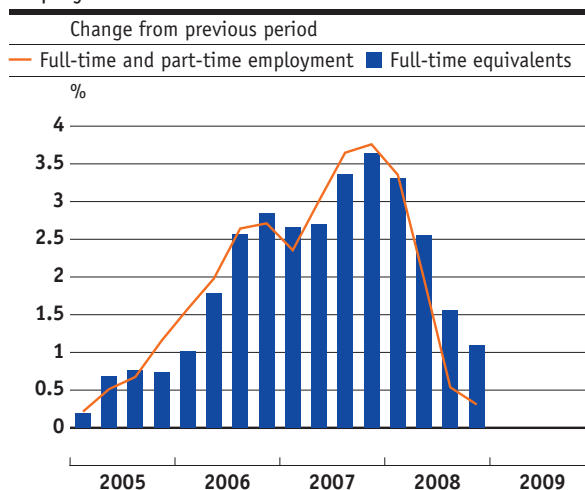


Chart 2.10  
Employment outlook indicator

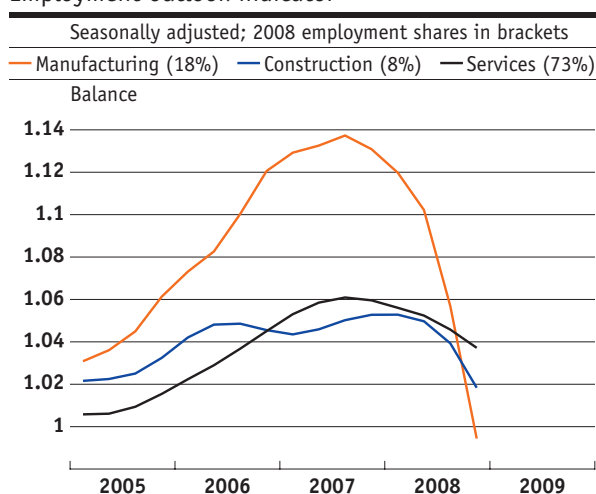
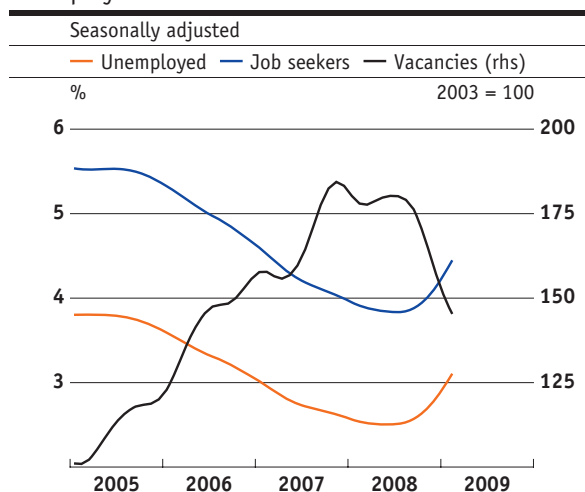


Chart 2.11  
Unemployment rates and vacancies



Charts 2.9 and 2.10:  
Source: SFSO

Chart 2.11:  
Unemployed and job seekers registered with the regional employment offices, as a percentage of the labour force according to the 2000 census (labour force: 3,946,988 persons).  
Source: SECO

## 2.4 Capacity utilisation

### Sharp reduction in capacity utilisation

Utilisation of technical capacity fell heavily again in the fourth quarter. In the manufacturing industry utilisation is already one percentage point below its long-term average of 84% (cf. chart 2.12). The indicators available, which are calculated by the ETH Institute for Business Cycle Research (KOF/ETH) on the basis of survey results, also show that the proportion of industrial companies feeling constrained by a shortage of labour has similarly fallen dramatically. This indicator, too, is well below its historical average. The negative movement in production indicators in January and February points to a further significant decline in the utilisation of the factors of production in manufacturing.

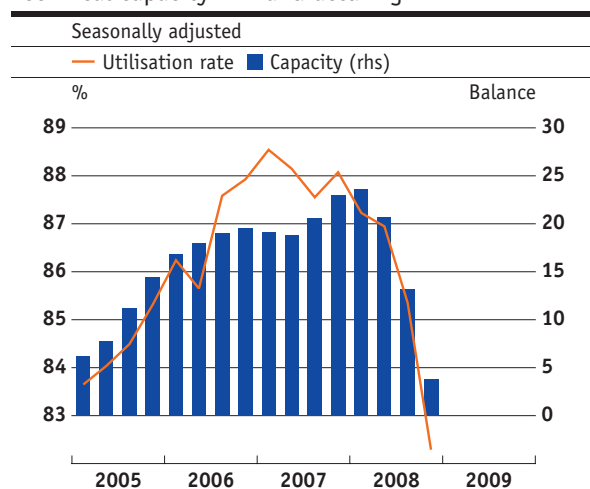
Although the sharp economic downturn has up to now impacted most heavily on capacity utilisation in manufacturing, the indicators for other economic sectors are also pointing downwards. Although capacity utilisation in the construction industry is still slightly above its historical average, the indicators showing the extent to which businesses feel constrained by the availability of labour and technical capacity have already fallen below

their respective averages. In the hospitality trade, occupancy rates and assessments of the staffing situation are also below average levels.

### Output gap almost zero

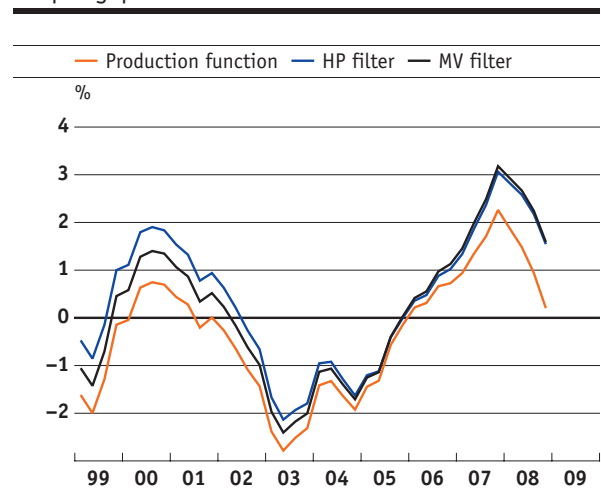
The dramatic downturn in capacity utilisation is also reflected in movements in the output gap. The output gap, which is calculated as the percentage difference between real GDP and estimated production potential, serves as a measure of capacity utilisation in the economy and the associated inflationary pressure. Chart 2.13 shows three estimates of the output gap based on different methods of estimating production potential. According to the estimated production function (PF), the output gap was almost closed in the fourth quarter (+0.2%). However, if the alternative filter methods – i.e. the Hodrick-Prescott filter (HP) and the multivariate filter (MV) – are used, a positive output gap is still obtained. Such variation between the different methods is typical of downtrend phases, due to the fact that downward adjustment of estimated potential growth is stronger and faster in the case of the filter methods. Despite the differences in the level of the output gaps, all methods point to an easing of inflationary pressure. This will strengthen further in coming quarters.

Chart 2.12  
Technical capacity in manufacturing



Source: KOF/ETH

Chart 2.13  
Output gap



Source: SNB

## 2.5 Prices

### Price index of aggregate supply falling

For the first time since 2004, the inflationary pressure exerted by producer and import prices on downstream consumer prices is negative overall. The price index of aggregate supply, which is based on producer and import prices, fell by 1.8% between February 2008 and February 2009. In November, the inflation rate was still +1.1% year-on-year. If one considers only goods intended for the domestic market, prices in February fell by 2.8% year-on-year – i.e. by more than the total index.

This decline was attributable primarily to falling prices for imported goods and services. The change in import prices in February was –5.0%. The biggest price falls on a year-on-year basis were recorded by energy goods. The prices of imported intermediate goods fell by 6.6%. Inflationary pressure from imported consumer goods also eased, with the annual rate of change falling from +0.6% in November to –1.4% in February.

Inflation, as measured by the producer price index, also declined sharply and stood at –0.1% in February (compared to 2.2% in November). The only category to record a fall in prices on an annual comparison so far has been energy as well as, in February, intermediate goods, which were 2.7% below the year-back level. Inflation has been considerably lower in other segments as well, especially for consumer goods.

### National consumer price index and components

Year-on-year change in percent

Table 2.2

	2008	2008			2008		2009	
		Q2	Q3	Q4	November	December	January	February
<b>Overall CPI</b>	<b>2.4</b>	<b>2.7</b>	<b>3.0</b>	<b>1.6</b>	<b>1.5</b>	<b>0.7</b>	<b>0.1</b>	<b>0.2</b>
Domestic goods and services	1.7	1.6	1.9	2.1	2.1	2.0	1.7	1.7
Goods	1.7	1.6	1.6	1.9	1.8	1.9	1.2	1.2
Services	1.7	1.5	2.0	2.1	2.1	2.0	1.9	1.8
Private services excluding rents	1.4	1.3	1.8	1.9	1.9	1.9	1.6	1.4
Rents	2.4	2.1	2.7	3.0	3.1	3.1	3.1	3.5
Public services	0.9	0.8	0.8	0.8	0.9	0.6	0.6	0.6
Imported goods and services	4.3	5.6	5.8	0.3	–0.1	–2.6	–3.8	–3.5
Excluding oil products	1.7	1.7	1.6	1.6	1.3	1.7	1.5	1.4
Oil products	17.8	26.2	27.8	–5.0	–7.3	–21.2	–26.1	–23.9

Sources: SFSO, SNB

### Sharp drop in consumer price inflation

Annual inflation, as measured by the national consumer price index (CPI), fell from 1.5% to 0.2% between November and February. This mainly reflects a decline in the price of imported goods and services and statistical base effects. However, the inflation rate for domestic goods and services also fell for the first time since mid-2007.

### Slight decrease in domestic inflation

Inflation for domestic goods and services declined from 2.1% in November to 1.7% in February. In particular, certain domestic food products became much cheaper. Annual inflation for domestic goods actually fell from 1.8% in November to 1.2% in February. For services, the year-on-year rate of inflation has fallen by 0.3 percentage points since November to 1.8% in February. Excluding residential rents, the rate of inflation for private services was 1.4%, with the main price falls in internet and transport services. Residential rents in February were 3.5% higher than one year earlier.

### Lower oil price having marked effect on prices of imported consumer goods

The price of oil dropped by around USD 10 per barrel from its November level to USD 43 per barrel in February. This was reflected in lower prices not only for fuel and gas but also for energy-intensive services such as air transport. In February 2008, the oil price had been roughly twice as high and had risen to a peak of USD 145 per barrel by the middle of the year. This means that the year-on-year inflation rates of energy-intensive goods are currently being affected by very pronounced statistical base effects. The rate of price increase for oil products in February was -23.9% (compared to -7.3% in November). For other imported goods and services, prices rose year-on-year by 1.4% (November 1.3%).

Chart 2.14  
Prices of total supply

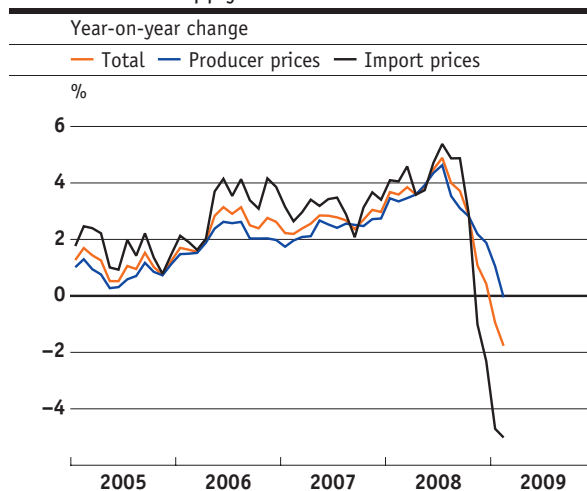


Chart 2.15  
CPI: Domestic and imported goods and services

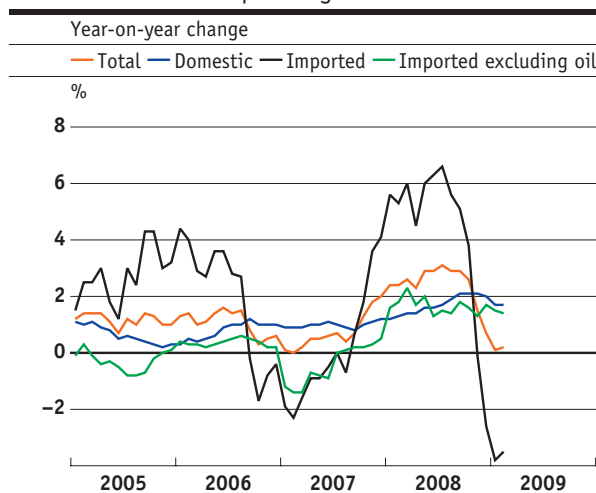


Chart 2.16  
CPI: Domestic goods and services

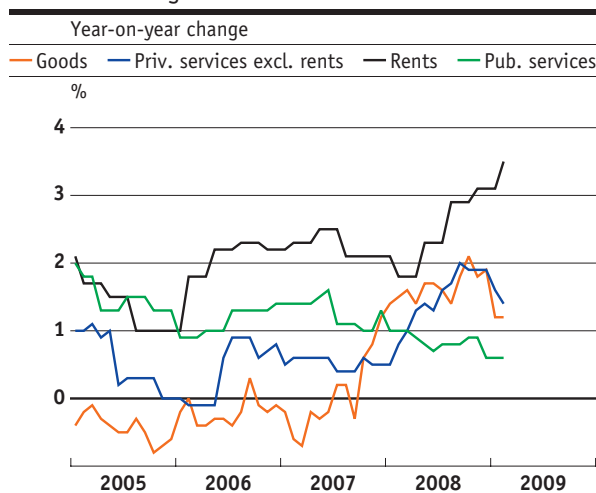


Chart 2.14:  
Source: SFSO

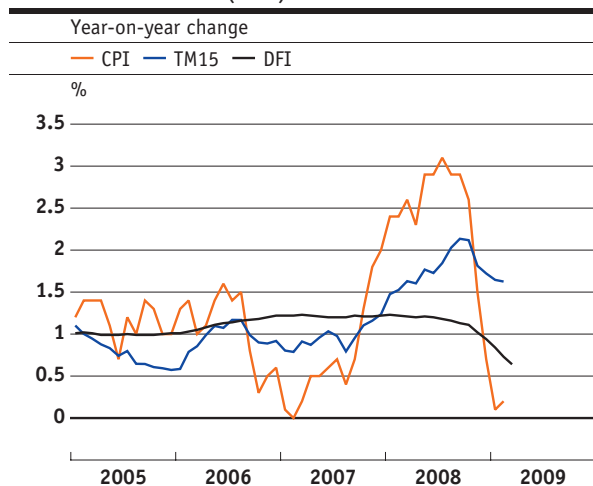
Charts 2.15 and 2.16:  
Sources: SFSO, SNB

### Core inflation rates still declining slightly

Inflation, as measured by the CPI, is subject to short-term fluctuations that may distort perceptions of the general price trend. For that reason, core inflation rates are calculated with the aim of capturing the underlying inflation trend. The SNB computes two measures of core inflation, as shown in chart 2.17. The trimmed means method (TM15) excludes from the consumer price index, for any given month, the 15% of goods prices with the highest annual rates of change and the 15% with the lowest annual rates of change. Dynamic factor inflation (DFI), by contrast, extracts underlying inflation using a large number of data on the real economy, financial market indicators and monetary variables. The two core inflation rates calculated by the SFSO exclude the same price-volatile goods from the basket of goods in each period (cf. chart 2.18). In the case of core inflation 1 (SFS01), these are food, beverages, tobacco, seasonal products, energy and fuel. Core inflation 2 (SFS02) also factors out products with administered prices.

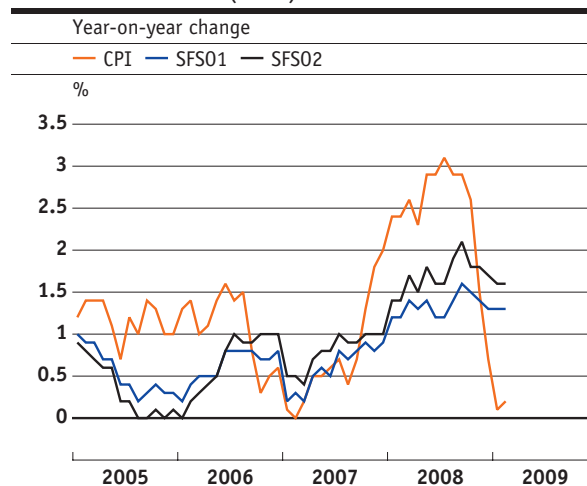
The core inflation rate calculated using the trimmed means method fell from 1.8% to 1.6% between November and February. At the same time, the two SFSO core inflation rates fell by 0.1 and 0.2 percentage points to 1.3% and 1.6%. The fact that the decline in these traditional measures was so small suggests that thus far only a relatively narrow selection of goods and services have been affected by falling prices. The further decline in the DFI rate, however, indicates that the underlying inflation trend is still downward because of the gloomier economic outlook.

Chart 2.17  
Core inflation rates (SNB)



Sources: SFSO, SNB

Chart 2.18  
Core inflation rates (SFSO)



Source: SFSO

## 2.6 Real economic outlook

### **Global recession set to continue**

As explained in chapter 1, the SNB is anticipating a further clear economic downturn internationally in the short term. This will seriously depress foreign demand for Swiss goods and services in the coming months. The capital goods industry will probably continue to suffer from the financing problems of customers and the global downswing in manufacturing. The deterioration in the labour market and reduced income from commodities trading is expected to further depress disposable income in countries which are major trading partners and thus reduce Swiss exports of consumer goods and receipts from tourism.

### **Sharper downturn in Switzerland**

Contracting exports and great uncertainties surrounding the medium-term business outlook will also impact negatively on domestic investment spending. Commercial construction, which is heavily cyclical, is also likely to decline. Decreasing

demand for labour is expected to cause a marked increase in unemployment, which will increasingly undermine growth in consumer spending. Support is likely to come from public consumption and housing construction. The big increase in building permits since the start of 2008, falling mortgage rates and the continuing rise in house prices suggest that housing construction will pick up from mid-2009 on.

For the first half of the year, there is every sign that the decline in GDP will be stronger than foreseen in December. The economic policy measures taken in many countries should make their first effects felt from the second half of 2009 on. There remains considerable uncertainty about this, however, since crippled banking systems are hampering the transmission of monetary policy stimuli.

For 2009 as whole, the SNB now expects Swiss GDP to contract by between 2.5% and 3%. The severe downturn in capacity utilisation and a marked decline in hours worked will be a major factor in the output gap turning decidedly negative during the course of the year.



### 3 Monetary developments

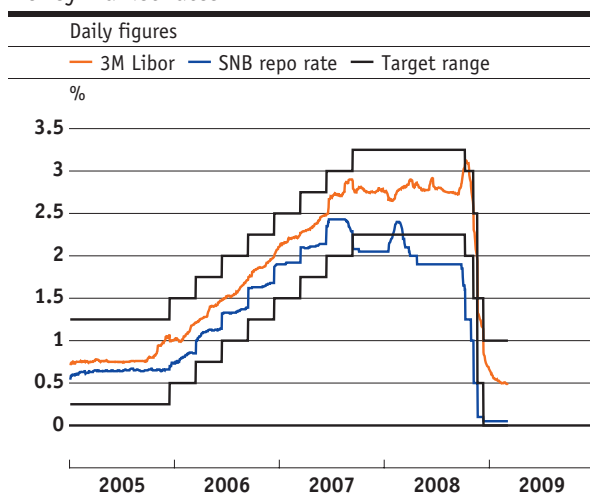
#### 3.1 Interest rates and inflation expectations

The final quarter of 2008 was exceptional in every sense of the word. The outlook for the world economy deteriorated rapidly and inflation registered a sharp decline. The SNB responded with an unprecedented easing in monetary policy, lowering the target range for the three-month Libor in three extraordinary assessment meetings (8 October, 6 November and 20 November) by a total of 175 basis points. At the ordinary quarterly assessment meeting on 11 December 2008, the SNB decided to lower the target range by a further 50 basis points to 0.0–1.0%. In view of the major economic downturn, numerous other central banks also lowered their key rates. However, the SNB was one of the central banks that reduced their rates most rapidly and decisively.

As usual, the SNB sought to maintain the three-month Libor in the middle of the target range. However, this proved difficult since the Libor risk premia were high and fluctuated strongly.

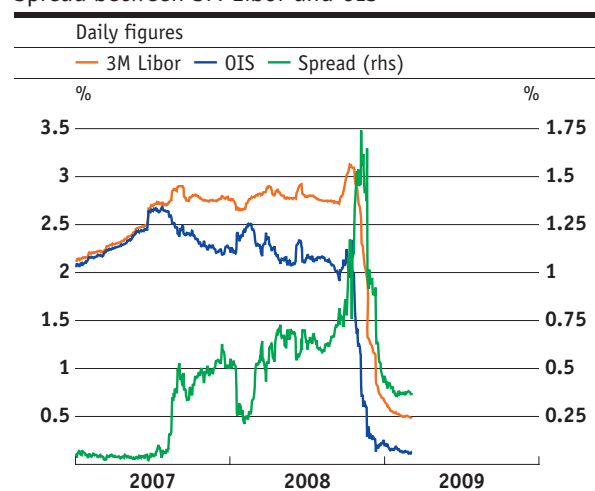
Rather than steering the three-month Libor directly, the SNB does so through repo transactions. Unlike the repo, which is a secured money market transaction, the Libor is based on an unsecured transaction. During the past months, the risk premium on unsecured transactions has reflected the uncertainty and mistrust between banks. In the second half of September 2008, it had risen considerably, after one of the largest US investment banks – Lehman Brothers – had filed for bankruptcy protection. Subsequently, the level of the three-month Libor rose, at times exceeding 3% and was thus situated clearly above the middle of the target range. However, it fell again substantially from mid-October. Although, following the December quarterly assessment, it again remained above the middle of the new target range of 0.0–1.0% at first, during the course of the following weeks it gradually moved towards the middle of the range. From mid-February, it stood at 0.5%. Measured on the basis of the spread between the three-month Libor and the corresponding overnight swap (OIS), the risk premium in the Swiss franc money market fell from about 80 basis points at the quarterly assessment of 11 December 2008 to 40 basis points at the quarterly assessment of 12 March 2009.

Chart 3.1  
Money market rates



Sources: SNB, Reuters

Chart 3.2  
Spread between 3M Libor and OIS



Sources: Bloomberg, Reuters

The SNB took various steps to relax the situation on the money market. On the one hand, it substantially lowered the target range for the three-month Libor and, on the other hand, it greatly increased the amount of liquidity provided. Normally, it uses short-term repo transactions to cover banks' demand for liquidity. However, on the day of the December quarterly assessment, as well as on the following day, the SNB also concluded repo transactions with longer terms of up to one year.<sup>1</sup> On 16 January 2009, the SNB, together with the European Central Bank and the Narodowy Bank Polski, announced that it would continue conducting one-week foreign exchange swaps until the end of April 2009, at least, in order to support further improvements in the short-term Swiss franc money market. On 28 January 2009, a similar agreement between the SNB and the Hungarian central bank was announced.

### Financing the SNB StabFund

In autumn 2008, the SNB began issuing its own Swiss franc debt certificates with terms of up to a month (SNB Bills), to absorb part of the excess Swiss franc liquidity. In mid-February, the SNB began issuing debt certificates in US dollars with terms of under one year (SNB USD Bills). The funds raised are being used to finance the loan to the stabilisation fund set up to realise UBS assets (SNB StabFund). The SNB also announced that the StabFund would acquire UBS assets amounting to USD 39.1 billion. This is considerably below the maximum figure of some USD 60 billion that was originally planned.

### Term structure of interest rates shifts downwards

In addition to money market interest rates, yields on government bonds in the short and medium-term segment also fell. The drop in interest rates is mainly attributable to two factors: first, lower inflation expectations linked to the downturn in the economy and, second, the retreat into safe investments.

By contrast, yields on corporate bonds rose. In particular, low-rated corporate bonds experienced a considerable increase in their credit risk premia following the bankruptcy of Lehman Brothers. This premium is substantially above the average recorded in the months prior to the beginning of the subprime crisis in August 2007.

<sup>1</sup> For information on measures taken by the SNB during the period up to the end of 2008, cf. box 'New measures taken by the SNB to steer the money market', *Quarterly Bulletin* Q4 2008, p. 28.

Chart 3.3  
Spreads between international short-term interest rates

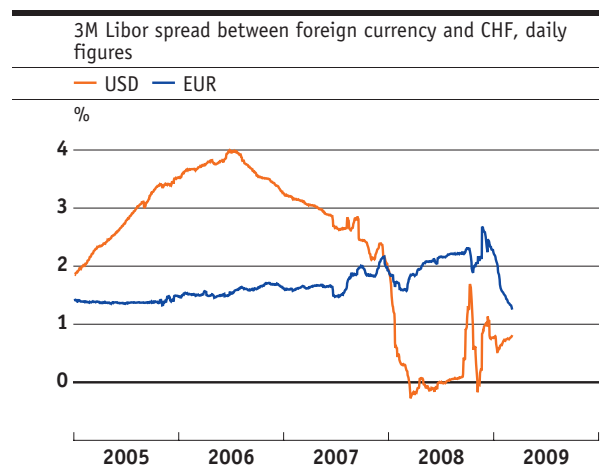


Chart 3.4  
Term structure of Swiss Confederation bonds

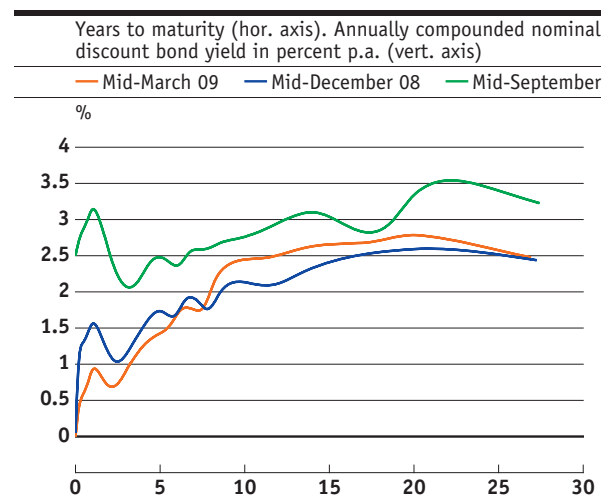


Chart 3.5  
International interest rates

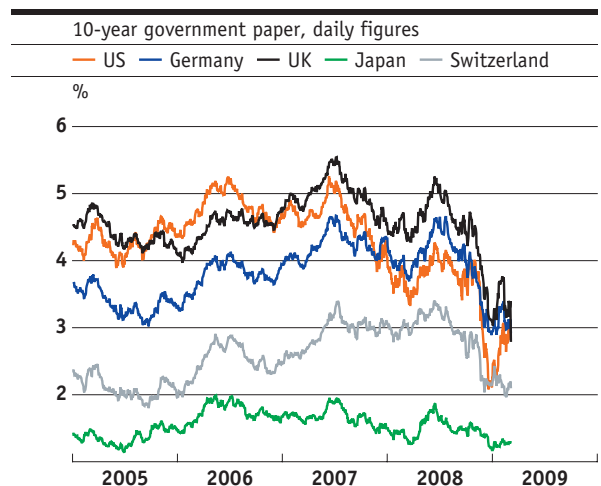


Chart 3.3:  
Sources: Reuters, SNB

Chart 3.4:  
Source: SNB

Chart 3.5:  
Sources: SNB, Thomson Datastream

### Stabilisation of short-term real interest rate at a low level

The real interest rate is a key determinant in the savings and investment behaviour of companies and households and is therefore extremely important for future business cycle developments. Chart 3.7 shows movements in the three-month real interest rate. This rate is defined as the difference between the three-month Libor and the expected rise in consumer prices during the same period. These inflation expectations are an average of the forecasts obtained from various models. In the fourth quarter of 2008, the real interest rate measured in this way was  $-0.2\%$ , which was the same as in the previous quarter. In other words, the drop in the three-month Libor was almost completely compensated by lower inflation expectations.

The results of SECO's household survey of consumer confidence conducted in January also suggest that short-term inflation expectations were lower. The share of respondents expecting a decline in prices in the following twelve months rose from 5% to 35%. Furthermore, the proportion of respondents expecting stable prices was up from 25% to 35%.

Medium-term inflation expectations fell less strongly than short-term expectations. In view of the drop in nominal interest rates, real medium-term interest rates declined slightly: the real three-year interest rate amounts to  $0.7\%$ . By historical standards, the level of real interest rates is also low for medium-term maturities and is having a stimulating effect on the economy.

Chart 3.6  
Spread of five-year manufacturing bonds

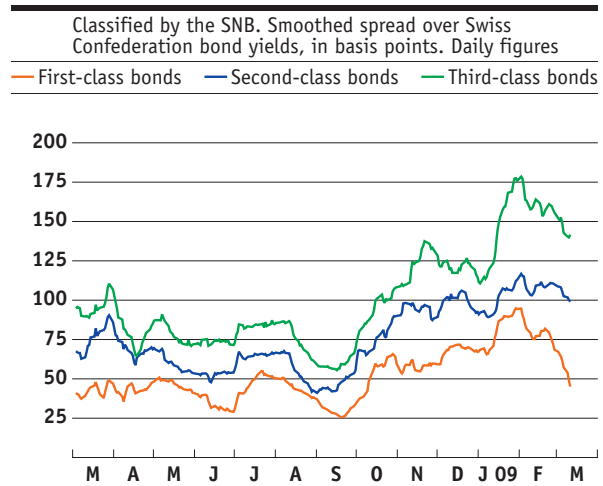


Chart 3.7  
Estimated real interest rate

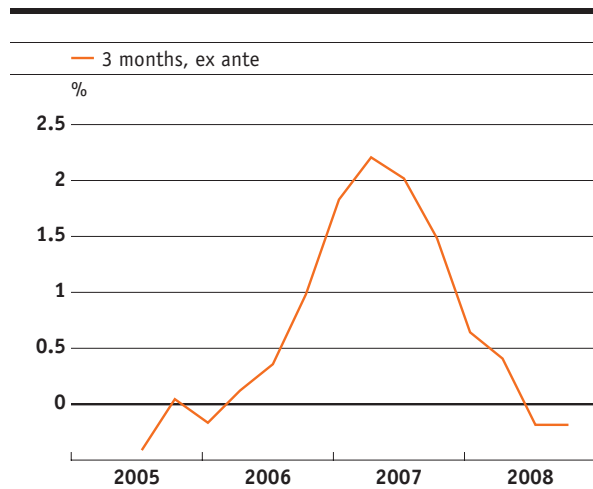
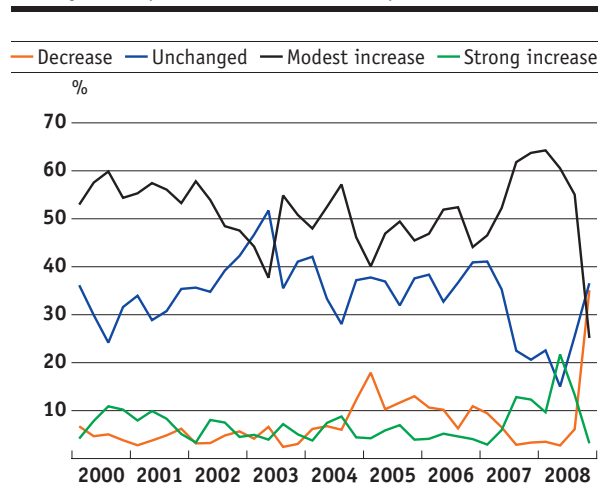


Chart 3.8  
Survey on expected movements in prices



Charts 3.6 and 3.7:  
Source: SNB

Chart 3.8:  
Sources: SECO, SNB

## 3.2 Exchange rates

### Swiss franc hardens during crisis

The Swiss franc hardened during the course of the financial crisis. Exchange rate developments since the beginning of the financial crisis can be split into two phases. In an initial phase, when the financial crisis appeared to be limited mainly to US financial institutions, the US dollar depreciated at an accelerated rate against the euro and the Swiss franc. August 2008 saw the beginning of the second phase, after indicators had signalled, for the first time, that the euro area and Switzerland would also be heavily affected by the crisis. This outlook became increasingly clear, and by mid-December the US dollar had firmed up substantially against the euro and the Swiss franc. However, in December, the US dollar again depreciated markedly against the Swiss franc. This softening did not last long, and from January the greenback began to strengthen once more, largely regaining the ground lost in December. The euro also weakened in December with respect to the Swiss franc, only to climb back again afterwards. Overall, during the course of the past six months, the Swiss franc has weakened by 7% against the US dollar and strengthened by 9% against the euro. These developments are reflected in the nominal trade-weighted Swiss franc exchange rate, which has increased by 14% since July 2007.

### Movements in the real external value

The relatively stable path of the trade-weighted real external value shown in chart 3.10 suggests that, over a long-term period, movements in the nominal exchange rate have tended to balance out inflation differentials (relative purchasing power parity). Since the beginning of the financial crisis, movements in the real Swiss franc external value have been similar to those in the nominal exchange rate. Thus, at the beginning of the year, the real external value was 11% higher than in July 2007.

Chart 3.9  
Exchange rates

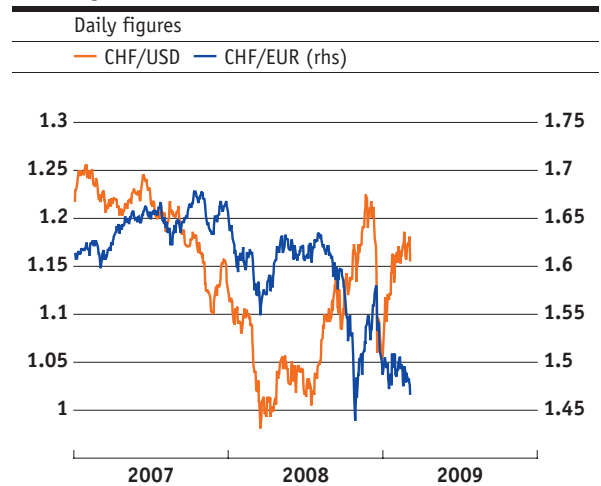


Chart 3.10  
Trade-weighted external value of Swiss franc

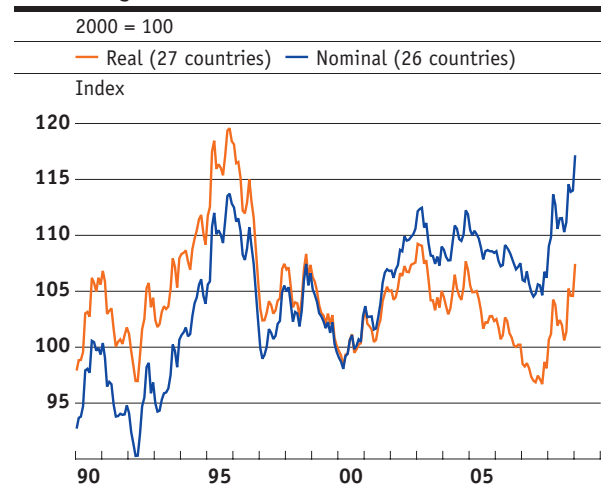
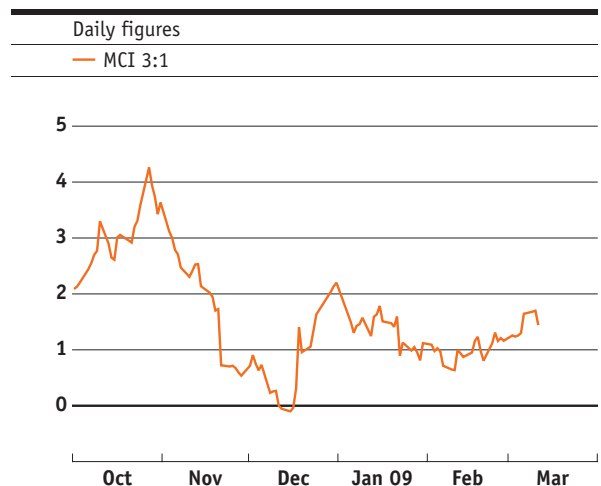


Chart 3.11  
MCI nominal



Charts 3.9 and 3.11:  
Source: SNB

Chart 3.10:  
Source: BIS

### More restrictive monetary conditions

The Monetary Conditions Index (MCI) combines the three-month Libor and the trade-weighted nominal value of the Swiss franc to provide a measure of the monetary conditions with which businesses in Switzerland have to contend. The MCI is reset to zero immediately after each monetary policy assessment. An increase to positive values (decline to negative values) thus signifies a tightening (loosening) of monetary policy conditions (cf. box 'The Monetary Conditions Index (MCI)' *Quarterly Bulletin* Q1 2004, p. 27).

The latest MCI figures suggest that monetary conditions are more restrictive. This means that the strengthening of the Swiss franc has more than offset the lowering of the three-month Libor to 0.5% (chart 3.11).

## 3.3 Equity, commodity and real estate prices

### Continued downward trend in equity markets

Since the beginning of the year, the performance of equity markets has been negative. With numerous press reports relating both to the economy as a whole as well as to specific companies, it seemed likely that the financial crisis would spill over into the real economy. After the quarterly assessment of 11 December 2008, the Swiss Performance Index (SPI) fell by a further 22%. The Standard & Poor's 500 Index (S&P) lost 19%, Dow Jones EURO STOXX (DJ Euro) declined 23% while Nikkei 225 (Nikkei) was down 21%. Although stock market uncertainty, as measured by implicit volatility, has decreased, it is still high by historical standards.

Within the SPI, large export-driven companies have suffered most. This reflects the worsening outlook for the world economy. The current assessments also reflect the more difficult financial conditions. This particularly affects companies that are heavily dependent on borrowed capital and that hold low levels of liquidity.

Chart 3.12  
Stock prices

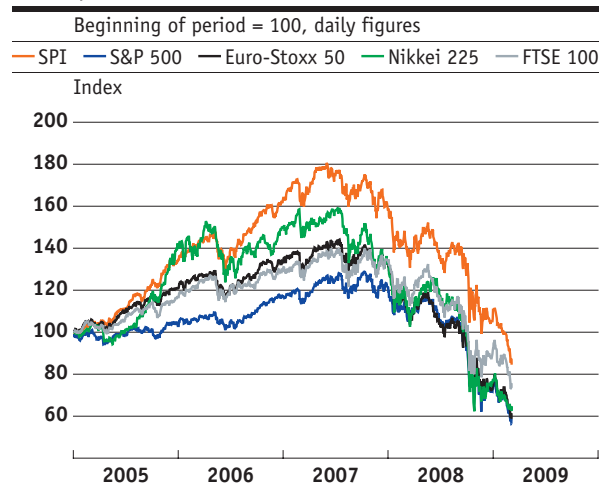


Chart 3.13  
Selected SPI sectors

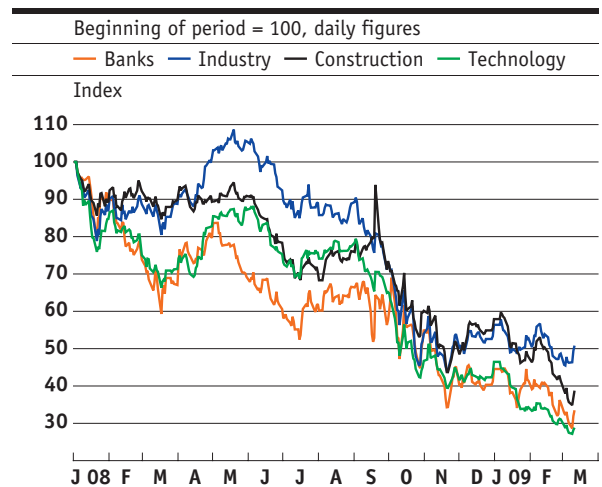


Chart 3.14  
Volatility of equity returns

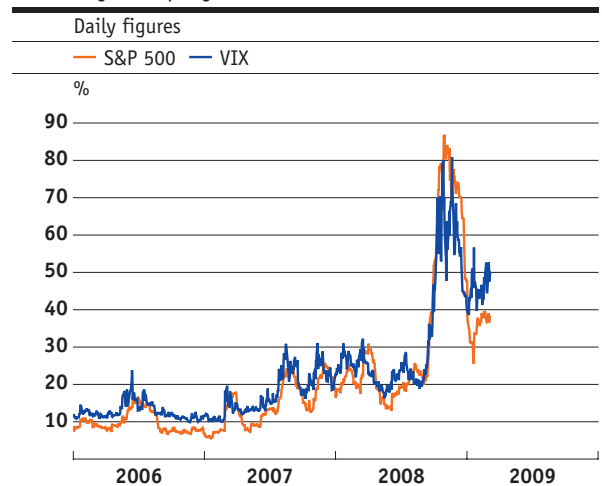


Chart 3.12:  
Sources: Bloomberg, Thomson Datastream

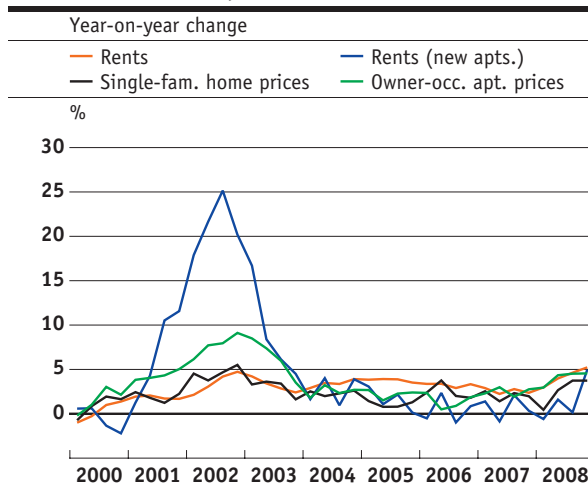
Chart 3.13:  
Source: Thomson Datastream

Chart 3.14:  
Sources: SNB, Thomson Datastream

### Stable real estate market

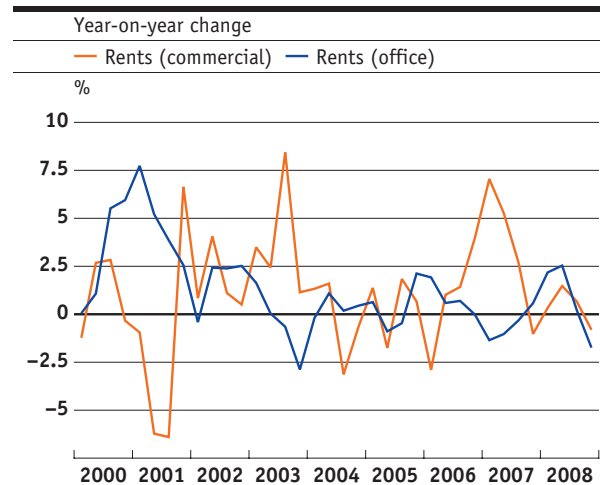
To date, the downturn in the economy has only affected prices in a small section of the real estate market. Year-on-year, real estate prices in the fourth quarter still climbed noticeably, in nominal terms. Prices for owner-occupied apartments increased by 4.5%, while those of single-family homes rose by 3.7%. Changes in the cost of rented apartments are also of interest: these were 5.1% up year-on-year in the fourth quarter; rental costs for new apartments, which are a better reflection of market forces, were up by 4.9% year-on-year. The only area where a decline was recorded was commercial rents, which were down by 1.8%.

Chart 3.15  
Nominal real estate prices and rents



Source: Wüest & Partner

Chart 3.16  
Nominal commercial and office rents



Source: Wüest & Partner

## 3.4 Monetary aggregates

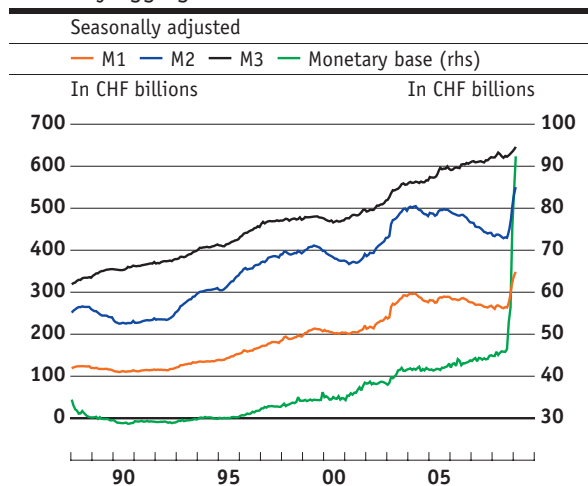
### Growth in monetary aggregates

The SNB provided the market with liquidity in order to satisfy the unusually high demand on the part of commercial banks. In these times of uncertainty, demand for high-denomination banknotes also increased. Consequently, the fact that the monetary base shot up by 105.7% in February compared with the year-back figure does not mean that the economy is over-supplied with money, and does not entail any inflationary risk.

This is also confirmed by the fact that, despite their recent increase, the broader monetary aggregates are still below their trend level (chart 3.17). After strong growth in 2003–2005, both M1 (notes and coin in circulation, sight deposits and transaction accounts) and M2 (M1 plus savings deposits) declined after the beginning of 2006 as a result of the rise in interest rates. From autumn 2007, both of these monetary aggregates stabilised again, which corresponds with the flatter path of short-term interest rates. Following the latest interest rate reductions, M1 and M2 began to grow strongly again. In February, M1 was 33.9% above the year-back level, while M2 was 27.0% up. M3 (M2 plus time deposits), which generally fluctuates less than the other aggregates, expanded by 4.1% (table 3.1).

Due to the low initial level, current growth rates do not pose any threat to price stability. One way of assessing potential inflationary or deflationary risks emanating from an excessive or insufficient supply of liquidity to the economy is to calculate a money gap or monetary overhang. This corresponds to the positive deviation (monetary overhang) or negative deviation (money gap) of the M3 aggregate from an equilibrium value which is calculated on the basis of the transaction volume in the economy and the opportunity cost of holding money (cf. box 'Money supply growth and inflation', *Quarterly Bulletin* Q1 2005, p. 33). Chart 3.18 shows the percentage deviation of the M3 aggregate from the calculated equilibrium value. In order to take account of statistical uncertainty, the money gap or monetary overhang is presented as a range that spans one standard deviation. If the range is below the zero line, as is currently the case, this indicates an expectation of lower price pressure in the medium term.

Chart 3.17  
Monetary aggregates



Source: SNB

# Monetary aggregates<sup>1</sup>

Table 3.1

	2007	2008	2007	2008				2008	2009	
			Q4	Q1	Q2	Q3	Q4	December	January	February
<b>Monetary base<sup>2</sup></b>	<b>44.2</b>	<b>49.6</b>	<b>44.8</b>	<b>45.8</b>	<b>45.4</b>	<b>45.3</b>	<b>61.7</b>	<b>77.4</b>	<b>85.9</b>	<b>92.6</b>
<i>Change<sup>3</sup></i>	2.5	12.1	2.7	2.6	3.3	4.4	37.8	65.4	85.2	105.7
<b>M1<sup>2</sup></b>	<b>268.9</b>	<b>273.0</b>	<b>268.7</b>	<b>266.4</b>	<b>265.3</b>	<b>258.5</b>	<b>301.7</b>	<b>327.3</b>	<b>343.7</b>	<b>355.4</b>
<i>Change<sup>3</sup></i>	-4.8	1.5	-4.4	-3.4	-1.7	-1.1	12.3	20.7	28.7	33.9
<b>M2<sup>2</sup></b>	<b>450.5</b>	<b>443.1</b>	<b>443.5</b>	<b>438.7</b>	<b>434.3</b>	<b>423.7</b>	<b>475.7</b>	<b>513.0</b>	<b>537.5</b>	<b>555.7</b>
<i>Change<sup>3</sup></i>	-6.4	-1.7	-6.5	-5.8	-4.3	-3.5	7.3	15.1	22.0	27.0
<b>M3<sup>2</sup></b>	<b>612.8</b>	<b>625.9</b>	<b>618.8</b>	<b>625.2</b>	<b>629.3</b>	<b>617.9</b>	<b>631.1</b>	<b>637.5</b>	<b>643.7</b>	<b>649.7</b>
<i>Change<sup>3</sup></i>	2.1	2.1	1.8	1.9	2.8	1.8	2.0	2.1	3.0	4.1

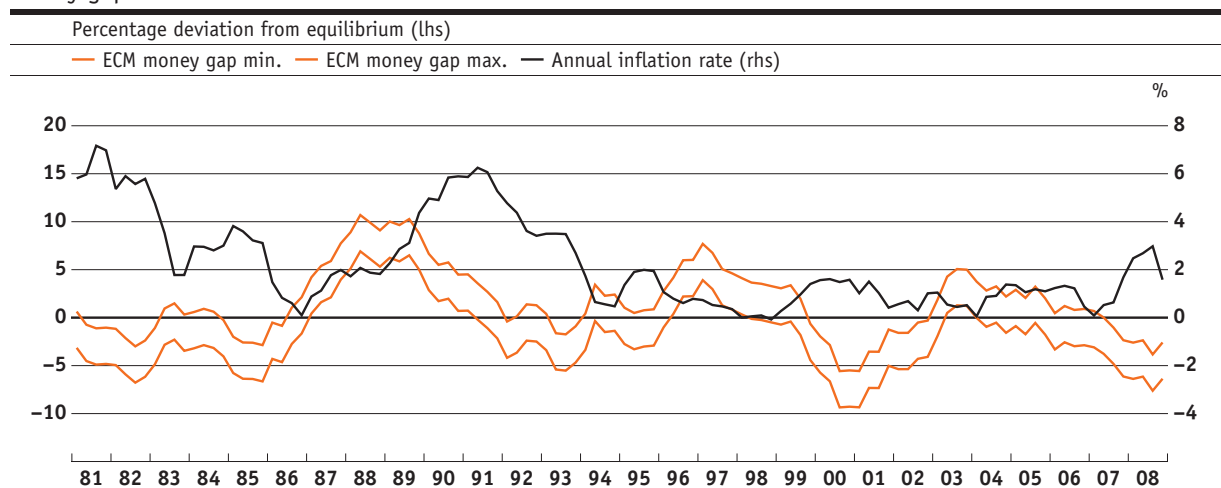
1 1995 definition

2 Level in CHF billions

3 Year-on-year change in percent

Source: SNB

Chart 3.18  
Money gap and annual inflation rate



Source: SNB



## 3.5 Credit

### Stronger growth in mortgage claims

Overall, the rate of credit growth declined. In the fourth quarter of 2008, it fell to 4.2% year-on-year, from 5.8% in the third quarter. This slowdown is mainly attributable to a reduction in the rate of growth of other unsecured loans (i.e. loans not secured by mortgages). In January, the year-on-year rate of increase in mortgage claims (which account for four-fifths of total bank loans) was greater than in December. This growth occurred in the wake of the most recent reduction of the three-month Libor (chart 3.19). The situation is similar to that in 2003, when the three-month Libor was substantially lowered and mortgages expanded strongly. Table 3.2 shows that mortgages increased in both the household and the corporate sector.

In the fourth quarter, other credits rose at a considerably slower pace than in the previous quarters. This fall-off in the rate of growth was attributable to a 5.6% contraction in other secured loans which, in the third quarter, were still growing – at a rate of 5.1%. Other unsecured loans, by contrast, increased by 15.3%, compared with 21.4% in the previous quarter. In January 2009, however, the growth rate for other credits increased again. Chart 3.20 shows that the level of other unsecured loans rose in comparison to December 2008 while other secured loans declined. Looking only at other loans denominated in Swiss francs, however, it can be seen that these continued increasing (chart 3.21).

An analysis of movements in credit volume does not reveal any obvious indications of a credit crunch in Switzerland at present. However, as the economy declines, growth in other credits will fall off while mortgage claims are likely to be supported by monetary policy. This picture is largely congruent with that obtained in a survey of lending conditions carried out quarterly by the SNB since the beginning of 2008 with 20 banks, which cover 85% of the domestic credit market. The survey supplements the quantitative indicators based on movements in credit volume.

Chart 3.19  
Growth in mortgage claims



Chart 3.20  
Bank loans

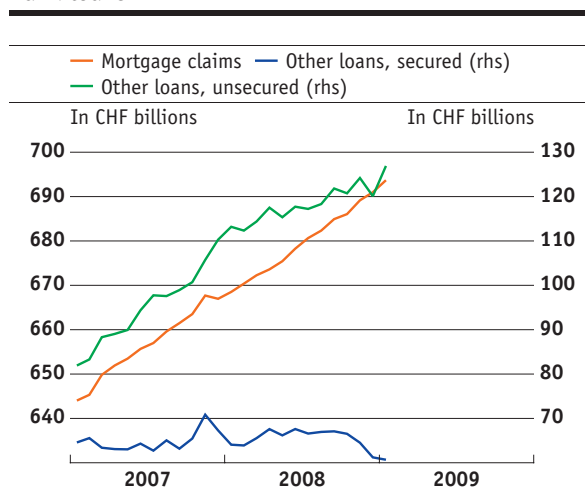
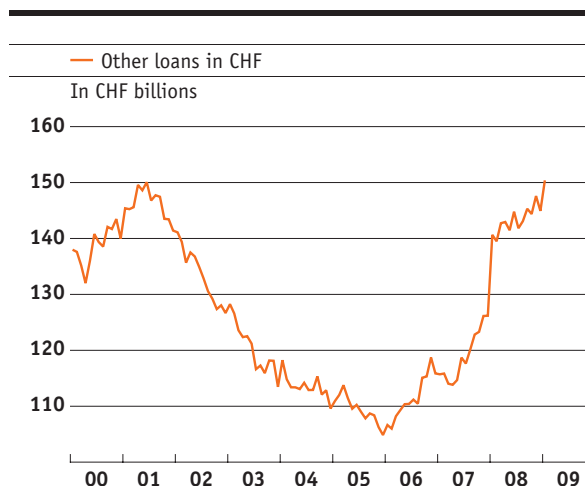


Chart 3.21  
Other loans in CHF



Charts 3.19, 3.20 and 3.21:  
Source: SNB

The survey conducted in January 2009 shows a slight tightening in lending conditions in the fourth quarter of 2008. Adjusted for market share (i.e. weighted according to the share in the Swiss lending market), 13% of banks reported a slight tightening in lending conditions for corporate lending and 6% for residential mortgages. For the first quarter of 2009, the banks expect a further slight tightening in lending conditions for all loan categories. Adjusted for market share, this applies to 31% of banks in the case of corporate lending and 17% for residential properties. These results confirm the initial signs of tightening lending conditions noted in the SNB's October survey.

### Bank loans

Year-on-year change in percent

Table 3.2

	2007	2008	2007	2008				2008		2009
			Q4	Q1	Q2	Q3	Q4	November	December	January
<b>Total<sup>1</sup></b>	<b>5.8</b>	<b>5.7</b>	<b>6.9</b>	<b>6.6</b>	<b>6.4</b>	<b>5.8</b>	<b>4.2</b>	<b>4.0</b>	<b>3.3</b>	<b>4.2</b>
Mortgage claims <sup>1</sup>	4.0	3.5	3.9	3.7	3.4	3.5	3.4	3.2	3.6	3.8
of which households <sup>2</sup>	4.3	3.3	3.7	3.6	3.0	3.5	3.3	3.2	3.4	3.5
of which companies <sup>2</sup>	2.3	3.8	4.3	3.7	4.2	3.5	3.7	3.1	4.3	4.7
Other loans <sup>1</sup>	13.4	14.8	20.2	19.3	19.0	15.0	7.1	6.9	2.1	5.8
of which secured <sup>1</sup>	8.2	1.2	13.1	0.0	5.7	5.1	-5.6	-8.9	-9.0	-5.3
of which unsecured <sup>1</sup>	17.2	24.2	25.3	34.1	28.2	21.4	15.3	17.5	8.9	12.1
of which in CHF <sup>1</sup>	5.7	20.3	7.4	22.4	23.6	19.3	16.3	17.0	14.9	6.9
of which in other currencies <sup>1</sup>	44.3	-1.8	74.5	8.8	5.2	2.3	-18.5	-20.7	-31.4	-0.9

1 Monthly balance sheets

2 Credit volume statistics

Source: SNB

## 4 SNB inflation forecast

Monetary policy affects output and prices with a considerable time lag. In Switzerland, monetary policy stimuli have their maximum effect on inflation after a period of approximately three years. For this reason, the SNB's monetary policy is guided not by current inflation, but by the inflation rate to be expected in two to three years if monetary policy were to remain unchanged. The inflation forecast published four times a year is one of the three key elements of the SNB's monetary strategy, together with its definition of price stability and the target range for the three-month Libor. The inflation forecast is derived from the analysis of different indicators, model estimates and the assessment of any special factors. It maps the future development of prices on the assumption that the three-month Libor remains constant over the forecasting period.

### 4.1 Assumptions for global economic developments

In addition to domestic factors, exogenous influences also have a strong impact on Swiss inflation rates. Various models used in drawing up the SNB's inflation forecast take this into account by embedding the expected outlook for Switzerland in an international economic setting. The assump-

tions with regard to the international economic scenario reflect what the SNB considers to be the most likely development in the global economy over the next three years. Table 4.1 shows the major assumptions for this scenario, as compared to those for the December forecast.

#### Significant downturn in growth

The global economic scenario is characterised by a significant downturn in growth. The growth assumptions for 2009 have again been revised downwards, as compared to those made for the December forecast. In the current year, a 1.8% decline in GDP is anticipated for the US and a contraction by 2.8% for Europe. A recovery is expected in 2010. For the US, higher growth is expected than had been assumed in December, due to the fiscal stimuli promised for the coming year, while the estimate for growth in Europe is slightly lower. In the long term, i.e. beyond the forecast horizon, both economic regions are expected to grow at a rate approaching their potential, which is about 3% for the US and 2% for the EU.

The price of oil is estimated at USD 42 a barrel for the coming quarters, and thereafter at USD 45. Due to the recession, significantly lower inflation rates are forecast worldwide for 2009 and 2010. The USD/EUR exchange rate for the forecast period is unchanged at 1.30 USD/EUR.

## Inflation forecasting as part of the monetary policy strategy

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 national 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. The target range provides the SNB with a certain amount of leeway, enabling it to react to unexpected developments in the money and foreign exchange markets without having to change its basic monetary policy course.

## Assumptions for inflation forecasts

Table 4.1

<b>March 2009</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
GDP US <sup>1</sup>	-1.8	1.9	2.9
GDP EU15 <sup>1</sup>	-2.8	0.5	2.2
		<b>Short term</b>	<b>Long term</b>
Exchange rate USD/EUR <sup>2</sup>		1.30	1.30
Oil price in USD/barrel <sup>2</sup>		42	45
Oil price in CHF/barrel <sup>3</sup>		49	52

<b>December 2008</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
GDP US <sup>1</sup>	1.4	-0.8	1.1
GDP EU15 <sup>1</sup>	0.9	-1.0	0.7
		<b>Short term</b>	<b>Long term</b>
Exchange rate USD/EUR <sup>2</sup>		1.30	1.30
Oil price in USD/barrel <sup>2</sup>		48	60
Oil price in CHF/barrel <sup>4</sup>		58	72

1 Change in percent

2 Level

3 Level, exchange rate on 12 March 2009

4 Level, exchange rate on 10 December 2008

Source: SNB

## 4.2 Inflation forecast and monetary policy decision

The economic situation has deteriorated sharply since last December, and there is a risk of negative inflation over the next three years. Decisive action is thus called for, to forcefully relax monetary conditions. Against this background, the SNB decided to bring about another reduction in interest rates and acting to prevent any further appreciation of the Swiss franc against the euro. To this end, it will increase liquidity substantially by engaging in additional repo operations, buying Swiss franc bonds issued by private sector borrowers and purchasing foreign currency on the foreign exchange markets.

At the monetary policy assessment of 12 March, the SNB lowered the target range for the three-month Libor by 25 basis points, narrowing it to 0.0–0.75%, with immediate effect. It will use all means at its disposal to gradually bring the Libor down to the lower end of the new target range, i.e. to approximately 0.25%. Thus, the Libor now has a narrower target range of 75 basis points, compared with 100 previously.

With these exceptional measures, the SNB is helping to cushion the effects of the economic and financial crisis, with the aim of limiting the risk of deflation. The SNB has a mandate to ensure price stability, while taking economic developments into account. This objective encompasses the prevention of both deflation and inflation. In carrying out its mandate, the National Bank will – as it has in the past – base its decisions on an inflation forecast.

The fourth quarter of 2008 saw a sharp slowdown in the world economy, which affected all countries simultaneously. There is every reason to believe that the deterioration continued in the first quarter of 2009. The Swiss economy is being hit hard by these developments, and they are affecting nearly all sectors of the economy. The export industry is bearing the brunt, however. As a result, the SNB revised its GDP growth forecast downwards for the year under review. It now expects real GDP to fall by between 2.5% and 3%. The rapid deterioration in the economic situation and the decline in commodity prices have also led to a clear downward revision of the inflation forecast. Average annual inflation will amount to –0.5% in 2009. With the measures decided today, the SNB is forecasting average annual inflation for the following two years of virtually zero.

This inflation outlook called for decisive action on the part of the SNB. By once again lowering the three-month Libor target range and acting to prevent any further appreciation of the Swiss franc against the euro, the SNB is seeking to counter the risk of deflation and of a dramatic deterioration in the economy.

### **Global economic outlook**

Economic activity has declined sharply in the US, where consumption and exports have plummeted. The European economy has also undergone a significant contraction. The Asian economies, far from remaining unscathed by these developments, have also been heavily affected. The crisis that started in the financial markets of developed countries has spilled over to the real economy and is now impacting on the entire global economy. Against this background, the SNB has made a substantial downward revision to its growth forecasts for the major economies in 2009.

### **Swiss economic outlook**

In Switzerland too, the economic situation has experienced a clear and rapid deterioration over the last six months. In the fourth quarter of 2008, real GDP dropped by 1.2% in annualised terms. While the contraction in economic activity appeared to be less pronounced in Switzerland than in the major European countries, this figure nevertheless obscures the extent of the collapse in global demand, in particular in the manufacturing industry, with the concomitant sharp drop in exports. Expenditure on equipment investment was cut significantly. Construction investment also saw negative growth, resulting in a significant decline in final demand.

The magnitude of the contraction in demand in the fourth quarter of 2008 was unexpected. The result was an involuntary swelling of inventories, which contributed artificially to growth in GDP. This phenomenon is likely to reverse in the first quarter of this year. Consequently, the SNB expects an increased contraction in GDP in early 2009.

Unemployment has begun to grow again since September 2008, a trend that will continue in the months ahead. The resulting climate of uncertainty will prompt households to exercise more caution and will lead to a slowdown in consumer spending. In addition, weak global demand is likely to weigh on Swiss exports, which will force companies to defer or reconsider their investment plans. By con-

trast, favourable financing conditions will probably continue to support investment in residential construction. Moreover, public spending will play a countercyclical role. Due to the deepening of the global recession, the SNB is now forecasting a contraction in GDP of between 2.5% and 3% for this year.

### **Changes in monetary and financial conditions**

The SNB lowered the Libor target range decisively by 225 basis points over the course of the fourth quarter of last year. This monetary policy impetus will continue to feed through progressively to the economy. Short-term interest rates have dropped, and the interest rate curve has steepened. However, capital market risk premia have risen substantially since the collapse of Lehman Brothers, hampering the transmission of monetary policy stimuli. This is prompting the SNB to purchase Swiss franc bonds issued by private sector borrowers in order to bring about a relaxation of conditions on the capital markets.

The value of the Swiss franc has increased substantially since the beginning of the financial crisis in August 2007. This currency development has gained momentum since the National Bank's last assessment in December. Under the present circumstances, this represents an inappropriate tightening of monetary conditions. In view of this development, the SNB has decided to purchase foreign currency on the foreign exchange market, to prevent any further appreciation of the Swiss franc against the euro.

While M1 and M2 are registering strong growth rates, that of M3 remains moderate. In contrast, the monetary base almost doubled in one year. This development reflected the SNB's efforts to provide the interbank market with sufficient liquidity – as a response to the huge increase in the demand for liquidity brought about by the prevailing climate of uncertainty. If this demand had not been satisfied, the result would have been an undesirable rise in interest rates.

Since the beginning of 2008, the SNB has been conducting a qualitative survey with twenty banks which make up the bulk of the domestic loan market. The survey carried out in January 2009 shows that some banks have tightened their lending conditions slightly. Moreover, a growing number of banks are expecting to do so in the near future. While the statistics confirm lower growth in overall lending, they do not show an actual decline. Mortgage lending has remained unaffected by this development. The rate of growth in this area has risen since November, reaching 3.8% in January. It is too soon to tell whether this is an effect linked to the lowering of the three-month Libor, as has been observed in the past. By contrast, the growth rate in other loans has dropped sharply. It stood at 5.8% in January, compared with 20% a year earlier. In this category, lending is strongly cyclical and related to developments in the economy. The other loans, therefore, should decline in the near future. Overall, developments on the Swiss lending market have not followed the pattern observed abroad.

### **Inflation and inflation risks**

After reaching a peak of 3.1% last July, inflation dropped back to 0.2% in February. This is attributable to the spectacular drop in the oil price from USD 145 to around USD 40 a barrel during the same period, as well as the appreciation of the Swiss franc. Inflation will continue to fall and will enter negative territory in the course of 2009. This is due to the prices of imported goods and services, in particular oil. They will be lower this year compared with last year's elevated levels. By contrast, inflation in domestic goods and services, despite weakening during the year, will remain positive in 2009.

For 2010 and 2011, inflation will remain very close to zero, because output will be below potential and unemployment will be high. Should the economy deteriorate more severely than expected, there would be a risk of negative inflation.

### **Monetary policy decision**

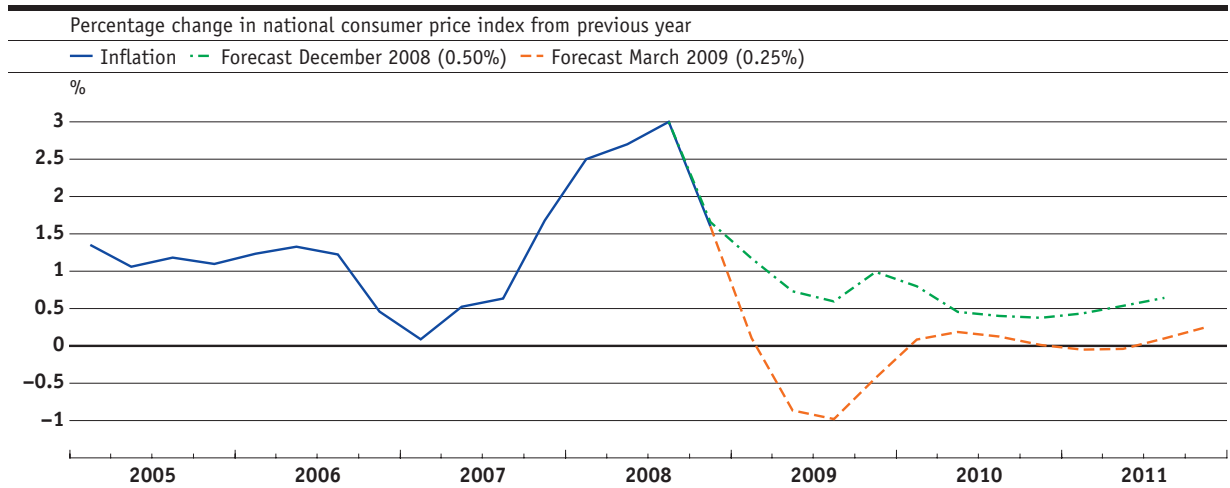
A prolonged period of negative inflation is not compatible with the objective of maintaining medium-term price stability. Any tightening of monetary conditions is inappropriate in this depressed environment. By once again lowering the three-month Libor target range to 0.0–0.75%, by gradually bringing the Libor down to the lower end of this range, i.e. to around 0.25%, and by acting to prevent a further appreciation of the Swiss franc against the euro, the SNB is pursuing its expansionary monetary policy in order to support economic activity and limit the risk of deflation. The temporary narrowing of the Libor target range, which now stands at 75 basis points compared with the usual 100 basis points, is due to the fact that a negative Libor is not technically possible.

### **Inflation forecast chart**

The new inflation forecast (chart 4.1, dashed red curve) extends from the first quarter of 2009 to the fourth quarter of 2011. While the previous forecast (dash-dotted green curve) was based on the assumption that the three-month Libor would remain unchanged at 0.5%, the new curve is based on a Libor of 0.25%. It shows strongly negative inflation in 2009. This is, in essence, attributable to movements in the price of oil (base effect). In 2010 and 2011, inflation will remain very low, despite a Libor of 0.25%. This is due to the unfavourable economic outlook. Inflation will increase slightly at the end of 2011. This slight uptick in inflation is explained by the fact that a Libor of 0.25% does not represent an equilibrium level capable of guaranteeing price stability in the longer term.

Chart 4.1

Inflation forecast of December 2008 with Libor at 0.50% and of March 2009 with Libor at 0.25%



Source: SNB

Observed inflation in March 2009

Table 4.2

	2005				2006				2007				2008				2006	2007	2008
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Inflation	1.35	1.06	1.18	1.10	1.23	1.33	1.22	0.46	0.09	0.52	0.63	1.68	2.50	2.70	3.00	1.60	1.1	0.7	2.5

Inflation forecast of December 2008 with Libor at 0.50% and of March 2009 with Libor at 0.25%

	2008				2009				2010				2011				2009	2010	2011
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Forecast December 2008, Libor at 0.50%				1.66	1.17	0.73	0.59	0.99	0.80	0.45	0.40	0.38	0.43	0.54	0.64		0.9	0.5	
Forecast March 2009, Libor at 0.25%				0.10	-0.86	-0.98	-0.43	0.09	0.19	0.13	0.01	-0.05	-0.04	0.10	0.25	-0.5	0.1	0.1	

Source: SNB





# The economic situation from the vantage point of the delegates for regional economic relations

Summary report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2009

The SNB's delegates for regional economic relations are constantly in touch with a large number of enterprises from the different industries and economic sectors. Their reports, which contain the subjective evaluations of these companies, are an important additional source of information for assessing the economic situation. On the following pages, the most important results of the talks held from December 2008 to February 2009 on the current and future economic situation are summarised.

## Summary

Most of the 170 or so representatives of various economic sectors and industries interviewed by the SNB's delegates for regional economic relations between December 2008 and February 2009 reported a clear and rapid worsening of the economic environment. Whereas, in summer 2008, the majority of companies had still regarded business activity as good to very good, the situation changed dramatically in September and October. Since then, the slowdown in business activity has become considerably more pronounced.

The impact of the economic downturn varied according to the companies' area of activity and market position. Exports, especially of capital goods, have been particularly hard hit. Companies with a domestic and consumer goods focus have

not come under so much pressure, although representatives of this industry are expecting activity to weaken over the coming months.

Companies have reacted to the economic downturn by tightening their cost management. The measures taken are far-reaching and also include the review of investment plans. While, in general, companies are retaining strategically important investments, they are dispensing with any others that are not deemed strictly necessary. A rapidly growing number of firms are either preparing to introduce short-time working or have already done so. January and February also saw a marked rise in redundancies.

There is a high degree of uncertainty about the magnitude and duration of the crisis, with all the delegates expecting a difficult year to come.

# 1 Production

## Manufacturing

The machinery industry is one of those hardest hit by the crisis, with companies rating the current crisis as much sharper, more pronounced and more globalised than the recession of 2002/03. Back then, the fall in orders had been more gradual. Moreover, there had been regional variation, which is not the case in the current crisis. Manufacturers of textile machinery and suppliers to the automotive industry suffered a particularly sharp fall in orders. Developments have been less dramatic for manufacturers of capital goods for the energy technology and supply industry, and for producers of medical technology. Nevertheless, they too are now starting to feel the effects of the crisis. The same is true of watchmaking, which had experienced a veritable boom in recent years.

Apart from the machinery industry, there was also a slowdown in business activity for producers of metals, plastics, chemicals (excluding agrochemicals), textiles and clothing. On the other hand, those industries that are traditionally resistant to cyclical fluctuation, such as food and pharmaceuticals, fared relatively well.

The fall in orders is partly a reflection of inventory flows: a number of delegates reported that their customers had cut inventories aggressively, which had weighed heavily on new orders. It is therefore hoped that, over the coming quarters, new orders will move more in line with production or sales.

## Services

To date, the impact of the economic downturn on retail trade has been muted. Many respondents were pleasantly surprised by the Christmas sales figures. Following a record year in 2007, most of them had expected an appreciable decline. The year 2009 also started well, although results varied depending on the product range. Food sales performed well. Sales of winter sports articles also exceeded expectations. However, sales of consumer durables (electronics, furniture) were down considerably. Car sales, as well as demand for luxury goods, also suffered. A number of respondents attributed this to the negative wealth effects resulting from the financial market crisis.

In the main, representatives of the hospitality and tourism industry were satisfied with activity in 2008. Although figures for overnight stays were

mostly lower compared with the excellent numbers for 2007, the decline was only small. However, in the past few months the effects of the weakening economy have become increasingly evident, above all in towns and cities. There has been a sharp drop in business travel and spending behaviour has generally become more cautious – a development exacerbated by the strength of the Swiss franc. This decline has been partly offset by a good winter season for the ski resorts, which benefited from very good snow conditions. For the summer season, expectations are muted. However, no one is projecting a sharp decline.

Other branches of the service industry are feeling the effects of the crisis more keenly. The picture in the IT industry is still mixed. On the other hand, representatives of the transport and logistics industry reported a slump in international business, with an attendant sharp fall in freight tariffs. The media segment also suffered a severe decline. Receipts from advertising fell markedly, and affected all areas (job, property and commercial advertising).

At the banks, commission income was hardest hit, owing to falling share prices and lower transaction numbers. Banking industry representatives reported that investors were predominantly seeking security and liquidity. The collapse of Lehman Brothers, the Madoff scandal and the closure of numerous hedge funds had undermined customer confidence. Structured products (which were associated with high commission income) were no longer attracting any custom. The banks also reported that they had not changed their lending policies. Margins had shrunk, partly as a result of stiff competition in the mortgage market, and partly due to the difficulty in investing liquidity profitably. Most respondents from the non-bank sector confirmed that lending policies were largely unchanged. However, they said that business performance was now being more closely monitored. Moreover, it was more difficult to borrow large amounts – especially for exports. This was compounded by the fact that competition played only a limited role in this area, as smaller banks were generally not prepared to fill the gap left by either of the two big banks. In addition, many customers feared that lending conditions could become more unfavourable if the recession were to become entrenched.

Respondents from the insurance industry reported a marked fall in demand for life insurance products. In the area of mandatory occupational pension schemes, the technical interest rate continued to be difficult to achieve. Many pension funds with insufficient coverage ratios were therefore seeking a comprehensive insurance solution.

### **Construction and real estate**

The majority of delegates from the construction industry described the level of outstanding orders as satisfactory. The weakening economy has so far not had any dramatic effect, and delegates do not expect a sharp decline over the next few quarters. This is probably due to the stimulus programmes launched by the federal government and a number of cantons, which are heavily slanted towards infrastructure projects.

Residential construction has remained robust, and respondents continue to expect healthy growth, since the low level of interest rates should support demand. Moreover, the weakness of the stock market means that residential property ownership is once again becoming attractive for many investors. There was also continuing strong demand for maintenance and renovation work, which mainly benefited the finishing industry. Commercial and industrial construction activity, however, was considerably weaker. A number of delegates reported that firms had put investment projects on hold. In the civil engineering industry, the orders situation continues to display regional variation, and in some areas is dominated by large-scale projects.

The majority of respondents from the real estate sector reported a levelling-off of prices. Real estate prices did not rise excessively during the upward phase of the economic cycle, which means that Switzerland has not experienced a real estate bubble. The delegates were thus not expecting a sharp correction.

## **2 Labour market**

Personnel costs represent the largest element of expenditure for most companies. Thus, the effects of the crisis have increasingly been felt on the labour market over the past few months. Initially, companies did not renew temporary contracts and instructed employees to draw down their overtime balances. In addition, in the past few weeks many companies have introduced short-time

working. This is, however, expensive for employers, hence the growing number of redundancies. This has predominantly affected less qualified workers.

At present, short-time working is generally being chosen over redundancies, because companies do not wish to lose qualified staff whom they have only just gone to the trouble of recruiting. Moreover, given the volatility of business, they want to be prepared in the event of a recovery, even if it turns out to be only temporary.

## **3 Prices, margins and earnings situation**

With the downturn in the economy, competitive pressures remained high or even intensified. The leeway for price increases has thus narrowed markedly. However, competition does not manifest itself solely through prices. For instance, respondents from the hospitality industry reported that they planned to leave prices unchanged, and instead offer supplementary services.

The onset of the crisis saw a further escalation of the price war that has been waged in the retail industry for a number of years. Among the major retailers, at the beginning of the year Coop signalled a new round in the price war by announcing that it was cutting prices on 600 brand-name products. Other major retailers responded with targeted price adjustments to their product ranges. Attention is now turning to the arrival on the market of a new large retailer: Lidl.

Margins have also come under pressure in the manufacturing industry, as many firms are faced with growing capacity surpluses. Some relief has been provided in recent months by declining commodity prices. However, the appreciation of the Swiss franc against the euro and the pound sterling, as well as the uncertainty reflected in the high exchange rate volatility, have weighed heavily. This will now be compounded by the pay increases agreed last autumn, which some respondents now consider, with the benefit of hindsight, to be too high, given the fact that inflation is declining. Exchange rate volatility and fuel price rises also continue to be areas of concern for a number of companies.

# **Companies' inventory policy undergoing a process of change: Results of a structural report by the delegates for regional economic relations**

Jean-Pierre Jetzer, delegate for regional economic relations

# 1 Introduction

*High inventories are a sign of non-harmonised production processes.*

Roman Boutellier, ETH Zurich

*High stock levels conceal problems in a company's organisation.*

Erik Hofmann, University of St. Gallen

'Lean' production methods and modern supply systems – on both the purchasing and sales side – enable companies to optimise their production processes and thereby have a direct influence over their inventories. The experience of a considerable reduction in inventories frequently mentioned by company executives has prompted the Governing Board of the SNB to carry out a more systematic investigation into the inventory policy applied by companies in the Swiss business world.<sup>1</sup>

Inventory investment is of interest from both a business management and a macroeconomic perspective. At the company level, stocks were not recognised as a strategic variable for net operating earnings and as a competition factor until the 1990s. Macroeconomically, inventories are significant on two counts. Firstly, the inventories compo-

nent – in terms of its size – is regarded by business cycle theory as probably the most unstable demand aggregate; fluctuations in inventory investment are so marked that they can be considered to be *the* cyclical fluctuation (Tichy, 1994, p. 87). Secondly, changes in inventories largely escape statistical recording. For National Accounts (NA) purposes, changes in inventories are calculated as the difference between the stock value of inventories for the current period and that for the previous period. Since no official measurement of inventories exists, changes in inventories have in practice to be estimated.

This structural report focuses on the selective recording of the influence of new production methods and integrated supply chains on the amount of stocks held in the view of companies surveyed in the manufacturing and services sector. It proved far more complex and difficult to gauge the effects of the reconception of the value chain on fluctuations in inventories. Here, demands had to be largely subordinated to the capabilities and limitations of a company survey. Nonetheless, the survey questions relating to short-term fluctuations in inventories did provide some statements on trends from the occasional entrepreneur and also from the experts who were interviewed.

<sup>1</sup> The author would like to thank Attilio Zanetti and Daniel Emmenegger of the SNB, Bruno Parnisari and Peter Steiner of the State Secretariat for Economic Affairs (SECO) and Philippe Küttel and Klaus Leemann of the Swiss Federal Statistical Office for their valuable assistance in the preparation of this structural report.

## 2 Drafting and scope of the survey

The drafting of the survey was discussed in advance with the Economic Analysis unit of the SNB and with representatives of the Swiss Federal Statistical Office (SFSO) and the State Secretariat for Economic Affairs (SECO). A questionnaire designed to serve as a guide for the interviews with the companies was also drawn up. The questions were primarily qualitative in nature, although a few of them were also quantitative; we realised that quantitative answers could probably be expected in very few cases. During the interviews, the entrepreneurs were also presented with an SFSO chart showing the nominal changes in inventories (annual values as per NA) over the period from 1980 to 2007 (cf. chart 'Nominal change in inventories' below).

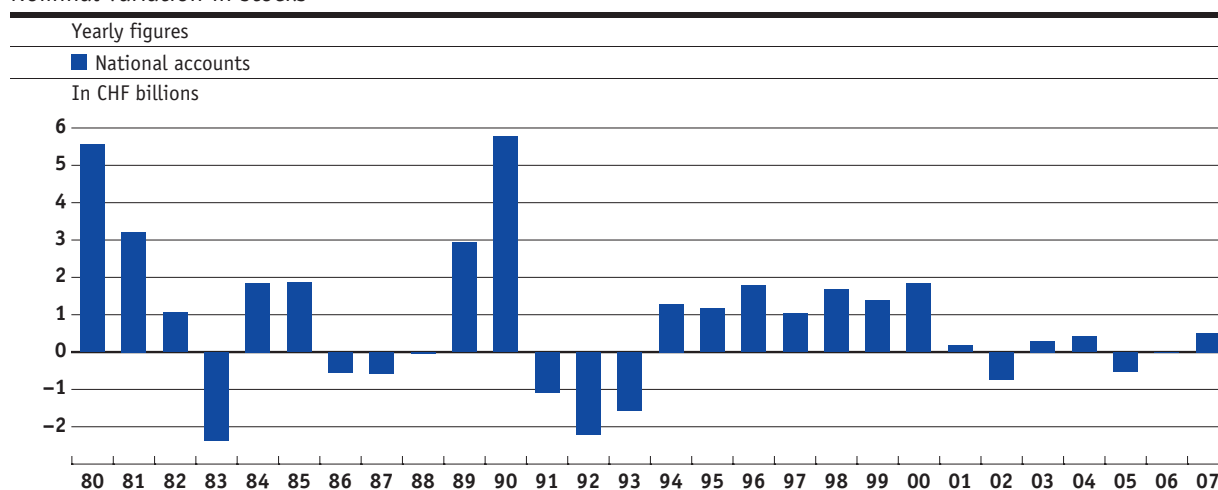
The chart clearly reveals two key aspects. Firstly, the volatility of the series has decreased considerably since the early 1990s. Secondly, the average change in inventories has fallen sharply. While changes in inventories were clearly positive on average between 1980 and 1990, which means that inventories were built up considerably over this period, the average sinks to almost zero from 1991. These two observations point to a fundamental structural break. As a trend, this could be attributable to two factors. Either there has been

a shift in the sectoral structure of the Swiss economy (tertiarisation) and/or inventory management by companies has been improved. The people we interviewed were supposed to say, on looking at the chart, whether it reflected their own company's experience and what factors could, in their opinion, have triggered these striking trends.

Depending on a company's activities, inventories may exist predominantly on the production side (input stocks of raw materials and semi-finished goods) or on the sales side (output stocks of finished goods) or on both sides. The questions the companies were asked therefore had to be worded precisely and the answers accompanied by a note specifying whether they related to input stocks or output stocks. The survey restricted itself to the traditional forms of inventories (physical stocks). Accordingly, for conceptual reasons no attempt was made to record what is known as service inventory (e.g. draft standardised contracts drawn up by a law firm without a specific client mandate).

The seven regional structural reports are based on a total of 47 company visits, 29 in the industrial sector and 18 in the services sector. Although the survey revealed some striking changes in inventory policy, only very limited conclusions can be drawn about the macroeconomic effects of such changes.

Nominal variation in stocks



Source: SNB



### 3 Results of the survey

The main results of the company interviews are presented in the following paragraphs. The results are set out and commented on in the form of propositions. Similarly, the field information is compared and contrasted – in duly brief form – with findings and empirical evidence discussed in the existing literature.

The information collected comprises, on the one hand, those company experiences that are associated with a paradigm shift in inventory philosophy and, on the other, those inventory-related changes that are probably more likely to reflect the general trend in the economy.

Proposition 1:

#### **Trend towards a reduction in the inventory-to-sales ratio**

Movements in the inventory-to-sales ratio have been examined in various empirical long-run time series studies. The influence of high interest rates on the significant reduction in this ratio in the UK manufacturing industry during the 1980s has been statistically confirmed (Black and Peters, 1994). The interest rate factor impacted on all inventory components (input, intermediate and output stocks). Irvine (2005) confirmed the trend towards a reduction in the inventory-to-sales ratio from 1983 for both the manufacturing industry and the retail trade in the US. He showed the influence of new production technologies and enterprise resource planning (ERP) on the inventory-to-output ratio. By contrast, Adam J. Fein, in an empirical analysis dated October 2004, expresses some doubts about a far-reaching reduction in the inventory-to-sales ratio for the US because of the technology factor (including IT).

In Swiss industry, the inventory-to-sales ratio has been reduced by around 50% in the last 10–15 years. The entrepreneurs and the experts questioned attribute this primarily to increasing cost-consciousness regarding merchandise inventory. In the economically difficult 1990s, Swiss industry was under considerable pressure to rationalise. The capital freed up in the first phase, partly as a result of optimising inventories, could be used to improve company profitability and growth – and if need be, to reduce indebtedness as well. In a second stage, the new, more flexible and leaner production methods are likely to have favoured a reduction of inventories. This was associated with faster

through-put times and a generally greater business awareness of the creation of cross-company value-added networks between purchasing, production and sales/distribution. Having to concentrate on their core competencies also forced the companies to review the breadth and depth of their product ranges. This, too, resulted in their holding lower inventories.

For all their efforts to reduce inventories, the companies give absolute priority to avoiding out-of-stock situations and thus to ensuring their ability to deliver. The availability advantage (or 'convenience yield') can be a critical factor, particularly in time-sensitive situations.

In addition, at the macroeconomic level, the continuing trend towards the tertiarisation of the economy is likely to provide another plausible explanation of the lower inventory-to-sales ratio.

Proposition 2:

#### **Inventory management largely optimised in the retail trade**

Wholesale distributors have optimised and strongly centralised their regional warehouses. Thanks to very efficient supply chains, to all intents and purposes these warehouses now fulfil only a transit warehouse function, with a correspondingly high rate of inventory turnover. Consequently, in the retail trade the physical stocks are in essence to be found in the individual retail outlets.

The true rationalisation potential lies, firstly, in the minimisation of goods handling (movements of goods within a company's own warehouses and between the members of the supply chain). Secondly, as a result of the introduction of the consignment stock system, which is set up by the supplier with the customer, inventories can be optimised through a stable supply chain, the use of IT and the involvement of logistics partners.

Proposition 3:

#### **Change from sellers' to buyers' market**

Looking back, it appears that the capital goods industry, in particular, pursued a capacity-oriented strategy in the past which relied on relatively rigid sales forecasts and capacity planning systems. This was justified as long as it was operating in sellers' markets and 'pushed' the goods produced accordingly. It was the time of classical make-to-stock production, which – because the sales market was supply-driven – turned production smoothing into the optimisation target.

With the transition to buyers' markets and the corresponding changeover to made-to-order or customer-specific production, the relationship between production and inventories has changed fundamentally. Only what the market actually wants and is prepared to accept is produced. One result of this market-driven production is that fluctuations in demand impact more directly on capacity utilisation and thus on the rate of employment. Because of flexible annual working hours, the employment of temporary labour and outsourcing, a certain amount of market fluctuation can be absorbed within a company's own production system.

Proposition 4:

**Strong influence of information technology and training**

The aforementioned study by Black and Peters (1994) of the reduction in the UK manufacturing inventory-output ratio notes the existence of anecdotal evidence, at least, in support of information and communication technology (ICT) and the professionalisation of inventory management. According to this study, the main effect of technological progress has been on the management of input stocks and less on the management of output stocks.

In Switzerland, the entrepreneurs and experts questioned are unanimous in their view that developments in the fields of ICT, process management and logistics are assuming a key role in the optimisation of materials purchasing and inventory management.

Proposition 5:

**Increased inventories at upstream stages with lower value added**

The trend towards shifting inventories from the sales to the purchasing or supplier side is not just a question of market power; it is also taking place for cost analysis reasons. At the upstream stages, inventories have a lower value than after they have been processed further downstream, which means that less capital is tied up. This trend was to be found especially in those businesses that are integrated into a stable supply chain. Companies with this sort of set-up also operate with framework agreements (for the most part on an annual basis), which commit suppliers to producing a particular volume of output which the customer can draw on in accordance with its own order flow by meeting those orders out of stocks. Stocks of

primary or intermediate products either remain with the supplier – the customer has an inventory reservation – or can be held as a consignment inventory with the customer. In both cases, the inventories are pre-financed by the supplier. This system increases the supplier's production flexibility, in that the supplier can optimise its production planning and produce bigger batches, for example. Usually, the supplier not only supplies its customer with the parts the latter wants but also offers complete IT-supported goods management systems and logistics services. From the perspective of the supply chain partners involved, inventories can be optimised and inventory fluctuations reduced.

Proposition 6:

**Shorter product life-cycles tend to increase inventories**

Due to the accelerating pace of company innovation and the increasingly shorter intervals between product developments, inventories (input stocks) are trending upwards. This is especially true in the innovation-introduction phase where old product generations are being simultaneously, albeit gradually, replaced. In addition, spare part inventories are also increasing in the case of product groups for which the company has given its customers particular service warranty periods. Furthermore, in the capital goods industry, in particular, the trend towards providing an additional offer of services is encouraging a build-up of spare part inventories. In view of the internationalisation of business and short delivery times, providing warranties for longer periods and supply readiness for spare parts have become crucial competition factors for suppliers.

Proposition 7:

**Single European market encourages the creation of large central warehouses**

Various international companies have, in recent years, run down their regional warehouses to a minimum safety inventory level and transferred management of the bulk of their finished products to a central warehouse covering several European sales market countries. The reduced inventory-carrying costs of central warehousing and the lower inventories that are held for the company as a whole as a result of centralisation permit substantial cost savings. Thanks in part to better utilisation of freight haulage fleet capacity, centralisation also allows further optimisation of transport costs. According to the companies surveyed, another crucial factor in the success of the centralisation model was the creation of the single European market, in which cross-border deliveries involve lower transaction costs (e.g. customs clearance).

Proposition 8:

**Outsourcing is a controversial subject**

At the macroeconomic level, no declining trend could be identified in the period since the early 1990s in the proportion of added value as a result of a strong increase in purchases of materials and services from abroad. According to a study carried out by SECO (2007), this finding holds true for both the economy as a whole and, in particular, for industry and its sub-sectors.

The outsourcing of whole production stages and of inventory-carrying and management – within Switzerland or abroad – is practised and rated very differently by the companies surveyed. To a considerable degree, outsourcing strategy depends heavily on the corporate philosophy of management. Companies that are contemplating outsourcing or have already reduced the length of their value chain are also for the most part endeavouring to shift the inventory function for the materials that need to be purchased to the supplier level. Although a company's own inventories can be reduced or even eliminated in this way, the company does need to build up appropriate safety and buffer stocks, with the precise level depending on stock replacement times.

Proposition 9:

**Inventory fluctuations difficult to estimate**

The largely inventory-free production achieved by a few companies is likely to be the ideal rather than the rule. Although some of the companies are convinced that fluctuations in their inventories have decreased over time, they are cautious about quantifying this. For instance, the view expressed by some companies was that inventory levels and fluctuations can be reduced to a certain degree by the use of improved ICT systems. However, that does require that supply chain partners exchange company and client data which, at times, may be 'sensitive'.

The experts questioned find it difficult to make generalised statements about inventory volatilities or movements over time. Although there are organisational and technological innovations that, in the entrepreneurs' opinion, suggest a trend towards a weakening of inventory fluctuations, the experts, by contrast, have reason to believe that the transition from earlier make-for-stock production to customer-driven production is tending to cause the frequency of fluctuations to increase and their amplitude to decrease. Because markets are competitive, demand is also volatile, which is reflected in more erratic ordering cycles. As a result, sales forecasts have tended to lose some of the importance once attached to them or now relate to a relatively short-term time horizon. Even the use of IT may not significantly reduce the imponderables in buyer behaviour across the whole client base.

Entrepreneurs' reaction times are much shorter today (partly because of IT and new management techniques) and production systems are no longer as rigid as they were in the past (lower fixed costs), and this has increased companies' capacity to absorb fluctuations in orders. According to the experts, the change in the pattern of fluctuation applies more to input stocks (whether held by companies themselves or by their suppliers) than to work in progress and inventories of finished goods, due to the tendency to shift inventories to the production stage where added value is lowest.

Proposition 10:

**Vulnerability of integral production and supply systems**

The globalisation of markets and the internationalisation of production due to comparative cost advantage have fragmented value chains in the companies, re-combining and interlinking them via partnerships. These technological and organisational innovations are, as a rule, associated with a reduction in input and output stocks at the individual company level.

Entrepreneurs are, however, aware that dependencies between the members of the value chain have increased as a result, and that the reliability of supply and quality assurance has become a critical factor. Global supply chains across great distances, across borders and between different cultures are more vulnerable and react very sensitively to changes – for example, to an increase in procurement and transport costs. The ‘streamlining of processes’ approach upon which industrial logic is based may also have an adverse impact on operational ability to absorb shocks, to the extent that supplier portfolios have been significantly reduced by comparison with past levels. As a result, shortages on procurement markets may have a very rapid and sensitive impact. In the raw materials segment, for example, companies have recently been forced to build up their input stocks through anticipatory or ‘speculative’ purchases. Hence companies’ strategic risk is tending to increase.

## 4 Conclusion

From a structural perspective the report investigated the impact of new production methods in industry on movements in inventories and confirmed the sometimes considerable reduction in the inventory-to-sales ratio. In individual cases the study was also able to confirm that the centralisation of inventory-carrying in industry and the retail trade has made a significant contribution to the reduction in inventories. The single European market has encouraged the trend away from regional to centralised warehouses. In the opinion of the entrepreneurs and the experts, the potential for a further reduction in inventories has not yet been exhausted. The survey revealed that the capital cost of current assets does have an influence on the companies’ inventory policy. The factors that played some role in the optimisation of inventories during the stagnation period of the 1990s are likely to have included the level of interest rates, together with rationalisation pressure.

Regarding fluctuations in inventories in conjunction with modern production methods and the cross-company interlinking of the value chain, the report’s findings are mixed to vague. The answers received amount largely to suppositions or statements about trends. The conclusion to be drawn from them is that client-driven production and faster order cycles mean that the frequency of inventory fluctuations is likely to increase in future but that their amplitude, on the other hand, is likely to decrease.

Alongside the specialisation taking place in trade and industry, dependencies between the individual members of the value chain are tending to increase. As a result, shortages in particular areas of materials and goods flow may have a very rapid and sensitive impact. Hence companies’ strategic risks are increasing. One consequence might be that, ex ante, bank borrowing becomes more difficult or expensive to obtain for SMEs.

## **Bibliography**

Black, I. G., and M. Peters (1994), Why are UK manufacturing inventory-output ratios falling?, in: *International Journal of Production Economics*, 35, pp. 1–9.

Fein, A. J. (2004), The myth of decline: Assessing time trends in U.S. inventory-sales ratios, in: *Discussion Papers; Center for Economic Studies*, 04–18, Bureau of the Census, October, Washington DC.

Irvine, F. O. (2005), Trend breaks in US inventory to sales ratios, in: *International Journal of Production Economics*, 93–94, pp. 13–23.

State Secretariat for Economic Affairs (SECO; 2007), Outsourcing, Produktionsstruktur und Wertschöpfungsquote, in: *Konjunkturtendenzen*, summer (July), pp. 35–44.

Tichy, G. (1994), *Konjunktur. Stilisierte Fakten, Theorie, Prognose*, 2nd edition, Springer-Verlag, Berlin/Heidelberg.



## Financial structure and the impact of monetary policy on asset prices

**Katrin Assenmacher-Wesche  
and Stefan Gerlach  
Working Paper 2008-16**

Many observers have argued that central banks should use monetary policy to prevent asset price bubbles from developing. Whether that makes sense depends on how large the effects of monetary policy on asset prices are relative to those on inflation and output. The authors study the responses of residential property and equity prices, inflation and economic activity to monetary policy shocks in 17 countries. They estimate single-country VARs and panel VARs on data spanning 1986–2006, in which they distinguish between groups of countries depending on their financial systems. The results show that the effect of monetary policy on property prices is only about three times as large as its impact on GDP. Using monetary policy to guard against financial instability by offsetting asset price movements thus has sizeable effects on economic activity. While the financial structure influences the impact of policy on asset prices, its importance appears limited.

## On reputation: a microfoundation of contract enforcement and price rigidity

**Ernst Fehr, Martin Brown  
and Christian Zehnder  
Working Paper 2008-17**

Many labour, credit and goods markets are subject to severe moral hazard problems. It is often difficult for employers to judge whether their employees have performed according to agreed standards. Banks are often unable to judge whether borrowers' reasons for delaying a repayment are sincere. Consumers often cannot verify in advance whether the goods they buy adhere to the quality promised by producers. Reputational incentives are likely to play an important role in preventing opportunistic behaviour on the part of employees, borrowers or producers in these markets. But empirical evidence on the role of reputation is still scarce. Moreover, social preferences have been shown to prevent moral hazard in these markets, even when agents do not trade repeatedly.

This paper empirically assesses the impact of reputational incentives on contract enforcement, distribution of gains from trade and the structure of interactions between contracting partners in competitive environments with severe moral hazard problems. The analysis shows that reputation powerfully amplifies the positive effects of social preferences on market efficiency. Reputation building does considerably change the structure of market exchange; bilateral repeated relationships are much more common, as reputation building relies on repeated interaction. Surprisingly, though, the high frequency of bilateral relations does not undermine competitive pressures in the market: prices do not react more rigidly to changes in supply and demand conditions

## The effect of low-wage import competition on US inflationary pressure

**Raphael Auer and  
Andreas M. Fischer**  
**Working Paper 2008-18**

Contrary to what customers at Wal-Mart, Toys“R”Us, or Best Buy observe every day, the academic literature has found surprisingly little evidence that trade with China and other poor, yet rapidly industrialising nations has had a major impact on prices in the rest of the world. This paper develops a new methodology to estimate the effect of low-wage import competition on US producer prices. The authors first document that when low-wage countries grow, their exports to the United States increase most in labour-intensive sectors. Second, they demonstrate that the temporary and relative component of imports induced by labour intensity and output growth in low-wage countries is orthogonal to US supply and demand shocks and can, therefore, be utilised to identify the causal impact of import competition on prices. In a panel data set covering 325 manufacturing industries from 1997 to 2006, the authors find that imports from nine low-wage countries are associated with strong downward pressure on US prices. When these nations capture a 1% US market share, producer prices decrease by 3.1%, which is almost fully accounted for by a 2.4% increase in labour productivity and a 0.4% decrease in mark-ups. Overall, import competition from the countries investigated has reduced PPI inflation in US manufacturing by around two percentage points each year. The conclusion of this study is that globalisation has had a profound impact on US relative prices and productivity, and that this effect has been much greater than is commonly assumed.

## Borrowing in foreign currency: Austrian households as carry traders

**Christian Beer, Steven Ongena  
and Marcel Peter**  
**Working Paper 2008-19**

Household borrowing in a foreign currency is a widespread phenomenon in Austria. In a 2004 financial wealth survey, 12% of Austrian households state that their home loan is denominated in either Swiss francs or Japanese yen. Yet, despite the importance of this type of ‘household carry trade’, little is known about the characteristics of the households involved.

The authors analyse the 2004 financial wealth survey of 2,556 Austrian households in order to create a comprehensive profile of the attitudes and characteristics of the households involved. They employ both univariate tests and multivariate (multinomial) logit models.

The survey data suggests that risk-taking, wealthy, and married-couple households are more likely to take a home loan in a foreign currency. High-income households are more likely to take out home loans in general. These findings may partially assuage political concerns about household default risk in connection with foreign-currency home loans.





# Chronicle of monetary events

## Forceful action to ease monetary conditions

On 12 March 2009, following its quarterly monetary policy assessment, the Swiss National Bank decided to take forceful action to ease monetary conditions. It announced that it would make another interest rate cut and act to prevent any further appreciation of the Swiss franc against the euro. To this end, the SNB will increase liquidity substantially by engaging in additional repo operations, purchasing foreign currency and buying Swiss franc bonds issued by private sector borrowers. The National Bank also announced that it was lowering the target range for the three-month Libor by 25 basis points to 0–0.75%. Thus, the Libor now has a narrower target range of 75 basis points, compared to 100 previously.

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