Swiss National Bank
Quarterly Bulletin

December 4/2010 Volume 28

Contents

Sectional breakdown of bulletin Q4/2010

Monetary policy report (p. 6)

In the third quarter of 2010, the Swiss economy remained on a strong growth path. With the exception of the financial sector, all key industries registered a higher added value than in the previous quarter, so that GDP was only slightly below production potential.

The SNB expects GDP to grow by around 1.5% in 2011, which is lower than the estimated economic growth for 2010 of approximately 2.5%. Domestic demand should continue to support growth. However, virtually no significant stimulus will be derived from foreign trade, due to the strength of the Swiss franc and the fact that momentum in the economies of the major trading partners is rather muted. The level of uncertainty regarding the future path of the Swiss economy remains high, especially considering the persistence of the after-effects of the financial and economic crisis.

At its quarterly monetary policy assessment of 16 December, the SNB decided to leave the target range for the three-month Libor unchanged at 0.00–0.75%, and to adhere to its objective of holding the Libor within the lower end of this range, at around 0.25%.

The economic situation from the vantage point of the delegates for regional economic relations (p. 44)

Talks between the SNB delegates for regional economic relations and representatives of various economic sectors showed that the upturn in economic development continued in October and November, albeit with less momentum. In almost all parts of the economy, technical capacity utilisation is reported as ranging from normal to good. In general, expectations are of continued growth in turnover in the coming months, although – especially in construction, and less so in services – a certain slackening of momentum is anticipated.

Exchange rate survey
Effects of Swiss franc appreciation and company reactions (p. 50)

In October and November, the SNB delegates for regional economic relations discussed the exchange rate development with company representatives from all parts of the Swiss economy. The responses show that the appreciation of the Swiss franc has a very different impact on the various sectors and industries: 45% of companies surveyed reported a negative impact on business activity, 42% discerned no major difference, and the remaining 13% reported that the effects were positive. In comparison to a similar survey conducted in July and August, the proportion of companies reporting a negative impact has increased significantly – at that time, the proportion of companies in this group had amounted to 28%. A breakdown by sector indicates that mainly companies in manufacturing were negatively affected by the strong Swiss franc.

SNB Working Papers (p. 56)

Summaries of seven *SNB Working Papers*: Raphael Auer, 'Consumer heterogeneity and the impact of trade liberalisation: How representative is the representative agent framework?', SNB Working Paper 2010-13; Tommaso Mancini Griffoli and Angelo Ranaldo, 'Limits to arbitrage during the crisis: Funding liquidity constraints and covered interest parity', SNB Working Paper 2010-14; Jean-Marc Natal, 'Monetary policy response to oil price shocks', SNB Working Paper 2010-15; Kathrin Degen and Andreas M. Fischer, 'Immigration and Swiss house prices', SNB Working Paper 2010-16; Andreas M. Fischer, 'Immigration and large banknotes', SNB Working Paper 2010-17; Raphael Auer, 'Are imports from rich nations deskilling emerging economies? Human capital and the dynamic effects of trade', SNB Working Paper 2010-18; Jean-Pierre Danthine and John B. Donaldson, 'Executive compensation: A general equilibrium perspective', SNB Working Paper 2010-19.

Monetary policy report

Report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of December 2010

This report is based primarily on the data and information available as at 16 December 2010.

Monetary policy report

Contents

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. Moreover, it is obliged by law to inform 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 the implications for monetary policy draws from this assessment.

Sections 1–3 of the present report were drawn up for the Governing Board's assessment of December 2010. The sections entitled 'Monetary policy decision' and 'SNB inflation forecast' take due account of the Governing Board's monetary policy decision of 16 December 2010.

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 monetary policy assessment of 16 December 2010, the Swiss National Bank (SNB) decided to maintain its expansionary monetary policy. It left the target range for the three-month Libor unchanged at 0.00–0.75% and reiterated its intention to keep the Libor within the lower part of the target range, at around 0.25%.

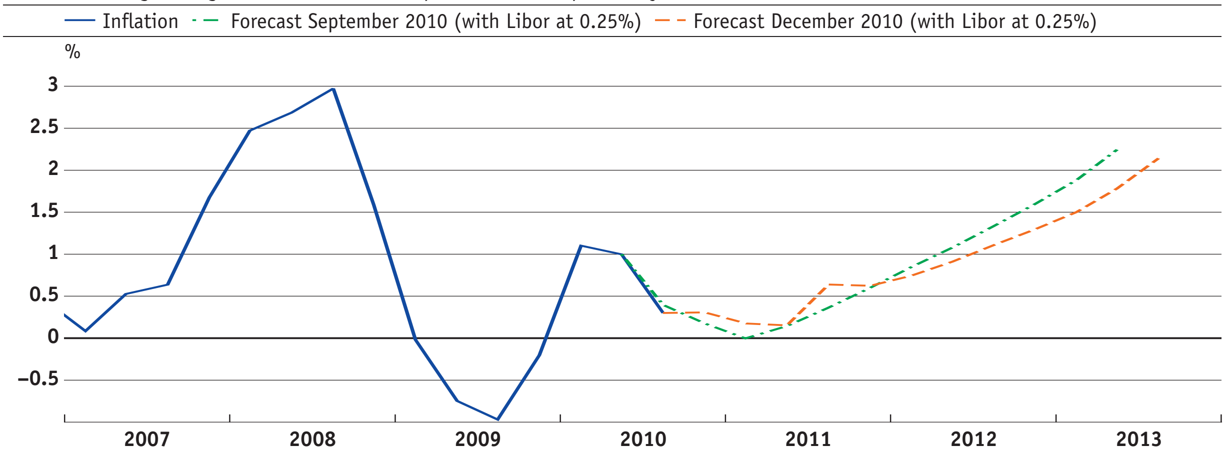
Growth in Switzerland was robust in the third quarter of 2010, but the weakening of exports, in particular, points to a significant reduction in growth in the quarters ahead. The SNB expects GDP to grow by some 1.5% in 2011, following growth of about 2.5% in the current year.

Monetary policy operates in an environment of heightened uncertainty. Concerns about stability in the euro area have led to renewed financial market tensions. Against this backdrop, the Swiss franc has again appreciated. Should these tensions be exacerbated and put a strain on economic developments in the euro area, this would also have a detrimental effect on the Swiss economy. If a deflation risk emerges, the SNB would take the measures necessary to ensure price stability.

The conditional inflation forecast – which is based on the assumption of the three-month Libor remaining constant – shows that there is no threat to price stability in the short term. However, the rising path shows that the current expansionary monetary policy cannot be maintained throughout the entire forecast horizon without compromising long-term price stability. The SNB's conditional inflation forecast for 2012 and 2013 is slightly below the September forecast. This correction is due, in particular, to the less favourable economic outlook for Europe compared with the last monetary policy assessment. For 2011, the inflation forecast is marginally higher, due mainly to a higher price for oil.

Conditional inflation forecast of September 2010 and of December 2010

Percentage change in national consumer price index from previous year



Source: SNB

Conditional inflation forecast of September 2010 and of December 2010
Average annual inflation in percent

	2010	2011	2012
Forecast September 2010, Libor at 0.25%	0.7	0.3	1.2
Forecast December 2010, Libor at 0.25%	0.7	0.4	1.0

Source: SNB

1 Developments in the global economy

In the last few quarters, the recovery in the global economy continued, encouraged by expansionary economic policies and vigorous economic activity in the emerging economies. Growth in the euro area, however, slowed markedly in the third quarter. The healthy developments in Germany's economy differ from the peripheral countries of the monetary union, with their weak growth.

Leading indicators suggest that the economic recovery will continue. However, the upswing will continue to be weak in historical terms. The recent financial market turmoil is likely to check activity in the euro area. In the US, too, GDP growth is likely to remain muted, owing to the lingering consequences of the financial and real estate crisis. The vigorous economic momentum in the emerging economies is also likely to provide positive stimulus for global growth in the future, however.

The SNB has made slight downward revisions to its growth forecasts for the global economy, mainly for Europe in 2011 and 2012. Uncertainty with regard to global economic developments remains very considerable and the risks are still to the downside.

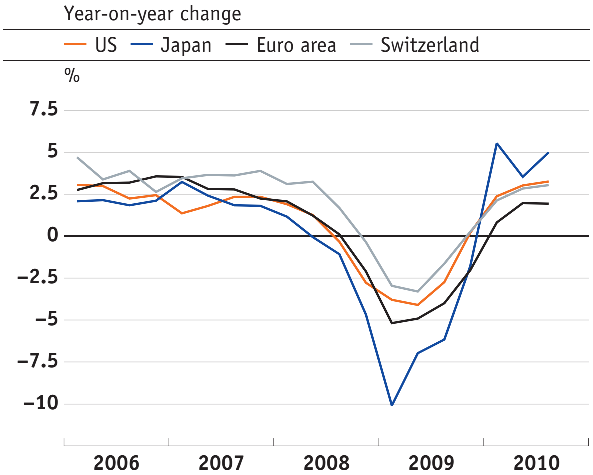
Slow recovery in the US

The US economy grew by 2.5% in the third quarter, which was slightly faster than in the previous quarter (1.7%). GDP was therefore only just below its pre-recession level. Nevertheless, the output gap remained considerable.

In the third quarter, growth was driven by rising private household spending, pent-up demand for replacement investment and an increased build-up in inventories. However, a substantial proportion of the additional demand was met by rising imports. Moreover, investment in housing construction declined considerably following the expiry of tax credits for house purchasers. The recovery of the labour market is still proving sluggish. While private sector employment and the average number of hours worked increased further, the unemployment rate rose to 9.8.% in November.

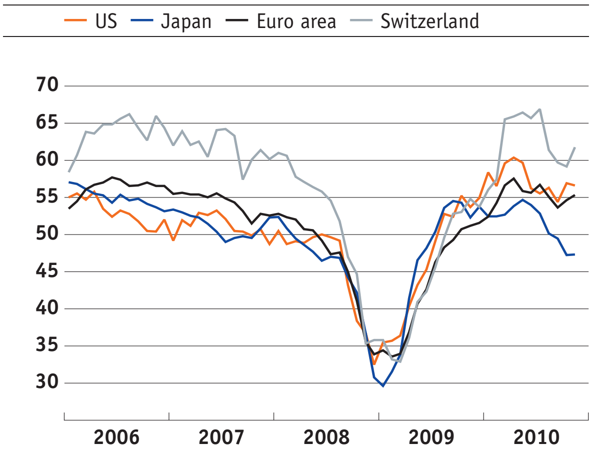
The latest economic data confirm the ongoing structural problems, which means that the recovery is likely to remain modest in the quarters ahead. The housing market remains flat. Government measures have not brought a sustained reduction in the oversupply of vacant houses. That said, a rise in applications for new mortgages indicates that investment in housing construction is stabilising at a low level. The outlook for consumption is also

Chart 1.1
Real GDP



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

Chart 1.2
Purchasing managers' indices (manufacturing)



Source: Thomson Financial Datastream; copyright and database rights: Markit Economics Ltd 2009; all rights reserved subdued. Private households are still having difficulty obtaining loans and are endeavouring to reduce debt. The corporate sector is benefiting from a good earnings situation and low financing and wage costs, but due to the uncertain economic outlook, companies are reluctant to increase technical and staff capacity.

The SNB now assumes that the US economy will grow by 2.8% in 2010 and 2.6% in 2011. It anticipates that aggregate economic demand will pick up from mid-2011. In the event that the tax compromise negotiated between President Obama and top Republicans is passed by both Chambers of Congress, growth assumptions for 2011 would have to be revised upwards.

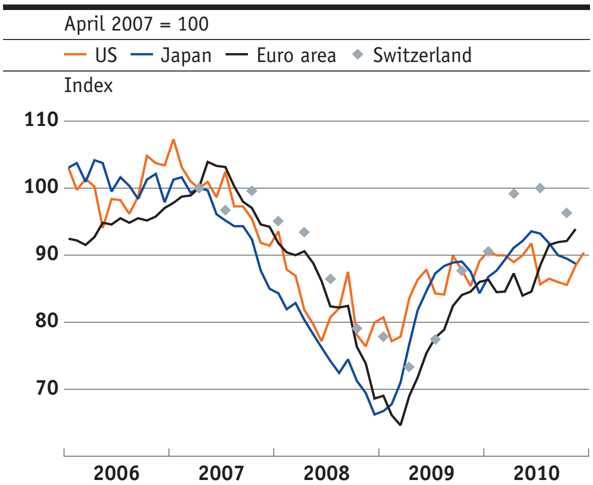
Weak growth in the euro area

The economic recovery in the euro area has lost some momentum following a dynamic first half-year. GDP increased by 1.5% in the third quarter, compared with 4.0% in the previous quarter. Stagnating capital expenditure and inventory movements were responsible for the slowdown. However, domestic final demand continued its modest expansion, while exports gained further ground. The export upswing increased capacity utilisation in manufacturing and corporate expectations improved. In the light of this, demand for loans picked up slightly.

In the fourth quarter it was again clear that the difficulties resulting from the financial crisis are not yet over. Risk premia on government bonds issued by various euro area countries had started to rise again as early as mid-2010. The reason why the situation escalated in November is the growing uncertainty about the situation of Ireland's banks. The resultant reassessment of the long-term outlook for public finances was reflected in a sharp rise in yields on Irish government bonds. The premium compared with corresponding yields on 10-year German government bonds amounted briefly to approximately 6 percentage points. To ease the situation and reduce the risk of a spill-over to countries with similar problems, the EU and the IMF put together a financial support programme at the end of November containing loan commitments totalling EUR 67.5 billion.

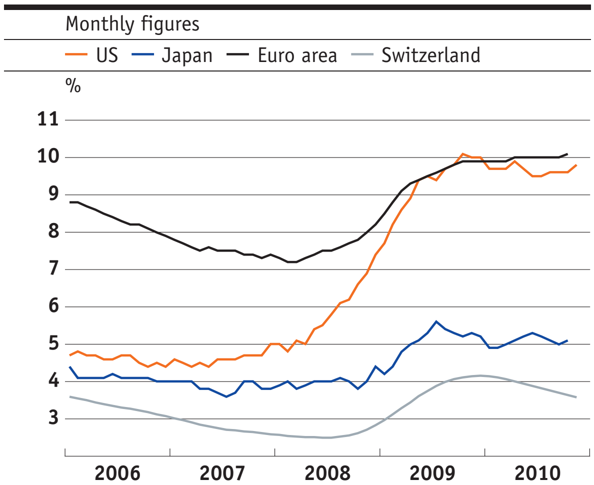
Leading indicators suggest that further moderate economic growth can be expected in the euro area. The SNB is forecasting GDP growth of 1.7% for the euro area in 2010. It has revised its forecast downwards for 2011 by 0.3% percentage points to 1.7%.

Chart 1.3
Consumer confidence index



Sources: SECO, Thomson Financial Datastream

Chart 1.4
Unemployment rates



Sources: SECO, Thomson Financial Datastream

Recovery in Japan remains volatile

In Japan, GDP grew by 4.5% in the third quarter, compared with 3.0% in the previous quarter. Growth was driven partly by special factors such as high sales of fuel-efficient cars, which private households purchased in the expectation that subsidies could expire. Since the start of the recovery just over a year ago, the Japanese economy has regained two-thirds of the decrease in GDP suffered during the recession. Support came mainly from private consumption and exports, which were driven by high demand from the emerging Asian economies.

Following strong growth in the third quarter, the upward momentum is expected to stall temporarily in the short term due to a dip in private consumption and slower export and investment momentum. The appreciation of the yen and the economic downturn in other countries have slowed manufacturing output and exports since mid-year, and this has dampened corporate sentiment somewhat. On a medium-term view, however, the favourable growth prospects for demand from Asia, the need for replacement investments, favourable financing conditions and a fresh impetus from the fiscal stimulus package adopted in autumn 2010 should ensure that the economic recovery continues.

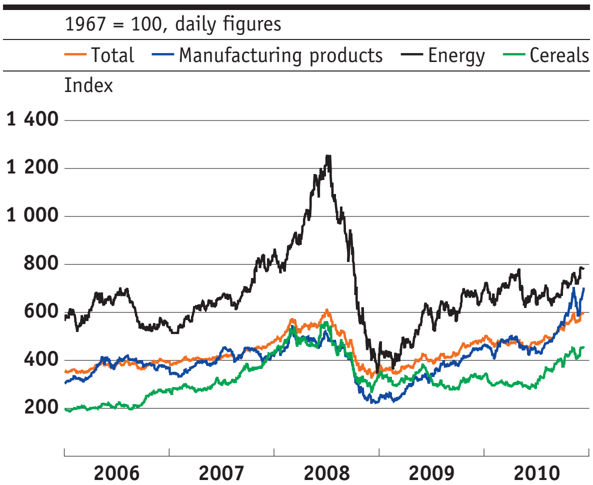
As a result of revised data and the unexpectedly strong growth in the third quarter, the SNB now expects GDP in Japan to grow by 4.3% in 2010, against its September assessment of 3.0%. For 2011, the SNB anticipates growth of 1.7%, slightly above its assessment in September.

Sustained upswing in emerging Asia

The economy remained robust in emerging Asia. China's GDP rose by 9.6% year-on-year in the third quarter, having grown by 10.3% in the second quarter. Domestic demand gained momentum following a slowdown in the first six months and continued to shift from the public to the private sector. This reflects, on the one hand, the impact of rising disposable incomes on private consumption and, on the other, the fact that government infrastructure projects are gradually being scaled back. With economic stimulus measures from the budget for 2010 still having an impact, and the visible recovery in manufacturing and exports, the outlook for China is favourable.

In the export-oriented economies of South Korea, Taiwan, Hong Kong and Singapore, GDP growth has slowed slightly. In the third quarter, it was below the estimated growth potential for the first time since the start of the recovery. While

Chart 1.5
Commodity indices



Sources: Reuters, Thomson Financial Datastream weaker foreign demand and inventory movements held back GDP growth, domestic final demand remained robust in the majority of countries. Contributory factors included the stimulus from expansionary monetary and fiscal policies and a further decline in unemployment. In view of the gradual normalisation of monetary policy, declining fiscal stimuli and slowing demand in major industrialised countries, GDP growth in the emerging Asian economies is, however, likely to be lower in 2011 than in 2010.

Inflation subdued

The annual inflation rate measured by consumer prices (CPI) has increased worldwide in the wake of rising commodity prices (cf. chart 1.6). Core inflation, which excludes energy and food prices, remained low, however.

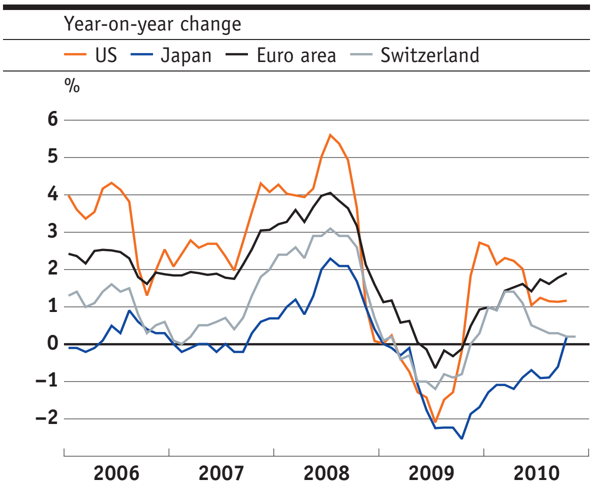
In the US, annual inflation remained at 1.2% between July and October. Rising energy prices offset the decline in core inflation from 0.9% to 0.6%. In the euro area, annual inflation increased from 1.7% to 1.9% in the same period. Alongside rising commodity prices, this was attributable to the inflationary effect of exchange rate movements and an increase in value-added tax in some member states. Core inflation increased slightly to 1.1%. In Japan, annual inflation moved back into positive territory (0.2%) for the first time since December 2008 as a result of rising food prices and an increase in tobacco tax, but the core inflation rate remained negative (–0.8%). In China, annual inflation increased by more than one percentage point to 4.4%, which was significantly higher than in the US, the euro area and Japan. However, China's core inflation only rose slightly to 1.3%.

Diverging monetary policies

The central banks of the major industrialised countries have maintained their expansionary policy (cf. chart 1.9) and adopted further extraordinary easing measures. The Federal Reserve left the target range for the federal funds rate unchanged at 0.0–0.25%. In the light of low inflation and high unemployment, in November it announced the second largest securities purchase programme since the financial crisis. It is planning to purchase US treasury bonds totalling USD 600 billion by June 2011 to bring down long-term interest rates. In addition, principal payments from maturing securities will continue to be reinvested in long-term treasury securities.

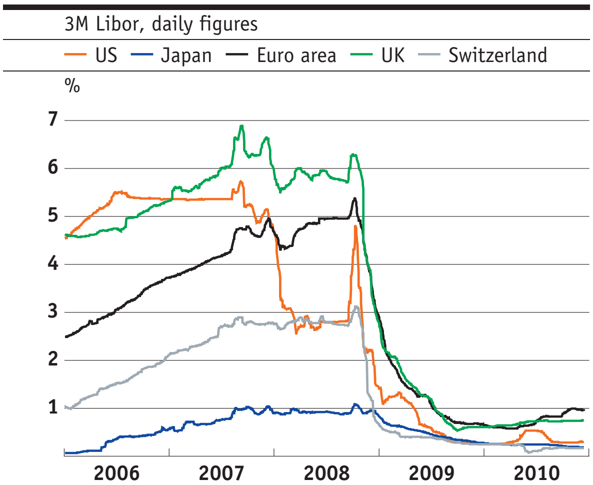
The European Central Bank (ECB) left its main refinancing rate unchanged at 1.0% and decided

Chart 1.6
Consumer prices



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

Chart 1.7
International short-term interest rates



Source: Thomson Financial Datastream

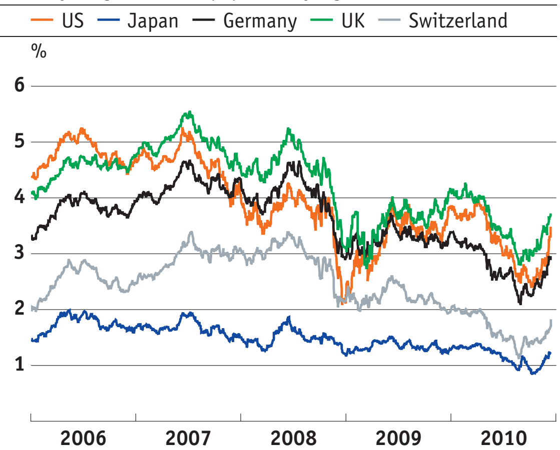
that it would continue to offer banks unlimited liquidity in the first quarter of 2011. The securities purchases initiated by the ECB under the Securities Markets Programme in May 2010 were stepped up again in November and December after they had hovered at a very low level between mid-July and October.

The Bank of Japan intervened in the currency market for the first time in six and half years to counter the appreciation of the yen. In a surprise move in October, it cut its overnight call money rate to 0.0–0.1%. This zero interest policy is to be retained until prices cease to drop. Moreover, the Japanese central bank is planning to purchase assets worth JPY 5,000 billion to reduce market interest rates.

Unlike the major industrialised countries, the central banks in the emerging Asian economies tightened their monetary policy. For the first time since December 2007, the People's Bank of China raised its key interest rate and increased the reserve rate further. It also permitted a slight appreciation of the Chinese currency against the US dollar. Since China returned to a managed floating exchange rate regime at the end of June, the Chinese currency has appreciated by around 3% against the US dollar. The central banks in various other emerging economies also tightened their monetary policy in response to rising inflationary pressure, which reflects above-average utilisation of production capacity, and to rising real estate prices.

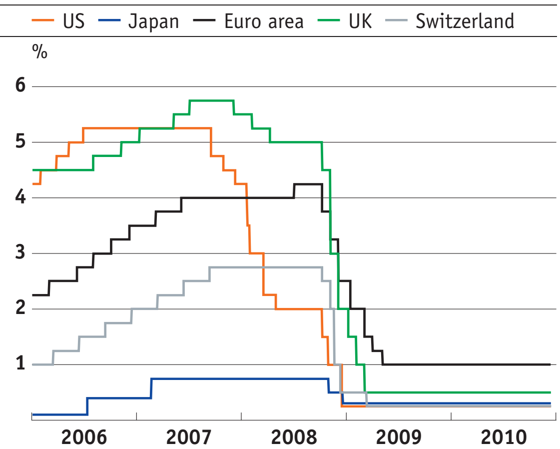
Chart 1.8
International long-term interest rates

10-year government paper, daily figures



Sources: SNB, Thomson Financial Datastream

Chart 1.9
Official interest rates



Sources: SNB, Thomson Financial Datastream

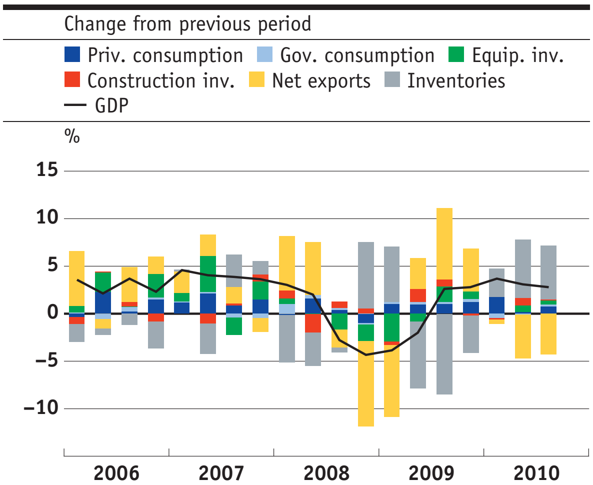
2 Developments in the Swiss economy

Economic activity continued to normalise in the third quarter. As the quarterly estimates published by the State Secretariat for Economic Affairs (SECO) show, economic activity remained on a robust expansionary course, with growth once again broadly based. All key industries contributed to the positive quarterly growth performance, with the exception of the financial industry, where value added was lower than in the previous quarter.

The situation on the labour market improved further in the third quarter. With employment increasing, the unemployment rate decreased. Although the output gap contracted further, it remained slightly negative, mainly reflecting the underutilisation of labour force potential. Although utilisation of technical capacity is now good, inflationary pressure from the real economy has remained low.

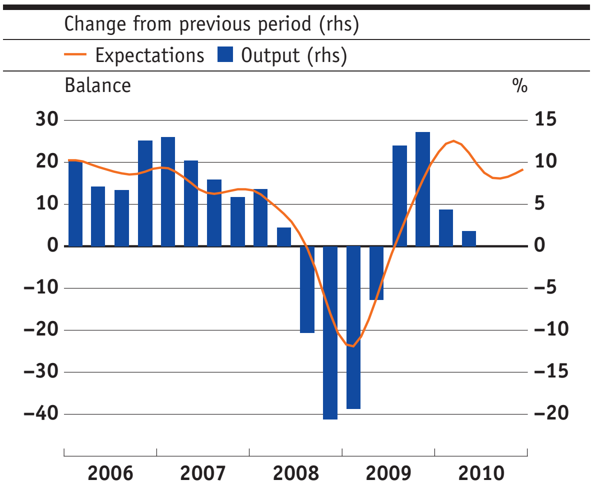
Economic growth is likely to be lower in the coming quarters, mainly because of the slowdown in international economic momentum and the strength of the Swiss franc.

Chart 2.1
Contributions to output growth



Source: SECO

Chart 2.2
Manufacturing output



Sources: KOF Swiss Economic Institute, SFSO

2.1 Gross domestic product (GDP)

Solid economic growth

According to the provisional SECO estimates, GDP rose by 2.8% in the third quarter, compared to 3.1% in the previous quarter. The year-on-year rate – in other words, growth versus the third quarter of 2009 – was 3.0%. The rise in GDP in the third quarter was driven predominantly by business-related services, trade and the manufacturing industry, where added value increased by 10.2%, 7.6% and 3.9% respectively. The construction industry as well as transport and communications also registered a rise in value added (3.8% and 5.4% respectively). The only significant exception was the financial sector, where both banks and insurance companies reported lower added value (–8.5% and –4.5% respectively).

The breakdown of GDP by components (cf. table 2.1) shows that both investment in fixed assets and private consumption expanded at a moderate pace. By contrast, there was a sharp drop in exports of services, where volatility tends to be high, while imports of services and imports and exports of goods (excluding valuables) remained practically unchanged. A high contribution to growth evidently came from an increase in inventories, which is shown in table 2.1 by the difference between domestic demand and domestic final demand (the difference also includes measuring errors).

SECO revises its estimates for previous quarters with each new quarterly estimate. This time the adjustments were modest and alter the picture only slightly. The estimates for the value added by three sectors (manufacturing industry, banking, and public administration) in the first two quarters of 2010 were revised downwards. As a result, GDP only returned to the pre-recession level in the third and not in the second quarter of 2010.

Real GDP and components Table 2.1

Growth rates on previous period, annualised

	2006	2007	2008	2009	2008	2009				2010		
					Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Private consumption	1.6	2.3	1.3	1.0	–1.6	1.7	1.5	1.7	2.1	3.0	0.2	1.3
Government consumption	0.3	0.3	1.7	1.6	–1.8	2.0	2.9	2.1	2.8	–4.0	–1.0	1.6
Investment in fixed assets	4.7	5.1	0.5	–4.9	–6.8	–16.2	2.3	11.6	2.9	–0.5	7.4	2.6
Construction	–1.4	–2.3	0.0	3.0	5.1	–3.8	15.2	8.0	–1.8	–1.0	8.2	1.5
Equipment	10.1	11.1	0.8	–10.8	–14.7	–25.2	–7.6	14.9	7.0	–0.1	6.8	3.6
Domestic final demand	**2.1**	**2.7**	**1.2**	**–0.3**	**–2.9**	**–2.7**	**1.9**	**3.9**	**2.3**	**1.3**	**1.6**	**1.6**
Domestic demand	**1.4**	**1.4**	**0.2**	**0.6**	**7.6**	**7.6**	**–6.3**	**–6.1**	**0.3**	**1.0**	**8.3**	**9.2**
Total exports	10.3	9.6	3.3	–8.7	–29.3	–20.6	–7.0	31.4	9.2	13.0	7.0	–11.6
Goods	11.1	8.4	2.6	–11.5	–34.8	–25.4	–4.1	22.2	10.0	23.9	1.7	–4.7
Excluding valuables[1]	11.2	8.3	2.1	–11.1	–32.9	–24.0	–3.5	17.7	15.1	12.3	2.1	–0.7
Services	8.4	12.8	4.8	–2.0	–14.6	–8.6	–13.0	53.7	7.6	–7.8	19.8	–25.3
Aggregate demand	**4.5**	**4.4**	**1.4**	**–3.0**	**–8.6**	**–3.6**	**–6.6**	**6.2**	**3.6**	**5.5**	**7.8**	**0.8**
Total imports	6.5	6.1	0.3	–5.4	–17.5	–3.2	–16.3	14.9	5.4	10.1	19.9	–3.8
Goods	7.8	5.1	–0.5	–8.3	–24.1	–5.0	–21.2	18.5	3.1	21.5	17.1	–4.1
Excluding valuables[1]	7.4	6.7	–1.0	–8.5	–21.4	–8.9	–21.5	21.2	2.1	19.6	18.8	–1.3
Services	0.6	11.2	3.9	8.1	19.2	5.8	6.2	2.0	15.2	–25.2	32.0	–2.5
GDP	**3.6**	**3.6**	**1.9**	**–1.9**	**–4.3**	**–3.8**	**–2.0**	**2.6**	**2.8**	**3.7**	**3.1**	**2.8**

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

2.2 Foreign trade, consumption and investment

Decline in exports

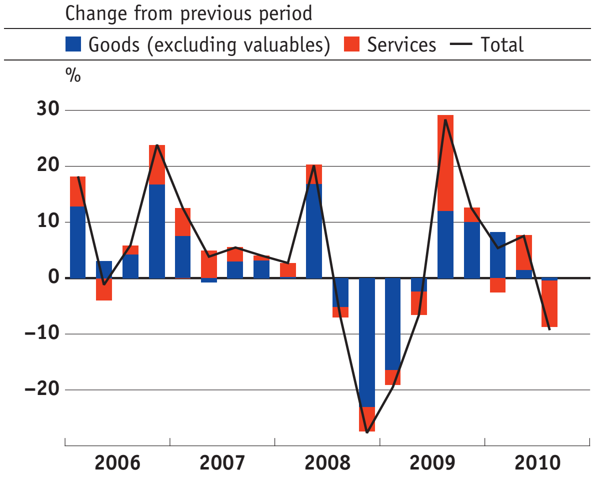
The vigorous export recovery suffered a setback in the third quarter, for the first time since the end of the recession. While goods exports were virtually unchanged (as in the second quarter), there was a massive drop in exports of services. Overall, exports of goods and services (excluding valuables) contracted by 9.3%, having grown by 7.5% in the previous quarter.

Goods exports were weak in most industries. Exports of chemicals and pharmaceuticals actually declined, while deliveries of precision instruments, watches and jewellery increased. A breakdown by sales market reveals, in particular, a decline in demand from Europe. In addition, there was a drop in exports to oil-exporting countries. By contrast, exports to Asia rose substantially.

The downturn in exports of services was mainly attributable to falling net revenues from merchanting, which had posted a substantial hike in the previous quarter. Moreover, exports of financial services declined again owing to the continued turbulence on the financial markets. By contrast, tourism exports increased slightly despite the appreciation of the Swiss franc.

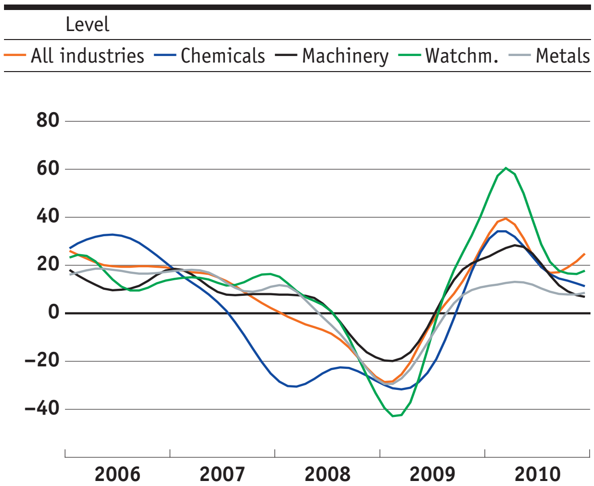
According to the surveys by KOF Swiss Economic Institute, the order situation in exporting industries deteriorated somewhat. Nevertheless, the companies surveyed remained cautiously optimistic with regard to future prospects. Goods exports thus rebounded slightly in October. However, in view of the strong franc and decreasing global momentum, the overall export trend is likely to remain weak in the coming months.

Chart 2.3
Contributions to export growth



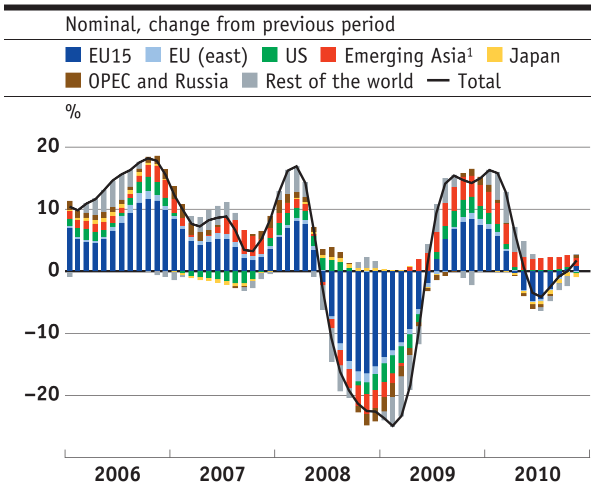
Source: SECO

Chart 2.4
Expected new orders



Source: KOF Swiss Economic Institute

Chart 2.5
Goods exports, regional growth contributions



1 Emerging Asia: China, Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan, Vietnam.
Source: Federal Customs Administration (FCA)

Construction investment at high level

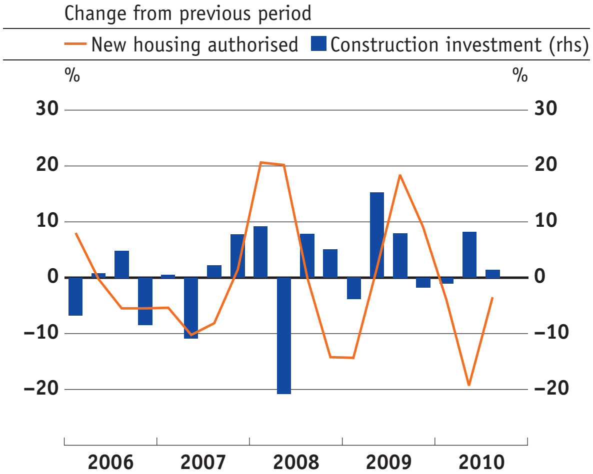
Although construction investment only advanced by 1.5% in the third quarter, it remained at a high level. According to surveys by the Swiss Federation of Master Builders (SBV/SSE), civil engineering, in particular, reported strong performance in the third quarter. Residential construction also remained buoyant, with impetus coming from low interest rates and immigration.

The leading indicators suggest that construction will remain robust in the coming quarters, despite the decline in the number of building permits for dwellings. Orders in hand are high and most of the companies included in the KOF survey reported capacity bottlenecks.

Moderate revival in equipment investment

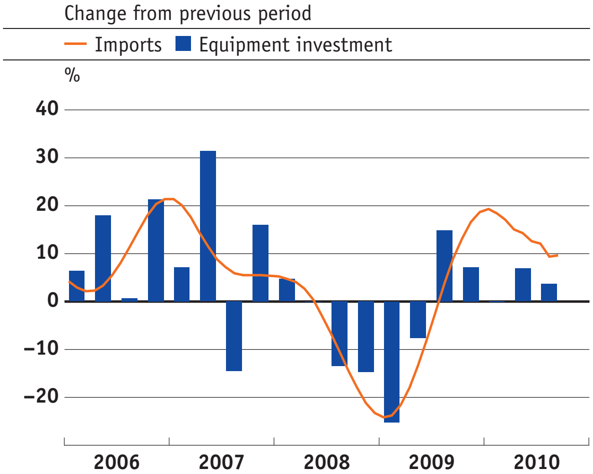
Equipment investment only advanced by 3.6% in the third quarter and therefore remains below its pre-recession level. Leading indicators suggest that growth rates will remain moderate in the upcoming quarters.

Chart 2.6
Construction



Sources: SECO, SFSO

Chart 2.7
Equipment



Sources: FCA, SECO

Average growth in private consumption

Having remained unchanged in the second quarter, private consumption increased by 1.3% in the third quarter, bringing it close to the average growth rate. The breakdown of growth in consumption shows an upturn in demand for both basic necessities and consumer durables. By contrast, consumption of services was comparatively weak, especially in the healthcare industry.

The indicators for private consumption point to sustained robust growth in the fourth quarter. However, consumer confidence has deteriorated slightly. In the October survey by SECO, responses to the question about the economic trend, in particular, were more sceptical than three months previously. Nevertheless, a clear majority of respondents anticipate a further improvement in the economic situation.

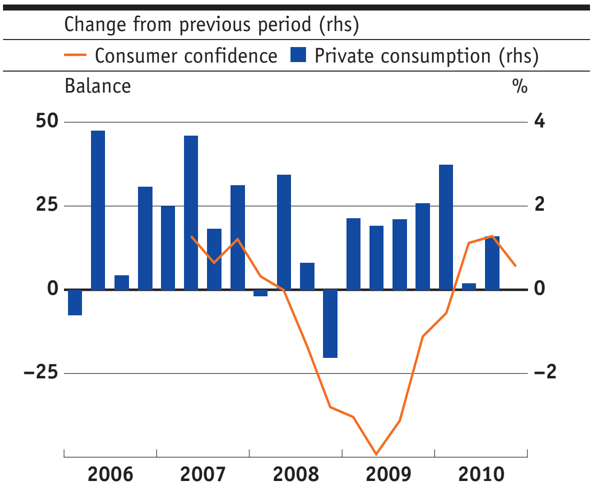
Imports stagnating at a high level

Imports of goods and services remained virtually unchanged in the third quarter (–1.5%, excluding valuables). In the previous quarter they had increased by no less than 21.4%, mainly due to exceptionally high imports of gold ornaments from Vietnam. The fact that imports remained at almost the same high level in the third quarter was again attributable to very high imports of gold ornaments.

In the imported goods category, the recovery in imports of production-related goods such as machinery and metal goods slowed sharply. Imports of chemicals (predominantly pharmaceuticals) declined further, whereas imports of clothing, furniture and food rose strongly, supported by the strength of the franc.

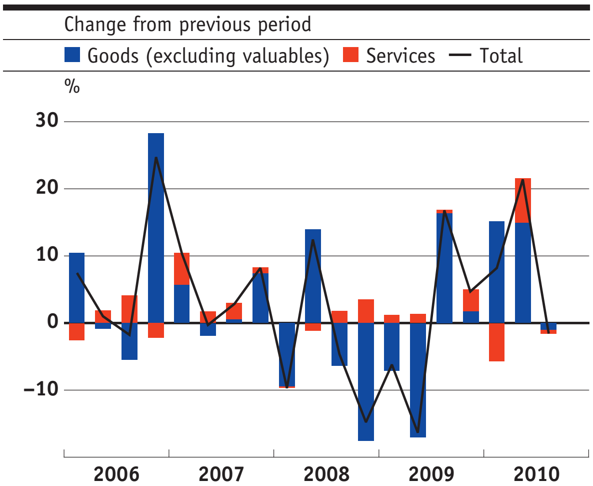
Imports of services declined slightly in the third quarter. This was mainly attributable to very volatile spending for patents and licenses, which dropped back, having increased in the previous quarter. Foreign travel – recorded under tourism imports – benefited from the appreciation of the franc and registered a further strong rise.

Chart 2.8
Private consumption



Source: SECO

Chart 2.9
Contributions to import growth



Source: SECO

2.3 Employment and labour market

Moderate rise in employment

Employment increased in the third quarter at the same pace as in the second quarter. The number of employed people and the volume of work measured by full-time equivalents rose by 1.1% and 1.0% respectively, so both indicators were back above their pre-recession level.

The development of employment varied from one sector to another. Employment in manufacturing picked up for the first time again in the third quarter, following substantial job cuts in the wake of the recession. Increases were also reported by the services sector and construction, where employment had risen in previous quarters, but the pace of growth declined slightly in the construction sector. The services industries where employment growth rates are rising include public administration, and information and communication. Employment growth in trade and healthcare declined and jobs were shed in hospitality industry.

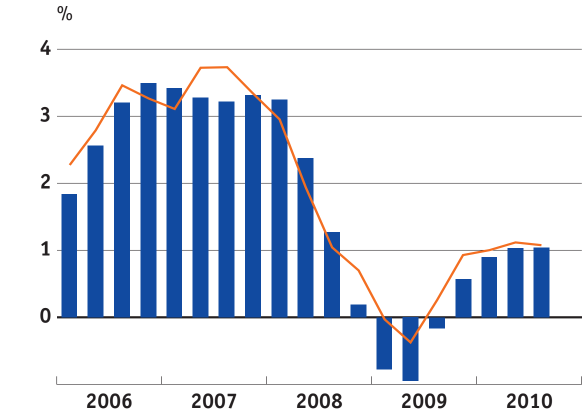
Slight improvement in outlook for employment

The leading employment indicators continued to point upward in the third quarter, a situation reflected, among other things, in a rising number of job vacancies. Various surveys of companies indicate that the outlook for employment remained

Chart 2.10
Employment

Change from previous period

Full-time and part-time employment ■ Full-time equivalents

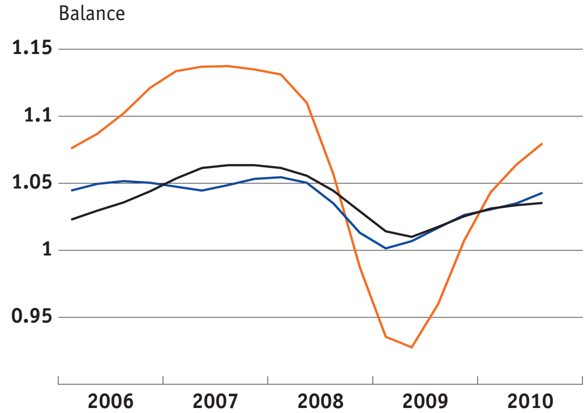


Source: SFSO, seasonal adjustment: SNB

Chart 2.11
Employment outlook indicator

Seasonally adjusted; 2009 employment shares in brackets

Manufacturing (18%) Construction (8%) Services (74%)

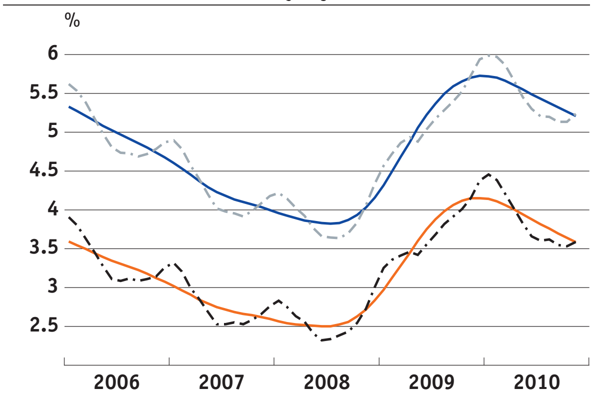


Source: SFSO, seasonal adjustment: SNB

Chart 2.12
Unemployment and job seeker rates

Monthly figures

Unemployed, seasonally adjusted · Unemployed
Job seekers, seasonally adjusted · Job seekers

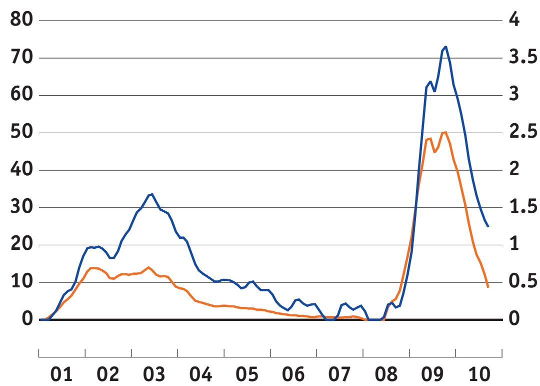


Unemployed and job seekers registered with the regional employment offices, as a percentage of the labour force according to the 2000 census (labour force: 3,946,988 persons).
Source: SECO

Chart 2.13
Short-time working

Seasonally adjusted

Workers affected · Companies affected (rhs)



Source: SECO, seasonal adjustment: SNB

favourable in the fourth quarter, although there was only a slight improvement compared with the previous quarter.

Unemployment falling

Seasonally adjusted unemployment fell further between August and November. The number of unemployed people registered with the regional employment offices decreased by 6,000. This is reflected in a decline in the unemployment rate from 3.8% to 3.6%. The percentage of job seekers, which includes people who are on training programmes as well as the registered unemployed, also dropped slightly, from 5.4% to 5.2%.

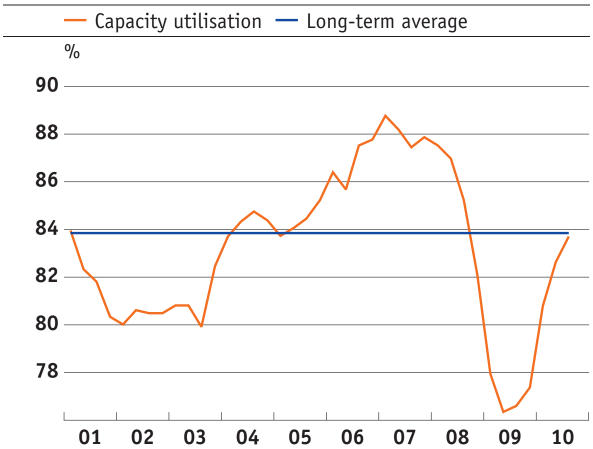
The economic recovery is particularly evident from the reduction in the number of companies that have introduced short-time working. Manufacturing industry in particular made considerable use of this option during the recession. By September, the number of people working short-time amounted to only 8,600 in seasonally-adjusted terms, or fewer than 20% of the peak level registered during the recession.

2.4 Capacity utilisation

Rising utilisation of manufacturing capacity

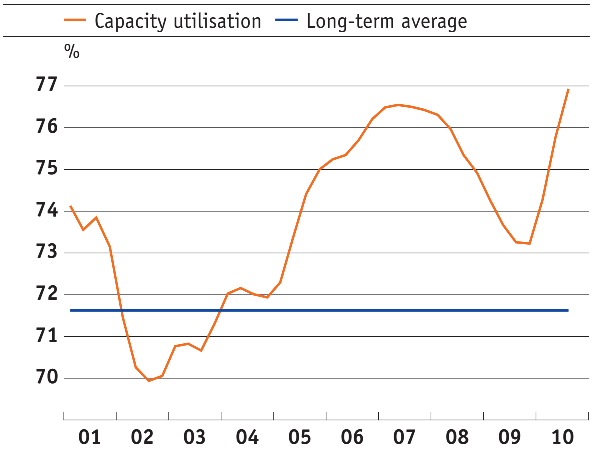
The recovery of demand again led to higher capacity utilisation in manufacturing in the third quarter. According to survey data from KOF Swiss Economic Institute, capacity utilisation in manufacturing rose from 82.6% in the second quarter to 83.7% in the third quarter and is therefore around the long-term average. The level of machine utilisation also increased in the construction industry and is now at 76.3%, a level rarely achieved since the introduction of the indicator in 1994. Technical capacity utilisation is harder to measure in the services sector, but various indicators suggest that it has risen here as well.

Chart 2.14
Capacity utilisation in manufacturing



Source: KOF Swiss Economic Institute

Chart 2.15
Capacity utilisation in construction



Source: KOF Swiss Economic Institute

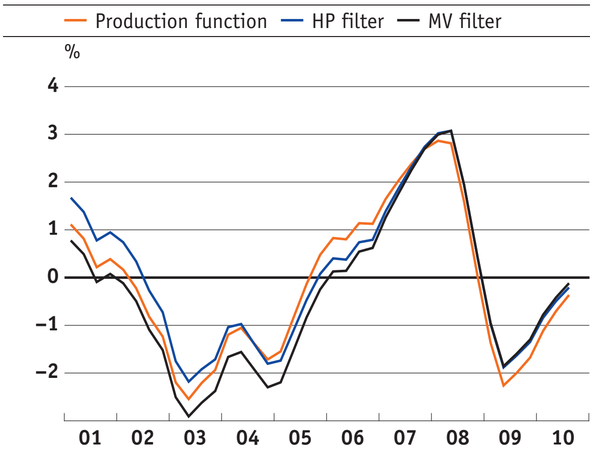
Narrow output gap

The output gap, which is defined as the percentage deviation of GDP from estimated aggregate potential output, shows the extent to which the factors of production in an economy are utilised. It can therefore be regarded as an indicator of inflationary pressure. If GDP exceeds (falls below) potential output for an extended period of time, this points to excess demand (excess supply) and, consequently, to greater (less) inflationary pressure.

Estimates of potential output using different methods all suggest that GDP was only slightly below production potential in the third quarter. Depending on the method used to estimate production potential, the output gap amounted to –0.4% (production function), –0.2% (Hodrick-Prescott filter) or –0.1% (multivariate filter). All three estimates show that the under-utilisation of production factors decreased further in the third quarter.

Since utilisation of technical capacity was largely normal, the output gap – calculated on the basis of a production potential estimate using the production function method – primarily points to the underutilisation of labour force potential.

Chart 2.16
Output gap



Source: SNB

2.5 Prices

Import prices falling

Import prices have fallen since mid-year as a result of the strength of the franc, so the year-on-year inflation rate based on the imported goods index dropped from 1.2% in August to 0.2% in November. Currency effects also had an impact on the core inflation rate for imports (excluding price-volatile goods), which receded from –1.2% to –2.0%.

Producer prices proved more robust, with year-on-year inflation in this area decreasing from 0.2% in August to 0.0% in November. Lower prices were registered for exported goods in particular. By contrast, prices for domestically sold goods rose from 0.7% to 1.2%.

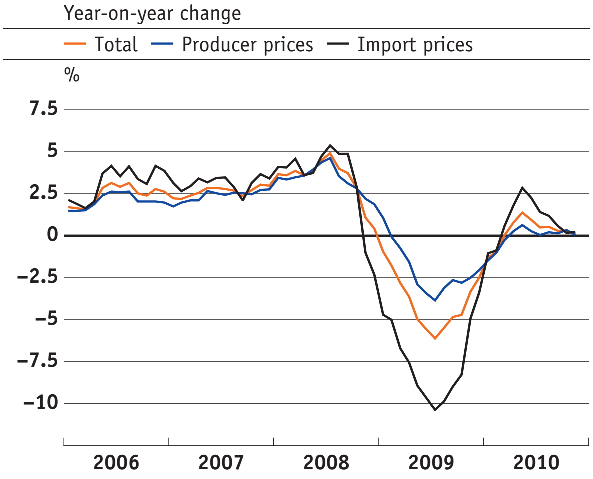
Lower CPI inflation

Annual inflation, as measured by the national consumer price index (CPI), has decreased further since August and was 0.2% in November. This was attributable partly to lower import prices following the appreciation of the franc and partly to the fact that inflation for domestic goods and private services (excluding rents) was lower than in August. By contrast, there was an unexpectedly sharp hike in rents, which diminished the drop in CPI inflation. The inflation rate for public services also increased somewhat.

Divergent core inflation rates

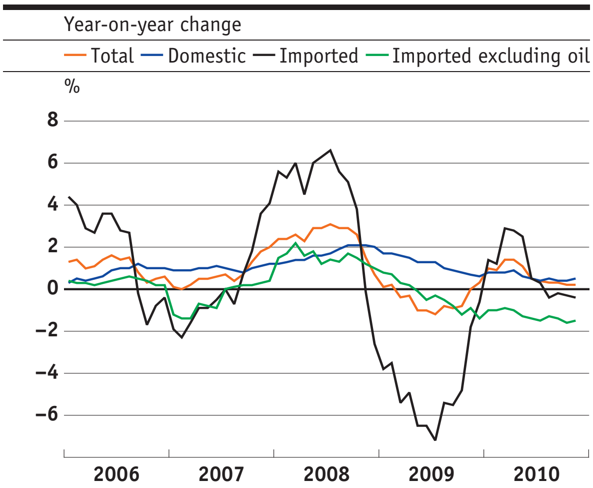
In order to estimate the CPI trend, the two core inflation rates published by the SFSO can be supplemented by other measures, for example, the core inflation rate calculated by the SNB using the trimmed means method and dynamic factor inflation (cf. charts 2.20 and 2.21). The first three of these four indicators exclude particularly volatile components of the CPI and calculate the core inflation rate based on a smaller basket of goods. By contrast, the dynamic factor inflation method calculates core inflation using an empirically estimated model that includes other real and nominal economic data as well as price data (cf. 'Traditional core inflation rates and dynamic factor inflation', pp. 26–27).

Chart 2.17
Producer and import prices



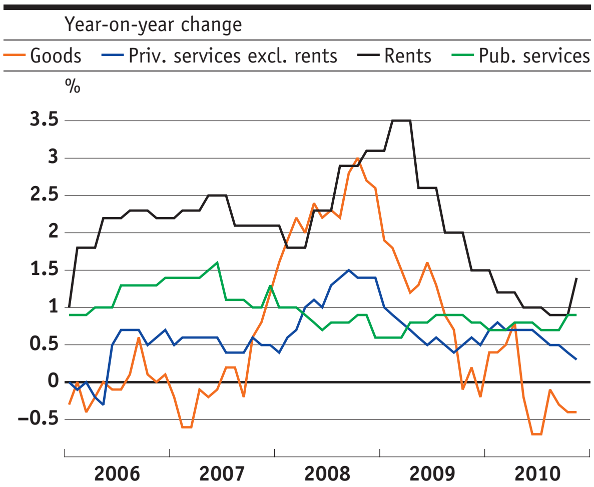
Source: SFSO

Chart 2.18
CPI: domestic and imported goods and services



Sources: SFSO, SNB

Chart 2.19
CPI: domestic goods and services



Sources: SFSO, SNB

The SFSO core inflation rates both declined between August and November and briefly dropped to slightly negative values of –0.1% and –0.2% respectively in October. By contrast, the core inflation rate calculated by the trimmed means method, which is not subject to statistical distortions as the SFSO core inflation rates are, was 0.5% in November and thus unchanged from August. Dynamic factor inflation supports the estimate derived from the trimmed means method. It was 1.0% in November, indicating positive but still moderate inflation. Unlike the traditional core inflation rates, it has risen over the year, reflecting the economic recovery.

Stable inflation expectations

Overall, surveys of the inflation expectations of companies and households suggest that CPI expectations have remained virtually unchanged, while at producer level slightly lower inflation rates are expected. These estimates are derived from three surveys: the SECO survey of private house-

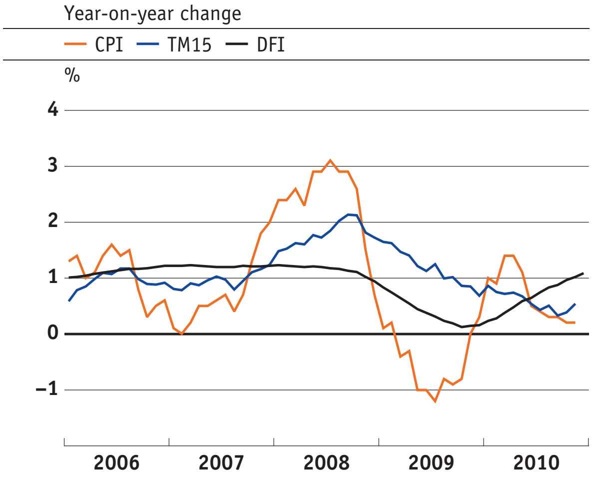
National consumer price index and components
Year-on-year change in percent

Table 2.2

	2009	2010			2010			
		Q1	Q2	Q3	August	September	October	November
Overall CPI	**–0,5**	**1,1**	**1,0**	**0,3**	**0,3**	**0,3**	**0,2**	**0,2**
Domestic goods and services	1,2	0,8	0,6	0,4	0,5	0,4	0,4	0,5
Goods	1,0	0,4	–0,0	–0,4	–0,1	–0,3	–0,4	–0,4
Services	1.3	0.9	0.9	0.7	0.7	0.6	0.6	0.8
Private services excluding rents	0,6	0,8	0,7	0,5	0,5	0,5	0,4	0,3
Rents	2,5	1,3	1,1	0,9	0,9	0,9	0,9	1,4
Public services	0,8	0,7	0,8	0,7	0,7	0,7	0,9	0,9
Imported goods and services	–4,7	1,8	1,9	–0,1	–0,4	–0,2	–0,3	–0,4
Excluding oil products	–0,3	–0,9	–1,2	–1,4	–1,3	–1,4	–1,6	–1,5
Oil products	–25,9	18,3	21,0	8,6	6,3	8,0	7,6	6,9

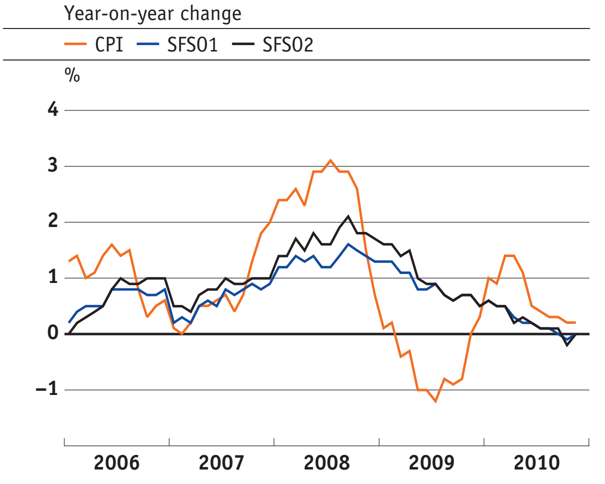
Sources: SFSO, SNB

Chart 2.20
Core inflation rates (SNB)



Sources: SFSO, SNB

Chart 2.21
Core inflation rates (SFSO)



Source: SFSO

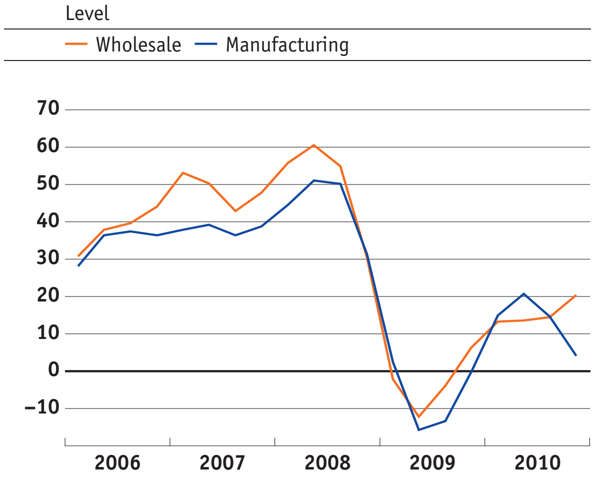
holds, the KOF survey of companies and the *Credit Suisse ZEW Financial Market Report*.

The quarterly SECO survey of Swiss households measures the expected price trend over the coming 12 months from the viewpoint of consumers. In October, almost 50% of households anticipated a moderate rise in prices, while fewer than 10% expected prices to drop.

As part of the *Credit Suisse ZEW Financial Market Report*, every month around 70 analysts are surveyed on their CPI inflation expectations (higher, lower, unchanged) for the coming six months. The results of the December survey suggest that inflation expectations are marginally higher than in August. The vast majority of the analysts expected inflation to remain stable or rise slightly.

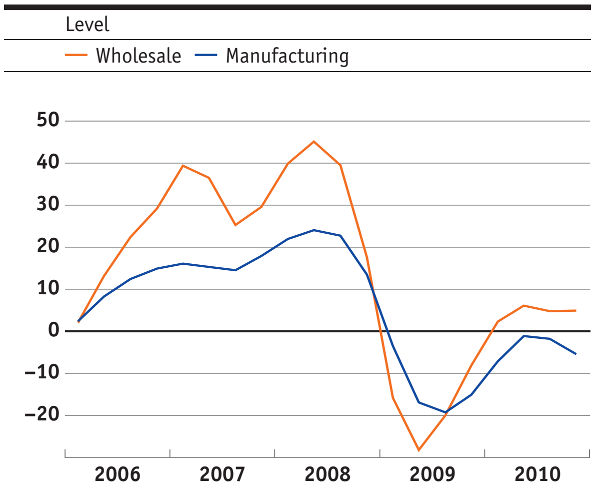
The quarterly survey by KOF Swiss Economic Institute relies on a survey of senior employees from companies active in Switzerland. They are asked how they expect purchase and sale prices to develop over the coming three months. The results suggest that in October wholesalers expected stable sale prices and a slight rise in purchase prices in the fourth quarter. Inflation expectations in manufacturing were slightly lower than in the previous survey, with the majority of companies anticipating slightly lower sale prices and slightly higher purchase prices.

Chart 2.22
Expected purchase prices



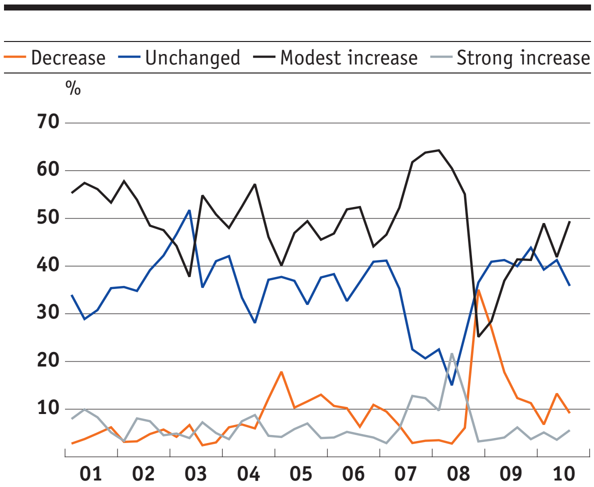
Source: KOF Swiss Economic Institute

Chart 2.23
Expected sale prices



Source: KOF Swiss Economic Institute

Chart 2.24
Survey on expected movements in prices



Sources: SECO, SNB

Traditional core inflation rates and dynamic factor inflation

The idea behind core inflation rates is to obtain a record of current inflation excluding short-term effects (underlying inflation). Since the short-term effects cannot be observed, the relevant literature has proposed various methods for estimating core inflation. Although these methods produce varying results, they generally complement one another. Apart from the two core inflation rates published by the Swiss Federal Office of Statistics (SFSO), there are two further core inflation indices in Switzerland – the trimmed mean (TM15) and dynamic factor inflation (DFI), both of which are calculated by the SNB and published in the *Monthly Statistical Bulletin*. Charts 2.20 and 2.21 (cf. p. 24) show the path of these four variables over time, together with that of consumer price index (CPI) inflation.

Core inflation rates should be rapidly available and readily understood by the general public, if they are to prove useful in discussions on economic policy. In addition, they should have a number of additional properties. For instance, core inflation should fluctuate less sharply than CPI inflation. Moreover, it should be unbiased, in other words, it should neither overestimate nor underestimate CPI inflation in any systematic manner. Finally, CPI inflation should trend towards the path of core inflation, and not vice versa. This is a consequence of the requirement that core inflation rates should exclude only short-term effects. If core inflation is to provide information on the future path of CPI inflation, this property is a prerequisite.

The group of traditional core inflation rates, including the two SFSO core inflation rates and the SNB's trimmed mean, are based on simple procedures, whereby prices that are particularly volatile or that are not determined by market forces are suppressed. The commodities in question are excluded from the CPI basket and the core rates are calculated on the basis of the smaller commodities basket. In the case of the two indices published by the SFSO, the same commodities are excluded every month (core inflation 1: food, beverages, tobacco, seasonal products, energy and fuel; core inflation 2: core 1 commodities plus, additionally, products with administered prices). By contrast, the trimmed mean index calculated by the SNB excludes, in each period, those commodities whose prices have moved most strongly during the period in question. When calculating the index, the annual inflation rates of the CPI components are ordered by size. The observations are weighted by their commodity basket share, and the 15% at either end of the distribution are then eliminated. This means that for the trimmed mean, as against the SFSO core inflation rates, different commodities are excluded from the basket in each period.

The three traditional core inflation rates have the considerable advantage that they are simple to calculate and are therefore easy to understand. Furthermore, the standard deviations published in the table below show that all of them display lower volatility than the CPI inflation rate. The highest volatility of all the core inflation rates is shown by SFSO core inflation rate 2 (excluding administered prices which are generally relatively rigid). The mean values shown in the same table show that the average trimmed mean is closer to the corresponding figure for the CPI inflation rate than the average SFSO core inflation rates. The results of statistical testing for bias in core inflation rates confirm this impression. The tests suggest that while the trimmed mean is unbiased, the same cannot be claimed for the SFSO core inflation rates.[1] The question of whether CPI inflation trends towards the path of core inflation (and not vice versa) can also be investigated using statistical methods. They show that, overall, the trimmed mean achieves somewhat better results than the SFSO core inflation rates.

An alternative to the traditional core inflation rates are those based on a multivariate approach, which are estimated using econometric methods. They include core inflation rates based on a dynamic factor model. A model of this kind may build on information taken from the CPI components alone, or may also take account of additional information from other data sources. The dynamic factor inflation calculated by the SNB and illustrated in chart 2.21 is based on some 450 nominal and real variables covering all areas of the economy, i.e. the goods markets, the financial markets and the labour market. The first step is to filter the variables and adjust them for short-term fluctuations. The common factors are then identified and estimated, and finally the DFI is calculated as a linear projection of these factors. It can be seen that CPI inflation converges to DFI in the long term. Furthermore, inves-

1 For a description of the statistical test and results based on data from 1978 to 2005, cf. Marco Huwiler, *Die Kerninflation in der Schweiz,* University of Basel dissertation, 2007. The tests were repeated with data from 1993 to 2010.

tigations suggest that the DFI better predicts future CPI inflation than the traditional core inflation indices.[2] Alongside these advantages, a disadvantage of DFI is that new observations trigger revisions in previous core inflation figures. In addition, it is more difficult to understand and communicate than the traditional core inflation rates, because of the way it is calculated. For these reasons it makes sense to show and interpret the DFI together with the traditional core inflation rates.

Table 1
Inflation rates 1994:5–2010:10
annual rates in %

	Mean	Standard deviation
CPI	**0.88**	**0.75**
SFSO1	0.74	0.52
SFSO2	0.75	0.57
TM15	0.93	0.44
DFI	0.86	0.28

Annual rates = rate of change from the same month of the previous year. SFSO1 = SFSO core inflation 1; SFSO2 = SFSO core inflation 2; TM = SNB trimmed mean; DFI = SNB dynamic factor inflation; CPI = national consumer price index. The beginning of the observation period (1993:5) coincides with a comprehensive revision of the CPI.

2.6 Outlook for the real economy

Economic weakening

The above-average growth of around 2.5% this year has been driven by strong recovery momentum. However, economic growth is likely to slow down distinctly in the coming quarters. The SNB projects a rise of around 1.5% in GDP in 2011. Domestic demand should continue to support growth. However, virtually no significant stimulus will be derived from foreign trade due to the strength of the Swiss franc and the fact that momentum in the economies of major trading partners is limited.

The level of uncertainty regarding the future path of the Swiss economy remains high. This relates above all to the economic situation in other countries and the international financial markets. The after-effects of the financial and economic crisis will continue to be felt in 2011.

2 For a more detailed presentation of the DFI and information on its forecast ability, cf. Swiss National Bank, *Monthly Statistical Bulletin,* May 2006, pp. V–VI, and Marlene Amstad/Andreas M. Fischer, 'Are weekly inflation forecasts informative?', *Oxford Bulletin of Economics and Statistics,* 71(2), 2009, pp. 237–252.

3 Monetary developments

At its monetary policy assessment of September 2010, the SNB decided to maintain its expansionary monetary policy. It left the target range for the three-month Libor unchanged at 0.00–0.75% and announced that it would aim for the lower part of the range, around 0.25%. It drew attention to the fact that the risks for economic recovery are mainly to the downside, and reiterated its intention of taking the measures necessary to ensure price stability should downside risks materialise and lead to a renewed threat of deflation.

3.1 Interest rates

Further liquidity absorption by the SNB

As part of its interest rate management, the SNB absorbed excess Swiss franc liquidity. It issued SNB Bills on a weekly basis with two different terms on each occasion – a 28-day issue plus an additional issue with a term of 84, 168 or 336 days. It also conducted liquidity-absorbing repo auctions on a daily basis with a term of one week. Between mid-September and mid-December, bank demand for SNB Bills and in the liquidity-absorbing repo auctions was lively.

Total holdings of SNB Bills rose between September and November 2010 from an average of CHF 108 billion to CHF 114 billion. Marginal yields varied between 0.14% and 0.37%, depending on the term. The 28-day instruments accounted for about half of outstanding SNB Bills. The residual maturity of the overall stock rose from 36 days to 63 days during the period under review.

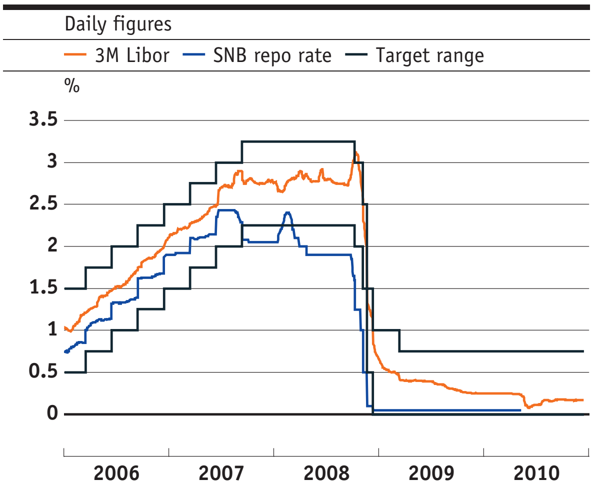
The stock of liquidity-absorbing repo transactions remained unchanged between mid-September and mid-December, at CHF 24 billion. The interest rate for repo auctions was lowered from 0.14% to 0.12%. The average weekly level of sight deposits held by domestic banks varied between CHF 33 billion and CHF 23 billion during the period under review.

On 8 December 2010, the last outstanding SNB USD Bill amounting to USD 235 million was redeemed. The financing programme for the SNB loan to the SNB StabFund is thereby concluded. The stock of SNB USD Bills reached its peak level on 26 October 2009, at some USD 20 billion.

Money market interest rates remain at low level

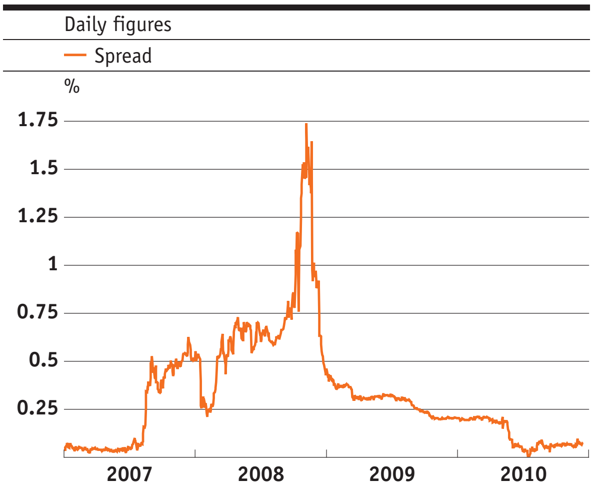
Since mid-September, the three-month Libor has remained relatively steady at some 0.17%, after falling below 0.10% in June. The risk premium on the money market, measured as the difference between the three-month Libor and the corresponding Overnight Index Swap (OIS), has also persisted at a low level over the past three months (cf. chart 3.2). During the financial crisis, this premium had risen sharply and did not return to its pre-crisis level until the second quarter of 2010.

Chart 3.1
Money market rates



Sources: Reuters, SNB

Chart 3.2
Spread between 3M Libor and OIS



Sources: Bloomberg, Reuters

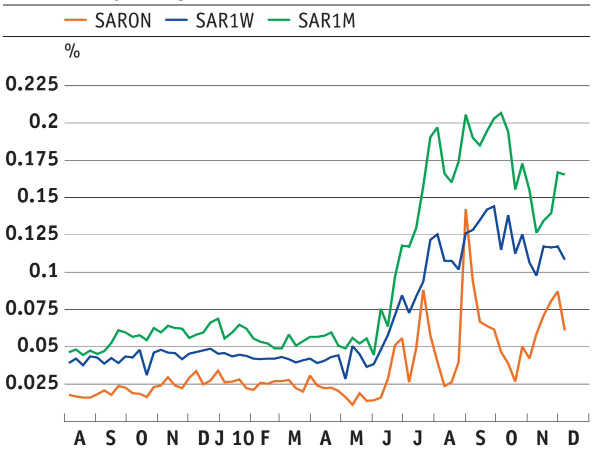
Long-term interest rates still low

Yields on high-quality Swiss bonds persisted at a low level. After remaining comparatively steady in September and October, those on Swiss Confederation bonds began to rise in November. Yields on ten-year bonds rose from approximately 1.4% in early November to 1.8% in mid-December. This increase was in line with the international increase in yields, although less pronounced. Yields on longer-term Swiss corporate bonds with high credit ratings showed a similar development and stood as much as 40 base points above the corresponding level for Confederation bonds during the course of the past three months.

The yield curve remained relatively constant for terms of up to ten years, although it flattened for longer terms (cf. chart 3.4). The term spread, i.e. the difference between yields on 10-year Confederate bonds and the three-month Libor, held slightly above its historical average of 1.20 percentage points over the past three months. Chart 3.6 shows that the term spread had contracted in September 2008 after the Lehman Brothers bankruptcy. When monetary policy was substantially relaxed at the end of 2008 and beginning of 2009, this spread widened rapidly and reached levels that – in historical terms – were high. Since May 2009, the term spread has narrowed again.

Chart 3.3
Swiss Reference Rates

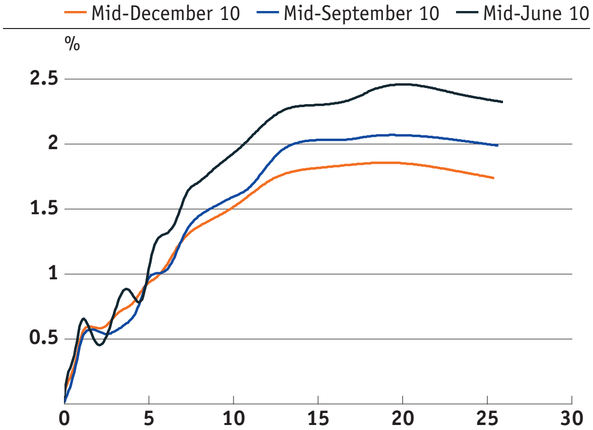
Weekly averages



Source: SIX Swiss Exchange Ltd

Chart 3.4
Term structure of Swiss Confederation bonds

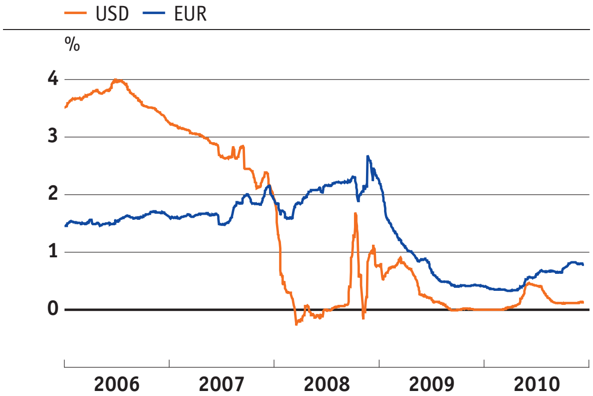
Years to maturity (hor. axis). Annually compounded nominal discount bond yield in percent p.a. (vert. axis)



Source: SNB

Chart 3.5
Spreads between international short-term interest rates

3M Libor spread between foreign currency and CHF, daily figures



Sources: Reuters, SNB

Slight widening in international spreads

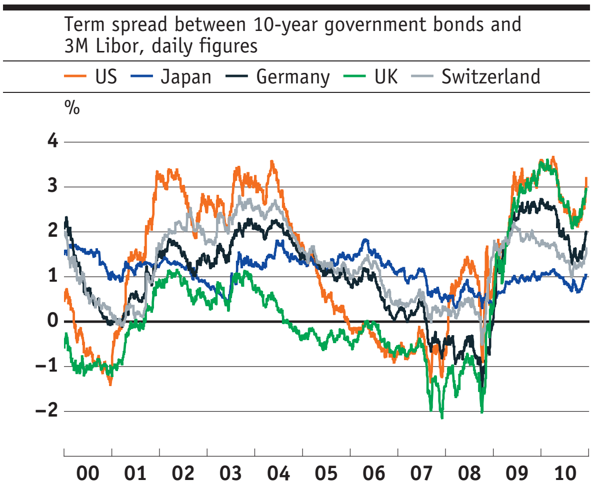
While the three-month US dollar Libor hardly changed over the past three months, the three-month euro Libor rose to almost 1%. Consequently the difference between short-term interest rates in the euro area and those in Switzerland increased from mid-September to mid-December, as can be seen in chart 3.5.

Yields on long-term government bonds of fiscally weaker euro countries rose during the same period due to increasing fears that individual countries would encounter funding bottlenecks. The yields on 10-year government bonds in the US, the UK and Germany also rose more strongly than short-term interest rates, so that term spreads for these countries widened somewhat between mid-September and mid-December (cf. chart 3.6). Concerns about longer-term fiscal policies on the part of investors appear to be among the reasons for this development. As opposed to the situation in Switzerland, term spreads in other countries are relatively high in historical terms.

Real interest rates still low

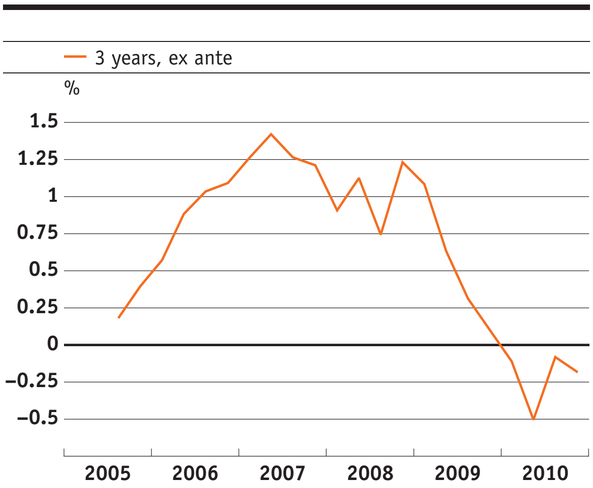
In the fourth quarter of 2010, the three-year real interest rate was still in negative territory, at –0.18%, a level that was almost unchanged from the previous quarter. Inflation expectations used in calculating the three-year real interest rate are derived from the forecasts generated by various different SNB models. The low level of real interest rates will probably help to stimulate domestic demand.

Chart 3.6
Term spreads



Sources: SNB, Thomson Financial Datastream

Chart 3.7
Estimated real interest rate



Source: SNB

3.2 Exchange rates

Appreciation of Swiss franc with considerable volatility

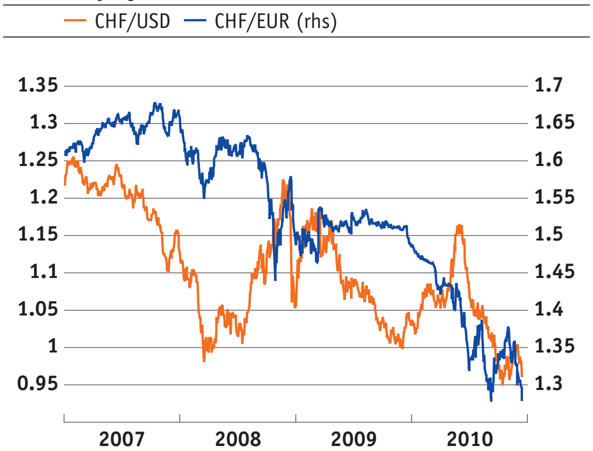
Exchange rates remained very volatile. In the three months following the monetary policy assessment of September 2010, the Swiss franc appreciated by 5% against the US dollar. The US currency weakened initially in anticipation of further quantitative easing by the Federal Reserve and the higher inflation associated with such a policy. Subsequently, the publication of economic data that were better than expected provided support for the US dollar. The Swiss franc gained 2.0% against the euro (cf. chart 3.8). The uncertainties with regard to these movements in the exchange rate were considerable, since there were two contrary factors which roughly balanced each other out. While signs of continued economic recovery in Europe supported the euro, fears of possible financial bottlenecks in individual peripheral euro countries put pressure on it. In a longer-term comparison, the Swiss franc was 12% above its 2009 average value against the US dollar in mid-December and about 16% above this average value for the euro.

Monetary Conditions Index somewhat more restrictive

The exchange rate momentum described above was reflected in a slightly more restrictive Monetary Conditions Index (cf. chart 3.9).[3] The nominal trade-weighted external value of the Swiss franc in mid-December was slightly higher than at the monetary policy assessment of September 2010, and the three-month Libor was practically unchanged.

Chart 3.8
Exchange rates

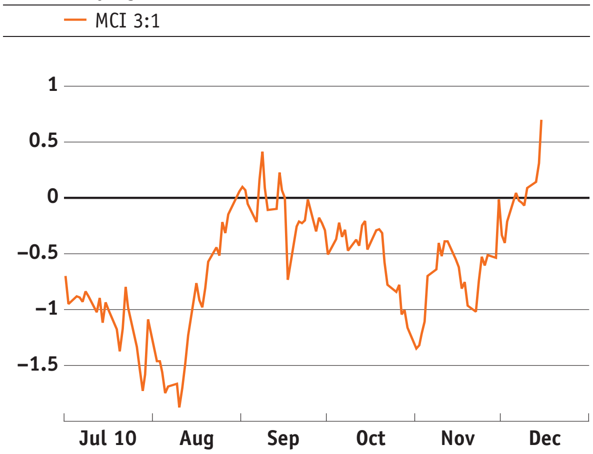
Daily figures



Source: SNB

Chart 3.9
MCI nominal

Daily figures



Source: SNB

3 The Monetary Conditions Index (MCI) is based on the three-month Libor and the nominal trade-weighted external value of the Swiss franc, and is a measure of the restrictiveness of monetary policy. The MCI is reset to zero immediately after each monetary policy assessment. A positive value (negative value) thus signifies a tightening (loosening) of monetary conditions. For additional information on the calculation of the MCI, cf. box 'The Monetary Conditions Index (MCI)', *Quarterly Bulletin* 1/2004, p. 27.

3.3 Equity, commodity and real estate prices

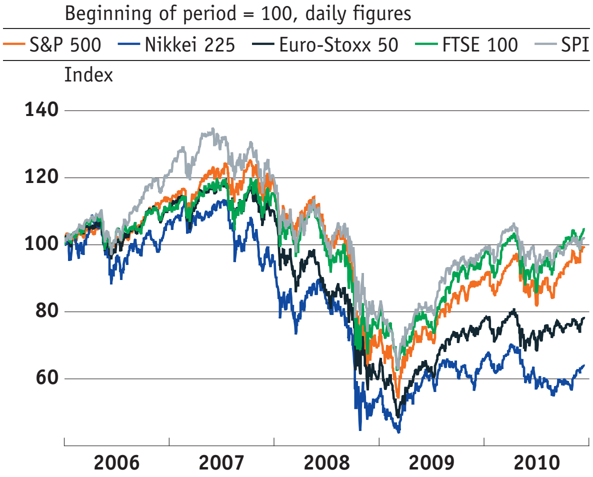
Price rises in share markets while uncertainty persists

Prices on international share markets benefited from the fact that macroeconomic data were largely favourable, as well as from the positive corporate results overall in the third quarter and the expectation of further quantitative easing measures in the US. The S&P 500 in the US was up by 10%. The Swiss Performance Index (SPI) and the Euro-Stoxx 50 both increased by 3%.

However, uncertainty on international share markets persisted. A measure of uncertainty is the Chicago Board Options Exchange Volatility Index (VIX) which shows expected volatility for the coming 30 days. Between mid-September and mid-December, this indicator fluctuated slightly above the historical average (cf. chart 3.12). On the positive side, investor uncertainty in the US declined following the elections to Congress on 2 November 2010 and the Federal Reserve's announcement of further quantitative easing measures. However, the return of tensions in the peripheral euro countries from early November resulted in greater price fluctuations for European shares.

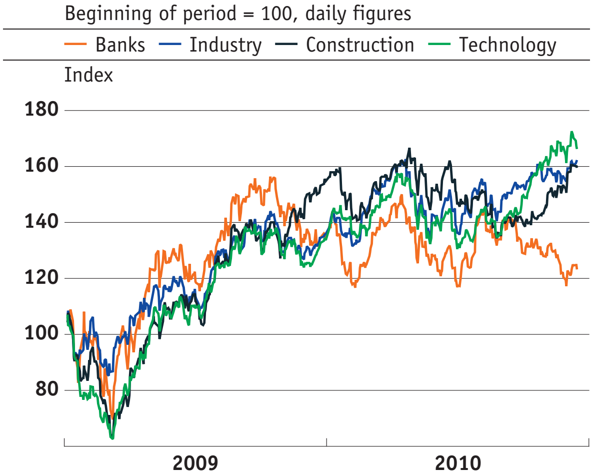
Share prices moved differently depending on the sector and industry. In Switzerland, the SPI bank index recorded a 12% decline. Renewed tensions on the financial markets resulting from concerns about stability in the euro area are likely to have played a role here. By contrast, shares in construction companies rose by 15%, a sign of the continued strong momentum in the real estate market.

Chart 3.10
Share prices



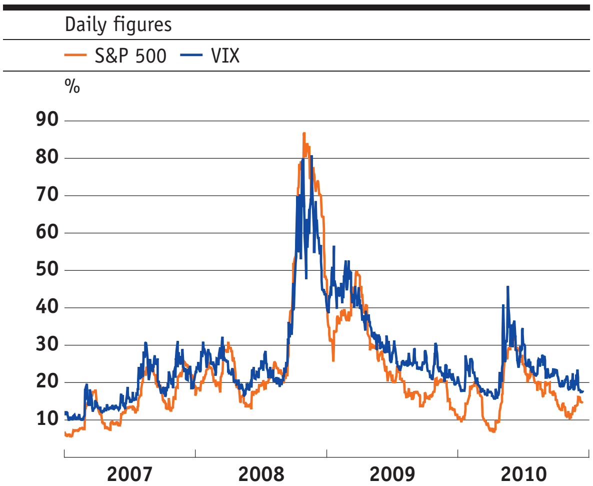
Sources: Bloomberg, Thomson Financial Datastream

Chart 3.11
Selected SPI sectors



Source: Thomson Financial Datastream

Chart 3.12
Volatility of equity returns



Sources: SNB, Thomson Financial Datastream

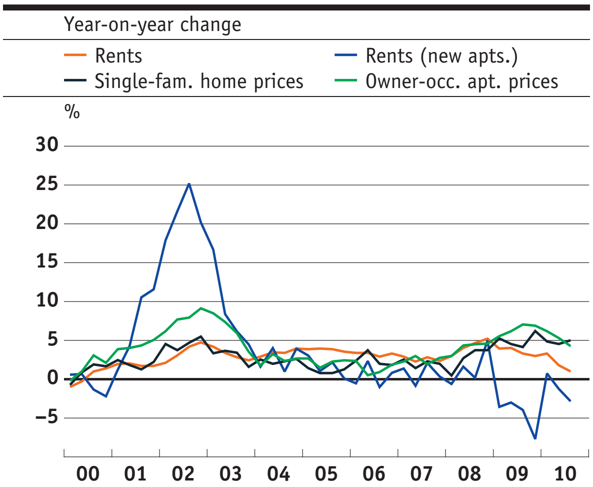
Vigorous increase in commodity prices

In the fourth quarter of 2010, commodity prices continued their recent upward trend until 10 November, when a counter movement took hold. As usual, these developments were closely related to the US dollar exchange rate, since commodities are mainly traded in US dollars. Prices were also pushed up by strong demand, particularly for industrial metals such as copper, which rose to a record price. Weather-related harvest losses and export restrictions by producer countries resulted in strong price surges for cereals. The market prices for oil and energy also shot up initially. Precious metals traded higher, too. The price of gold rose from USD 1,260 per ounce in mid-September to over USD 1,400 in November. This could be an indication of – *inter alia* – rising inflation expectations and increased uncertainty.

Higher prices for real estate

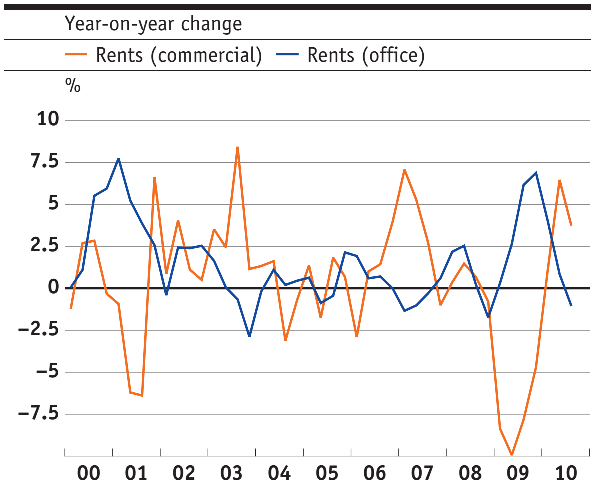
Year-on-year, advertised apartment rents rose by 1.0% in the third quarter. Offer prices for single-family homes were up by 5.0% and for owner-occupied apartments by 4.3% over the previous year. Since it would appear that the current price level for residential property can be largely explained on the basis of fundamental factors, this development is probably not yet alarming overall. However, certain local signs of overheating can be detected. Moreover, the historically low level of interest rates, combined with greater competition on the mortgage market, provides scope for possible excesses on the real estate market.

Chart 3.13
Nominal real estate prices and rents



Source: Wüest & Partner

Chart 3.14
Nominal commercial and office rents



Source: Wüest & Partner

3.4 Monetary aggregates

Monetary base persists at high level

By historical standards, the money multiplier – which is the ratio of the broad M3 monetary aggregate to the monetary base M0 – is still at a low level (cf. chart 3.15). Recently, however, it has increased significantly. This is attributable, on the one hand, to the absorption of liquidity by the SNB, and, on the other, to a further expansion in the broad monetary aggregates.

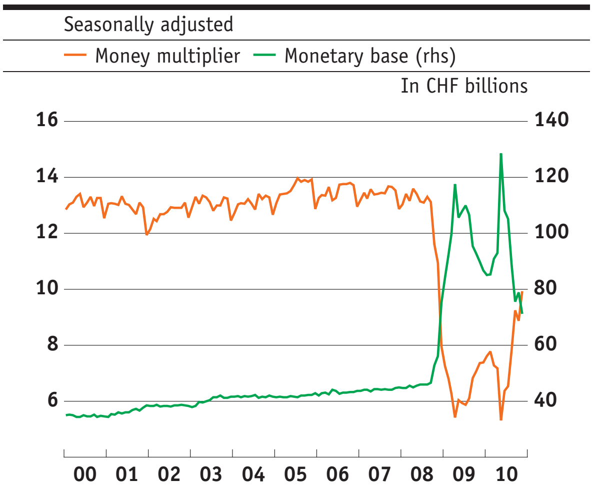
The money multiplier expresses the extent to which, on the basis of the liquid funds available to them, banks are able to multiply the amount of money available to the general public through lending. Since the financial crisis, the monetary base, which consists of banks' sight deposits at the SNB and the banknotes in circulation, has increased sharply, due to banks holding greater supplies of liquidity for precautionary reasons. This is reflected in a substantial decline in the money multiplier, which has been at a low level for nearly two years now. Before the crisis, the ratio of the monetary base to the more broadly defined monetary aggregates was very stable, as shown by the movement in the money multiplier.

Expansion of broad monetary aggregates

The broad monetary aggregates (M1, M2 and M3) recently exceeded their trend levels (cf. chart 3.16). They are now well above trend and have risen further along with the low long-term rates of interest. In November 2010, M1 (banknotes in circulation, sight deposits and transaction accounts) was 9.5% and M2 (M1 plus savings deposits) 8.7% above the previous year's levels. M3 (M2 plus time deposits), which is typically less volatile than the other aggregates, expanded by 6.4% (cf. table 3.1).

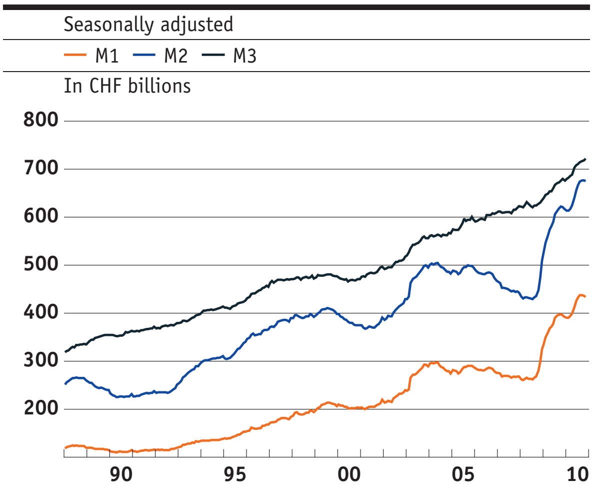
Following strong growth, especially in 2003, both M1 and M2 declined. As of autumn 2007, these aggregates stabilised, in line with relatively constant interest rates. Then, with the lowering of interest rates from the end of 2008, M1 and M2 again began to grow vigorously. The strong growth of the broader monetary aggregates represents a potential risk for long-term price stability.

Chart 3.15
M3 money multiplier



Source: SNB

Chart 3.16
Monetary aggregates



Source: SNB

Increasing inflationary pressure in the long term

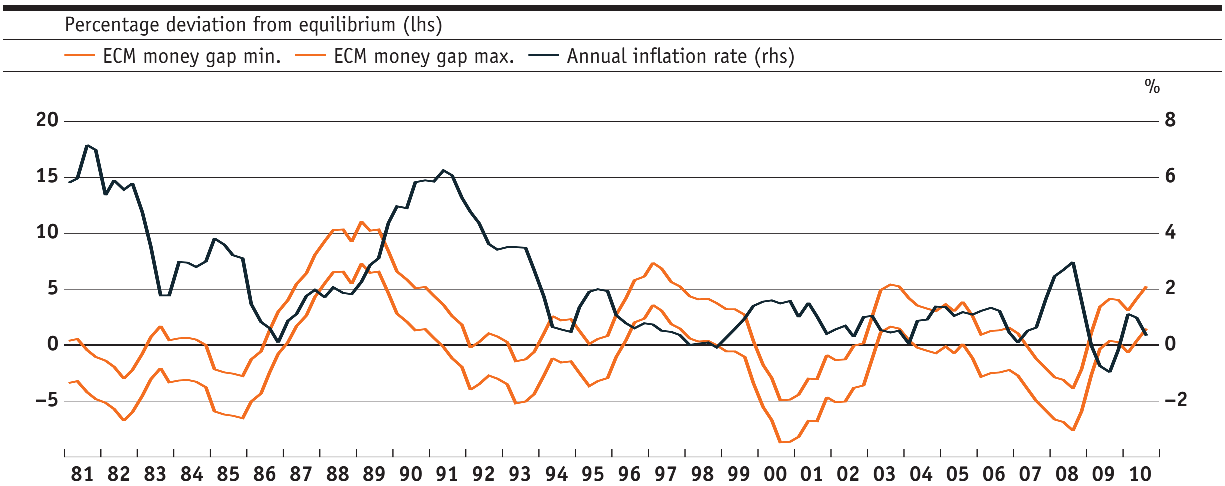
The money gap indicator (cf. chart 3.17) has been in the positive range as of late, which also indicates increasing inflationary pressure in the long term. The money gap is the percentage deviation of the M3 aggregate from an equilibrium value, which is calculated on the basis of the transaction volume in the economy and the opportunity cost of holding money.[4] This indicator can be used to assess potential inflation or deflation risks resulting from an excessive or insufficient supply of liquidity to the economy. Chart 3.17 shows the money gap in the form of a range that spans one standard deviation, thereby taking account of statistical uncertainty.

Monetary aggregates[1] Table 3.1

	2008	2009	2009		2010			2010		
			Q3	Q4	Q1	Q2	Q3	September	October	November
Monetary base[2]	**49.6**	**99.1**	**103.0**	**90.1**	**87.9**	**109.8**	**88.8**	**74.3**	**78.0**	**70.6**
Change[3]	*12.1*	*99.9*	*127.4*	*46.1*	*–5.4*	*–0.4*	*–13.8*	*–21.3*	*–15.2*	*–21.0*
M1[2]	**273.1**	**377.2**	**383.0**	**395.2**	**399.6**	**415.3**	**422.6**	**423.6**	**427.5**	**436.0**
Change[3]	*1.5*	*38.1*	*48.2*	*30.8*	*12.5*	*10.6*	*10.3*	*10.0*	*9.4*	*9.5*
M2[2]	**443.1**	**589.3**	**599.0**	**617.2**	**626.4**	**645.8**	**656.7**	**658.6**	**663.7**	**673.7**
Change[3]	*–1.6*	*33.0*	*41.4*	*29.7*	*12.9*	*10.2*	*9.6*	*9.3*	*8.6*	*8.7*
M3[2]	**626.0**	**662.0**	**664.6**	**677.2**	**685.8**	**702.3**	**708.0**	**709.7**	**715.2**	**723.8**
Change[3]	*2.2*	*5.8*	*7.5*	*7.3*	*5.8*	*6.8*	*6.5*	*6.7*	*6.3*	*6.4*

1 1995 definition
2 Level in CHF billions
3 Year-on-year change in percent
Source: SNB

Chart 3.17
Money gap and annual inflation rate



Source: SNB

4 Cf. box 'Money supply growth and inflation', *Quarterly Bulletin* 1/2005, p. 33.

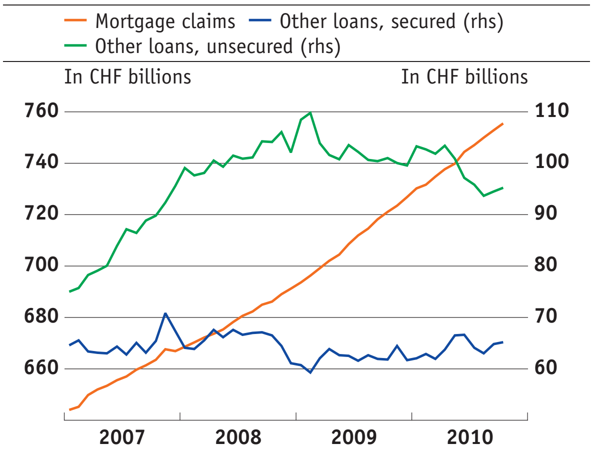
3.5 Credit

Strong credit growth continues

The pace of credit growth slowed in the third quarter of 2010 for the first time in a year. Year-on-year growth amounted to 3.5%, compared to 4.2% in the second quarter. This slowdown is mainly attributable to other loans i.e. loans not secured by mortgages. These declined again in the third quarter of 2010, after a slight increase in the preceding quarter. A breakdown into secured and unsecured other loans shows that the pace of growth for secured loans slowed, while that of unsecured loans decreased substantially. The unsecured loans, which exhibit a strongly cyclical behaviour, point to an impending slowdown in economic activity. Mortgage claims, which account for around four-fifths of all bank lending, continued to grow strongly at 4.9%. The low interest rate environment has provided a massive stimulus to mortgage lending (cf. chart 3.19). Since the lowering of the three-month Libor in October 2008, the growth rate of mortgage claims has increased from 3.4% to more than 5% in the first quarter of 2010. Since then, it has stabilised at a high level.

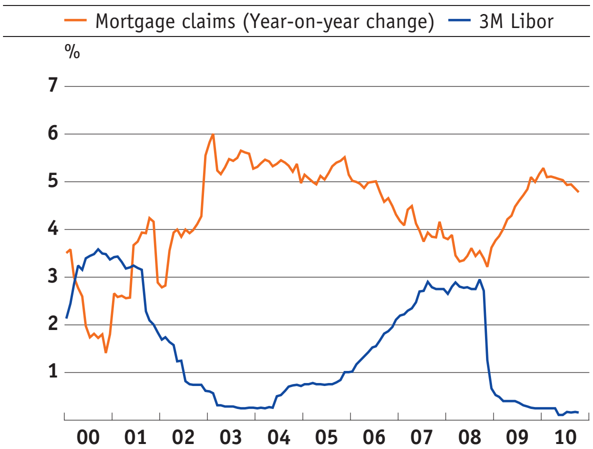
Due to the strong appreciation of the Swiss franc, the effective growth in lending shown here is even somewhat underestimated. Because the banks' monthly balance sheets are shown in Swiss francs, an appreciation of the Swiss franc results in a decrease in loan volumes denominated in foreign currencies. If this exchange rate effect is taken into account, then total growth in lending is around 0.2% higher.

Chart 3.18
Mortgage claims and other loans



Source: SNB

Chart 3.19
Mortgage claims and 3M Libor



Sources: Reuters, SNB

Bank loans

Year-on-year change in percent

Table 3.2

	2008	2009	2009		2010			2010		
			Q3	Q4	Q1	Q2	Q3	August	September	October
Total[1]	**5.7**	**3.4**	**3.0**	**3.3**	**3.6**	**4.2**	**3.5**	**3.3**	**3.6**	**3.6**
Mortgage claims[1]	3.5	4.5	4.7	5.0	5.2	5.1	4.9	4.9	4.9	4.8
of which households[2]	3.3	4.7	5.0	5.4	5.3	4.9	4.7	4.8	4.7	4.7
of which private companies[2]	3.8	5.8	6.5	6.1	5.7	5.3	5.1	5.3	5.0	4.4
Other loans[1]	14.8	–0.7	–3.1	–3.1	–2.1	0.7	–2.8	–4.0	–1.9	–1.5
of which secured[1]	1.2	–5.4	–7.2	–2.1	2.7	4.2	3.1	0.7	4.6	5.4
of which unsecured[1]	24.2	2.0	–0.8	–3.8	–4.4	–1.4	–6.4	–7.0	–5.9	–5.7
of which in CHF[1]	20.3	1.5	0.4	–1.7	–3.7	–2.1	–2.9	–4.1	–2.6	–2.8
of which in other currencies[1]	–1.8	–10.0	–16.5	–9.8	3.9	10.4	–2.2	–3.9	0.6	3.1

1 Monthly balance sheets
2 Credit volume statistics
Source: SNB

The growth rates presented here may deviate from those published in the *Monthly Bulletin of Banking Statistics*. There may be breaks in the credit series published in the *Monthly Bulletin of Banking Statistics*. For the purposes of analysis, they are adjusted here.

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 path 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 effects also have a major influence 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 assumptions 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 September 2010 forecast.

Moderate recovery in global economy

The global economic recovery is continuing. Owing to the lingering consequences of the financial and real estate crisis, recovery in the industrialised countries is expected to be moderate in historical terms. For the US, the SNB continues to expect GDP growth rates of 2.8% for 2010 and 2.6% for 2011. Estimated growth in Europe for 2010 is also more or less unchanged, at 1.8%, although for 2011 and 2012 the SNB has reduced its growth forecast to 1.8% and 2.4% respectively. The inflation forecasts for the US and Europe remain moderate. In the US, the November announcement of a second round in the programme of asset purchases is likely to have further delayed the normalisation of monetary policy.

The scenario for the global economy is based on two technical assumptions. First, for oil a price of USD 84 per barrel is assumed in the short term, and USD 83 per barrel thereafter. Second, the US dollar/euro exchange rate is set to 1.40 USD/EUR, to take the appreciation of the euro into account.

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

December 2010	2010	2011	2012
GDP US[1]	2.8	2.6	3.5
GDP EU15[1]	1.8	1.8	2.4

	Short term	Long term
Exchange rate USD/EUR[2]	1.4	1.4
Oil price in USD/barrel[2]	84	83
Oil price in CHF/barrel[3]	84	83

September 2010	2010	2011	2012
GDP US[1]	2.7	2.5	3.5
GDP EU15[1]	1.7	2.2	2.9

	Short term	Long term
Exchange rate USD/EUR[2]	1.3	1.3
Oil price in USD/barrel[2]	74	83
Oil price in CHF/barrel[4]	74	83

1 Change in percent
2 Level
3 Level, exchange rate on 16 December 2010
4 Level, exchange rate on 16 September 2010
Source: SNB

4.2 Inflation forecast and monetary policy decision

Following its quarterly monetary policy assessment, the Swiss National Bank (SNB) announced that it would maintain its expansionary monetary policy. It is leaving the target range for the three-month Libor unchanged at 0.00–0.75%, and intends to keep the Libor within the lower part of the target range at around 0.25%.

The global economic recovery is continuing. While the growth dynamic in emerging economies is vigorous, the recovery in the industrialised economies remains modest overall. Growth in Switzerland was robust in the third quarter of 2010, but the weakening of exports, in particular, points to a significant reduction in growth in the quarters ahead. The SNB expects GDP to grow by some 1.5% in 2011, following growth of about 2.5% in the current year.

Monetary policy operates in an environment of heightened uncertainty. Concerns about stability in the euro area have led to renewed financial market tensions. Against this backdrop, the Swiss franc has again appreciated. Should these tensions be exacerbated and put a strain on economic developments in the euro area, this would also have a detrimental effect on the Swiss economy. If a deflation threat emerges, the SNB would take the measures necessary to ensure price stability.

The SNB's conditional inflation forecast for 2012 and 2013 is slightly below the September forecast. This correction is the result, in particular, of the less favourable economic outlook for Europe compared with the last assessment. For 2011 it is marginally higher, due mainly to a higher price for oil. Assuming an unchanged three-month Libor of 0.25%, average inflation for 2010 is expected to amount to 0.7%, for 2011 to 0.4% and for 2012 to 1.0%. The conditional inflation forecast shows that there is no threat to price stability in the short term. However, the rising path in 2012 and 2013 shows that the current expansionary monetary policy cannot be maintained over the entire forecast horizon without compromising long-term price stability. The inflation forecast is still associated with a very high level of uncertainty.

The introductory remarks by SNB Chairman Philipp Hildebrand delivered on the occasion of the media conference on 16 December 2010 continue as follows:

Global economic outlook

Overall, the recovery in the global economy continued, encouraged by expansionary economic policies and vigorous economic activity in the emerging economies. In the euro area, however, growth slowed markedly in the third quarter. The favourable developments in Germany's economy differ from those in the peripheral countries of the euro area, with their weak growth. The recent financial market turmoil is likely to hamper activity in the euro area. Although domestic demand is gradually firming up in the US, the momentum is insufficient for a sustainable reduction in unemployment, which remains high. In addition, construction investment is suffering from the situation on the real estate market. Consequently, GDP growth in the US will remain modest. The vigorous economic momentum in the emerging economies is likely to provide positive stimulus for global growth in the future.

The SNB has made slight downward revisions to its growth forecasts for the global economy, mainly for Europe in 2011 and 2012. Uncertainty with regard to global economic developments remains very considerable and the risks are still to the downside.

Swiss economic outlook

Growth of the Swiss economy remained robust in the third quarter. Consequently, utilisation of production factors increased. Technical capacity utilisation has returned to a normal level in manufacturing, while in the construction industry it is in fact considerably higher than the long-term average. Employment also increased moderately and unemployment declined further. However, the indications of a significant slowdown in growth increased. Goods exports stagnated from June to October, mainly due to weaker demand from Europe. Exports of services declined most recently.

Inflation, as measured by the national consumer price index, fell to 0.2% in November. The decrease over recent months is mainly attributable to the fall in the prices of imported consumer goods. Accordingly, the core inflation indices calculated by the SNB were somewhat higher, and have remained steady since the last monetary policy assessment.

For the coming months, the SNB expects economic growth to continue. However, it is likely to be significantly lower in the quarters ahead – a development attributable to both the generally subdued economic activity in the industrialised countries and the appreciation of the Swiss franc. Consequently, the SNB expects GDP to grow by some 1.5% in 2011, following growth of about 2.5% in the current year.

Monetary and financial conditions

Monetary and financial conditions in Switzerland are shaped by the expansionary monetary policy. Since mid-September, the three-month Libor has remained fairly constant within the lower part of the target range. Yields on high-quality Swiss bonds remain at a low level, despite the latest increase. This also applies to long-term real interest rates, which are ultimately decisive in investment and consumption decisions. Historically low interest rates for corporate loans and mortgages also create conditions which stimulate domestic final demand.

Concerns about stability in the euro area have led to renewed financial market tensions. Against this background, the Swiss franc has again appreciated. As shown in the survey carried out by the delegates of the SNB regional contact network, business activities of numerous companies are hampered by this development. An aggravation of the crisis in the euro area would inevitably have further negative consequences for the Swiss economy.

Liquidity-absorbing operations have continued since the monetary policy assessment of September 2010. As a result, bank sight deposits with the SNB have fallen further. Nevertheless, the monetary base is still significantly higher than its level prior to the financial crisis. The broader monetary aggregates have continued to expand strongly since the last assessment, and pose a potential threat to long-term price stability.

In view of the expansionary monetary conditions, lending business remained brisk. According to the SNB survey on bank lending, banks maintained their lending standards for companies and households in the third quarter of 2010. Several banks reported that household demand for mortgages increased again. This is reflected in the continued high growth rate of mortgage volume. Moreover, real estate prices continue to rise. The situation on the mortgage and real estate markets still requires the full attention of the SNB.

Impact of foreign exchange market interventions on the SNB balance sheet

Since the beginning of the financial crisis, the SNB balance sheet has lengthened considerably and its composition has changed, in particular due to the SNB's foreign exchange market interventions. Since the beginning of 2010, the balance sheet total has increased from CHF 207 billion to some CHF 280 billion. Moreover, the significant appreciation in the Swiss franc has resulted in considerable exchange rate losses on the SNB's foreign currency investments.

After the beginning of the financial crisis, the SNB lowered money market interest rates to virtually zero. Despite these decisive reductions in interest rates, the Swiss economy faced the threat of deflation from March 2009 onwards. This required the SNB, as part of its mandate, to undertake a further monetary policy easing. In view of the limited size of the domestic capital market compared to other countries, foreign currency purchases seemed the most appropriate course of action for Switzerland. This allowed for the absorption of extreme exchange rate developments, which could have triggered a deflationary dynamic. In absorbing the upward pressure on the Swiss franc, the SNB may have taken on a higher balance sheet risk, however, in doing so, it countered the risk of a deflationary trend.

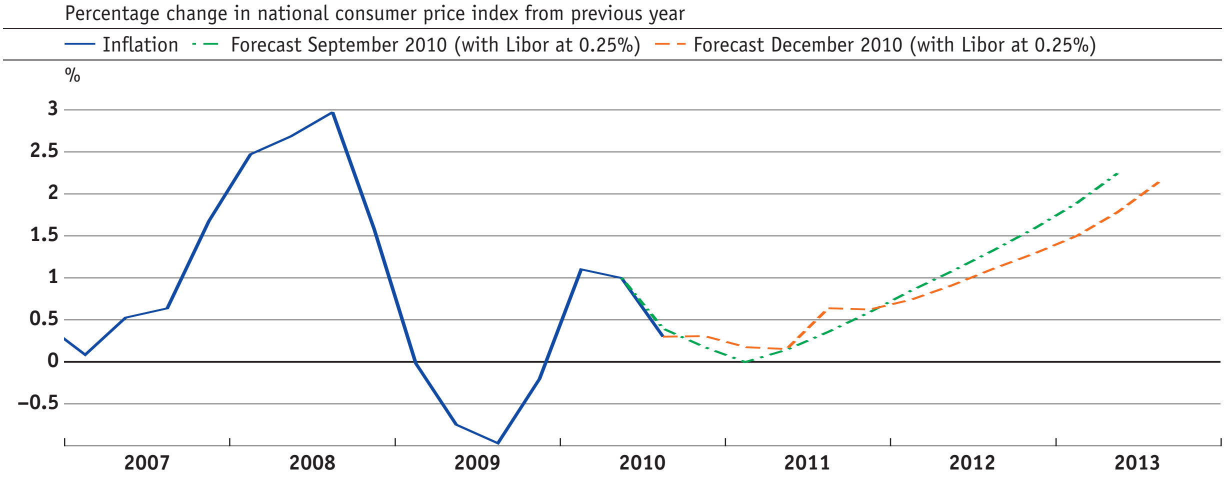
Although the Swiss franc has appreciated sharply since the beginning of the year, the deflation threat has declined as the economic recovery has strengthened. The appreciation of the Swiss franc has impaired the competitive position of Swiss exporters. However, the negative impact on export demand has been reduced by robust economic growth in the economies importing Switzerland's goods and services.

Chart of conditional inflation forecast

The (dashed) red curve on the chart represents the new, conditional inflation forecast. It shows the future path of inflation, assuming that the three-month Libor remains constant at 0.25% over the entire forecast horizon, and it covers the period from the fourth quarter of 2010 to the third quarter of 2013. For purposes of comparison, the (dash-dotted) green curve shows the inflation forecast published in September, which was also based on the assumption of a three-month Libor of 0.25%.

The new conditional forecast shows that inflation remains low for 2011 and 2012. The forecast for the next few quarters is revised because new data has been taken into account. The new forecast for 2011 is slightly above that published in September because the oil price has increased. The increase in inflation in the third quarter of 2011 is attributable to a base effect, because inflation in the third quarter of 2010 was comparatively low. Compared to the forecast published in September, inflation in 2012 and 2013 rises less steeply, particularly due to the fact that the economic outlook for Europe is less favourable than in the previous quarter. Towards the end of the forecast horizon, inflation rises briskly and exceeds the upper bound of 2%, assuming that the three-month Libor remains at the current level. This shows that the current expansionary monetary policy cannot be pursued for the entire forecast horizon without compromising long-term price stability. Due to the risks mentioned previously, this forecast is associated with a very high level of uncertainty.

Chart 4.1
Conditional inflation forecast of September 2010 and of December 2010



Source: SNB

Observed inflation in December 2010

Table 4.2

	2007				2008				2009				2010				2007	2008	2009
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Inflation	0.09	0.52	0.63	1.68	2.47	2.68	2.97	1.58	−0.02	−0.75	−0.97	−0.20	1.10	1.00	0.30		0.7	2.4	−0.5

Conditional inflation forecast of September 2010 with Libor at 0.25% and of December 2010 with Libor at 0.25%

	2010				2011				2012				2013				2010	2011	2012
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Forecast September 2010, Libor at 0.25%			0.40	0.18	0.00	0.15	0.36	0.59	0.84	1.08	1.33	1.60	1.89	2.25			0.7	0.3	1.2
Forecast December 2010, Libor at 0.25%				0.30	0.17	0.15	0.64	0.63	0.74	0.91	1.11	1.30	1.50	1.78	2.14		0.7	0.4	1.0

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 December 2010

Fourth quarter of 2010

The SNB's delegates for regional economic relations are constantly in touch with a large number of enterprises from different industries and economic sectors. Their reports, which contain subjective evaluations by these companies, are a valuable source of information for assessing the economic situation. The following pages contain a summary of the most important results of the talks held in October and November 2010 with some 244 company representatives on the current and future economic situation. The selection of companies is made according to a model that reflects Switzerland's production structure. The companies selected differ from one quarter to the next. The reference parameter is GDP excluding agriculture and public services.

Summary

The favourable economic trend continued in the fourth quarter, albeit with slightly less momentum. Compared to the previous year, the recovery – as in recent quarters – was most evident in manufacturing. The construction industry and the services sector also registered broad-based growth, although at a somewhat lower rate than before. Demand for labour continued to recover. Companies were somewhat less hesitant about expanding their workforces than in the third quarter.

As a result of the observed developments in demand, industry representatives are looking to the immediate future with confidence. Expectations for the coming months point to positive turnover growth in manufacturing, construction and services, though with a certain slackening in momentum, particularly in the construction and, to a lesser extent, the service industry. Technical production capacity in the Swiss economy has now attained normal to good levels in nearly all fields.

Despite the favourable developments in business activity, however, there are lingering concerns over the sustainability of the international economic recovery. On the one hand, the state of public finances at global level and the potential impact on financial and foreign exchange markets, as well as on aggregate demand in the affected countries, have been a source of uncertainty. On the other hand, a number of representatives feel that the highly expansionary monetary policies still being pursued worldwide harbour inflation risks, giving rise to fears of sudden interest rate hikes.

As in the third quarter, reactions to the appreciation of the Swiss franc vary considerably from one industry to another. Overall, however, businesses are now under distinctly greater pressure (cf. also 'Exchange rate survey: Effects of Swiss franc appreciation and company reactions', pp. 50 et seq.).

1 Business activity

Manufacturing

In the fourth quarter, the economic situation in manufacturing again improved noticeably, both year-on-year and quarter-on-quarter, though the momentum has slowed somewhat compared to the previous quarter. Turnover in real terms rose markedly against the previous year, with only a few companies posting turnover figures below last year's level. Metal processing, mechanical engineering and watchmaking, as well as textile and clothing all made an above-average recovery within the last year. The food, chemical and pharmaceutical industries developed favourably, too.

Domestic demand continued to be an important source of support. Demand from emerging markets in Asia, but also in South America, remained exceptionally vigorous. However, additional new demand also came from the US and the euro area, in particular from Germany. Various industries benefited, directly or indirectly, from strong demand on the part of the European automotive industry.

Stocks of finished industrial products were scaled down somewhat. In the previous quarter, they had still been regarded as slightly too high, this time they were considered to be on the low side. Thus, future demand stimuli will probably continue to result in increased production.

Construction

The momentum in the construction industry remained exceptionally strong despite a slight slowdown. Turnover levels in the fourth quarter were up both year-on-year and quarter-on-quarter, although the increase was less steep than in the third quarter. The main boost came from residential construction, but the finishing sector also made a considerable contribution. Customers are now predominantly concerned with when work can begin, construction companies for their part increasingly focus on margins when deciding whether or not to accept a project. No end to the positive overall tendency is currently in sight. However, companies' assessments of current and future turnover trends is somewhat less euphoric than in the previous quarter.

In the fourth quarter, several respondents again expressed concern about the increasing real estate market risks inherent in the ongoing low interest rate policy and the strong demand for mortgages that it engenders. They do not discern any sign of a bubble, but prices for land and buildings are deemed to be unrealistic in a growing number of regions.

Services

As in the quarters before, turnover in the services industry developed favourably and exceeded the levels of both the previous year and the previous quarter. However, compared with the third quarter, the assessments were somewhat less positive. Logistics and transport companies, travel agents, recruitment firms and IT companies recorded the strongest momentum, with turnovers rising very markedly in comparison with the third quarter. The hotel industry – buttressed by tourists and business travellers from Asia – as well as engineering and consultancy firms continued to register robust turnover growth. Developments in the financial services industry again proved highly heterogeneous, but turnover was up overall both year-on-year and quarter-on-quarter. The weakness of the euro remained noticeable in the retail trade, especially in the border regions, with a distinct amount of custom lost to the neighbouring countries.

2 Capacity utilisation

The degree of technical capacity utilisation has continued to improve overall since the third quarter. Manufacturing registered a clear improvement, services a slight upturn. Capacity utilisation remains highest in the construction industry. Building construction in particular and civil engineering to a lesser extent registered high utilisation levels and correspondingly tight resources.

The manufacturing industry reported good utilisation of technical capacity overall, following slight under-utilisation in the third quarter. By contrast, the chemical and pharmaceutical industries, as well as individual equipment manufacturing and mechanical engineering companies, still reported underutilisation. Utilisation levels are good to very good among watchmakers and – most recently – their suppliers, as well as in certain wood processing and textile companies. The food industry reported normal capacity utilisation.

In construction, the level of technical capacity utilisation remains high, albeit not quite as high as in the previous quarter. No companies reported unsatisfactory capacity utilisation. Looking forward, respondents expect a slight relaxation, which would be welcomed by several companies currently working at full throttle.

In the services sector overall, underutilisation of capacity is no longer an issue as normal utilisation has now been reached. Capacity utilisation levels are high in the case of engineering and consultancy firms, software producers, recruitment companies, road transport operators, real estate agencies and real estate management firms. The trade industry reported normal capacity utilisation overall. Underutilisation is in evidence in the hotel and catering industries as well as at fiduciary companies and several banks, despite favourable turnover developments.

3 Demand for labour

In the manufacturing industry, the recovery in business activity continued to go hand in hand with a noticeable revival in the demand for labour. More of the remaining short-time work measures were withdrawn, while some companies took on extra staff on a temporary basis or imposed overtime. Companies also began hiring new staff again, with employment increasing slightly as a consequence. Overall, manufacturing companies considered the level of employment as somewhat on the low side, after it had been roughly in line with requirements in the third quarter. Company representatives from the watchmaking industry and their suppliers, as well as from individual pharmaceutical companies, indicated a shortage of labour. Personnel resources were also tight among wood processing firms. Certain metal production and processing companies, by contrast, deemed their workforces to be on the high side.

Demand for labour continued increasing in the construction industry, although the rise was less steep than in the previous quarter. Some companies resorted to stopgap measures such as employing temporary staff or requiring employees to work overtime in order to cope with the workload. In certain cases, orders were refused owing to capacity bottlenecks.

In the services sector, staff levels were generally considered appropriate to a little too low. A need to hire staff was indicated in particular by IT, logistics, engineering and recruitment firms, whereas fiduciary companies reported a slight employee surplus.

In general, difficulties in finding new staff have increased somewhat. Compared to the previous quarter, recruitment has become more arduous and time-consuming, especially in the manufacturing industry. Finding workers in the construction industry has remained roughly as difficult as before. Transport operators, IT companies and travel agents appear to have more difficulty in recruitment than previously. Well qualified personnel tended to be hard to find across the board. Although the free movement of persons has eased the situation overall, the labour market in certain job sectors appears to have dried up. The retail and wholesale industries, by contrast, are hardly faced with such problems. Representatives said that recruitment had, in fact, become somewhat easier than usual.

Per capita labour costs increased slightly in most business sectors. Compared to the previous quarter, wage pressure increased, especially in the manufacturing industry. Companies in textiles, mechanical engineering and watchmaking were confronted with higher per capita labour costs. As in the previous quarter, wages tended upwards most distinctly in the construction industry. In the services sector, rising labour costs were recorded primarily at IT, transport and engineering firms. A number of companies are planning increases in real wages for 2011, particularly in areas of manufacturing where there is a backlog and the availability of workers on the job market has declined.

4 Prices, margins and earnings situation

Higher production and sales volumes again improved profit margins, as fixed costs were more fully absorbed. However, as in previous quarters, margins in manufacturing were regarded as significantly narrower than normal. In many cases, the only way to increase them is to launch new products. Margins are likely to remain under pressure in the foreseeable future. On the one hand, companies expect purchase prices to trend upwards. On the other hand, it will hardly be possible to raise sale prices in Swiss francs to the same extent, due to strong competition and the exchange rate effect. Nevertheless, manufacturing companies consider the chances of being able to push through sale price increases to be somewhat higher than in the previous quarter. Ultimately, however, this depends very much on specific corporate and market conditions.

In the construction industry, profit margins are judged to be between close to normal and slightly unsatisfactory. Compared to the previous quarter, the appraisal of the situation improved somewhat. Purchase prices (commodities) are expected to be slightly higher than anticipated in the quarter before. Rather more companies now have the impression that they can implement higher sale prices.

Representatives of the services sector, too, regard the level of their profit margins as normal to slightly unsatisfactory. As in the quarter before, the overall result was negatively influenced mostly by the clearly unsatisfactory interest rate margins of banks. Competition in banking remains fierce particularly in mortgage business. Moreover, exchange rate developments are putting a strain on earnings from asset management. Profit margins are also regarded as unsatisfactory by hotel owners, recruitment firms, as well as certain retailers and wholesalers. By contrast, engineering, fiduciary and consultancy firms as well as real estate management companies reported a comfortable margin situation.

5 Impact of Swiss franc appreciation

In the October and November 2010 survey, the exchange rate topic was again raised with companies, as it had been in the previous quarter. When asked specifically about the impact of the appreciation of the Swiss franc on their business, 45% of the companies said they had experienced negative effects overall. This is well above the percentage in the third quarter. 42% of the companies surveyed stated that the appreciation had not affected their business, and 13% reported positive effects. The impact varied considerably from one production industry to another. The survey results are discussed in detail in the section 'Exchange rate survey: Effects of Swiss franc appreciation and company reactions' (pp. 50 et seq.).

6 Outlook

The great majority of manufacturing companies are anticipating growth in real turnover and higher capacity utilisation in the coming six months. The employment outlook for this period is also largely positive, with further staff increases planned. This represents a marked improvement compared to the third quarter outlook. However, looking beyond the next six months, respondents expressed greater reservations regarding the sustainability of the current momentum.

Companies in the construction industry remain largely optimistic, anticipating a further slight growth in turnover, albeit not to the same extent as in the previous quarter. Residential construction companies expect capacity utilisation to remain stable at its current high level; hardly any anticipate a further increase. Several industry representatives expect a decline in capacity utilisation. Employment is likely to stay largely unchanged.

In the services sector, expectations with regard to business activity over the next six months remain favourable. Particularly optimistic appraisals of turnover prospects were evident among travel agencies, recruitment firms, in the IT industry, in wholesale and retail, and in the catering industry. Financial service providers, firms working in real estate, consultancies and fiduciary companies were also confident. Consequently, representatives from the services sector anticipated a slight increase in technical capacity utilisation and in employment.

The most frequently mentioned risks include the uncertainty regarding the sustainability of the global recovery, the risks in connection with the debt situation of European states and banks, further exchange rate movements and the future interest rate situation. Several company representatives again expressed a certain unease about the persistently low interest rate level and the potential risk of inflation.

Investment plans showed a slight upward tendency in the manufacturing industry and services sector; less so, though, than in the third quarter. This applies to both equipment investment and construction investment. The generally higher capital expenditure mainly reflects the need to carry out previously deferred replacement investment, to a lesser extent also the intention to expand existing production capacity. Stagnating investment is expected in the construction industry.

Exchange rate survey
Effects of Swiss franc appreciation and company reactions
SNB regional network

Report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of December 2010

Fourth quarter of 2010
In the economic survey for the fourth quarter, which was carried out in October and November 2010, delegates from the SNB's regional network raised the exchange rate question a second time with companies in a systematic manner, posing questions with the aim of quantifying the effects of the Swiss franc appreciation. A total of 244 companies took part in the survey. The selection of companies is made according to a model that reflects Switzerland's production structure. The companies selected differ from one quarter to the next. The reference parameter is GDP excluding agriculture and public services.

1 Overall result of the survey

Since mid-2007, upward pressure has been exerted on the Swiss franc. The sectors of the economy are very differently affected, as is evident from chart 1. Overall, 45% of respondent companies spoke of negative effects (18% significantly negative and 27% slightly negative). This represents a clear deterioration compared to the results for the previous quarter, when companies with negative effects had accounted for 28% of the total sample.

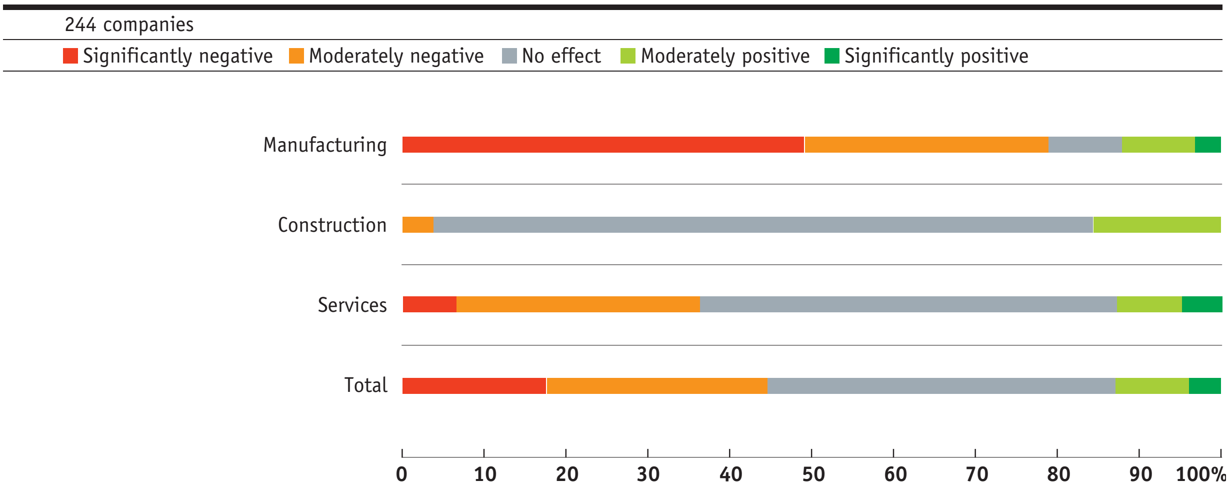
A total of 42% of companies said they had not felt any significant effect on their business activities resulting from the appreciation of the Swiss franc. As can be seen from chart 2, most of these companies have no exchange rate exposure. In addition, hedging strategies or compensatory effects are helping to neutralise the exchange rate effects. Accordingly, the vast majority of these companies are not anticipating any impact in the near future either (cf. chart 3). Positive effects from the appreciation of the Swiss franc were experienced by the remaining 13% of companies included in the survey.

Companies in the manufacturing industry were most frequently negatively affected by the strength of the Swiss franc. Compared to the previous quarter, the negative effects in this industry not only strengthened but also became more widespread. This time, 30% of companies were slightly negatively affected and 49% significantly negatively affected, whereas a total of 61% of manufacturers had recorded negative effects in the third quarter. In the services sector, by contrast, the vast majority of companies (65%) were spared the negative effects of the strength of the Swiss franc. However, in this sector, too, results have worsened somewhat over time. In particular, a larger number of companies were faced with slightly negative effects than had been the case in the third quarter. In the construction industry, the results of the third sector – that the appreciation has had virtually no effect to date – were confirmed. Indeed, some 15% of respondent construction companies registered positive rather than negative effects on their business activity. However, in this respect, mention should be made of the existence of manufacturing companies with construction-related activities that experienced negative effects due to strong competition from abroad. However, these companies are included under manufacturing and therefore do not affect the results for the construction industry.

2 Negative effects – where and how?

Overall, 109 companies reported slightly or significantly negative effects resulting from the appreciation of the Swiss franc. Chart 4 shows the markets where these negative effects were observed and the form they took. As was to be expected, export activities were most strongly affected. A large majority of the companies that were negatively affected found themselves faced with lower profit margins in their foreign sales markets. In most cases this resulted from lower Swiss franc-equivalent prices. A third of companies inter-

Chart 1
Effects of appreciation of Swiss franc, by sector



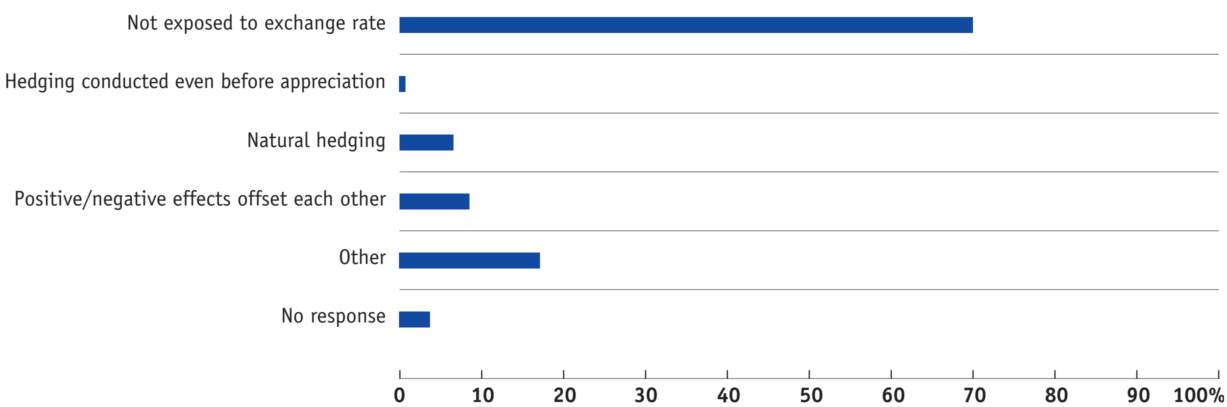
Source: SNB

viewed also recorded losses in sales volume. In addition to the direct effects on the export economy, indirect effects were also indicated (cf. lower third of chart 4). In 10% of cases, these negative effects took the form of lower profit margins or sales volume on the part of export industry supply companies. Companies faced with competition from cheaper imports faced negative effects primarily in the form of lower sales volume.

The industries most heavily impacted by the negative effects of appreciation were the preliminary products industry (manufacture of chemical products and plastics), the metal industry, the capital goods industry (manufacture of electronic products and large segments of the machine industry) and the textiles industry. Of the 22 hotel representatives interviewed, 10 reported negative effects resulting from the appreciation of the Swiss franc (mainly slight). The other 12 hoteliers said that the strength of the Swiss franc had not had any impact on them. The situation varied considerably within the retail industry. In border areas, retailers faced unfavourable developments in cross-border shopping tourism. In other parts of the country, however, the favourable effects of lower purchasing prices prevailed. In wholesaling, too,

Chart 2
Companies not affected: explanations

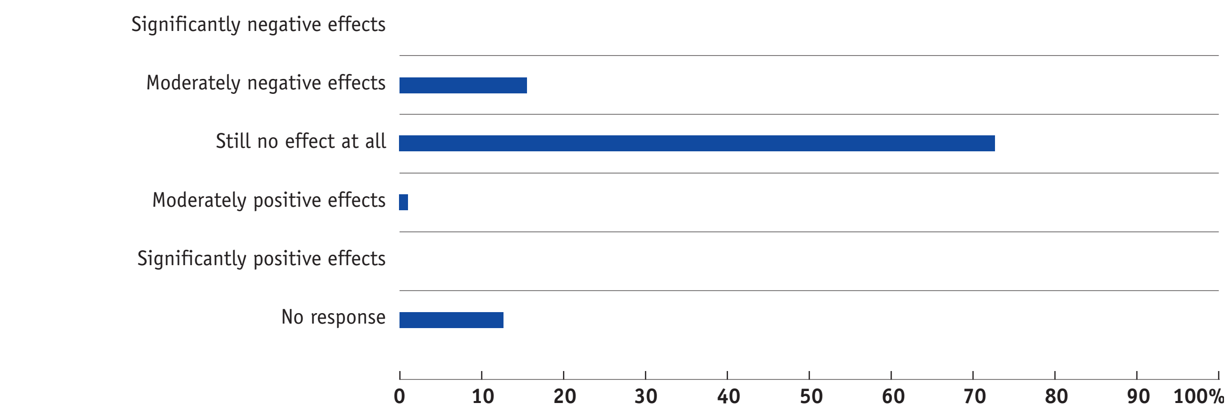
104 companies, multiple answers possible



Source: SNB

Chart 3
Companies not affected: expectations while the exchange rate remains unchanged

104 companies



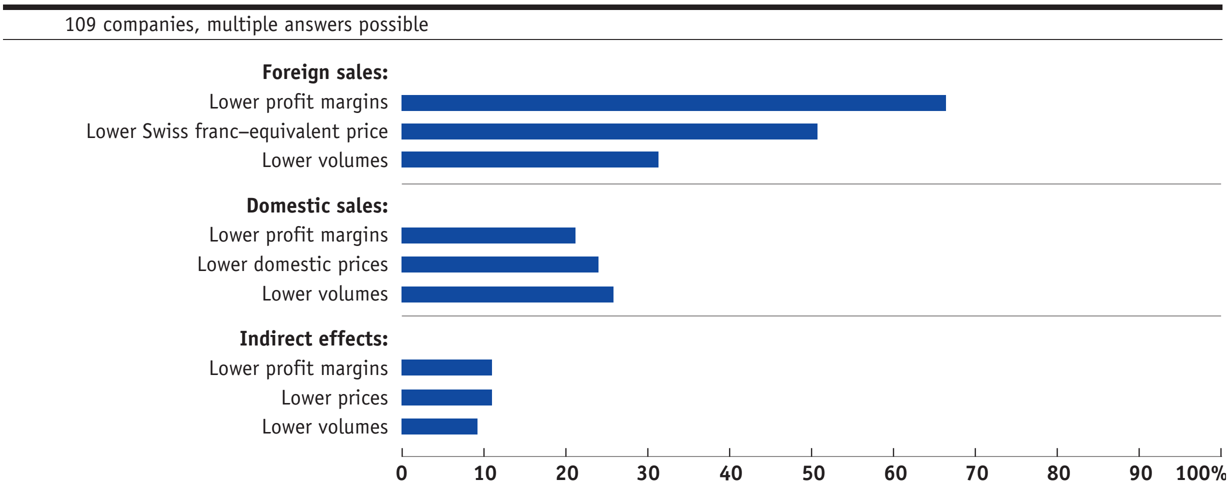
Source: SNB

responses ranged between these two extremes. Responses from bank representatives ranged from neutral to slightly negative. The slightly negative effects can be attributed to two factors – lower fee income due to the lower values of foreign currency custody accounts and losses on banks' own foreign currency positions. However, no impact was reported by most respondents from the transport and insurance industries, as well as fiduciary professionals, employment agencies and the leisure and health industries.

3 Negative effects – how do companies react?

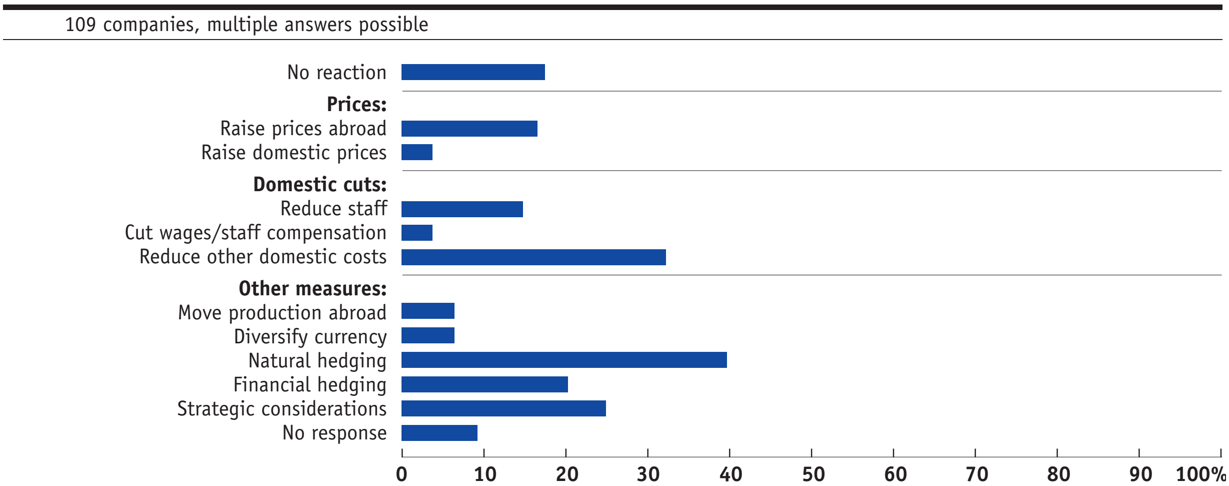
In addition, companies were asked about the measures they had already taken to counter the effects of the appreciation in the currency. Chart 5 shows the spectrum of these reactions. A large majority of companies have taken measures. Only in 20% of the cases could compensatory price increases be implemented. Measures aimed at reducing production costs have been more frequent. Labour costs have been cut mainly by lowering the headcount or by doing without new staff. Much more frequently,

Chart 4
Negatively affected companies: effects of appreciation of Swiss franc



Source: SNB

Chart 5
Negatively affected companies: reactions to appreciation of Swiss franc



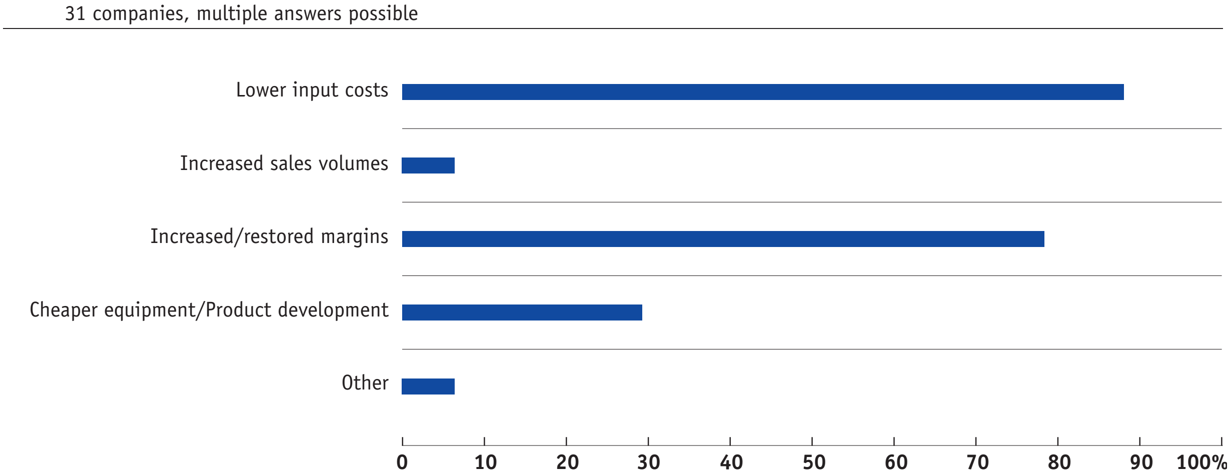
Source: SNB

however, the savings measures have related to the other costs of production. Hedging strategies are very widespread, particularly natural hedging. However, companies are also giving consideration to fundamental strategic questions for the future in connection with the appreciation of the Swiss franc.

4 Positive effects – where and how?

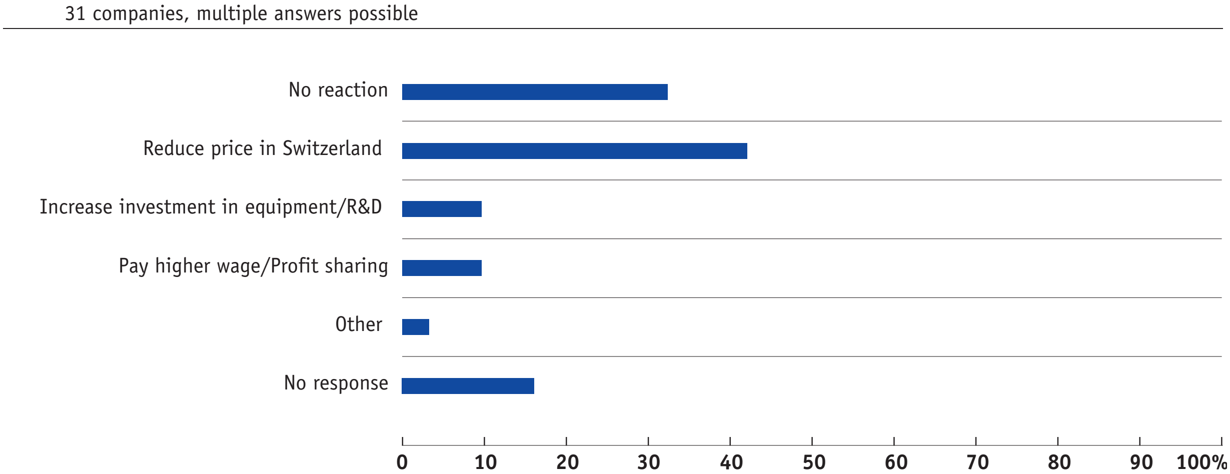
A total of 31 of respondent companies benefited from minimal or even significantly positive effects resulting from the appreciation of the Swiss franc. The majority of the positive effects came in the form of lower input costs and/or improved profit margins, as can be seen in chart 6. In addition, a significant number of company representatives reported more favourable conditions for investment and for research and development. As can be seen in chart 7, this improvement in business conditions will probably lead primarily to an increase in these companies' profits and liquidity, since only 42% of companies that were positively affected by appreciation of the Swiss franc reduced their prices as a reaction to this development.

Chart 6
Positively affected companies: effects of appreciation of Swiss franc



Source: SNB

Chart 7
Positively affected companies: reactions to appreciation of Swiss franc



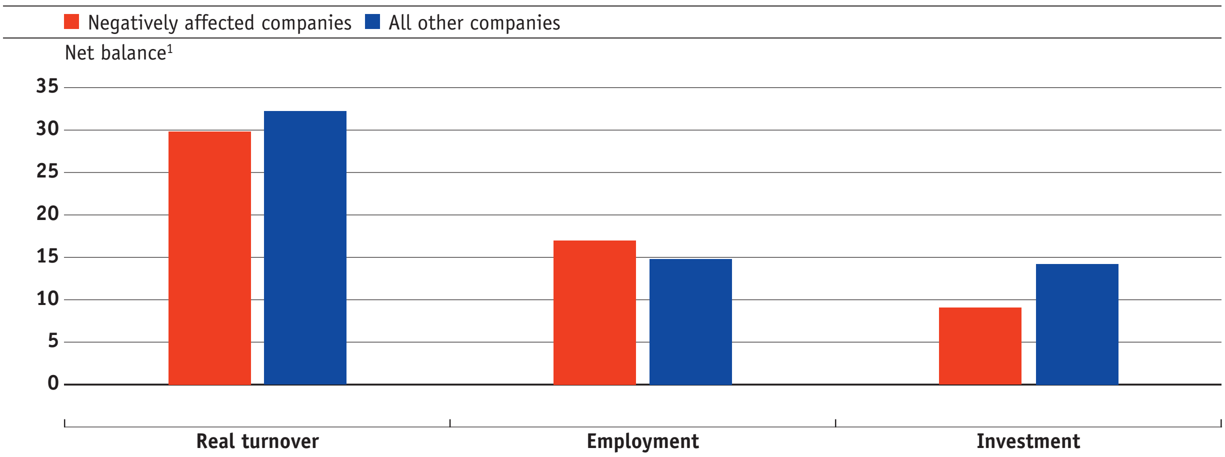
Source: SNB

5 Expectations for the near future remain positive

In the survey, companies were asked about their expectations about real turnover, staff numbers and investment in the coming six/twelve months. Their answers are recorded on a scale ranging from 'significantly higher' to 'significantly lower'. Based on this information, an index is created by subtracting the negative assessments from the positive ones (net assessments). Significantly positive and significantly negative assessments are allotted higher weights than slightly positive or slightly negative assessments. The index is constructed in such a manner that its value can range between +100 and –100. A positive index value reflects positive assessments overall, while a negative value shows negative assessments overall.

The evaluation was conducted for two subgroups – first, companies affected negatively by the appreciation of the Swiss franc, and second, all other companies. On balance, company assessments reveal that they are expecting increasing turnover and rising staff numbers, as can be seen in chart 8. Thus, for instance, the first red column, for the group of companies that have been negatively affected by the appreciation of the Swiss franc, shows that positive assessments (rising turnover expectations) significantly exceed negative assessments (declining turnover expectations). The chart also reflects the fact that expectations with regard to future turnover and staff numbers in the two company groups are not significantly different. However, with regard to investment expenditure, companies negatively affected by appreciation of the Swiss franc appear to be somewhat more cautious than the other companies.

Chart 8
Expectations: turnover, employment and investment



1 Weighted positive estimates of companies minus weighted negative estimates regarding the future development of real turnover, employment and investment. The time horizon amounts to 6 months (for real turnover and employment) or 12 months (for investment).
Source: SNB

SNB Working Papers: Summaries

Consumer heterogeneity and the impact of trade liberalisation: How representative is the representative agent framework?

Raphael Auer
Working Paper 2010-13

This working paper examines the way in which across-country differences in consumer preferences shape the impact of trade liberalisation. A structural model is developed which analyses the gains from trade liberalization. The model comprises the representative agent model as a special case, thus allowing the results of this study to be compared against conventional trade models. The main result of the study is that the impact of trade liberalisation is not affected by the distribution of preferences, and is thus identical to that under the representative agent model. The deciding factor is the way in which the domestic industrial composition adjusts to international trade when countries do not specialise completely.

Limits to arbitrage during the crisis: Funding liquidity constraints and covered interest parity

Tommaso Mancini Griffoli and Angelo Ranaldo
Working Paper 2010-14

Arbitrage normally ensures that covered interest parity (CIP) holds. Until recently, excess profits, if any, were documented to last merely seconds and reach a few pips. Instead, this paper finds that following the Lehman bankruptcy, profits were large, persisted for months and involved short strategies in dollars. These results stem from specifying the arbitrage strategy as an investor actually implements it, considering both unsecured and secured funding. Either way, it seems that dollar funding constraints were primarily responsible for the breakdown of arbitrage. Dollar funding was rationed due to deleveraging imperatives, prudential hoarding, as well as limited capital to pledge in exchange for liquid funds. This is explored in an empirical analysis drawing on several novel, high frequency datasets of synchronous quotes across securities, including transaction costs. In the end, monetary policy reactions, in particular the set-up of swap lines, seem to have been effective in restoring CIP arbitrage.

Monetary policy response to oil price shocks

Jean-Marc Natal
Working Paper 2010-15

How should monetary authorities react to an oil price shock? The optimal response according to New Keynesian literature is to ensure perfect price stability. Yet the contrast between theory and practice is striking: Inflation-targeting central banks typically favour a longer-run approach to price stability. The first contribution of this paper is to show that because oil cost shares vary with oil prices, policies that perfectly stabilise prices entail large welfare costs, which explains the reluctance of policymakers to enforce them. The monetary policy trade-off is sizeable because oil (energy) is an input to both production and consumption. The second contribution of this paper is to analytically derive a simple interest-rate rule that mimics the (Ramsey) optimal plan in all dimensions but that depends only on observables: core inflation and the growth rates of output and oil prices.

It turns out that optimal policy is hard on core inflation but cushions the economy against the real consequences of an oil price shock by reacting strongly to output growth and negatively to oil price changes. Following the Taylor rule or perfectly stabilising prices during an oil price shock are very costly alternatives.

Immigration and Swiss house prices

Kathrin Degen and Andreas M. Fischer
Working Paper 2010-16

This study examines the behaviour of Swiss house prices in relation to immigration flows between 2001 and 2006 for 85 municipalities. The results show that the nexus between immigration and house prices holds, even in an environment of low house price inflation, nationwide rent control, and modest immigration flows. An immigration flow now equal to 1% of an area's population is coincident with an increase in prices for single-family homes of about 2.7% – a result consistent with previous studies. The overall immigration effect for single-family houses captures almost two-thirds of the total price increase.

Immigration and large banknotes

Andreas M. Fischer
Working Paper 2010-17

Can a large population inflow affect the demand for high-denomination banknotes? This micro study examines whether cash orders for CHF 1,000 notes, a banknote used as a store of wealth, are concentrated in Swiss municipalities where the ratio of non-Swiss to Swiss nationals is high (high "foreign-to-native" ratio). Controlling for a range of regional indicators across 251 Swiss municipalities, European immigrants in Switzerland are found to hoard fewer CHF 1,000 banknotes than Swiss nationals. This result tells us that immigration reduces seigniorage (per person) as measured by currency orders. A 1% increase in the "foreign-to-native" ratio is coincident with a reduction in currency orders by CHF 4,000.

Are imports from rich nations deskilling emerging economies? Human capital and the dynamic effects of trade

Raphael Auer
Working Paper 2010-18

The first part of the paper documents the fact that during the last decades, the human capital embodied in imports from skill-abundant nations has noticeably reduced skill accumulation in the developing world. To identify the causal relation between these variables, the analysis utilises variation over time in the supply of skilled labour and the extent to which this variation affects the skill content of trade given the bilateral distance between importer and exporter. In a panel estimation covering 41 non-OECD members, a one standard deviation difference in geographic pressure to import human capital is associated with a 12% difference in a nation's average education. The second part of the paper then develops a model to analyse the income and welfare consequences of such trade-induced human capital (dis)accumulation. The model is based on heterogeneous workers who make educational decisions in the presence of complete markets. When such workers invest in schooling, higher type agents earn a surplus from their investment. Trade shifts this surplus to countries that can use skills more efficiently, are hence skill abundant, and tend to be rich. Consequently, the dynamic effects of liberalisation tend to benefit the initially rich countries, thus leading to divergence.

Executive compensation: A general equilibrium perspective

Jean-Pierre Danthine and John B. Donaldson Working Paper 2010-19

We study the dynamic general equilibrium of an economy where risk averse shareholders delegate the management of the firm to risk averse managers. The optimal contract has two main components: an incentive component corresponding to a non-tradable equity position and a variable "salary" component indexed to the aggregate wage bill and to aggregate dividends. Tying a manager's compensation to the performance of her own firm ensures that her interests are aligned with the goals of firm owners and that maximizing the discounted sum of future dividends will be her objective. Linking managers' compensation to overall economic performance is also required to make sure that managers use the appropriate stochastic discount factor to value those future dividends. General equilibrium considerations thus provide a potential resolution of the "pay for luck" puzzle. We also demonstrate that one sided "relative performance evaluation" follows equally naturally when managers and shareholders are differentially risk averse.

Chronicle of monetary events

Expansionary monetary policy maintained

Following its quarterly monetary policy assessment of 16 December 2010, the Swiss National Bank announced that it had decided to maintain its expansionary monetary policy, to leave the target range for the three-month Libor unchanged at 0.00–0.75%, and to adhere to its objective of keeping the Libor within the lower part of this range at around 0.25%.

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