Swiss National Bank
Quarterly Bulletin

March 1/2008 Volume 26

Contents

Sectional breakdown of bulletin Q1/2008

Monetary policy report (p. 6)

With persistent turmoil disrupting the international financial markets since summer 2007, growth of the world economy slowed noticeably at the end of 2007. Further weakening is to be expected in the months to come. Deteriorating financing conditions and wealth losses provoked by falling share and real estate prices are exerting dampening effects. In addition, the fact that energy and raw material prices are increasing across a broad front is having a negative effect on economies in the industrial countries.

Unlike most other industrial countries, Switzerland experienced higher economic growth in the fourth quarter of 2007. Employment again recorded a considerable increase and the rate of unemployment continued to fall, although at a slower rate. Nevertheless, a number of indicators suggest that the growth in GDP will slow in the course of 2008. For 2008, the SNB is forecasting real GDP growth of 1.5–2.0%, which represents a downward revision of its December 2007 forecast. Moreover, the economic risks have risen as a result of the financial market turbulence.

At its quarterly assessment of 13 March 2008, the SNB decided to leave its target range for the three-month Libor unchanged at 2.25%–3.25%.

The economic situation from the vantage point of the delegates for regional economic relations (S. 40)

Most of the 170 or so representatives of various economic sectors and industries interviewed by the SNB delegates for regional economic relations between December 2007 and February 2008 reported continued good business activity. The industrial sector and consumer-related industries, such as retail and tourism, performed particularly well. Given the high level of capacity utilisation, the current year should again see some significant investment. In contrast to the autumn 2007 round of talks, however, financial market turbulence and the uncertainty this is causing put a dampener on sentiment, thus nipping any euphoria more or less in the bud.

Small and medium-sized exporters: Challenges when developing new markets (p. 44)

In October 2007, the SNB delegates for regional economic relations conducted a survey of small and medium-sized exporters relating to challenges in developing new markets. The survey revealed that these companies are already well integrated in the global economy and that this process is continuing at a fast pace. Even though the exporters surveyed are so heavily committed abroad, they continue to increase added value, number of employees and labour productivity at their Swiss location. This suggests that, in general, the integration of these companies in the global economy tends to increase the growth opportunities of the Swiss economy.

SNB Working Papers (p. 58)

Summaries of four papers: Jean-Marc Natal and Nicolas Stoffels, 'Globalisation, markups and the natural rate of interest', *SNB Working Paper* 2007-14; Martin Brown, Tullio Jappelli und Marco Pagano, 'Information sharing and credit', *SNB Working Paper* 2007-15; Andreas M. Fischer, Matthias Lutz und Manuel Wälti, 'Who prices locally?', *SNB Working Paper* 2007-16; Angelo Ranaldo und Paul Söderlind, 'Safe Haven Currencies', *SNB Working Paper* 2007-17.

Monetary policy report

Report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2008

This report is based primarily on the data and information available as at mid-March 2008.

Contents of the 'Monetary policy report'

About this report

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

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

Sections 1–3 of the present report were drawn up for the Governing Board's assessment of March 2008. The sections headed 'Monetary policy decision' and '4 The SNB inflation forecast' take due account of the Governing Board's monetary policy decision of mid-March 2008.

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

Monetary policy decision

Since the last quarterly assessment by the SNB in December 2007, the international economic environment has deteriorated. In the euro area, growth in GDP in the fourth quarter of 2007 was half of what it had been in the previous quarter, while in the US, it almost came to a standstill. In view of the financial market turmoil that has persisted since summer 2007, a further weakening in global economic growth can be expected in the months to come. Deteriorating financing conditions and wealth losses provoked by falling share and real estate prices are exerting dampening effects. In addition, the fact that energy and raw material prices are increasing across a broad front is having a negative effect on economies in the industrialised countries.

Within this context, the SNB has made a downward revision to the international economic scenario upon which its medium-term inflation forecast is based. It now anticipates considerably lower economic growth for the US in 2008 than it did in December, and is also adjusting its forecasts for Europe downwards, although to a lesser extent. At the same time, the SNB expects a higher level of inflation in the industrialised countries as a result of rising oil prices.

As opposed to most other industrial countries, economic growth in Switzerland increased in the fourth quarter, and employment also rose considerably again. However, due to the expected slowdown in global economic growth and the renewed strengthening of the Swiss franc, GDP growth is likely to falter in Switzerland, too. For 2008, the SNB is expecting real GDP growth of 1.5–2.0%, which represents a reduction of its December 2007 forecast. The economic risks have also increased substantially.

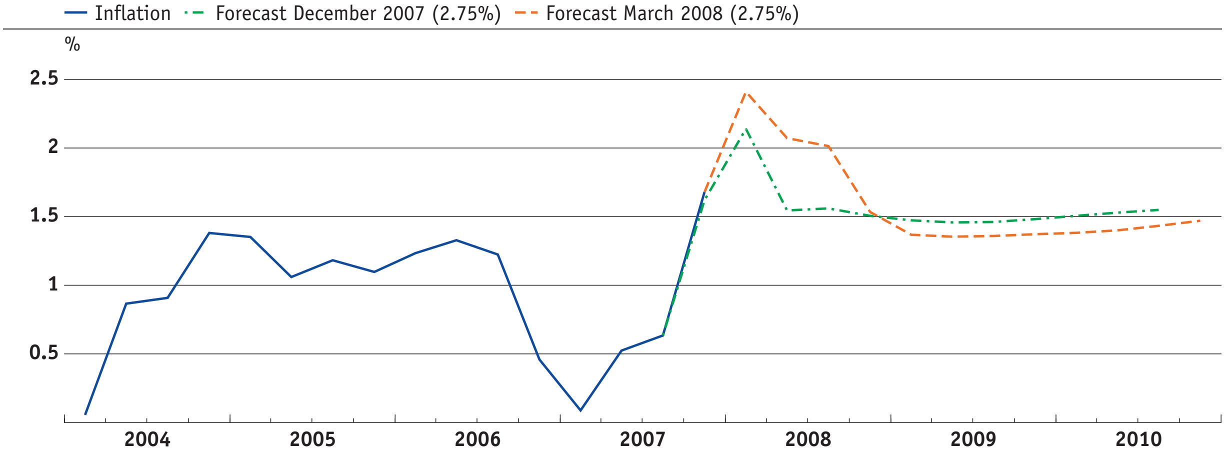
This was also reflected in the discussions conducted by the SNB delegates for economic relations from December to February with the representatives of different industries and economic sectors. Although the representatives are still confident as regards the next few quarters, most expected a slowdown in business.

At its quarterly assessment on 13 March, the SNB decided to leave the target range for the three-month Libor unchanged at 2.25–3.25% and to keep the rate in the middle of the target range for the time being.

This decision took account of both short and medium-term considerations. On the one hand, capacity utilisation in the Swiss economy remains at a high level at the time of the monetary policy decision and inflationary pressure has increased. Consequently, the rate of inflation is likely to remain slightly above 2% until the end of the year, which is above the range that the SNB equates with price stability. On the other hand, the anticipated flattening in economic growth in Switzerland will reduce excess demand, and this will improve the inflation outlook in the medium term. Assuming an unchanged three-month Libor of 2.75%, the SNB forecasts average inflation of 2% in 2008, and 1.4% in 2009 and in 2010. This means that the path of the medium and long-term forecast will run below that of December 2007. Although upside risks are associated with the inflation forecast for the current year, the risks for the years that follow are more symmetrical. In view of the favourable medium-term inflation outlook, the SNB is maintaining an unchanged monetary policy course.

Inflation forecast of December 2007 with Libor at 2.75% and of March 2008 with Libor at 2.75%

Percentage change in national consumer price index from previous year



Inflation forecast of March 2008 with Libor at 2.75%	2008	2009	2010
Average annual inflation in percent	2.0	1.4	1.4

1 Developments in the global economy

Against the background of the turbulence that has been persistently afflicting the international financial markets since the summer of 2007, global economic growth slowed perceptibly in the fourth quarter of 2007. While GDP growth in the euro area halved from the previous quarter, growth in the United States came almost to a standstill. The Asian economies, however, continued to expand robustly, underpinned mainly by the strong growth in China.

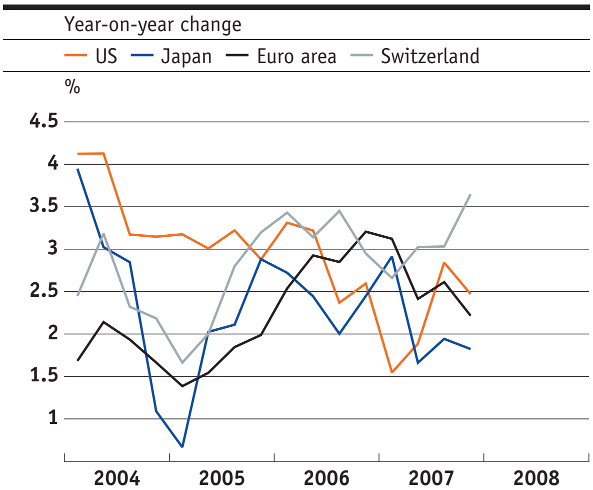
Global economic growth can be expected to weaken further in the months ahead. This also emerges from 2008 GDP forecasts for the US, the euro area and Japan. Since November 2007 a number of different institutions have made downward revisions to their forecasts for these regions or countries. Factors tending to curb growth include not only the deterioration in credit conditions but also wealth losses caused by falling share and property prices. Growth in the industrialised countries is also hampered by the fact that energy and commodity prices are rising across a broad front.

Increasing danger of recession in the US

GDP growth in the United States fell to 0.6% in the fourth quarter compared to almost 5% in the previous period. This slump was due mainly to a heavily negative contribution from inventories and a smaller export surplus. Growth in private consumption also slowed, and the decline in residential property investment gathered pace. Only commercial and industrial construction continued to expand strongly.

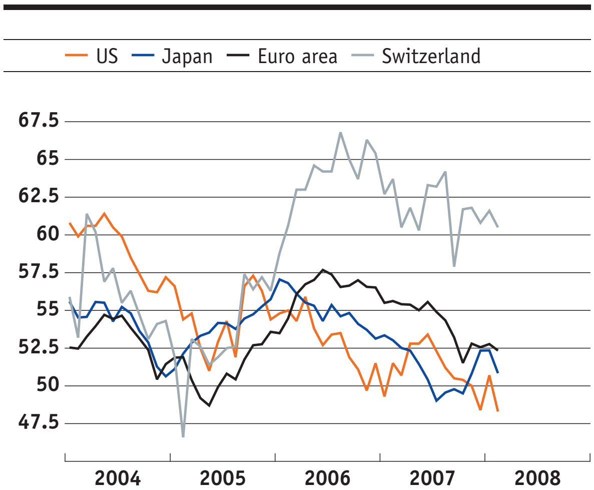
The economic outlook has deteriorated further since December. There is still no sign of an end to the correction in residential property investment. The labour market situation has also worsened. For instance, employment fell in January and February for the first time in just over four years. Together with the wealth losses, this is likely to hold back private consumption. The stimulative effect of US monetary and fiscal policy should, however, become increasingly perceptible as the year progresses. The tax refunds offered as part of the January 2008 fiscal package are likely to bolster private consumption, while the higher depreciation allowances should boost corporate investment. The GDP consensus forecast for 2008 fell from 2.3% to 1.6% between November and February but is projecting stronger GDP growth of 2.6% for 2009.

Graph 1.1
Real GDP



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

Graph 1.2
Purchasing managers' indices (manufacturing)



Source: Thomson Datastream

Weaker growth in the euro area

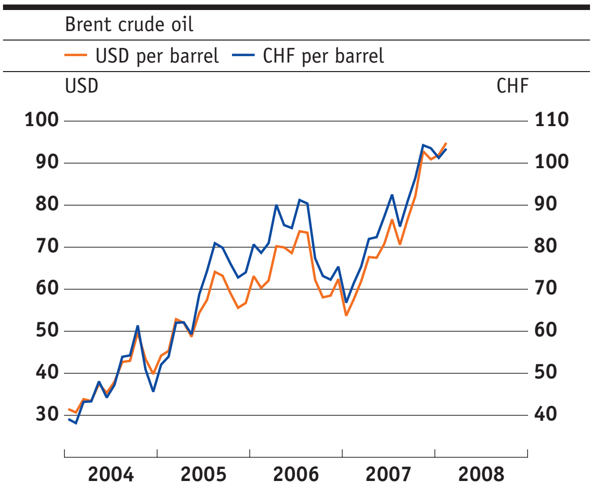
GDP growth also weakened in the fourth quarter in the euro area, which – following the accession of Malta and Cyprus – now comprises 15 countries, although the slowdown was not as great as in the US. Real GDP grew by 1.5%, after vigorous growth in the third quarter (+3.0%). As a result of contracting private consumption and a slowdown in the growth of investment, domestic demand stagnated. The growth in exports also slackened. The labour market situation remained robust, however, and the unemployment rate reached 7.1% in January, the lowest level for 25 years.

Restrained growth may be expected for the euro area in the quarters ahead. Manufacturers still give a positive verdict on order books and the employment situation, and stronger growth in employee incomes is driving private consumption. However, exports and investment will probably lose further momentum as a result of the less favourable international economic environment and tighter credit conditions. The more restrictive depreciation rules that came into effect in Germany at the beginning of the year will have an additional dampening effect. The gloomier investment climate is also reflected in the European Commission's half-yearly investment survey, which projects slower investment growth for this year. The GDP consensus forecast for 2008 fell by 0.4 percentage points to 1.6% between November and February.

Solid growth in Asia for the time being

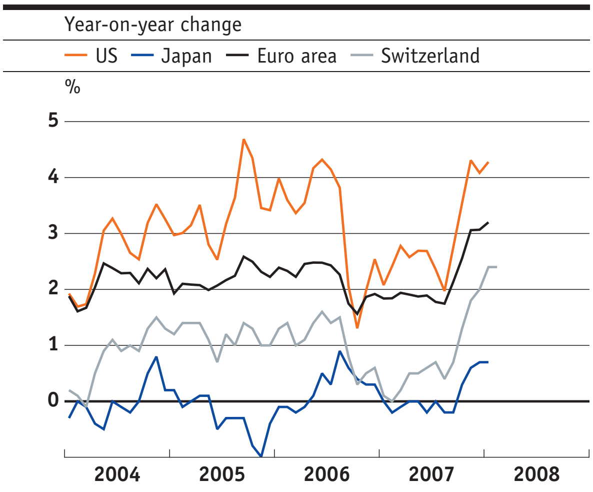
Unlike the US and the euro area, the Asian economies were expanding strongly up to end-2007. Following moderate growth in the third quarter, real GDP in Japan increased by 3.5% in Q4. Despite a slackening in demand from the US, exports rose strongly, as did equipment investment. Private consumption, by contrast, continued to increase only modestly, while spending on housing construction fell sharply once again owing to the tighter building regulations introduced in 2007. The economic outlook for Japan has also deteriorated somewhat, however. Strong demand from the Asian economic area continues to provide positive stimuli, which is reflected in the optimism being

Graph 1.3
Oil prices



Source: Reuters, SNB

Graph 1.4
Consumer prices



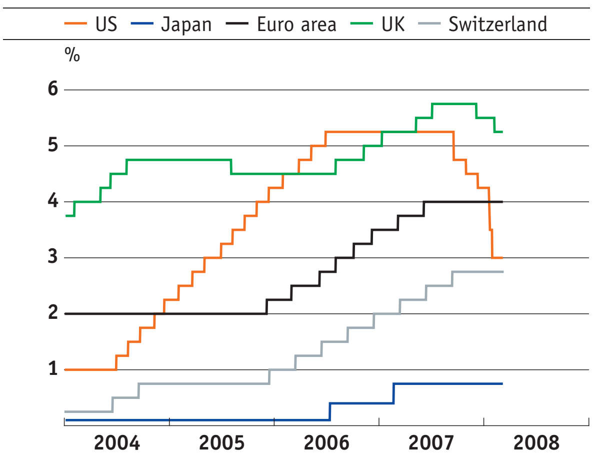
Sources: Swiss Federal Statistical Office (SFSO), Thomson Datastream expressed by the big exporting companies. However, with consumer demand flat, the business environment has deteriorated for companies that rely more on the domestic market. The GDP consensus forecast for 2008 was 1.4% in February, or 0.4 percentage points lower than in November.

In China, real GDP rose by 11.4% in the fourth quarter compared to the same period a year earlier. In average annual terms, GDP growth was thus in excess of 10% for the fifth year in succession. Growth continued to be driven primarily by exports and investment. During the course of the year there were, however, emerging signs of a slight shift towards private consumption, which was accompanied by higher import demand. The small eastern Asian economies also recorded strong growth. On average, real GDP in Hong Kong, Korea, Singapore and Taiwan was 5.9% higher in the fourth quarter than in the corresponding period of the previous year. The main driving force was strong global demand for IT goods. Because of the economic slowdown in the industrialised countries, however, demand may well falter in the months ahead, thus impacting on GDP growth in the smaller Asian economies. Due to strong domestic demand, the Chinese economy, by contrast, has great internal momentum which makes it less sensitive to the slowdown in the industrialised countries. The GDP consensus forecast for China for 2008 was 10.3% in February, much the same as in November.

Inflationary pressure rising

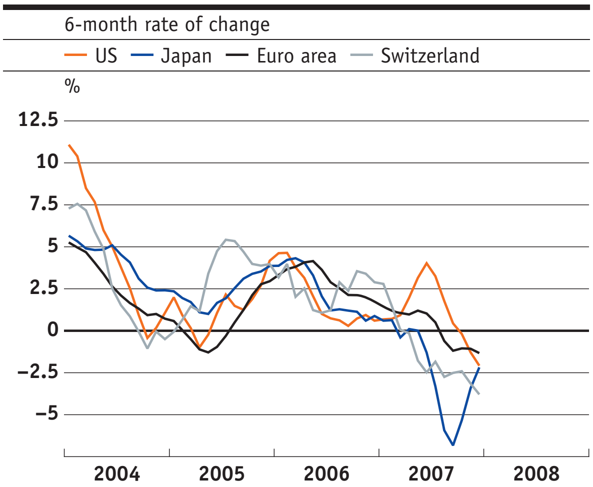
Measured by consumer prices, annual inflation rates have been rising steadily world-wide since October. The main driving forces have been higher energy and food prices, but inflationary pressure has also been driven up by higher production costs. Annual inflation in the US rose from 3.5% to 4.3% between October and January. Over the same period core inflation – which excludes energy and food prices – rose by 0.3 percentage points to 2.5%. In the euro area, annual inflation reached 3.2% in January, its highest level in 14 years and thus also the highest since the beginning of European Monetary Union in 1999. Core inflation, on the other hand, fell slightly to 1.7%, since the

Graph 1.5
Official interest rates



Sources: Thomson Datastream, SNB

Graph 1.6
OECD composite leading indicators



Source: OECD

increase in German VAT in January 2007 dropped out of the equation. In Japan, annual inflation had risen by 0.4 percentage points to 0.7% by January, but the core rate was still in negative territory. Finally, much higher inflationary pressure was also evident in China, as well as in a number of smaller Asian economies. The main factor here was the steep increase in food prices.

Differing monetary policies

Monetary policy was still dominated by the turbulence on the financial markets. In a bid to reduce tensions, central banks repeatedly provided the money markets with temporary additional liquidity. In concert with the US Federal Reserve, the European Central Bank and the SNB also furnished the banks with liquidity in US dollars to tide them over the year-end. These measures helped restore some calm to the money markets, but the nervousness has increased again recently.

The US Federal Reserve also cut its key interest rate twice in quick succession in January, reducing it by a further 1.25 percentage points to 3.0%. In doing so, it was reacting to the growing threat of a recession in the US. The Fed also held out the prospect of further rate cuts if the economy were to weaken more than had been assumed hitherto. Unlike the Fed, the European Central Bank (ECB) left its main interest rate, the refinancing rate, unchanged at 4.0%. It pointed to the increased threat of inflation, although it did also make more mention of the risks to growth. The Bank of Japan also left its overnight call money rate unchanged at 0.5%. By contrast, China's central bank tightened its monetary policy further in an attempt to curb lending growth. Consequently, it raised the minimum reserve rate in stages by a total of 1.5 percentage points to 15.0%. As a result, the rate has now doubled since monetary policy began to be tightened again in mid-2006.

Consensus forecasts Table 1.1

	Economic growth[1]				Inflation[2]			
	November		February		November		February	
	2008	2009	2008	2009	2008	2009	2008	2009
United States	2.3	–	1.6	2.6	2.6	–	2.9	2.0
Japan	1.8	–	1.4	1.9	0.4	–	0.5	0.5
Euro area	2.0	–	1.6	1.9	2.1	–	2.5	2.0
Germany	2.1	–	1.7	1.9	1.8	–	2.1	1.7
France	1.9	–	1.6	1.9	1.8	–	2.2	1.8
Italy	1.3	–	1.0	1.4	2.2	–	2.5	2.0
United Kingdom	1.9	–	1.7	2.0	2.0	–	2.4	2.0
Switzerland	2.0	–	2.0	1.9	1.3	–	1.6	1.3

1 Real GDP, year-on-year change in percent
2 Consumer prices, year-on-year change in percent
Source: Consensus Forecasts, November 2007, February 2008. Consensus forecasts are monthly surveys conducted among over 240 companies and economic research institutes in more than 20 countries, covering predictions for the expected development of GDP, prices and other economic data. The results are published by Consensus Economics Inc., London.

2 Developments in the Swiss economy

2.1 GDP growth and outlook

Stronger growth in the final part of the year

Unlike most other industrialised countries, growth in Switzerland accelerated in the fourth quarter. According to estimates from SECO (the State Secretariat for Economic Affairs), real GDP rose by 4.2% from the previous period and was thus 3.6% higher than the corresponding level a year earlier. At the same time, the figures for the second and third quarters were revised upwards. Real GDP thus rose by an annualised 3.1% in 2007.

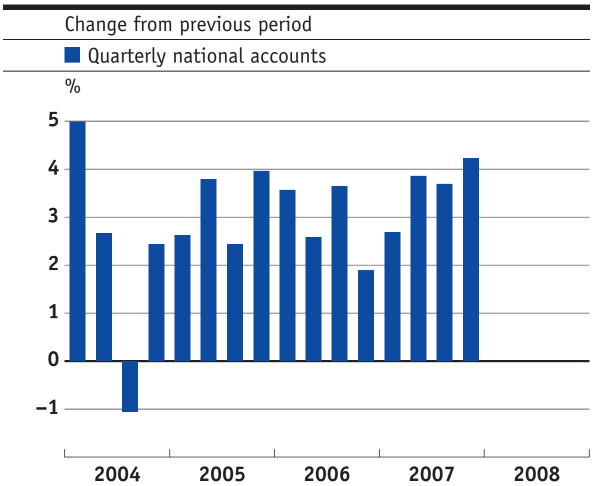
To a large extent, the high GDP growth in the fourth quarter is attributable to the positive contribution to growth from inventories. However, this component is difficult to interpret, due to the fact that it is calculated as a residual variable and therefore contains the statistical error. Final domestic demand excluding inventories rose by 1.3%, after having fallen slightly in the previous period. Following their robust growth in the third quarter, however, exports lost momentum. Since imports picked up at the same time, the external contribution to GDP growth was negative.

Output-side figures for GDP revealed a picture of broadly-based growth. Value added by industry increased further, although the rate of growth slowed as compared with the previous period. This is also reflected in the SFSO production statistics (cf. graph 2.2). By contrast, strong growth stimuli once again emanated from the retail and hospitality sectors and financial services. The banks benefited from further expansion in interest-differential business and trading activity. However, valuation losses – as stated by some banks in the fourth quarter – do not enter into the calculation of added value. They are, nevertheless, of significance for the economy since they increase the costs of external funding for companies whose balance sheets undergo a qualitative deterioration. In the case of a bank, this can lead to a situation where the bank is obliged to charge more for its loans or to ration them.

Slowdown in growth expected

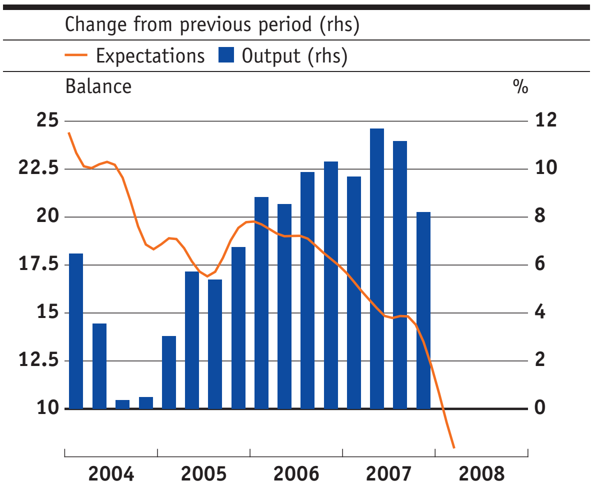
A number of indicators suggest that GDP growth will weaken in the first half of 2008. These include the decline on the international equity markets in the first quarter, which is likely to impact on added value in the banking sector. Given that export demand is also weakening, activity in industry must also be expected to slow. According to the results of the KOF/ETH surveys, new orders in the export industry fell in January and production plans were

Graph 2.1
Real GDP



Source: SECO

Graph 2.2
Manufacturing output



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

Real GDP and components Table 2.1

Growth rates on previous period, annualised

	2004	2005	2006	2007	2006				2007			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Private consumption	1.6	1.8	1.5	2.1	–0.2	2.5	–0.4	1.6	2.9	2.3	3.2	1.5
Government consumption	0.8	0.5	–1.4	0.1	–1.2	–6.3	4.7	1.7	–0.6	0.7	–2.7	–0.3
Investment in fixed assets	4.5	3.8	4.1	2.7	–0.2	4.3	3.0	5.9	0.6	12.3	–10.6	1.7
Construction	3.9	3.5	–1.4	–2.9	–6.0	0.2	0.8	3.1	–1.7	–13.9	–5.3	7.4
Equipment	5.0	4.0	8.9	7.2	5.2	7.6	4.7	8.1	2.5	37.0	–14.2	–2.3
Domestic final demand	**2.1**	**2.1**	**1.7**	**2.0**	**–0.3**	**1.8**	**1.0**	**2.6**	**1.9**	**4.4**	**–0.9**	**1.3**
Domestic demand	**1.9**	**1.8**	**1.4**	**0.3**	**–2.9**	**5.3**	**–3.7**	**5.6**	**–6.6**	**3.7**	**–0.8**	**9.1**
Total exports	7.9	7.3	9.9	9.9	16.5	–1.0	12.0	19.0	10.7	5.2	10.3	1.4
Goods	7.3	5.8	11.1	8.4	20.6	–0.6	14.3	18.4	11.3	–0.5	8.5	–3.6
Excluding valuables[1]	7.3	6.5	11.3	8.4	16.3	8.6	6.9	19.3	7.0	5.3	7.7	–2.0
Services	9.7	11.2	6.8	13.7	6.3	–2.1	6.2	20.7	9.1	22.1	15.1	14.8
Aggregate demand	**3.8**	**3.6**	**4.3**	**3.7**	**3.5**	**3.0**	**1.7**	**10.3**	**–0.4**	**4.3**	**3.3**	**6.1**
Total imports	7.3	6.7	6.9	5.2	3.2	4.0	–2.8	32.1	–7.1	5.1	2.4	10.2
Goods	5.8	5.6	7.8	4.6	8.7	3.0	–7.9	43.4	–9.7	4.7	–1.3	8.8
Excluding valuables[1]	5.9	5.3	7.4	6.4	9.1	1.2	–5.5	34.0	2.4	1.7	–0.5	9.4
Services	14.7	11.6	2.7	8.0	–18.9	8.7	24.6	–9.6	6.9	7.0	21.5	16.9
GDP	**2.5**	**2.4**	**3.2**	**3.1**	**3.6**	**2.6**	**3.6**	**1.9**	**2.7**	**3.9**	**3.7**	**4.2**

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

Source: SECO

also being scaled down. However, the retail and hospitality trade surveys continued to paint a favourable picture, which suggests that these areas should continue to underpin growth.

The SNB is now forecasting an increase in real GDP of 1.5–2.0% for 2008. This represents a downward revision of its December 2007 forecast of around 2% growth. Moreover, given the turbulence on the financial markets and its possible impact on global growth, the economic risks have increased significantly.

The heightened uncertainty was also reflected in the talks held between December and February by the SNB delegates for regional economic relations with representatives of various sectors and industries. Although these representatives were generally confident about the coming quarters, most of them expected growth to weaken during the course of the year. While no tightening of credit terms had been observed up to now, some representatives were worried about future loan negotiations. Rising prices for energy, industrial raw materials and agricultural produce, together with the low dollar exchange rate constituted a considerable burden. The severe shortage of specialists remained a further source of concern (cf. 'The economic situation from the vantage point of the delegates for regional economic relations', March 2008).

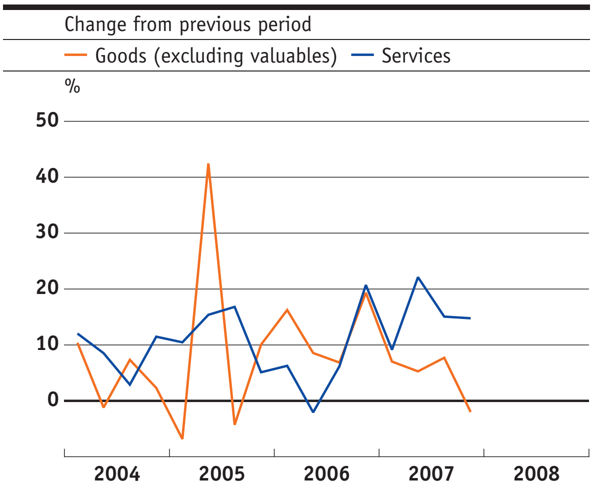
2.2 Foreign trade, consumption and investment

Slower export growth

The economic slowdown in the industrialised countries, coupled with with the appreciation of the Swiss franc, has led to a perceptible slowing of exports in real terms. This affected exports of goods, which fell slightly from the previous period. By contrast, exports of services expanded as strongly as before. While a sharper increase in income from tourism and international transport was recorded, commission income from banking business with foreign clients fell. Total exports were up 7.1% on the same period of the previous year, compared to 11.9% in the third quarter.

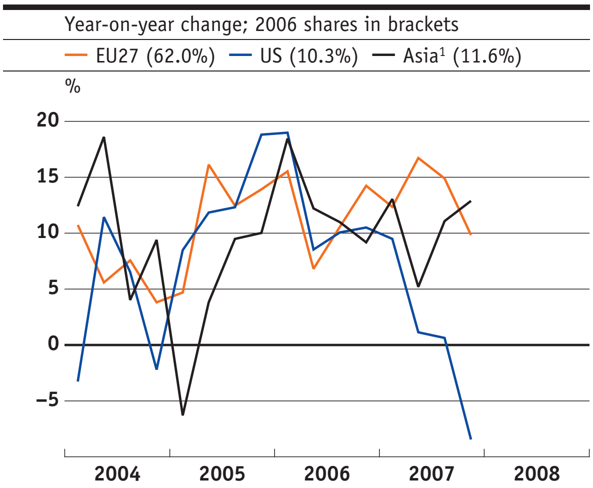
Among exports of goods, exports of semi-finished and investment goods contracted. Although deliveries of consumer goods continued to grow, the rate of growth declined. Broken down by region, exports to the US and Japan fell further. While demand from Europe lost considerable momentum, demand from south-east Asia, China and most oil-exporting countries remained robust.

Graph 2.3
Exports



Source: SECO

Graph 2.4
Exports by trading partners



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

Surge in imports

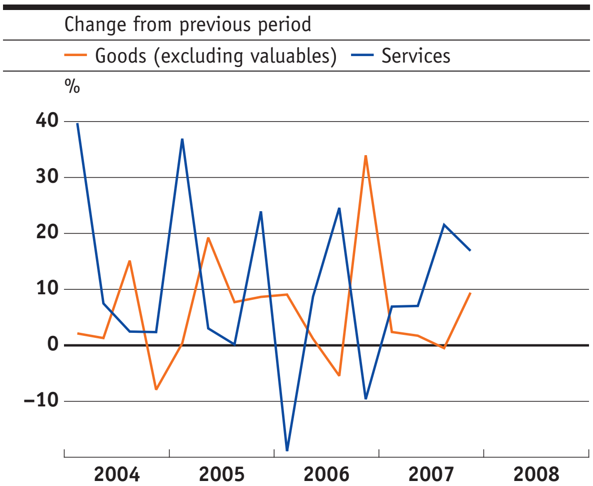
Boosted by strong domestic demand, imports in real terms rose appreciably in the fourth quarter, having shown only a modest increase in the course of the year prior to that. Compared to the previous year, they were 5.0% higher. Both goods and services contributed to the increase. Import volumes were higher in all categories of goods apart from pharmaceuticals. As regards imports of services, expenditure on tourism and on licences and patents were once again the main items exhibiting strong growth.

Robust growth in consumption

Private consumption was a significant mainstay for growth in the fourth quarter as well, even though the growth rate of 1.5% was less than half of what it had been in the previous period. Consumption of both goods and services increased. Although retail sales lost momentum compared to the previous period owing to unexpectedly weak demand in the clothing and footwear segment, durable goods expenditure rose strongly. This manifested itself in an almost 10% rise in imports of durable consumer goods and new car registrations compared to the previous period. The number of overnight stays in hotels – an indicator of the consumption of services – also reflected healthy growth. Favoured by good snow and weather conditions, the number of overnight stays by domestic guests was up 7.9% on the previous period.

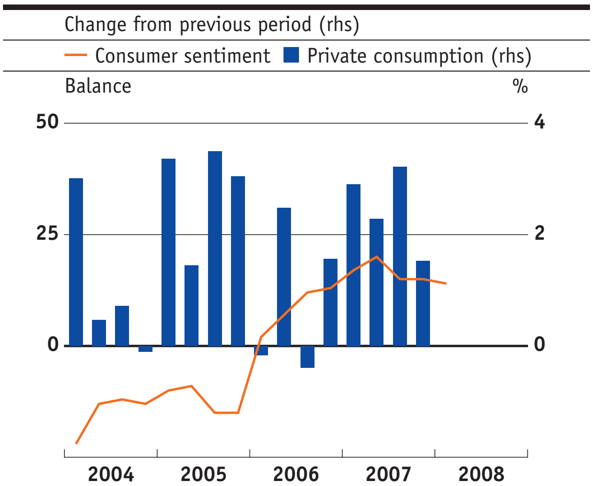
The aggregate consumer sentiment index compiled in January remained at the high level of the two previous surveys in October and July 2007. Although the households surveyed were once again a little less optimistic than before about the general future economic situation, they still rated their own financial situation and job security as good. According to initial estimates, real employee incomes look set to increase significantly (by just over 2.8%) in 2008 as well, though falling well short of last year's figure of 5.0%. This weakening is attributable to the slower increase not only in employment but also in wages and salaries. The variable components of wages and salaries, in particular, are likely to be lower than last year.

Graph 2.5
Imports



Source: SECO

Graph 2.6
Private consumption



Source: SECO

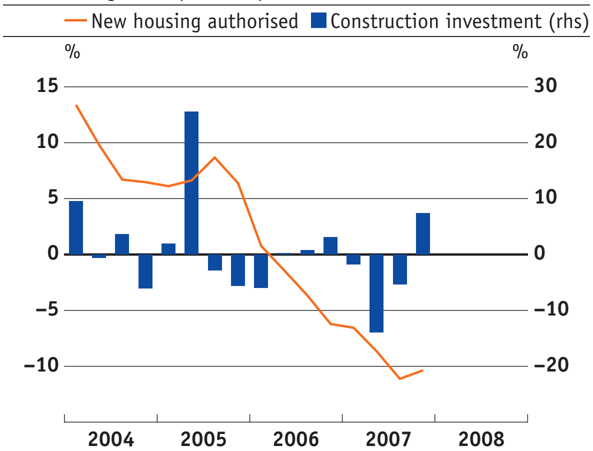
Increase in construction investment – drop in equipment investment

Construction investment increased in the fourth quarter compared with the previous period, having fallen in the first three quarters of the year. The main contributors to this good outcome included the intermittent investments in civil engineering projects and – to a somewhat lesser extent – higher investment in commercial property construction. By contrast, house-building activity declined again. The continuing decrease in residential building permits points to a further decline in residential property investment in the quarters ahead; higher investment in the other construction segments is unlikely to compensate for this.

Equipment investment contracted slightly again in the fourth quarter, having fallen heavily in the third quarter. Although investment in industrial machinery, precision instruments and IT products rose appreciably, this was offset by a steep drop in aircraft purchases and stagnating software investment. Given that capacity utilisation is still very high, we can expect to see an increase in capital investment over the coming quarters. The rate of growth is, however, likely to weaken gradually in the course of the expected economic slowdown.

Graph 2.7
Construction

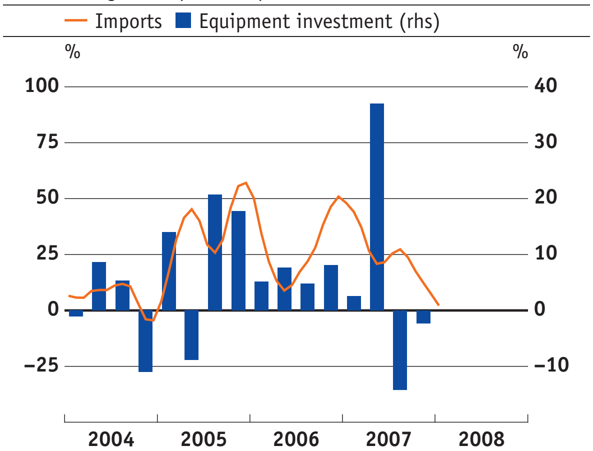
Change from previous period



Source: SFSO, SECO

Graph 2.8
Equipment

Change from previous period



Sources: FCA, SECO

2.3 Employment and labour market

Steeply rising employment

The strong growth in employment that began two years ago continued in the fourth quarter. The number of people in employment was up 2.8% from the previous period and was thus 2.7% higher than 12 months previously. The biggest increases in the workforce were reported by the manufacturing and construction industries. By contrast, job growth in the services sector was relatively modest. While employment in the hospitality and wholesale trades expanded quite strongly, the retail trade, along with banking and insurance, saw only small increases. Converted into full-time equivalents, the number of jobs rose by 3.0% in the fourth quarter compared with the previous period, exceeding the prior-year level by 2.8%.

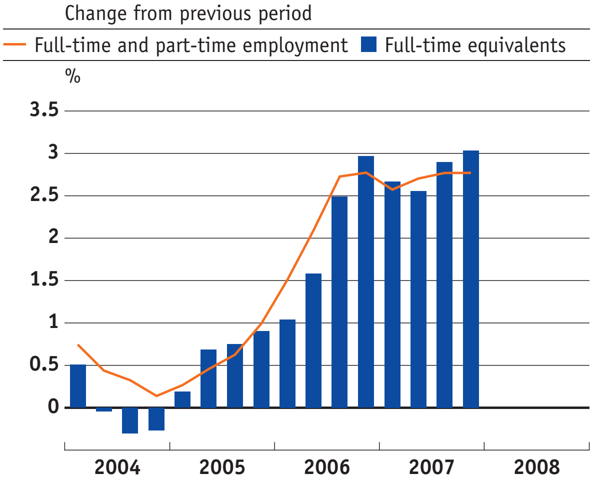
The SFSO index of job vacancies points to a slightly slower increase in employment in the next few quarters. Having risen steadily for three years, the index stabilised in the fourth quarter at a high level. While demand for labour increased further in manufacturing and construction, it fell back slightly in the services sector.

Slower decline in unemployment

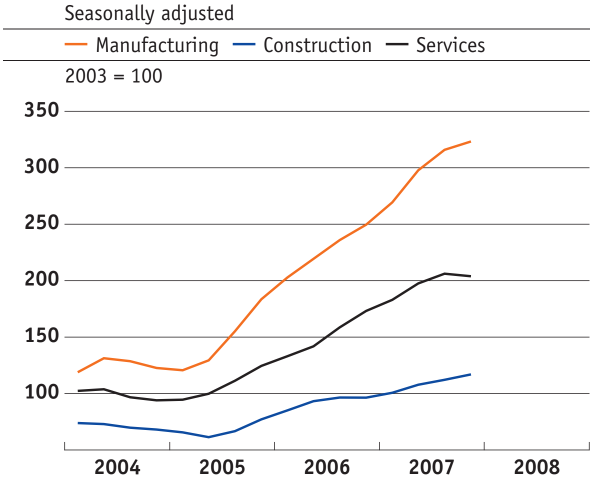
After adjustment for seasonal factors, the number of people registered as unemployed with regional employment offices fell from 102,700 to 99,230 between November and February, which is equivalent to a reduction in the unemployment rate from 2.6% to 2.5%. The number of people seeking employment – which, in addition to the registered unemployed, also includes people on training and employment programmes or those who have accepted an interim placement – fell from 4.0% to 3.9%.

Despite the robust growth in employment, the decline in unemployment slowed further compared to previous months. This suggests that some of the unemployed lack the qualifications sought by employers, leaving vacancies increasingly to be filled by workers recently arrived from abroad or by people who have never had a job before. In fact, the number of gainfully active persons of foreign origin and their participation rate increased strongly in the fourth quarter. At the same time, the SFSO survey shows that companies are still finding it difficult to recruit suitably qualified staff.

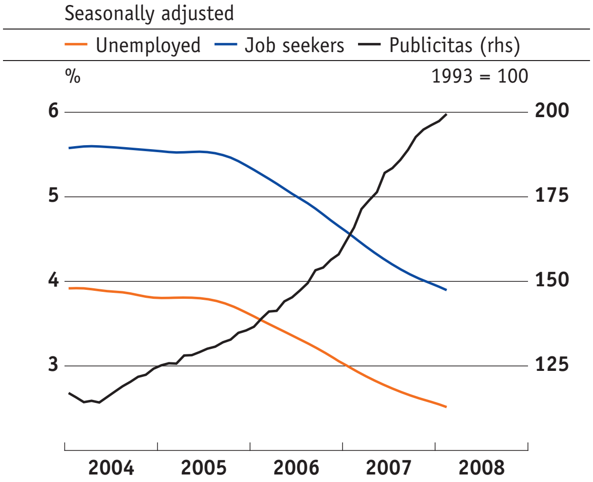
Graph 2.9
Employment



Graph 2.10
Vacancy index



Graph 2.11
Unemployment rates and vacancies



Graphs 2.9 and 2.10:
Source: SFSO

Graph 2.11:
Unemployed and job seekers registered with the regional employment offices in percent of the labour force according to the 2000 census (labour force: 3,946,988 persons).
Sources: Publicitas, SECO

2.4 Capacity utilisation

If aggregate demand does not move synchronously with aggregate supply, inflationary or deflationary trends may arise. As a rule, aggregate supply – which is determined by the availability of labour and capital as well as technological advances – grows at a relatively even pace in the short term. Changes in the growth of demand are therefore reflected in fluctuations in the utilisation of technical and labour capacity. If their utilisation rate significantly exceeds its normal level, this points to excess demand and, consequently, to increasing inflationary pressure. Conversely, underutilisation of capacity indicates excess supply and, consequently, lower inflationary pressure.

Technical capacity utilisation remains high

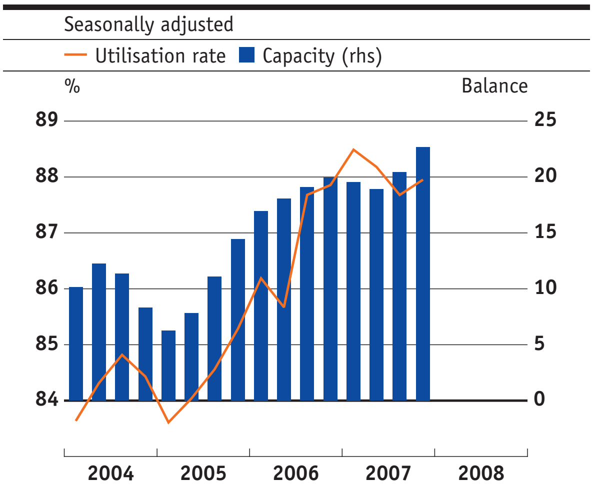
Indicators providing information on capacity utilisation in the economy include the relevant KOF/ETH surveys. The latest surveys show that utilisation of technical capacity in the manufacturing sector, at 88%, remained above the long-term average of 84% in the fourth quarter (cf. graph 2.12). Despite the high utilisation rate, the situation showed signs of easing. For instance, the proportion of companies planning to expand their capacity increased. At the same time, the proportion of companies that saw themselves as restricted in their business due to insufficient technical capacity decreased; this figure is now close to its long-term average. Unlike manufacturing, the construction industry saw a reduction in its utilisation rate. But in both sectors a relatively high proportion of companies were still reporting staff shortages. In the construction industry, this proportion reached its highest level since 1995.

As for the service industries, the results yielded by the KOF/ETH surveys suggest increasing capacity constraints. This applies to both technical capacity and labour. In the hospitality trade, the occupancy rate reached a very high level, even on a longer-term comparison. An increasing number of companies in the banking, retail and hospitality sectors reported staff levels as being too low, although the proportions concerned are uniformly lower than in the boom years of 1999/2000.

Positive output gap widening

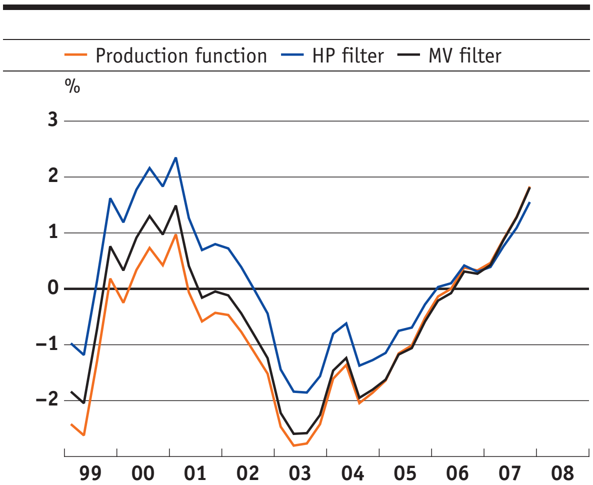
A more comprehensive measure of capacity utilisation in the economy is the output gap, which is calculated as the percentage difference between Switzerland's real GDP and its estimated production potential. Graph 2.13 shows three estimates of the

Graph 2.12
Technical capacity in manufacturing



Source: KOF/ETH

Graph 2.13
Output gap



Source: SNB

output gap based on different methods of estimating production potential: the production function (PF), the Hodrick-Prescott filter (HP) and the multi-variant filter (MV). As fourth-quarter real GDP rose considerably faster (4.2%) than production potential, the production overhang continued to increase according to all three estimation methods. According to both the production function and the multi-variant filter, it rose to 1.8%, whereas according to the Hodrick-Prescott filter it increased to 1.6%.

The positive output gap continues to be mainly a reflection of above-average utilisation of technical capacity. In the meantime, however, utilisation of the labour supply has also moved slightly above its long-term average. The SNB is projecting that GDP will grow more slowly than production potential over the next few quarters and that the production overhang will therefore narrow. At approximately 2%, the rate at which production potential is growing is at present still higher than the long-term average (1.6%). This is mainly due to the fact that the supply of labour is currently growing relatively strongly as a result of the immigration of foreign workers and the rise in the participation rate.

2.5 Goods prices

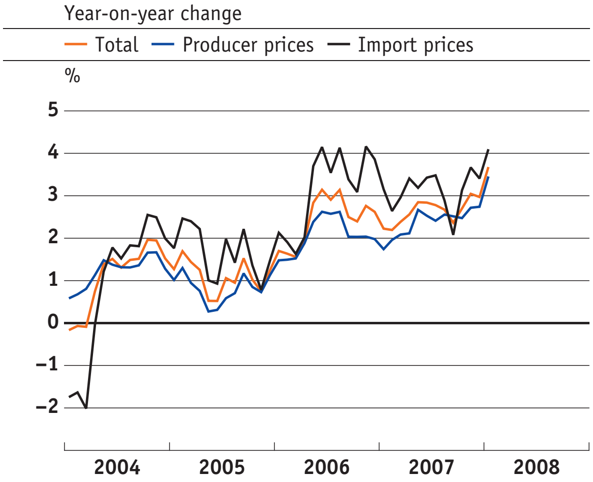
Increasing pressure from producer and import prices

The price pressure exerted by producer and import prices on downstream consumer prices increased further between October and January. Annual domestic producer price inflation rose from 2.5% to 3.5%, while imported goods inflation climbed from 3.1% to 4.1%. The stronger upward trend in inflation was observable for almost all types of goods. While price pressure was still particularly strong on energy sources and agricultural products, prices of intermediate goods and – even more so – consumer goods also continued to rise. One exception was investment goods, where inflation remained stable. The increased price pressure strongly suggests that it will only be a matter of time before higher energy and commodity prices and the price increases caused by the depreciation of the Swiss franc against the euro are passed on to end-consumers to a greater extent than hitherto.

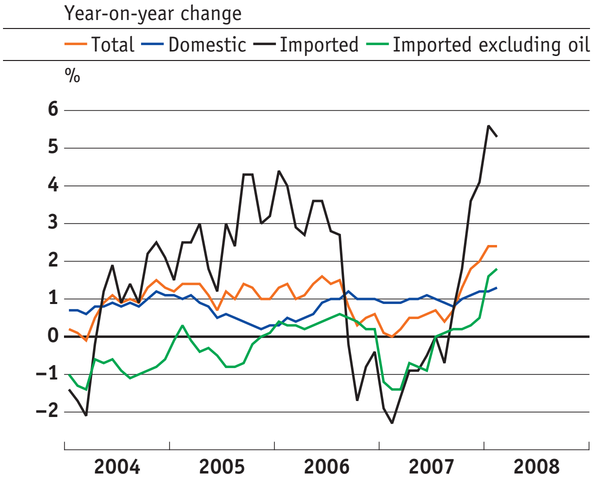
Substantially higher consumer price inflation

Annual inflation as measured by the national consumer price index (CPI) climbed from 1.8% to 2.4% between November and February. An increase in inflation had been expected by the SNB in its mid December inflation forecast, but on a somewhat smaller scale. Higher heating oil and fuel prices combined with an unfavourable baseline were the main factors pushing up inflation. However, even excluding the oil components, consumer price inflation crept up from 0.9% to 1.3%. The upward drift in inflation was particularly marked in the goods segment. This suggests that cost increases at the producer level are now increasingly being passed on to consumers.

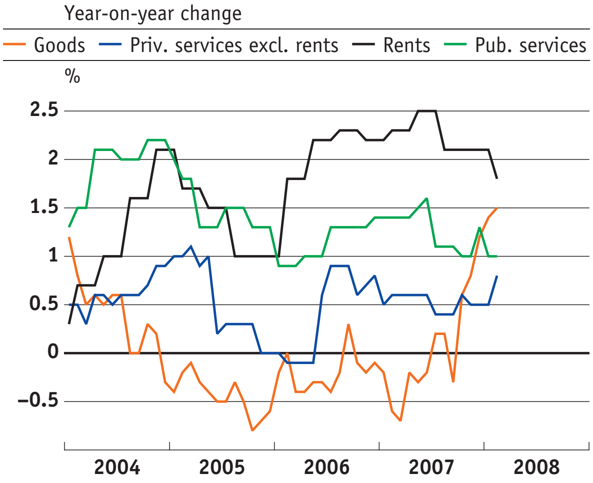
Graph 2.14
Prices of total supply



Graph 2.15
CPI: Domestic and imported goods and services



Graph 2.16
CPI: Domestic goods and services



Graph 2.14:
Source: SFSO

Graphs 2.15 and 2.16:
Sources: SFSO, SNB

Higher domestic inflation

Annual inflation for domestic consumer goods rose slightly from 1.1% to 1.3% between November and February. By February, goods inflation had gained 0.7 percentage points to 1.5%, driven mainly by higher prices for food and electricity. Although the 2.2% inflation figure for foods (mainly affecting bread, milk, butter and meat) was still relatively low compared to other countries, the price trend observable at the producer level suggests that it will increase further in coming months. By contrast, inflation pressure on rents eased. The residential rent index, which is compiled on a quarterly basis, rose by 0.6% in February; as a result, annual rent inflation fell from 2.1% to 1.8%. Other private services, however, saw inflation rise from 0.4% to 0.8%. While prices rose in the hospitality trade and tourism sector, price reductions were granted in telecommunications. The year-on-year increase in prices for public services, at 1.0%, was roughly the same as in November.

Higher imported consumer goods inflation

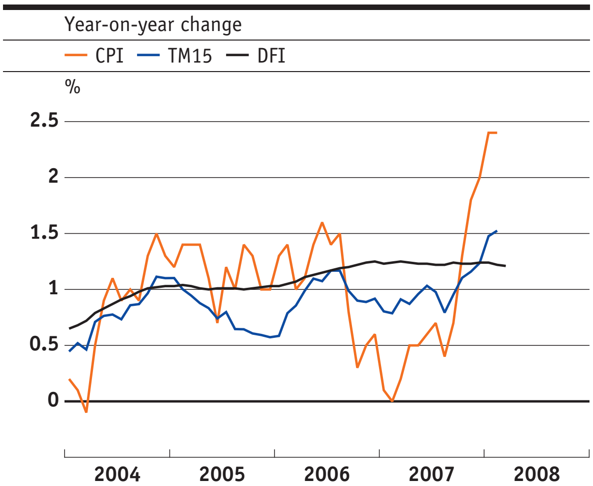
Imported consumer goods inflation rose further, reaching 5.3% in February, compared to 3.6% in November. Compared with earlier months, a smaller part of the increase was attributable to oil components (heating oil and fuel). The rate of increase in prices of other foreign consumer goods, which rose from 0.3% to 1.8%, played a greater role. A number of goods, such as gas, fruit and rice, increased especially sharply. In addition, the 'clothing and footwear' group was affected by statistical factors (unusually low sale prices in the previous year).

Slight increase in core inflation rates

Inflation, as measured by the CPI, is subject to short-term fluctuations that may distort perceptions of the general price trend. For this reason, core inflation rates are calculated with a view to capturing the underlying inflation trend. The SNB computes two measures of core inflation, as shown in graph 2.17. The trimmed means method (TM15) excludes from the consumer price index, for any given month, the 15% of goods prices with the highest annual rates of change and the 15% with the lowest. Dynamic factor inflation, by contrast, takes into account not only prices but also data on the real economy, financial market indicators and monetary variables. The two core inflation rates calculated by the SFSO always exclude the same goods from the basket of goods in each period (cf. graph 2.18). In the case of core inflation 1 (SFSO1), these are food, beverages, tobacco, seasonal products, energy and fuel; core inflation 2 (SFSO2) also factors out products with administered prices.

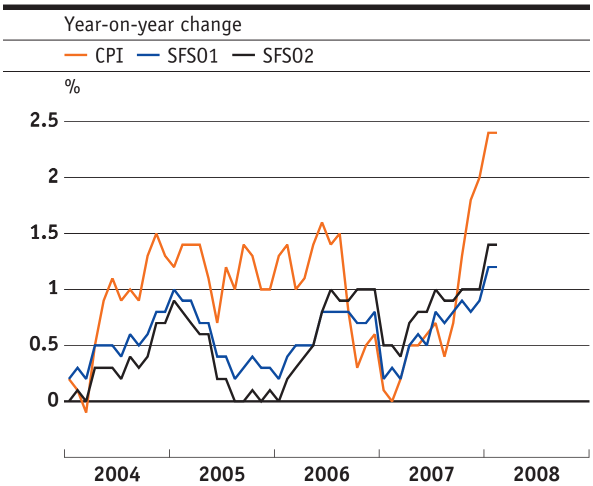
The core inflation rate calculated in accordance with the trimmed means method climbed steadily between November and February from 1.2% to 1.5%, indicating that the general inflation trend is still rising but remains moderate. The two core inflation rates calculated by the SFSO also present the same picture, each rising by 0.4 percentage points to 1.2% and 1.4% respectively. However, dynamic factor inflation, which has already been pointing to a slightly rising price trend for quite a long time, remained unchanged.

Graph 2.17
Core inflation rates (SNB)



Sources: SFSO, SNB

Graph 2.18
Core inflation rates (SFSO)



Source: SFSO

National consumer price index and components Table 2.2
Year-on-year change in percent

	2007	2007			2007		2008	
		Q2	Q3	Q4	November	December	January	February
Overall CPI	**0,7**	**0,5**	**0,6**	**1,7**	**1,8**	**2,0**	**2,4**	**2,4**
Domestic goods and services	1.0	1.0	0.9	1.1	1.1	1.2	1.2	1.3
Goods	0.0	–0.2	0.0	0.9	0.8	1.2	1.4	1.5
Services	1.2	1.4	1.1	1.2	1.1	1.2	1.2	1.2
Private services excluding rents	0.5	0.6	0.4	0.5	0.5	0.5	0.5	0.8
Rents	2.3	2.4	2.2	2.1	2.1	2.1	2.1	1.8
Public services	1.3	1.5	1.1	1.1	1.0	1.3	1.0	1.0
Imported goods and services	0.1	–0.8	–0.0	3.2	3.6	4.1	5.6	5.3
Excluding oil products	–0.4	–0.8	0.1	0.3	0.3	0.5	1.6	1.8
Oil products	2.4	–1.0	–0.8	17.1	19.9	22.2	26.6	23.3

Sources: SFSO, SNB

3 Monetary developments

3.1 Interest rates and inflation expectations

At its December 2007 monetary policy assessment, the SNB decided to leave the target range for the three-month Libor unchanged at 2.25–3.25% and to aim for the middle of the target range for the time being. This decision was taken against the background of robust economic growth in Switzerland, the continuation of which was uncertain, however, due to the turbulence on the international financial markets.

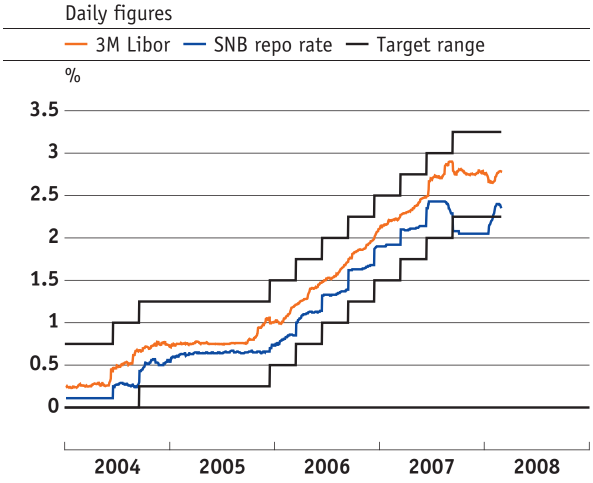
After its December 2007 monetary policy assessment, the SNB left the one-week repo rate at 2.05% for the present. Between mid-January and mid-February 2008, when the three-month Libor was drifting down, the SNB increased the one-week repo rate steadily in order to keep the three-month Libor more or less in the middle of the target range. Thereafter, it reduced the one-week repo rate again, to a level of 2.15% in mid-March. In mid-March, the three-month Libor stood at 2.82% (cf. graph 3.1).

To help reduce the increased tensions on the international money markets, the Bank of Canada, Bank of England, ECB, Fed and SNB announced coordinated measures. The SNB took part in US dollar repo transactions, offering USD 4 billion of liquidity on two occasions – 17 December 2007 and 14 January 2008. Simultaneously, the SNB concluded a mutual swap agreement (swap limit) with the US Federal Reserve Bank. The repos were for 28 days on each occasion, with value dates of 20 December and 17 January respectively. All counterparties authorised by the SNB who had a connection to the Swiss repo system were entitled to participate. The dollar repo auctions were intended to give these counterparties easier access to US dollar liquidity.

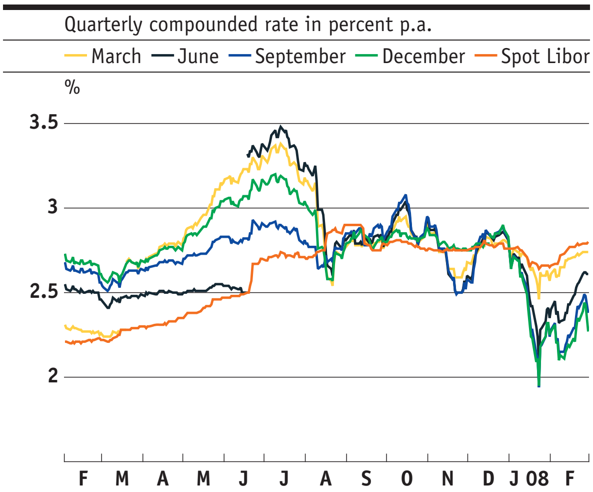
Lower three-month Libor expected

The market was anticipating a three-month Libor rate of 2.9% for end-March at the time of the December monetary policy assessment, according to the regular Consensus Forecast survey. Between mid-December of last year and early February of this year, the interest rates for futures contracts maturing in June, September and December 2008 dipped well below the three-month Libor spot rate. There-

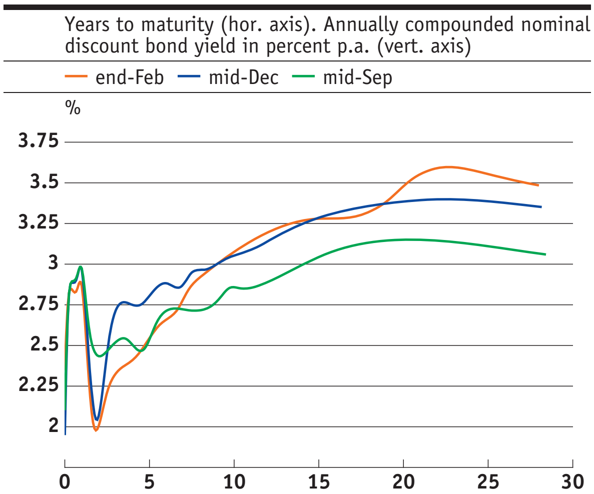
Graph 3.1
Money market rates



Graph 3.2
Three-month interest rate futures



Graph 3.3
Term structure of Swiss Confederation bonds



Graph 3.1:
Sources: Reuters, SNB

Graph 3.2:
Sources: Bloomberg, SNB

Graph 3.3:
Source: SNB

after they edged up again, and at end-February stood at 2.61%, 2.38% and 2.27% respectively (cf. graph 3.2). The market was therefore anticipating a reduction in the target range by end-2008.

Slightly steeper yield curve

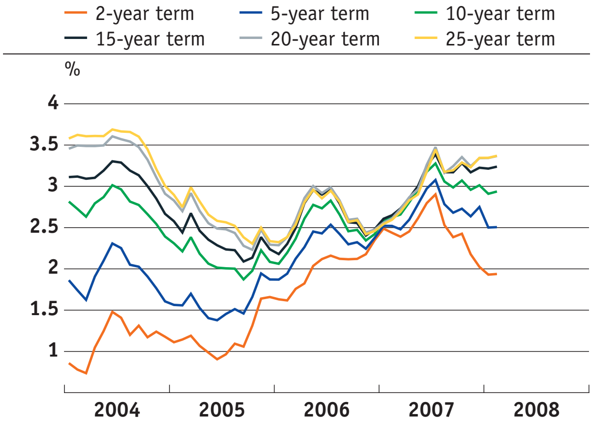
Between December 2007 and February 2008, the increased flight into safer investments due to the turbulence on the equity markets caused yields to fall, especially on bonds with maturities of 2–5 years. This was reflected in a slightly steeper yield curve (cf. graphs 3.3 and 3.4). The average yield on five-year Swiss Confederation bonds in February was 2.51%; the corresponding yields on ten-year bonds and twenty-year bonds were 2.96% and 3.37% respectively.

Mortgage interest rates rose again slightly. This applied both to the interest rates for existing mortgages – which, under Swiss law, are the basis for determining rents – and to the more flexible rates for new mortgages. In mid-March the relevant cantonal bank rates were approximately 3.30% and 3.35% respectively. Over the same time-span, interest rates on savings deposits rose by rather more, thus slightly reducing the interest spread between existing mortgages and savings deposits, which is important for the traditional funding of mortgage loans.

Credit spreads can be used to depict the changes in borrowing terms for bond issuers. They represent the difference between the yields on cantonal and corporate bonds and the yield on Confederation bonds, and can also be interpreted as credit risk premiums. Against the background of the financial market turbulence, credit risk premiums for bonds of all maturities have increased significantly since August 2007. Moreover, not only medium and low-grade borrowers but prime borrowers have also been affected. The risk of companies being unable to service their bonds is considerably higher when economic activity is weakening than in economic upswings. The larger credit risk premiums therefore point towards slower economic growth.

Graph 3.4
Swiss Confederation bond yields

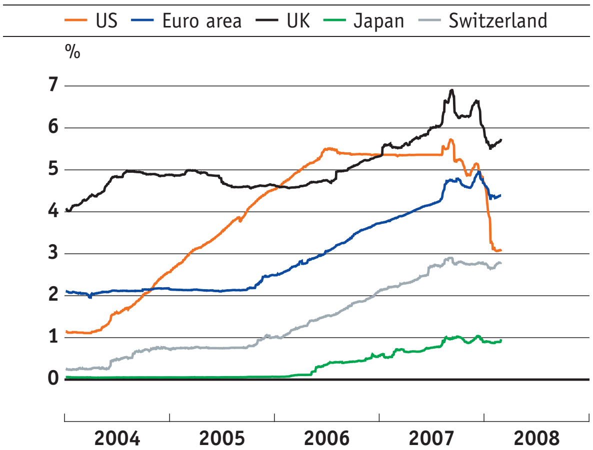
Monthly mean of annually compounded nominal discount bond yields in percent p.a.



Graph 3.5
Spread of Swiss third-class industry bonds

Classified by the SNB. Smoothed spread over the Swiss Confederation bond yields in basis points

Graph 3.6
International short-term interest rates (three months)



Graphs 3.4, 3.5 and 3.6:
Source: SNB

Declining interest rate differentials between the dollar area and the euro area on the money market…

As opposed to Switzerland, short-term interest rates in the US and the euro area declined after the previous monetary policy assessment in December. The Fed cut its key interest rate by a total of 125 basis points to 3.0%. Since the last monetary policy assessment, the three-month rate for dollar deposits had therefore fallen substantially by 212 basis points to 2.85% in mid-March (cf. graph 3.6). The interest rate differential between three-month dollar and Swiss franc deposits has been narrowing continuously since mid-2006. At mid-December, it stood at 218 basis points; by mid-March it was 3 basis points. The three-month rate for euro deposits also eased between mid-December and mid-March, but by much less than for dollar deposits. The interest rate differential between euro and Swiss franc deposits therefore narrowed by 38 basis points and stood at 178 basis points in mid-March.

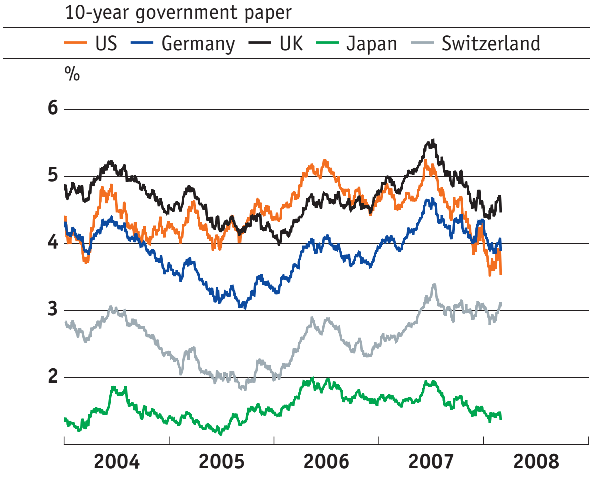
… and on the capital market

The attractiveness of risk-free government bonds also increased on foreign markets between December and February, and to a greater degree than in Switzerland (cf. graph 3.7). Yields on ten-year US Treasury bonds averaged 3.74% in February, while ten-year German government bonds averaged 3.84%. The differentials between foreign government bond yields and Swiss Confederation bond yields have been shrinking steadily since early 2007. In February, this yield differential between dollar and Swiss franc bonds averaged 0.8 percentage points compared to 1.05 percentage points in December. The yield differential between euro and Swiss franc bonds narrowed over the same period from 1.15 percentage points in December to an average of 0.9 percentage points in February.

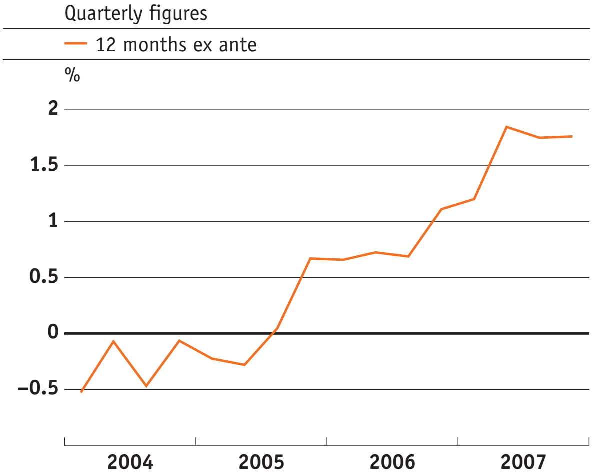
Real interest rate remains slightly above the long-term average

Graph 3.8 shows movements in the one-year real interest rate. This rate is defined as the difference between the 12-month nominal interest rate

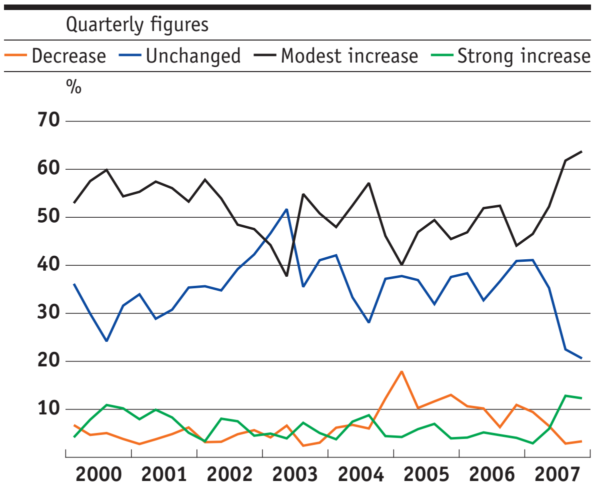
Graph 3.7
International interest rates



Graph 3.8
Estimated real interest rate



Graph 3.9
Survey on expected movements in prices



Graph 3.7:
Sources: SNB, Thomson Datastream

Graph 3.8:
Source: SNB

Graph 3.9:
Sources: SECO, SNB

and the expected rise in consumer prices over this period; inflation expectations are taken as the average of the forecasts published by a number of different institutions (*Consensus Forecast*, February 2008)[1]. The real interest rate measured in this way was unchanged in the fourth quarter of 2007 at around 1.8%. For the third time in succession, the one-year real interest rate was thus only slightly above its long-term average of 1.7%.

The survey of households carried out by SECO in January revealed that inflation expectations remain high (cf. graph 3.9). Compared to the previous quarter, however, the percentages of respondents who were expecting prices to fall, rise or remain the same were almost unchanged.

1 Cf. table 1.1.

3.2 Exchange rates

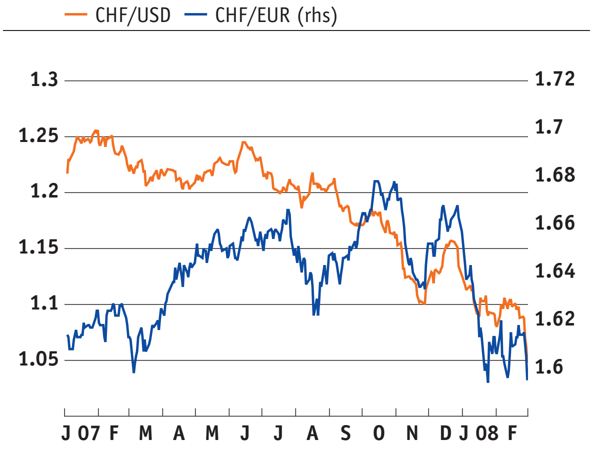
Stronger Swiss franc

There has been a marked rise in the value of the Swiss franc since the last monetary policy assessment in December (cf. graph 3.10). Between mid-December 2007 and mid-March 2008 it gained approximately 6% against the euro and in mid-March stood at 1.57 CHF/EUR. The appreciation against the euro was most marked between 27 December 2007 and 28 January 2008. The franc appreciated against the dollar by approximately 13% and was trading at 1.01 CHF/USD in mid-March. The dollar/euro exchange rate was highly volatile again, hitting several new highs. In mid-March it stood at 1.55 USD/EUR.

The Swiss franc had been steadily losing value against the euro since the beginning of 2006. This trend was broken in October 2007. The franc was relatively stable against the dollar between early 2004 and early 2007. Then it began to strengthen – only slightly at first but then, after the summer of 2007, at an increasingly rapid pace. The weaker dollar is consistent with the sharp reduction in US growth prospects and a narrowing of interest rate differentials. Some of the recent appreciation of the Swiss franc against the dollar and the euro is also an expression of the increased uncertainty on the financial markets (cf. *Quarterly Bulletin* 3/2007, p. 32).

Graph 3.10
Exchange rates

Daily figures



Source: SNB

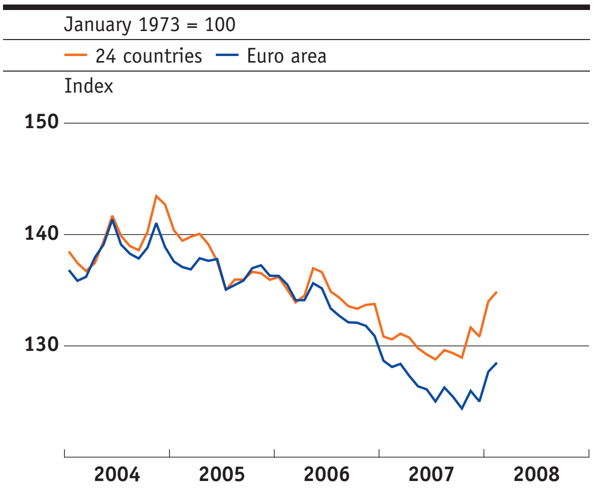
Rise in the real external value of the franc

The recent movements in nominal exchange rates are also reflected in the trade-weighted real exchange rate of the Swiss franc, which factors in differences in price movements between currency areas. The euro area accounts for 60% of Swiss exports, while the US absorbs 15% and the bulk of the remaining 25% is taken by Asia, i.e. a region in which many currencies are linked to the dollar. Between December 2007 and February 2008, the Swiss franc appreciated against the euro area by 2.9% in real terms, after trending downwards since mid-2004. Against Switzerland's 24 largest trading partners, the real external value of the franc rose by even more – almost 3.2%.

More restrictive monetary conditions

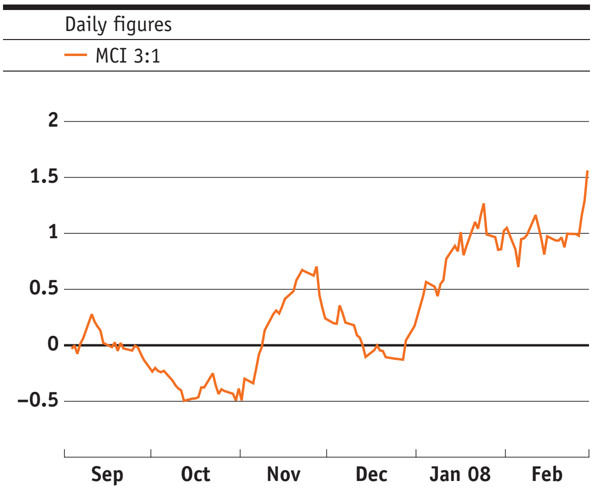
The substantial appreciation of the Swiss franc since the December monetary policy assessment, accompanied by an unchanged short-term interest rate, resulted in a marked tightening of monetary conditions, as shown by the Monetary Conditions Index (MCI) in graph 3.12. The MCI combines the three-month Libor and the trade-weighted nominal external value of the Swiss franc, providing a measure of the monetary conditions with which businesses in Switzerland have to contend. The MCI is reset to zero immediately after each monetary policy assessment. An increase to positive values (decline to negative values) thus signifies a tightening (loosening) of monetary conditions (cf. box, 'The Monetary Conditions Index', *Quarterly Bulletin*, 1/2004, p. 27). At the end of February, the MCI stood at 156 basis points. Measured by the historical changes in the index, a rise of more than 1.5 percentage points is high.

Graph 3.11
Export-weighted real exchange rate of Swiss franc



Source: SNB

Graph 3.12
MCI nominal



Source: SNB

3.3 Equity, commodity and real estate prices

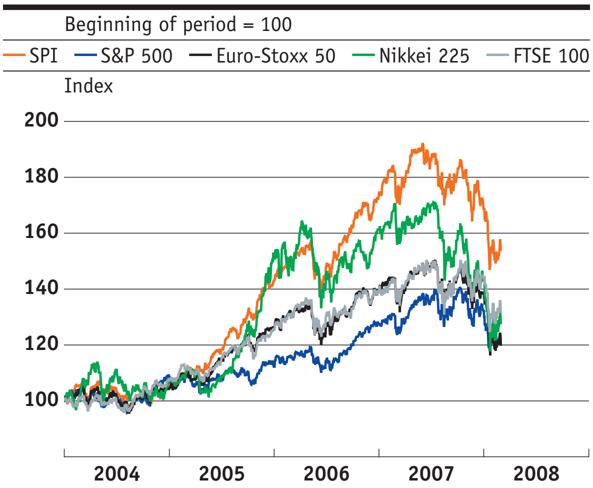
Equities, commodities and real estate are investment assets. Their prices are pertinent to any analysis of the economic situation for two main reasons. Firstly, price fluctuations on these markets trigger changes in corporate and household wealth, which in turn has repercussions for their credit standing and for their consumption and investment behaviour. Secondly, changes in inflation expectations lead to equities, real estate and commodities being revalued. Price movements in these investment assets therefore allow conclusions to be drawn about inflation expectations. Commodities are also of interest for a third reason: They are inputs in the production process of many goods. Consequently, their prices affect costs and may thus exert pressure on the general price level.

Large price falls and high volatility on the equity markets

The international equity markets have suffered further losses since mid-December 2007 (cf. graph 3.13). There are two main reasons for the slump in share prices. Firstly, the equity markets have been adversely affected by the sub-prime crisis and the uncertainty as to its full extent. Secondly, the economic environment in the US and other countries has deteriorated. The S&P 500 in the US and the EuroStoxx 50 in Europe lost 11% and 18% respectively between mid-December and mid-March. In Switzerland, the Swiss Performance Index (SPI) slipped by 16% over the same period. The SPI correction amounted to 10.5% in January 2008 alone. This monthly loss marked the worst January since the introduction of the SPI in 1987 and its ninth-worst monthly performance overall. The sector breakdown shows that it was bank shares, in particular, that were the most seriously affected (cf. graph 3.14). Between mid-December and mid-March, they lost around 45% of their value, with the prices of large-cap international banks suffering the most, due to some heavy write-downs and downward revisions to earnings and dividend forecasts. The economic concerns triggered by the sub-prime crisis also impacted on other sectors. The Swiss technology sector, in particular, recorded a substantial decline (–36%).

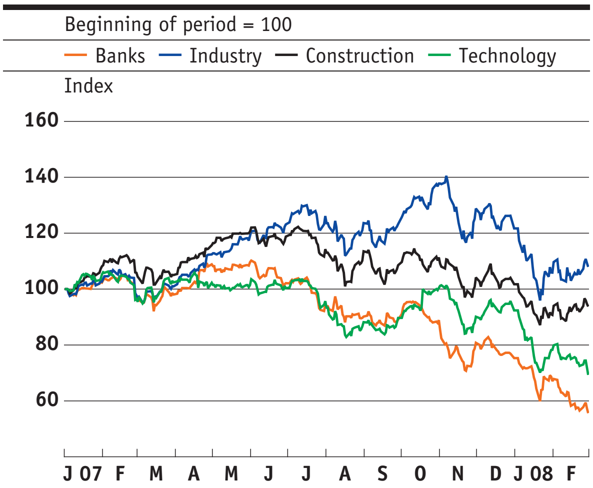
Graph 3.15 shows the expected volatility for the next thirty days based on the Chicago Board Options Exchange Volatility Index (VIX) and the actual volatility measured as the annualised standard deviation of monthly yields on the SPI and S&P 500. Volatility, which is a sign of uncertainty, goes hand in hand with equity market corrections. There is, therefore, a correlation between the sharp swings in volatility and the share price falls of August and November 2007 and late January 2008.

Graph 3.13
Stock prices



Sources: Bloomberg, Thomson Datastream

Graph 3.14
Selected SPI sectors



Source: Thomson Datastream

Higher commodity prices

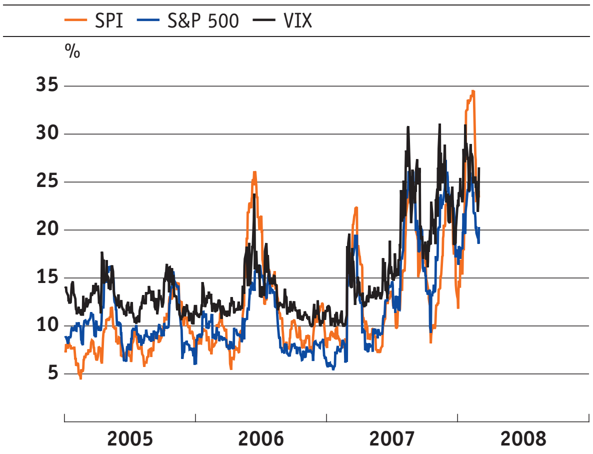
Commodity prices continued to advance. Boosted by a number of factors, including the rising prices of base and precious metals and agricultural products, the Goldman Sachs Commodity Index gained almost 19% between the mid-December 2007 monetary policy assessment and mid-March. The price of gold reached a new all-time high. This performance could be due in part to the weakness of the dollar and the search for safe investments that might offer protection from inflation.

The prices for energy products were on the rise again, although they were subject to relatively large fluctuations. The price of oil hit new highs in early January 2008, slipped back quite substantially towards the end of January and again reached a new record high in late February. At mid-March, the oil price stood at 107 dollars per barrel.

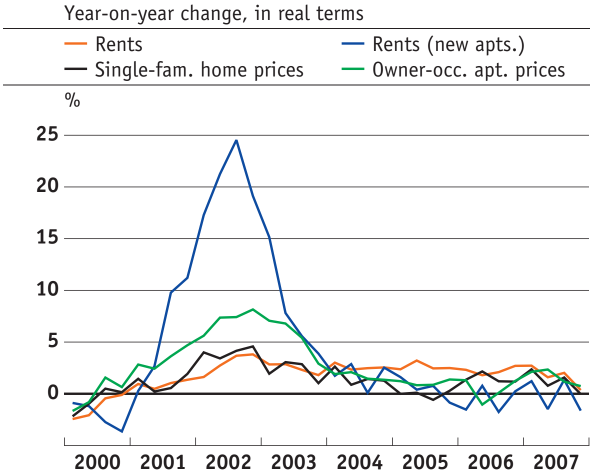
Moderate price pressure continues on the real estate market

Prices on the housing market continued to rise moderately in real terms (i.e. relative to the CPI) in the fourth quarter of 2007 (cf. graph 3.16). The biggest increase was in the prices of owner-occupied apartments (0.7%), while prices of single-family homes remained flat. Year-on-year, apartment rents, which make up the largest segment of the Swiss housing market and are also the largest component of the CPI (around 20%), rose by 0.4% in real terms, i.e. by much less than in the previous quarter (2.0%). This figure relates largely to the existing housing stock. Rents for first lettings, which are a better reflection of market forces, actually fell, losing 1.6%. Rents for business property also fell (cf. graph 3.17): Not only did office rents continue their decline (–1.4%) but commercial rents fell for the first time in five quarters (–3.0%).

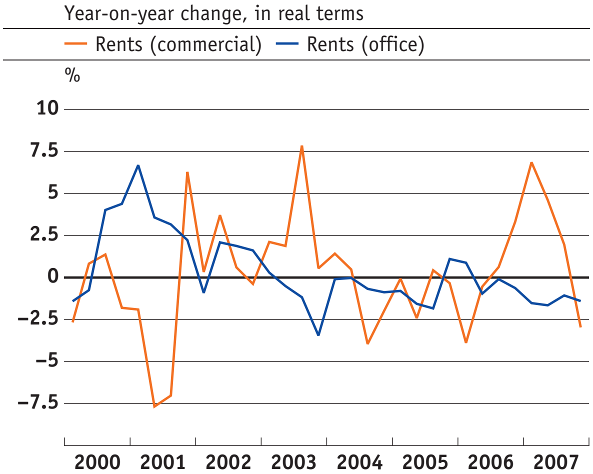
Graph 3.15
Volatility of equity returns



Graph 3.16
Real estate prices and rents



Graph 3.17
Real industry and office rents



Graph 3.15:
Sources: SNB, Thomson Datastream

Graph 3.16:
Source: Wüest & Partner

Graph 3.17:
Source: Wüest & Partner

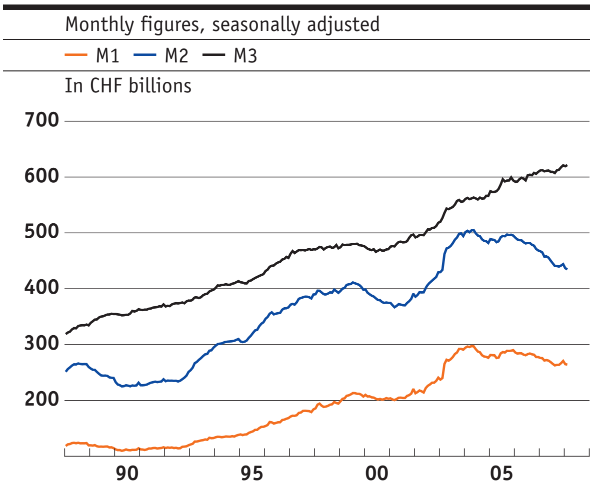
3.4 Monetary aggregates

M1 and M2 still declining

As shown in graph 3.18, both M1 (notes and coins in circulation, sight deposits and transaction accounts) and M2 (M1 plus savings deposits) have been declining since early 2006 and still remain at a low level. In February 2008, M1 (–4.2%) and M2 (–6.6%) were lower than a year earlier. On the other hand, M3 (M2 plus time deposits) continued to grow slightly in February (+1.4%). While the M1 and M2 monetary aggregates had been fluctuating at a high level from 2003 to 2005, they fell once interest rates began to rise.

One way of assessing potential inflationary risks emanating from an excessive supply of liquidity to the economy is to calculate the monetary overhang. This corresponds to the positive or negative deviation of actual M3 from an equilibrium value which is calculated on the basis of the transaction volume in the economy and the opportunity cost of holding money (cf. box, 'Money supply growth and inflation', *Quarterly Bulletin* 1/2005, p. 33). In order to take account of statistical uncertainty, the monetary overhang is presented in graph 3.19 as a range that spans one standard deviation. If the range is below the zero line – as was the case in the fourth quarter 2007 for the second time in succession – this indicator points towards lower inflation pressure in the medium term.

Graph 3.18
Monetary aggregates



Source: SNB

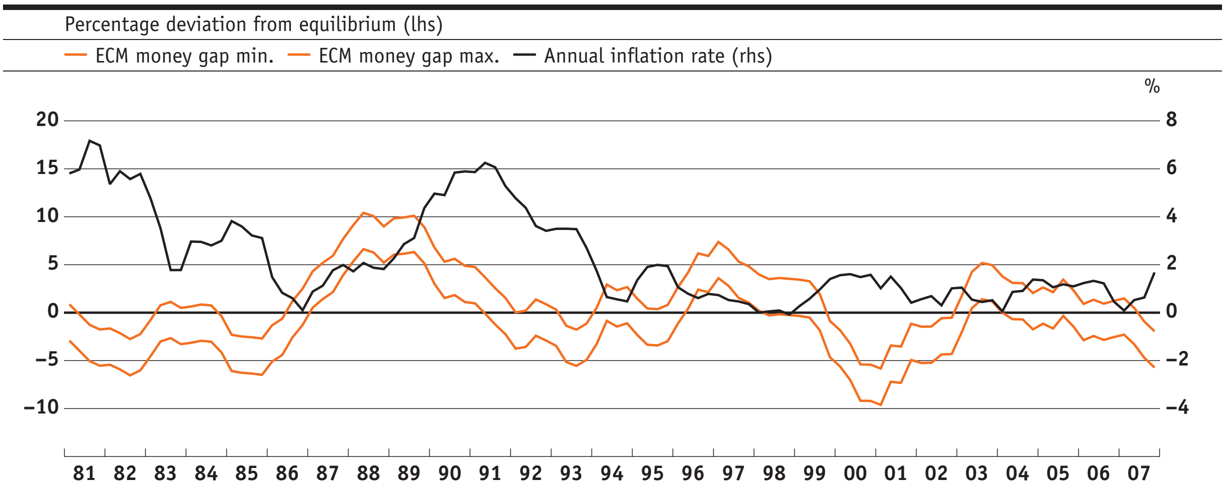
Monetary aggregates[1]

Table 3.1

	2006	2007	2006 Q4	2007 Q1	Q2	Q3	Q4	December	2008 January	February
Monetary base[2]	**43.1**	**44.2**	**43.6**	**44.6**	**44.0**	**43.4**	**44.8**	**46.8**	**46.4**	**45.0**
Change[3]	*3.0*	*2.5*	*2.2*	*3.1*	*1.5*	*2.7*	*2.7*	*2.8*	*2.8*	*1.8*
M1[2]	**282.4**	**269.1**	**281.0**	**276.0**	**270.0**	**261.5**	**269.1**	**271.7**	**267.8**	**267.4**
Change[3]	*–0.6*	*–4.7*	*–3.4*	*–3.6*	*–4.2*	*–6.7*	*–4.3*	*–2.4*	*–4.1*	*–4.2*
M2[2]	**481.6**	**450.6**	**474.1**	**465.9**	**453.9**	**439.0**	**443.6**	**445.8**	**440.6**	**438.8**
Change[3]	*–2.0*	*–6.4*	*–4.7*	*–5.3*	*–6.1*	*–8.0*	*–6.4*	*–5.2*	*–6.5*	*–6.6*
M3[2]	**600.3**	**612.3**	**607.9**	**613.4**	**611.6**	**606.4**	**617.8**	**622.8**	**622.5**	**624.1**
Change[3]	*2.5*	*2.0*	*2.0*	*3.0*	*2.4*	*1.0*	*1.6*	*2.0*	*1.2*	*1.4*

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

Graph 3.19
Money gap and annual inflation rate



Source: SNB

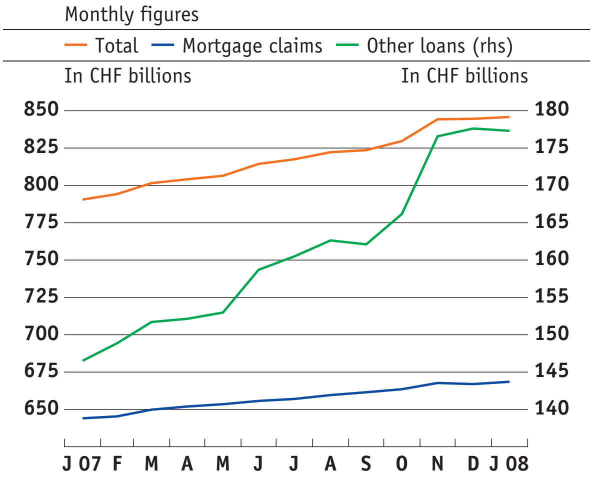
Mixed credit signals

Credit growth accelerated in the fourth quarter of 2007 to 6.9% year-on-year. The quarter before, it was 5.5%. This growth is due to increased corporate lending (+11.6%), whereas growth in lending to households was once again moderate (+4.0%).

Table 3.2 provides figures on lending by type of use. The change in 'Other loans' – which mainly comprise borrowing by companies – rose markedly towards the end of the year, advancing from 13.1% year-on-year in the third quarter to 20.2% in the fourth quarter. Unsecured loans (25.5%) were the main driver. Mortgages, most of which are taken out by households, were up 3.9% in the fourth quarter – virtually the same as in the previous quarter.

Graph 3.20 depicts the levels of total loans, mortgage loans and other loans. At the current margin it can be seen that these loans have stabilised at a high level.

Graph 3.20
Bank loans



Source: SNB

Bank loans Table 3.2

Year-on-year change in percent

	2006	2007	2006 Q4	2007 Q1	Q2	Q3	Q4	November	November	2008 January
Total[1]	**4.8**	**5.8**	**5.1**	**5.2**	**5.3**	**5.5**	**6.9**	**7.4**	**7.4**	**7.0**
Households[2]	6.1	4.6	5.9	5.1	5.0	4.4	4.0	4.5	3.1	3.5
Companies[2]	1.6	6.7	3.4	3.9	4.5	6.6	11.6	11.3	15.8	13.9
Mortgage claims[1]	4.8	4.0	4.5	4.2	4.2	3.8	3.9	4.2	3.8	3.8
of which households[2]	5.5	4.3	5.3	4.9	4.8	4.0	3.7	3.6	3.6	3.6
of which companies[2]	1.2	2.3	0.7	0.8	1.2	3.0	4.3	5.3	4.1	4.0
Other loans[1]	4.6	13.4	8.1	9.6	10.3	13.1	20.2	21.4	23.6	21.0
of which secured[1]	2.5	8.2	1.5	7.1	7.2	5.6	12.8	18.9	10.3	–0.8
of which unsecured[1]	6.3	17.2	13.4	11.5	12.6	18.6	25.5	23.2	33.2	38.2

1 Monthly balance sheets
2 Credit volume statistics
Source: SNB

4 The SNB inflation forecast

Monetary policy impacts on 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 that reason, the SNB's monetary policy is guided not by current inflation, but by the inflation rate that could be expected in two to three years if monetary policy were to remain unchanged. The inflation forecast is one of the three key elements of the SNB's monetary policy strategy, together with its definition of price stability and the target corridor for the three-month Libor.

4.1 Assumptions for global economic developments

The SNB's inflation forecasts are largely embedded in an international economic scenario. This represents what the SNB considers to be the most likely path of the international economy over the next three years. Table 4.1 shows the main exogenous assumptions for March together with the corresponding assumptions underlying the December forecast.

Lower growth momentum due to financial market turbulence

Because of the continuing turbulence on the US real estate market and the international financial markets, a markedly lower growth rate is expected in the US in 2008 and 2009 than was assumed for the December forecast. The risks of a medium-term slowdown in growth have also increased in Europe. For that reason, the latest forecast for 2008 has also been revised downwards compared to the December monetary policy assessment. In both economic areas, growth is still expected to trend towards the potential of approximately 3% (US) and 2% (EU) towards the end of the forecast period.

The latest scenario assumes an oil price of around USD 98 per barrel for the next few quarters and USD 92 in the long term. Internationally, higher inflation rates are forecast for 2008 and 2009, due to higher energy and commodity prices. The dollar/euro exchange rate has been increased slightly to 1.47 USD/EUR in the latest scenario for 2008 and 2009.

Assumptions for inflation forecasts Table 4.1

Inflation forecast of March 2008	**2008**	**2009**	**2010**
BIP USA [1]	1.5	2.4	3.1
BIP EU-15 [1]	1.7	2.0	2.4
		Short term	**Long term**
Exchange rate USD/EUR [2]		1.47	1.47
Oil price in USD/barrel [2]		98.3	92.0

Inflation forecast of December 2007	**2007**	**2008**	**2009**
BIP USA [1]	2.1	2.4	2.8
BIP EU-15 [1]	2.7	2.0	2.0
		Short term	**Long term**
Exchange rate USD/EUR [2]		1.42	1.42
Oil price in USD/barrel [2]		94.0	82.0

1 Change in percent
2 Level
Source: SNB

Inflation forecasting as part of the monetary policy strategy

The SNB has a statutory mandate to ensure price stability while at the same time 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 within 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 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.

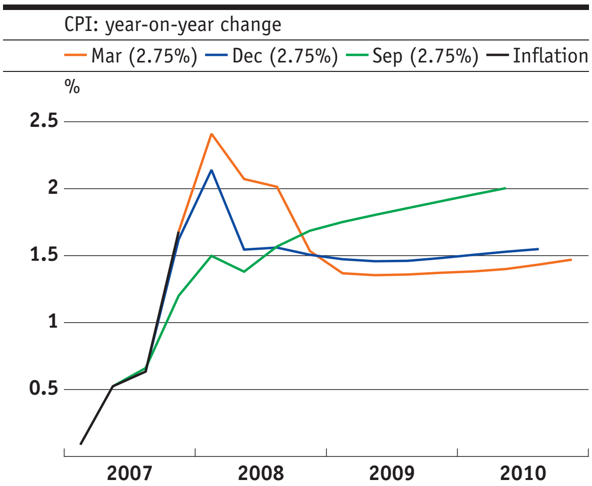
4.2 Inflation forecast for Q1 2008 to Q4 2010

The quarterly inflation forecast is derived from the analysis of different indicators, model estimates and the assessment of any special factors. It maps the future development of prices on the assumption that the three-month Libor will remain constant over the forecasting period. Graph 4.1 depicts the inflation forecast of March 2008 alongside those of December and September 2007. The new forecast, which covers the period from the first quarter of 2008 to the fourth quarter of 2010, is based on a steady three-month Libor of 2.75%. This rate corresponds to the mid-point of the 2.25–3.25% target range for the three-month Libor, which the SNB confirmed on 13 March. The December and September inflation forecasts were also based on a fixed three-month Libor of 2.75%.

The Swiss economy continues to grow at a very brisk pace. However, the expected slowdown in global economic growth will impact on the Swiss economy as well and result in a medium-term reduction in the pressure of demand. In the short term, forecast inflationary pressure has risen, as compared to the inflation forecast of December. This is due, first, to strong demand in the markets for goods, services and labour and to the fact that prices are rising across a broad front for oil, raw materials and agricultural products. Second, it is relatively easy to pass on costs in view of strong demand and the high utilisation of production capacity. Finally, higher inflationary pressure also reflects the delayed effects of the weakness of the Swiss franc in 2007. For these reasons, inflation will be situated slightly above 2% until the third quarter of 2008, and then fall again towards the end of the year. The medium-term inflation outlook has improved. This is due to the fact that the slowdown in Swiss growth is greater than the SNB had assumed in December. Assuming an unchanged three-month Libor of 2.75%, the SNB forecasts average inflation of 2% in 2008, and 1.4% in the two following years.

This assessment of the inflation outlook involves considerable uncertainty. For instance, should the price of oil increase further, the inflation forecast would deteriorate in the short term. There is also a risk that inflation expectations will become entrenched and will work against a decline in inflation. At the same time, there is a danger that the economy will weaken even more than expected. In this event, the medium-term inflation forecast would have to be adjusted downward.

Graph 4.1
SNB inflation forecasts: a comparison



Source: SNB

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

Summary report for the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2008

The Swiss National Bank's delegates for regional economic relations are constantly in touch with a large number of enterprises from the different industries and economic sectors. Their reports, which contain the subjective evaluations of these companies, are an important additional source of information for assessing the economic situation. On the following pages, the most important results of the talks held from December 2007 to February 2008 on the current and future economic situation are summarised.

Summary

Most of the 170 or so representatives of various economic sectors and industries interviewed by the SNB delegates for regional economic relations between December and February reported good business activity. The industrial sector and consumer-related industries such as retail and tourism performed particularly well. By contrast, respondents from the banking sector, who have been considerably affected by the stock market slump, gave a more cautious assessment.

The prevailing outlook for the next few quarters is optimistic. Given the high level of capacity utilisation, the current year should again see some significant investment. In contrast to the autumn 2007 round of talks, however, financial market turbulence and the uncertainty this is causing put a dampener on sentiment, thus nipping any euphoria more or less in the bud. Nevertheless, both banks and companies refuted any suggestion of a tightening in lending conditions. On the other hand, rising prices for energy, industrial raw materials and agricultural products, coupled with the weak dollar, proved to be a major burden. Recruitment of personnel also continues to pose a problem.

1 Production

Manufacturing

After what was, for the most part, a very successful 2007, the majority of manufacturing companies got off to a good start in 2008 and were generally able to reach or even exceed their targets. However, sales growth targets for 2008 are mainly lower than the figures from the previous year. Outstanding orders remained at a very high level and, in many cases, are set to extend through the first half of the year. The EU, eastern Europe (Russia) and Asia (China) continued to be the most important drivers of demand. Nevertheless, a number of companies reported a sharp decline in demand from the US. This was especially the case for suppliers to the US automobile and construction industry, although companies in other sectors have not (yet) experienced much of a slowdown. Markets are broad-based in geographic terms, meaning that higher sales in other regions frequently helped to offset US losses. Utilisation of technical capacity and staffing levels remained very high in most sectors, thus again resulting in production delays and extended delivery periods. Procurement of raw materials is still a problem, although the situation does seem to have eased somewhat.

The healthy economic climate extended across almost all industries. High levels of investment worldwide in the relatively non-cyclical areas of electricity and transport had an especially stimulating effect, as did increased efforts to consume energy and raw materials more efficiently. However, a large number of respondents expected order intake to level off during the course of the year, even though clear indicators pointing in this direction are still few and far between. In many cases, respondents saw this as part of a process of the economy 'returning to normal' – which, in view of the continued signs of overheating, was something to be welcomed.

Services

Representatives from consumer-related service sectors again expressed a great deal of satisfaction at the way business has performed. After what was by and large a gratifying Christmas season, retailers reported good sales results for January and February and continued free-spending on the part of consumers. This applies both to wholesalers and to smaller retailers. Nevertheless, some respondents offered a somewhat more circumspect outlook for the rest of 2008 and reduced their sales targets accordingly. Car dealers are currently one such retail group with this mindset. Up to now, signs of a drop in expectations have been particularly evident in the medium price bracket, but less so in the high-price and luxury segments. Retailers in Switzerland's border regions continued to benefit from the exchange rate-induced decline in cross-border shopping by Swiss residents.

Respondents from the various tourism sectors also painted a positive picture. The winter season generated record results in some areas, thanks to favourable snow and weather conditions and a considerable willingness to spend on the part of tourists. Most respondents were optimistic as regards future prospects. The numbers of both domestic holidaymakers and tourists from the EU, Asia and eastern Europe are extremely encouraging, so that the drop in visitors from the US has probably been compensated. Swiss cities also benefited from the continuing strong demand relating to business events and conferences. Having said this, some parts of the banking sector were reporting cancellations.

The outlook among representatives from the company-related services segment was more mixed. Whereas respondents from the IT industry were upbeat, transport and logistics companies reported a drop in cross-border transactions. Higher transportation costs are also having a tempering effect. A number of management consultants, whose clients include banks, have also expressed misgivings.

Given the financial market turbulence and weak stock market, banks were less optimistic as regards the business climate than they were a few months ago. This rather more downbeat view was especially noticeable among service providers operating mainly in the wealth management segment, whose clients' custody account assets have contracted. Customers are also less inclined to perform banking transactions. Consequently, many of the respondents surveyed expected a decline in commission income compared to the prior-year level. The lending business continued to perform well, though margins remain under pressure. In view of the slowdown in the residential construction sector, banks are expecting a deceleration in mortgage volume growth. Corporate lending remained robust, with banks continuing to take a favourable view of their clients' financial circumstances. They rejected any suggestion that they had tightened their lending conditions, and this was confirmed in discussions with business representatives. However, there is some trepidation among a number of companies at the prospect of having to renew their respective loans.

Construction and real estate

Construction industry representatives were again encouraged by economic conditions, despite most reporting a downturn in new residential building. In many cases, a high order backlog guarantees continued activity well into 2008. Commercial and industrial construction and, to a certain extent, major public building projects are helping to provide positive impetus. The verdict was also positive among respondents from the construction-related industries, which are benefiting greatly from a high level of renovation activity and improvements in energy technology. Opinions are still divided on the outlook for the real estate market. Price increases – most notably in the top price bracket – seem to be subsiding in some regions. This is attributable to an increase in the availability of residential property and to heightened price sensitivity, mainly on the part of potential buyers from abroad. In other regions, strong demand and rising real estate prices continue to be norm.

2 Labour market

While a number of respondents have indicated their intention to further expand their workforce this year, the demand for additional labour seems less urgent compared to the previous year. Temporary employment is being used increasingly as a means of covering personnel requirements. The recruitment of qualified staff is still proving to be a difficult and cost-intensive process – a problem which applies to the labour markets both in Switzerland and abroad. Fluctuation rates also remained at a high level. The wage increases implemented by most respondents were more substantial than in the prior-year period. Almost all companies reported a rise in wage pressure – a situation which only gave cause for concern in exceptional cases, however.

3 Prices, margins and earnings situation

Rising prices for energy, raw materials and agricultural products were a considerable worry. Scope for price adjustments in the industrial sector has increased during the economic upswing of the past few years. However, fierce price competition continues to dominate many areas, and this often prevents the full cost of inflation from being passed on to customers. Companies are therefore continually seeking to increase productivity in order to maintain margins. At the beginning of the year, wholesalers upped the prices of numerous basic foodstuffs such as bread, flour and milk products, thereby passing on at least some of the higher procurement costs for corn and milk. Customers apparently accepted these price hikes without complaint. Nevertheless, in view of the consistently tough competition, representatives from the retail sector are still envisaging downward pressure on prices.

As a result of the weak dollar, many exporters are seeing their margins shrink drastically. Price increases in the US currency only tend to work in exceptional situations, and companies that charge in Swiss francs are often forced to make price concessions. In some parts of the Asian dollar area, invoicing in euros is being increasingly encouraged. In contrast, exporters expressed continued satisfaction with the euro exchange rate. Although the euro, which was still strong, pushed up the price of numerous goods from the EU area, the consumer goods sector in particular was able to pass on the cost of these hikes.

Small and medium-sized exporters: Challenges when developing new markets

Thomas Kübler, delegate for regional economic relations

1 Swiss economy benefits from globalisation

Switzerland is one of the world's most globalised economies.[1] This finding is not new. As a small, open economy with few raw materials, Switzerland opened up its economy at a very early stage, enhancing its wealth through extensive integration into a global economy characterised by the division of labour.[2] The Swiss efforts meant an intensive development of export markets. Integration in the world economy also included opening up the domestic market for imports and participating in the global division of labour by fragmenting the added-value chain and locating individual processes in places where the best opportunities lay.

In October 2007, the Swiss National Bank delegates for regional economic relations surveyed 55 small and medium-sized Swiss exporters. Their objective was to try and ascertain why and how well the companies were integrated in the global economy, how they went about this, and the consequences for Switzerland as a business location. The most important findings from the survey were as follows:

- In the past few years, the integration of the Swiss economy within the global economy has proceeded steadily. In general, exports shipped by the companies surveyed are increasing faster than domestic sales; more and more, global sourcing is replacing in-house or local sourcing, and offshoring is moving forward.
- Exporters' target markets are rapidly shifting from western European countries towards eastern Europe and Asia. Most companies are developing new markets on their own initiative. They are doing so step-by-step with the aid of existing networks – or their own networks – without any government support. In general, this development is funded from their own resources.
- The increasing importance of exports is attributable to the dynamic growth in these markets, customer relocations and the expansion of market potential. Due to higher sales volumes, economies of scale can be achieved or the critical threshold attained at which an investment is paid off.

Clearly, Swiss companies are benefiting from the vitality of exports. But does this hold for the Swiss economy as a whole? Or is integration – ultimately – causing parts of companies to be offshored, with the substitution of in-house or domestic sourcing by imports? The findings obtained from the survey were as follows:

- 70% of the companies surveyed have offshored individual corporate functions or business processes. The decisive factor in favour of offshoring in most cases was customer closeness ('follow the customer'). However, increasing cost pressures were also mentioned.
- Mainly, the activities that were offshored were labour-intensive processes in which the Swiss location did not enjoy a comparative advantage. Most of the companies surveyed stated that their home location benefited from this decision since it often triggered additional investments at the parent company in order to increase labour productivity.
- Thus, foreign investment is, in many cases, complementary to equipment investment in the home market. The aim is to retain processes requiring a great deal of expertise at the home location. However, the pressure to relocate even modern technologies and high value-added processes is increasing.

Is it still possible to supply labour-intensive inputs in Switzerland, in view of this increasing concentration on high value-added, expertise-oriented processes? The findings of the survey were as follows:

- The share of imports is rising at about half of the companies surveyed. Moreover, procurement markets are increasingly shifting from regions just across the border to eastern Europe, Asia and, in some cases, Latin America.
- Increased imports are being triggered by lower prices for the imported inputs as well as the fact that, often, the inputs are not (or no longer) manufactured in Switzerland.
- According to the respondents, the imported goods are seldom re-exported without a "large" amount of added value.

1 Globalisation index of the Swiss Institute for Business Cycle Research at the Federal Institute of Technology (KOF) 2008
2 SECO, *Strategische Ausrichtung der Schweizerischen Aussenwirtschaftspolitik,* p. 5, Berne 2005

It may be concluded from the survey that the Swiss economy is benefiting from the increasing integration of companies in the global economy, as well as the growing internationalisation and globalisation of added-value chains. The vast majority of the companies surveyed stated that they had experienced growth in added value, an increase in employment and a rise in productivity at their Swiss location, despite the offshoring of individual processes.[3]

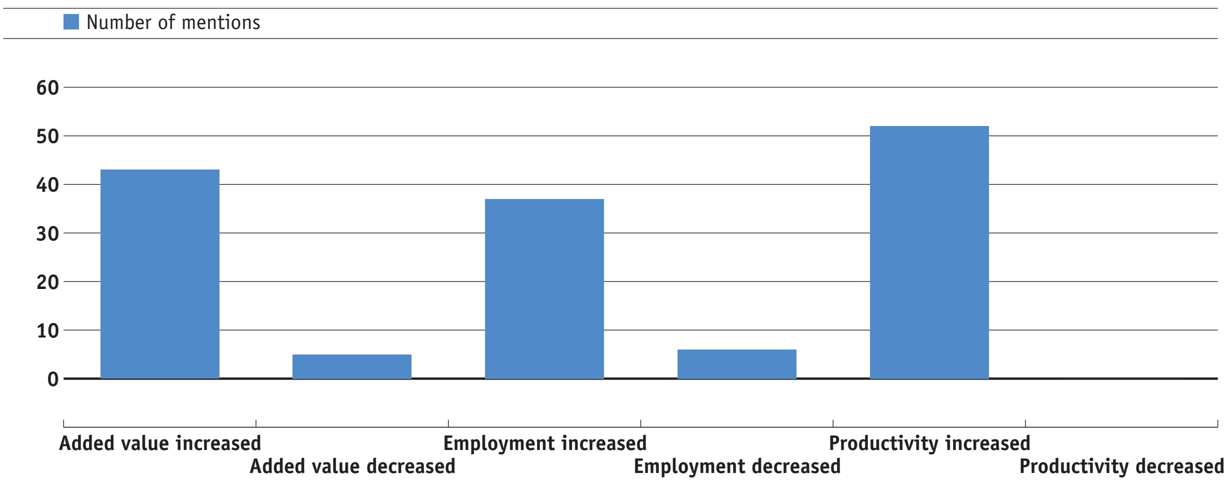
2 Detailed results of the survey

2.1 Strong export performance

The vast majority of survey participants (about 70%) stated that they were growing faster or much faster in the export sector than on the domestic market. Companies with very high export ratios were predominant among those who reported no difference – or very little difference – between domestic and foreign sales figures.

Of the experts surveyed, 18 (about 32%) mentioned the fact that the structure of (or changes to the) institutional framework had promoted market entry. The Bilateral Treaties were mentioned repeatedly, and the freedom of movement of labour, in particular, was singled out. Above all, mention should be made of the improvements and simplifications in access to the European labour market, and the easier recruitment conditions in Switzerland that have resulted. The simplified cross-border employee transfers within corporate groups are also stressed, notably the increased flexibility in the internationalisation of corporate structures that can be achieved in this manner. In addition, respondents were positive about both the expansion of the EU into eastern Europe and the simplified access to new sales and procurement markets that has resulted as well as about the improvements brought about within the context of the WTO.

Graph 1
Net effects of integration



Source: SNB survey, October 2007

3 This corroborates a number of studies on this topic. Cf. Girma / Greenaway / Kneller, *Does exporting lead to better performance?*, University of Nottingham, 2002, or Robert Jäckle, 'Going multinational: What are the effects on home market performance?,' Deutsche Bundesbank, *Discussion Paper Series 1: Economic Studies* no. 03/ 2006; Sascha O. Becker, Marc-Andres Mündler, 'The effect of FDI on job separation,' Deutsche Bundesbank, *Discussion Paper Series 1: Economic Studies* no. 01/ 2007, or Spyros Arvanitis and Heinz Holenstein, 'Determinants of Swiss Firms R&D Activities at Foreign Locations,' *KOF Working Papers* no. 127, 2006.

Survey method and data sample

Survey method

The company survey was conducted in the form of personal interviews using a questionnaire. Companies were chosen selectively with the aim of achieving a data sample that would provide in-depth information about export activities, offshoring and global sourcing. Consequently, the survey is not representative but rather a survey of experts.

Structure of the data sample

In terms of its arithmetic mean (sales: CHF 340 million; staff: 990), the sample is skewed towards companies that are of above-average size. However, if we take the median value, we obtain figures (sales: CHF 120 million; staff: 354) that are typical for a Swiss small to medium-sized company. At about 70%, the proportion of exports exceeds the overall average for the economy (about 50%) by a considerable margin. However, if we bear in mind that the figure for the overall economy also includes public administration and other services provided solely for the domestic economy, we can assume that the sample adequately covers the Swiss export industry.

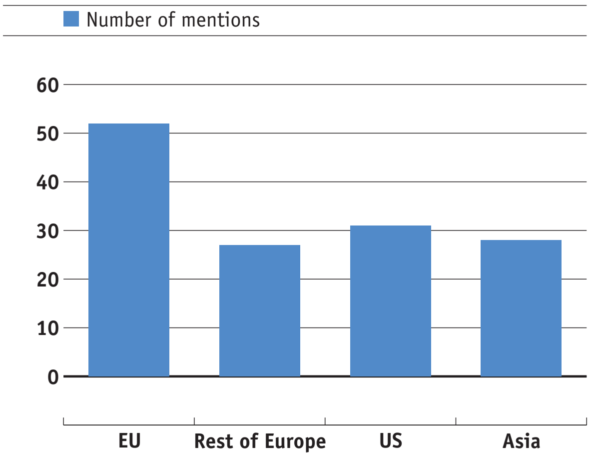
The vast majority of companies surveyed pursue a global export strategy rather than exporting to a single economic region. The EU remains the most important sales market. Western Europe, the US and Japan, say the majority of respondents, have 'always' been targeted, but eastern Europe and the rest of Asia did not come onto their radar screens until the end of the 1990s or the beginning of the 2000s. However, the significance of these regions is now growing rapidly.

2.2 Market access, distribution structures, motives and risk management

When small and medium-sized companies make their first ventures into new export markets, they often encounter challenges they had not confronted before. Even the task of obtaining information or monitoring the market poses difficulties for companies which – because of their size – do not have the requisite specialists. Additional challenges can be summed up as follows: market practices, purchasing power, preferences, the competitive environment, the operating environment provided by the state, financing arrangements, etc. A range of questions also arise when entering new markets: What form should the market entry take? How can distribution structures be established? How can market entry be financed? Finally, the question of the exchange rate risk comes up again – or to a greater extent than previously.

Market entry. The survey reveals that market entry is primarily self-directed. If need be, companies are supported by their own business partners or networks (existing customer or supplier relationships). For larger companies, or in the case of group companies, other group units serve as stepping stones for the entry into new markets. We see that, while business partners or networks hold a dominant position with over 70% of mentions, little mention is made of Swiss government organisations such as OSEC or Swiss embassies (15%), or support by state-backed institutions in the target region (10%).

Graph 2
Geographic distribution



Source: SNB survey, October 2007

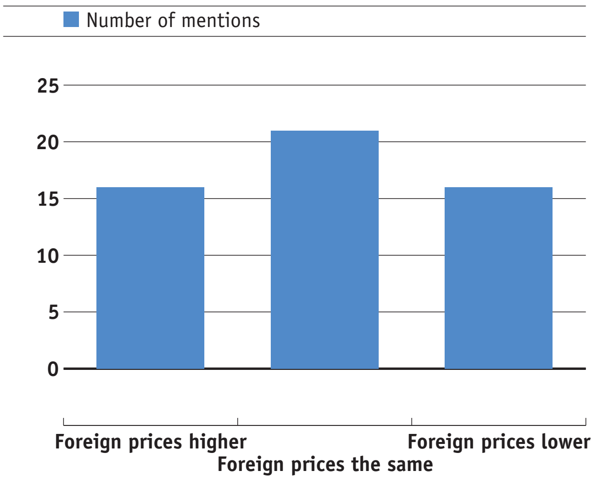
Distribution structures. Over time, and also with respect to the level of market penetration, changes in distribution structures may be observed. Typically, agents (30%) or company representatives (20%) are used in the initial phase. Not until the company is established in the market are distribution units established. However, these rapidly become very important (35%). A fairly major proportion of export products is accounted for by plants and systems, while 'the simple sale of products across the border' is less important and is subject to significant offshoring pressure. Consequently, the importance of service and engineering positions abroad is increasing. Internet sales are of secondary importance only. Although e-business would render on-site physical presence unnecessary – at least as far as sales (and possibly also distribution) are concerned – it is almost never used systematically.

Motives. The main motives for commencing or stepping up export activity are as follows:

- 34% of the companies surveyed state that they wish to expand their sales and market area in order to increase output and achieve economies of scale. They are clearly aiming for lower unit costs.
- Slightly more than 20% of respondents earn higher margins abroad. They specialise in niche products and most of them manufacture machinery or systems without strong competition on the market, or where the competition's product is not readily comparable to theirs. Here, the pricing power is with the producer.
- About 45% of respondents cited other motives, these being mostly 'market', 'market dynamics' and 'follow the customer'. The latter is a major driver, particularly for subcontractors. Another motive mentioned is that the Swiss market is close to saturation, while demand in the new growth markets of eastern Europe and Asia is lively.
- High-tech companies refer to the fact that significant changes in materials or production technology demand major investment in equipment if the company is to hold its position at the forefront of technological progress. Yet the requisite high level of capital commitment cannot be refinanced in the limited home market. In this respect, absolute market size (rather than market dynamics, or arguments relating to saturation or offshoring) is the decisive factor.
- Finally, export markets are also chosen quite consciously in order to diversify political risks as well as risks relating to business cycles.

Graph 3

Export mkt prices compared to domestic mkt prices



Source: SNB survey, October 2007

Comparison of prices in domestic and export markets. The question regarding relative prices in domestic and export markets produced interesting results. 16 respondents (30%) stated that prices were higher abroad, while 16 said the opposite. 21 respondents (40%) thought there was no difference in prices. Companies with a particularly strong and valuable brand and companies relying on the 'swissness' label due to the nature of their products often judged export prices to be higher. Companies that claimed they could achieve higher margins and prices abroad said that the value-added in export products was higher than it was in products sold on the domestic market. It was only because of this that the effort involved in selling to foreign markets was worthwhile, they said. Respondents operating in an environment in which prices in domestic and export markets were comparable put forward exactly the opposite argument. Most of them sell products, rather than systems. Moreover, their products and those of their competitors are largely standardised and can be easily interchanged. Consequently, there is little scope for price differentiation from one national market to another, and prices are generally set as a reaction to competitors' prices.[4]

4 Cf. Andreas M. Fischer, Matthias Lutz, Manuel Wälti, 'Who prices locally? Survey of evidence of Swiss exporters,' Centre for Economic Policy Research, Discussion Paper Series no. 6442, 2007.

Financing and exchange rates – exporters' risk management

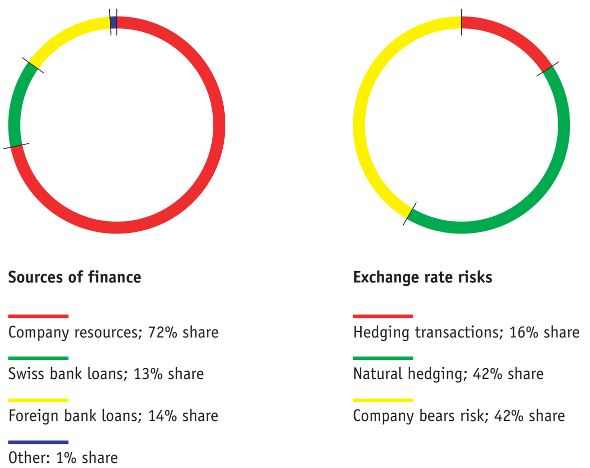
The majority of the companies surveyed finance their exports (establishing structures; day-to-day operations) from their own resources. This is due to the fundamental endeavour on the part of many companies to maintain a high equity ratio in order to secure their financial independence. An additional factor with regard to commitments abroad, they stress, is that domestic banks are very cautious as their organisations abroad are not extensive enough to provide adequate local customer service.

Financing market entry and development from Switzerland is also rated as difficult, since loan departments are not particularly well informed about the markets in question, and recourse to the securities abroad may not always be guaranteed – or can be difficult to enforce. Generally speaking, Swiss bank loans are only used when they can be backed by collateral in Switzerland. However, true growth funding is difficult to implement in this way. For their part, companies tend to give preference to local banks in the new markets, particularly where the country in question carries large political risks. From the company point of view, this reduces the exit costs and improves the negotiating position in the event of state intervention.

Cooperative ventures between Swiss exporters and local operators in the target markets are cited as an interesting strategy. Such ventures appear to be particularly promising when the exporter's technological expertise is combined with the local partner's accurate knowledge of the market. The operational advantages in terms of market entry and market development lie in overcoming the information deficits mentioned. In addition, this kind of cooperative venture seems to provide a foundation upon which combined financing arrangements can be organised. Thanks to the local business partner, the initial investment – usually in infrastructure – can be financed, while the Swiss partner will often provide the operating credit through his commercial bank.

The responses on the management of currency risks are closely related to the responses on offshoring, which are presented in the section below. Only 16% of companies surveyed said that they conduct hedging transactions using modern financial instruments. The vast majority stated that they bear the risk themselves. In the ideal case, this means either that the companies budget carefully, or that they absorb and compensate exchange rate losses and gains over time. Part of the risk is allayed by purchasing more inputs in the currency area in which revenues from exports will be earned, or by consciously locating cost blocks there (natural hedging). With respect to individual currencies, it emerges that the euro risk is initially borne by the companies themselves or reduced by means of natural hedging. The US dollar causes the companies more difficulties. Here the risk is considered to be greater. Nevertheless, hedging is only an option for larger companies.

Graph 4
Financing and exchange rates



Source: SNB survey, October 2007

2.3 Offshoring and imports – offsetting the positive export effects?

40 of the 55 companies surveyed stated that they had transferred corporate functions abroad, in particular, production units and distribution. Other units mentioned were processes that followed the customer or the market (such as maintenance and service, repair units, packaging and manufacture) or production-related processes (such as sourcing or pre-production processes). Typically, these were labour-intensive, value-added processes in which it was clear that the Swiss business location did not have a comparative advantage. The value-creation component was relatively unchanged despite the transfer of these processes abroad. In our sample, it stood at about 60–70%, considerably above the average for the economy overall, which – according to SECO – is below 40% for manufacturing as a whole.[5]

Closeness to the market was the dominant motive in the decision to transfer individual stages in the value-creation chain. This motive is becoming increasingly important, as can be seen from a number of results obtained in the survey. As development of the export market proceeds, the question of where to locate the different processes becomes ever more pressing for companies. The principle of closeness to the customer still appears to be the most important argument. Cost considerations come second. Although most companies attempt to position themselves in niches where price elasticity is low, the pressure on prices and costs is high in the global market.

Despite the international treaties, trade barriers still exist in places. To some extent they can be avoided by producing locally. Similar problems are evident in the case of subcontractors. For instance, some contractors stated that their customers had put pressure on them to transfer part of their production to low-wage countries so that they could reduce costs and increase the local content of the final product.

Increase in imports, but not a 'bazaar economy'

Half of the companies surveyed stated that the importance of imports was increasing for their businesses. The majority of imports were commodities and semi-manufactures; only 23% were finished products. More than 40% of imports were used as inputs for companies' own products, 34% went into final consumption and 25% were re-exported – either directly or after finishing.

Finally, companies were asked whether there had been any changes in the share of imports. 27 respondents said that the share of imports was increasing. The reasons given were the more favourable import prices as compared to local production (58%) and the better quality of imported goods (9%). 33% of respondents said that the products were not (or no longer) available in

Graph 5
Motives for offshoring

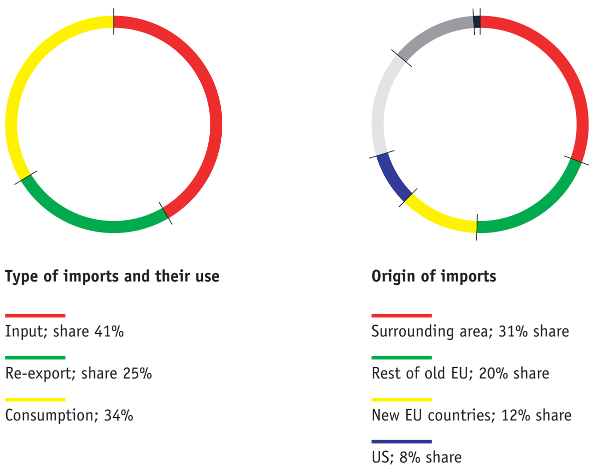
Source: SNB survey, October 2007

5 SECO, 'Outsourcing, Produktionsstruktur und Wertschöpfungsquote,' in 'Die Konjunkturtendenzen Sommer 2007', p. 41 et seq.

Switzerland. A number of responses also revealed that companies now order their commodities direct from their own sourcing companies or via group companies abroad, and no longer source them through regional or national wholesalers. While no in-depth exploration of the discussion on the 'bazaar economy'[6] that is being conducted in Germany will be offered here, the survey results certainly provide no indications that Switzerland can be said to be a "trans-shipment conveyer belt where goods are merely given a polish and shine". Imports are used as inputs or for consumption, or exported following a finishing process.

Looking at the procurement markets, the multiple mentions show that, on average, the companies surveyed source their imports from two countries or economic regions. In other words, purchasing is somewhat less diversified than sales. Measured in terms of the volume sourced from the individual regions, the economies bordering Switzerland and the other 'old' EU countries predominate. Here, too, we note a very strong tendency to transfer imports to the 'new' EU countries and Asia.

Graph 6
Imports, by type, use and origin



Source: SNB survey, October 2007

6 H.-W. Sinn, Die Basar-Ökonomie – Deutschland: Exportweltmeister oder Schlusslicht?, Econ Business, 2005

3 Conclusion

This survey of experts from the executive management of 55 Swiss export companies has revealed that integration in the global economy is well advanced and is moving forward at a rapid pace. The integration encompasses the development of both sales and procurement markets, and also involves the fragmentation of the value-creation chain and the decentralised location of individual parts of processes.

Companies are exposed to competition and focus on niche markets and activities with a high level of value creation. Their growth in export markets is faster than that in the domestic market, and they source lower-cost primary products abroad.

Switzerland benefits as a business location from the fact that high value-creation activities (as opposed to labour-intensive activities) are carried out here, that investments are made in infrastructure at the home location as a complementary activity to investments made abroad, and that subcontractors also become highly specialised companies.

As a result of all these factors, the export companies demonstrate that, overall, they have increased value-creation, staff numbers and labour productivity in Switzerland – despite their foreign investment. They thereby confirm investigations showing that companies which are successful abroad create an above-average number of jobs in the domestic market. Extensive integration in the global economy strengthens the competitiveness and growth potential of the Swiss economy.

Globalisation, markups and the natural rate of interest

Jean-Marc Natal and Nicolas Stoffels
Working Paper 2007-14

In the last four years, real interest rates have been unusually low despite historically rapid rates of growth in the world economy. Most standard explanations for this 'conundrum' have relied extensively on imperfections in capital markets. In particular, a popular hypothesis suggests the appearance of a 'glut' of global savings chasing limited investment opportunities. Another line of argument ascribes the low level of real bond yields to a decline in risk premiums.

In this paper, the authors propose a complementary perspective, which relies solely on goods markets developments to explain the low level of real interest rates. They argue that globalisation – modeled as increased integration of trade in goods (and services) thanks to the decline in trade costs – has led to a worldwide erosion in firms' markups, which in turn has depressed a crucial, although non-observable, variable for the conduct of monetary policy: the real natural interest rate, i.e. the interest rate necessary to bring aggregate demand in line with supply, while avoiding a change in inflation.

The 'conundrum' of the low level of real bond rates may thus be interpreted as reflecting a persistent drop in the natural real rate of interest, i.e. a decline in expected future short-term real rates.

Outlining a two-country dynamic general equilibrium model with variable elasticity of substitution between goods, the authors suggest two main – mostly theoretical – proposition:

1. Globalisation – via its impact on firms' markups – has a potentially significant effect on the natural rate of interest.
2. Simple, plausible globalisation and markup dynamics may have helped to explain the recent 'conundrum' of low world interest rates: The most recent surge in global competition has depressed (unit) markups and raised output. The unexpected gain in income has encouraged savings, pushing the real interest down.

Information sharing and credit: Firm-level evidence from transition countries

Martin Brown, Tullio Jappelli and Marco Pagano
Working Paper 2007-15

When banks evaluate a request for credit, they can either collect information on the applicant first-hand or source this information from other lenders who have already dealt with the applicant. The exchange of information between banks typically takes place through 'public credit registries' or 'private credit bureaus'. Information sharing should be particularly relevant for credit market performance in countries with weak company law and creditor rights. Lack of transparency in corporate reporting due to weak company law increases information asymmetries in the borrower-lender relationship, reducing banks' incentives to lend. Moreover, weak creditor rights make banks more reluctant to lend to risky firms, as contract enforcement is costly or impossible.

This paper sheds light on the role of information sharing between banks in countries with weak company law and creditor rights. It analyses the impact of private credit bureaus and public credit registries on the availability and cost of credit to firms in 24 transition countries of eastern Europe and the former Soviet Union. Firm-level data on credit access and cost of credit, drawn from the EBRD/World Bank 'Business Environment and Enterprise Performance Survey' (BEEPS), a representative and large sample of firms, is used. This firm-level credit data is related to country-level indicators of information sharing, compiled from the 'Doing Business' database of the World Bank/IFC.

The results suggest that, on average, information sharing is associated with more abundant and cheaper credit. Moreover, the correlation between credit availability and information sharing is stronger for opaque firms than transparent ones, where transparency is defined as the reliance on external auditors and the adoption of international accounting standards. This result is consistent with the view that information sharing is particularly valuable in helping banks to evaluate credit applicants who would otherwise be too costly to screen. The results further reveal that the relationship between information sharing and credit access (cost) is stronger in countries with weaker legal environments. This finding confirms the conjecture that information sharing is particularly valuable to banks in countries where weak company and bankruptcy laws increase the cost of client screening and contract enforcement.

Who prices locally?

Andreas M. Fischer, Matthias Lutz and Manuel Wälti
Working Paper 2007-16

Do firm-specific factors explain why some exporters pursue pricing-to-market (PTM) strategies and others do not? Previous research has primarily emphasised country and sector-specific factors to explain international price discrimination. This paper, in contrast, reports on the importance of firm-specific characteristics. It is, for instance, conceivable that large exporters are more likely to price to the local market than small exporters. There are a number of reasons for this. First, an obvious reason is that large exporters are simply more likely to supply multiple markets than small exporters who may concentrate on one market or one buyer, especially if they are supplying intermediate goods. Second, the higher the share of total revenues that derives from exports, the stronger the incentive to balance the tradeoff between exchange rate exposure and the gains from pricing a product to the preferences of the local market. Third, there are likely to be costs linked to international price discrimination.

To test the hypothesis that firm-specific factors, in particular firm size, are important determinants of the decision to engage in PTM, cross-sectional information from the 2006 KOF-ETH survey on Swiss exporters was used. The KOF-ETH survey asks exporters whether they set different prices across their export markets and, if so, whether price segmentation occurs because of the pricing conditions in the local market or because of other factors. This working paper is one of only a handful of studies to use qualitative information from industrial surveys on price segmentation. The econometric analysis presented here uses a probit model to regress a binary-choice variable of price segmentation on firm-specific information, while controlling for transport costs and the degree of competition in the local market.

The evidence for Swiss exporters finds that firm size is coincident with export pricing. Large firms are more likely to price to the local market than small firms. This means that larger firms are more exposed to exchange rate risk, but simultaneously benefit from being better positioned in the local market.

Safe Haven Currencies

Angelo Ranaldo and Paul Söderlind
Working Paper 2007-17

Although the media and financial market literature frequently refer to safe haven assets, the scientific literature has mostly remained silent on the topic. This study attempts to fill this gap. By focusing on foreign exchange markets, it highlights the safe haven characteristics of some currencies. More specifically, the paper addresses two main questions: First, which currencies can actually be considered safe haven assets? Second, how do safety effects materialise? To answer the first question, the authors have conducted an empirical analysis that relates the risk-return profiles of currencies to equity and bond markets. The empirical specification is lean but still captures two important safe haven drivers. The first of these relates to depreciations in safe haven currencies due to a gradual reduction of risk aversion which is typical when the equity market turns upwards. The second relates to risk episodes of a more extreme nature - when risk perception suddenly rises.

To shed light on how safety effects materialise, the paper looks into the characteristics and timing of the safe haven mechanism. It shows systematic relationships between risk increases, stock market downturns and appreciations in safe-haven currencies. Moreover, this risk-return transmission mechanism is operational from an intraday basis up to several days.

Two main results emerge from this work. First, it demonstrates that the US dollar depreciates as appetite for risk in financial markets decreases. The Swiss franc and – to a lesser extent – the Japanese yen and the euro, have significant safe haven characteristics and move inversely with international equity markets and risk perception. Second, safe haven effects are evident in hourly as well as weekly data, but seem to be strongest at frequencies of one to two days. Finally, the paper contributes to the understanding of some issues that are strongly debated and relevant nowadays, such as carry trade, flight-to-quality and contagion phenomena.

Chronicle of monetary events

Target range for the three-month Libor left unchanged

At its quarterly assessment of 13 March 2008, the Swiss National Bank decided to leave the target range for the three-month Libor unchanged at 2.25–3.25%. It intends to hold the three-month Libor in the middle of the target range for the time being.

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