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SWISS NATIONAL BANK

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Overview

Monetary Policy Report (p. 6)

Several industrial countries saw weaker economic growth in the fourth quarter 2005 than in the previous period, but the general economic situation remained favourable. Both the company sentiment indicators and consumer confidence suggest a continuation of the economic uptrend. While high energy prices pushed up inflation rates in most countries, core inflation rates and inflation expectations remained moderate. The global economy is likely to continue on its robust growth path in 2006 not least because of the continuation of favourable monetary conditions.

In Switzerland, the economic upswing continued in the fourth quarter of 2005. Real GDP was 2.1% up on the previous period. It thus grew above its potential, with the result that surplus capacity in the economy decreased further. Except for construction investment, all demand components contributed to economic growth. While GDP climbed 2.7% year-on-year, annual GDP growth for 2005 amounted to 1.9%. Economic recovery was also reflected in the employment situation. The number of employed persons in the fourth quarter continued to rise, and the seasonally adjusted unemployment rate fell to 3.5% by February. The SNB anticipates that the economic recovery will continue this year and has put the rise in real GDP at over 2%.

At its monetary policy assessment of 16 March 2006, the National Bank decided to lift the target range for the three-month Libor by 0.25 percentage points to 0.75%–1.75%. It intends to hold the rate in the middle of the target range for the time being. By raising the target range, the National Bank adjusted its monetary policy stance in line with economic activity. If the economy continues to recover as expected, the SNB will further pursue the gradual adjustment of its monetary policy.

The economic situation from the vantage point of the delegates for regional economic relations (p. 38)

The talks held by the SNB delegates for regional economic relations with around 180 representatives from various economic sectors and industries again yielded a favourable picture of the economy for the three months up to February 2006. Compared with the preceding round of talks, the upswing seems to have gathered momentum and gained a broader footing. Most representatives of the export sector and domestic industry reported good to excellent business results for 2005 and a promising start to the year 2006. For the first time in a long while, the retail sector was also somewhat more upbeat. All industries were optimistic about the outlook for 2006.

Swiss National Bank Working Papers (p. 42)

Abstracts of three papers by:

Andreas M. Fischer, “On the Inadequacy of Newswire Reports for Empirical Research on Foreign Exchange Interventions”, SNB Working Paper 2005-2.

Andreas M. Fischer, “Measuring Income Elasticity for Swiss Money Demand: What do the Cantons say about Financial Innovation?”, SNB Working Paper 2006-1.

Charlotte Christiansen and Angelo Ranaldo, “Realized Bond-Stock Correlation: Macroeconomic Announcement Effects”, SNB Working Paper 2006-2.

Monetary policy report

Report to the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of 16 March 2006

This report is based primarily on the data and information available as at mid-March 2006. Sections 1–3 were drawn up for the March 2006 quarterly assessment of the Swiss National Bank's Governing Board.

Contents

About this report

The Swiss National Bank (SNB) has the 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 monetary development in Switzerland and abroad as well as that in the real economy, and explains the inflation forecast. It shows how the SNB views the economic situation and what conclusions it draws from this assessment.

Sections 1–3 of the present report were drawn up for the Governing Board's assessment of March 2006. The key developments and section 4 (inflation forecast) take due account of the Governing Board's monetary policy decision of 16 March 2006.

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

Key developments

Since the last monetary policy assessment in December 2005, the global economy has grown at a vigorous pace and has a broad regional base. While high energy prices pushed up inflation rates in most countries, core inflation rates and inflation expectations remained moderate. With monetary conditions still favourable, the global economy is expected to continue on its robust growth path. Given this situation, and in view of the March 2006 inflation forecast, the SNB made an upward revision of its assumptions for GDP development in the EU countries and in Japan. Risks remain, including high and volatile energy prices, global imbalances in the current accounts and the danger of a dramatic turnaround on the numerous real estate markets that have seen prices rise to high levels.

In Q4, real gross domestic product in Switzerland rose by 2.1% compared with the previous period. It thus grew above its potential, with the result that surplus capacity in the economy decreased further. Except for construction investment, all demand components contributed to economic growth. While fourth-quarter GDP climbed 2.7% year-on-year, annual GDP growth amounted to 1.9%. Economic recovery was also reflected in the employment situation. The number of employed persons in the fourth quarter continued to rise, and the seasonally adjusted unemployment rate fell to 3.5% by the end of February. The job vacancy index also edged up.

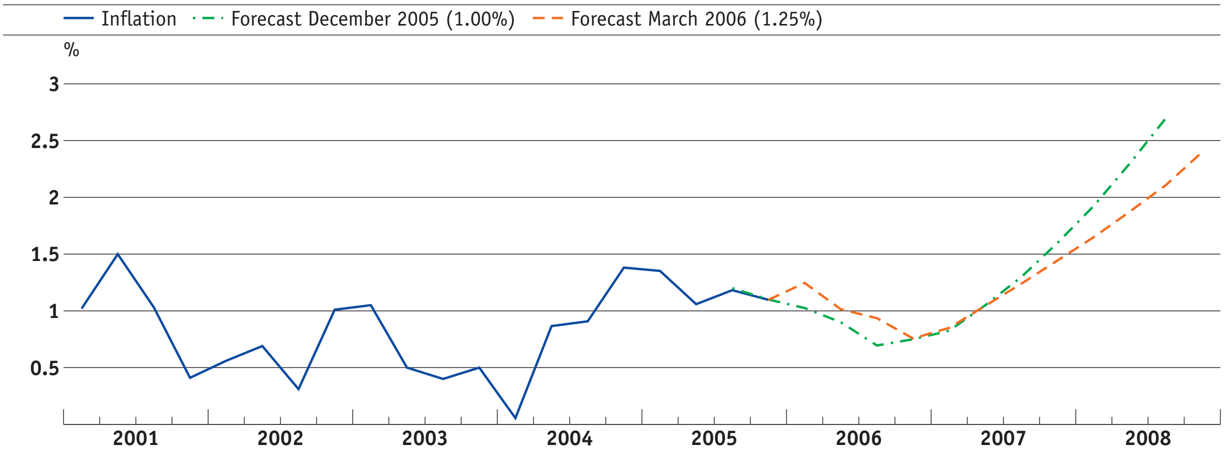
The SNB anticipates that the economic recovery will continue this year and has put the rise in real GDP at over 2%. Growth remains broad-based and is accompanied by a further improvement in the labour market.

At its quarterly assessment in March, the SNB decided to lift the target range for the three-month Libor by 0.25 percentage points to 0.75–1.75% and to keep the rate in the middle of the target range for the time being. By raising the target range, the National Bank adjusted its monetary policy stance in line with economic activity. The monetary policy of the SNB remains expansionary, however, and continues to support the upswing. By raising the target range for the three-month Libor, the National Bank wants to ensure that price stability can also be guaranteed in the future.

According to the March inflation forecast, which is based on the assumption that the three-month Libor remains steady at 1.25%, inflation will continue to be moderate in 2006 and fall back to 0.8% by the fourth quarter. Averaged over the year, an inflation rate of 1% is expected. Owing to the solid and broad-based economic trend, the utilisation rate of companies' production capacity is set to increase. This, together with an ample liquidity supply, will probably result in increasing pressure on prices as of 2007. Although a further tightening of monetary policy will absorb the surplus liquidity so that inflation prospects remain favourable, the goal of price stability will be jeopardised from the beginning of 2008, assuming an unchanged three-month Libor of 1.25%. If the economy continues to recover as expected, the SNB will further pursue the gradual adjustment of its monetary policy.

Inflation forecast of December 2005 with Libor at 1.00% and of March 2006 with Libor at 1.25%

Percentage change in national consumer price index from previous year



Inflation forecast of March 2006 with Libor at 1.25%	2006	2007	2008
Average annual inflation in percent	1.0	1.1	2.0

1 Developments in the global economy

Even though several industrial countries saw weaker economic growth in the fourth quarter of 2005 than in the previous period, the general economic situation remained favourable. Both the sentiment indicators of the companies and consumer confidence suggest a continuation of the economic uptrend. While high energy prices pushed up inflation rates in most countries, core inflation rates and inflation expectations remained moderate. This was reflected in the stable development of long-term interest rates.

The global economy is likely to continue on its robust growth path in 2006, not least because of the continuation of favourable monetary conditions. Risks remain, including high and volatile energy prices, global imbalances in the current accounts and the danger of a dramatic turnaround on the numerous real estate markets that have seen prices rise to high levels.

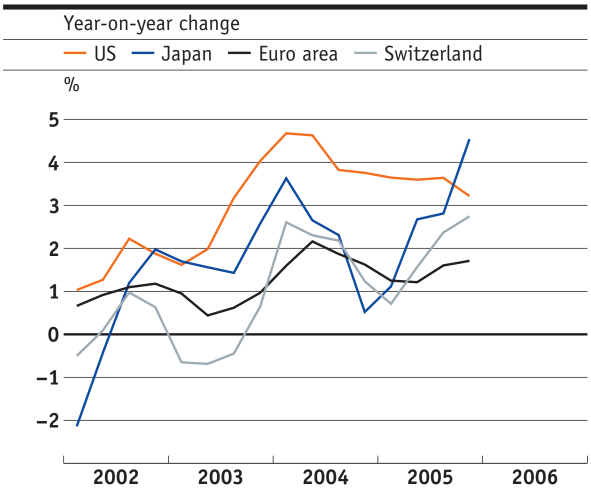
In view of the March 2006 inflation forecast, the SNB made an upward revision of its assumptions for GDP development in Japan and Europe. For 2006, it puts GDP growth of EU countries (EU 15) at 2.4% and that of Japan at 2.6%. By contrast, it lowered the anticipated growth of US GDP by 0.3 percentage points to 3.3%. On the whole, the SNB's growth projections are somewhat higher than the consensus forecasts (cf. table 1.1 and section 4.1).

Robust economic growth in the US

In the fourth quarter, real GDP in the US registered a mere 1.6% increase on the previous period, after a 4.1% rise in the third quarter. With a simultaneous marked increase in imports, this can largely be ascribed to weaker growth of private consumption and investment. In part, flagging growth was the anticipated consequence of the hurricanes in the summer of 2005. They had had led to massive damage in the infrastructure and production facilities in the south of the US, thus holding back production in the fourth quarter.

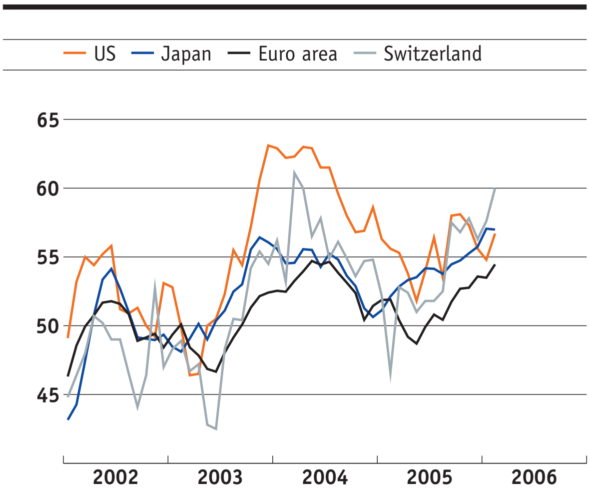
The strong surge in retail turnover at the beginning of the year and the healthy indicators for the manufacturing and service sectors suggest that both domestic and export demand have now picked up again. The favourable situation on the labour market and increasing wages and salaries in particular are strengthening private consumption. At the same time, strong corporate earnings and high capacity utilisation have a stimulating effect on investment activity.

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

Continued momentum in the European economy

In the euro zone, too, the economic uptrend continued. At 1.1%, GDP growth was modest in the fourth quarter of 2005. However, the more upbeat underlying sentiment was reflected in growing demand for labour, coupled with a slight decline in unemployment. Brighter sentiment among companies and consumers as well as an expansion in lending also gave rise to optimism. In Germany in particular, the economy seems to have gained considerable momentum in the meantime.

A number of indicators suggest that economic recovery in the euro area is increasingly spilling over to the service sector, thus becoming more broad-based. However, the fact that private consumption has so far only picked up at a sluggish pace mars the picture. Moreover, the increase in value-added tax scheduled for the beginning of 2007 poses a threat to economic activity in Germany.

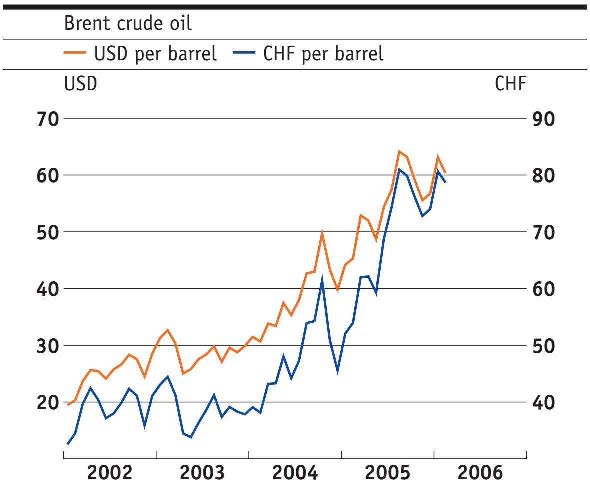
Continued strong growth in Asia

In contrast to the US and Europe, economic recovery in Japan picked up steam in the fourth quarter. After having risen only marginally in the third quarter, real GDP grew by 5.5% vis-à-vis the previous period. Both domestic demand and export demand were the drivers behind the growth. The marked increase in consumption was especially conspicuous. The improved situation on the labour market and the brightening of consumer sentiment should buoy it up further. At the same time, the continued growth in capital goods orders points to healthy investment demand.

With the upward impetus shifting from the export sector to the domestic sector, the Chinese economy again witnessed robust expansion in the second half of 2005. The increase in investment activity was particularly steep, but private consumption picked up as well. At just under 10% averaged over the year, Chinese GDP was only a touch weaker than in the previous year. However, the investment and export boom is still expected to slow down in the medium term.

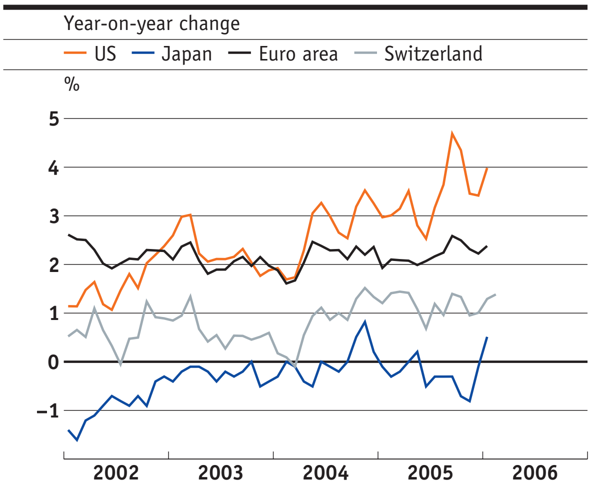
The East Asian Tigers – Hong Kong, Korea, Singapore and Taiwan – reported impressive Q4 growth rates of between 6.9% (Hong Kong) and 12.5% (Singapore). Strong import demand from China continued to be an important driving force. By contrast, growth in domestic demand was muted.

Graph 1.3
Oil prices



Sources: Reuters, SNB

Graph 1.4
Consumer prices



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

High energy prices as inflation drivers

As a result of higher energy prices, the consumer price inflation rate of the G7 countries persisted at a relatively high level. The basic inflation trend remained moderate, however. After having fluctuated between 3.5% and 4.7% during the previous six months, the annual inflation rate in the US stood at 4.0% in January. Core inflation – which factors out energy and food prices – continued to fluctuate around 2%. After having dropped steadily in the course of the fourth quarter 2005, annual inflation in the euro area climbed to 2.4% in January. In Japan, deflationary trends seem to be subsiding. The January inflation figure was 0.5%, compared with -0.8% in November.

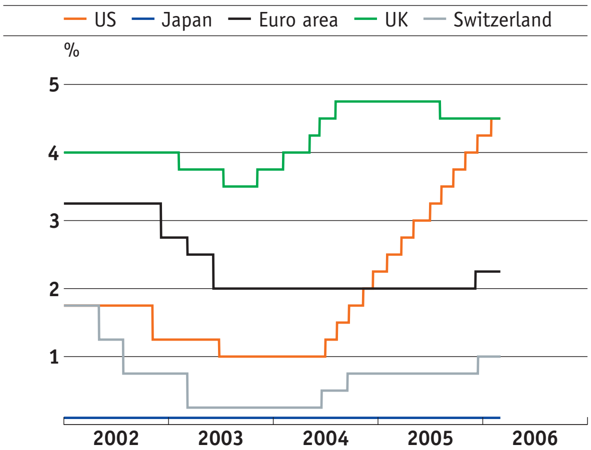
Further tightening of monetary policy

Against the backdrop of rapid economic growth and greater inflationary risks, the Federal Reserve and the European Central Bank (ECB) continued to tighten their monetary policy. In January, the Fed lifted the call money rate by another quarter of a percentage point to 4.5% to date. This was two percentage points higher than a year earlier. In March, the ECB followed suit, lifting the rate for refinancing transactions (repo rate) by one quarter of a percentage point to 2.5%, after it had already raised the key rate by the same amount in December. Given the robust economic recovery and the subsiding deflationary tendencies, the Bank of Japan decided to return to an interest rate policy in March. In so doing, it abandoned the quantitative targeting of bank liquidity it had initiated in March 2001 to counter deflationary trends and the deteriorating economic situation. The short-term interest rate is to remain at zero percent for the time being.

Consensus forecasts for Europe and Japan trending upward

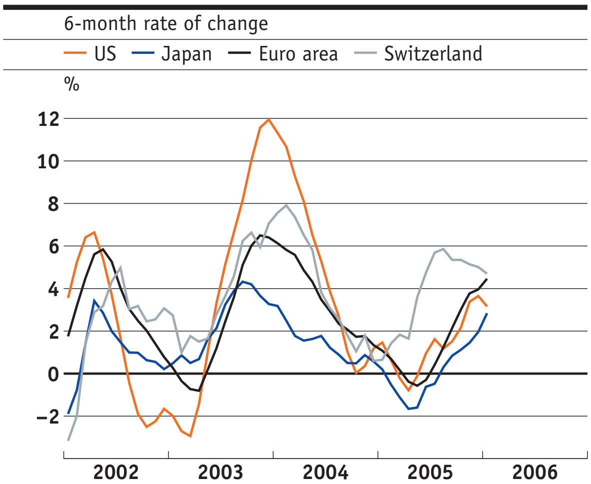
Consensus forecasts for GDP growth in 2006 in the euro area and in Japan rose from 1.7% to 2.0% and from 1.9% to 2.3% respectively between November and February. By contrast, the corresponding forecast for US GDP fell by 0.1 percentage points to 3.2%. In particular, this was a reflection of unexpectedly weak GDP growth in the fourth quarter of 2005. Consensus forecasts for consumer price inflation remained close to their November levels in all three regions (cf. table 1.1).

Graph 1.5
Official interest rates



Sources: Thomson Datastream, SNB

Graph 1.6
OECD composite leading indicators



Source: OECD

Consensus forecasts

Table 1.1

	Economic growth[1]				Inflation[2]			
	November		February		November		February	
	2006	2007	2006	2007	2006	2007	2006	2007
United States	3.3	–	3.2	3.0	3.0	–	2.9	2.3
Japan	1.9	–	2.3	2.2	0.3	–	0.2	0.5
Euro area	1.7	–	2.0	1.8	1.9	–	2.0	2.0
Germany	1.2	–	1.6	1.0	1.8	–	1.7	2.3
France	1.8	–	1.9	2.0	1.8	–	1.7	1.6
Italy	1.2	–	1.3	1.3	2.0	–	2.1	1.9
United Kingdom	2.2	–	2.1	2.4	2.0	–	2.0	2.0
Switzerland	1.7	–	2.0	1.7	1.0	–	1.0	1.1

1 Real GDP, year-on-year change in percent
2 Consumer prices, year-on-year change in percent
Source: Consensus Forecasts, November 2005, February 2006. 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 Aggregate demand and output

Economic recovery continues

The economic upswing in Switzerland continued in the fourth quarter of 2005. According to estimates by the State Secretariat for Economic Affairs (seco), real GDP increased 2.1% on the previous quarter. It thus grew significantly above potential, with the result that surplus capacity in the economy decreased further. Except for construction investment, all demand components contributed to economic growth. Fourth-quarter GDP climbed 2.7% year-on-year, while annual GDP growth amounted to 1.9%.

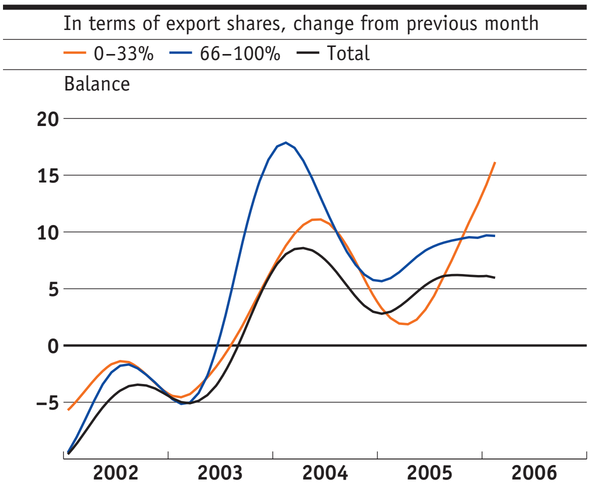
Together with the results for the fourth quarter, seco published revised GDP quarterly estimates dating back to 1980, thereby concluding the process of harmonisation with the ESA95, the European System of National and Regional Accounts. As a consequence of this revision, figures for 2005 had to, once again, be adjusted significantly. According to the revised data, GDP actually increased in the first quarter of 2005 by 1.9% on the previous period, having virtually stagnated in the initial estimate. While the figure for the second quarter was also raised considerably (to 3.6%), third-quarter growth was revised downwards from 4.3% to 3.5%. On the whole, the revised data reveal a far more favourable economic climate than before. Nevertheless, this does not change the fact that 2005 was marked by certain economic weaknesses. Corporate investment demand, for instance, remained weak, and demand for labour recovered only hesitantly.

Buoyant industry

Having benefited from vigorous foreign demand, the industrial sector proved to be one of the driving forces behind the economic recovery that began in mid-2003. After a temporary lull in the winter and spring of 2004/2005, industrial activity picked up again in the course of 2005. The various surveys showed that output in the fourth quarter also expanded significantly. Incoming orders were up in both the export and domestic industries, and orders in hand increased further. Companies revealed that they plan to boost production and purchase more primary products over the coming months. They also reported higher capacity utilisation and an improved earnings situation. This meant that they were also more willing to expand their technical capacity and workforce.

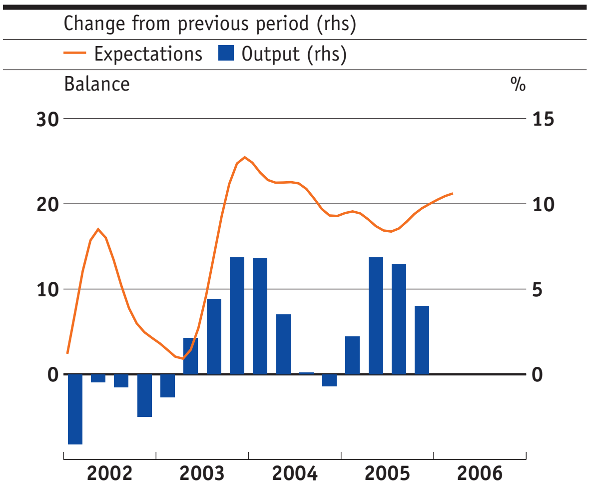
Data on developments in the manufacturing sector published by the Swiss Federal Statistical Office (SFSO) in March confirmed the picture of a broad-based recovery. Accordingly, fourth-quarter manufacturing output was up 4% on the previous period, exceeding the year-earlier level by 4.5%.

Graph 2.1
New orders in manufacturing



Source: Institute for Business Cycle Research at the Swiss Federal Institute of Technology (KOF/FIT)

Graph 2.2
Manufacturing output



Sources: SFSO, KOF/ETH

Real GDP and components Table 2.1

Year-on-year growth rates, annualised

	2002	2003	2004	2005	2004				2005			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Private consumption	–0.0	0.8	1.4	1.6	2.3	0.0	0.1	1.2	2.4	2.1	2.2	0.7
Government consumption	1.7	2.2	1.4	1.3	1.3	–2.2	0.3	1.6	5.1	1.0	–2.5	0.1
Investment in fixed assets	0.3	–1.3	3.3	3.2	0.4	3.4	6.1	–7.0	2.8	19.1	–5.0	2.0
Construction	2.2	1.8	4.1	3.6	11.2	–5.9	5.2	–5.3	0.8	34.1	–10.3	–1.9
Equipment	–1.2	–3.8	2.7	2.8	–8.0	12.2	7.0	–8.4	4.6	7.4	0.0	5.6
Domestic final demand	**0.2**	**0.5**	**1.8**	**1.9**	**1.7**	**0.5**	**1.5**	**–0.6**	**2.8**	**5.6**	**–0.1**	**0.9**
Domestic demand	**–0.5**	**0.4**	**1.0**	**2.0**	**–3.1**	**5.0**	**0.8**	**–3.7**	**6.4**	**0.3**	**2.5**	**4.9**
Total exports	–0.7	–0.5	8.9	4.5	21.3	–4.3	6.4	4.0	–5.7	22.2	4.5	5.1
Goods	1.1	–0.1	7.8	5.4	21.6	–8.4	9.9	1.8	–3.9	29.5	0.3	4.6
Excluding valuables[1]	0.4	0.7	7.6	5.8	14.5	–5.2	9.5	1.0	–3.9	35.2	–2.1	4.3
Services	–5.7	–1.6	12.0	2.4	19.9	6.9	–2.2	10.1	–10.2	4.5	16.7	6.2
Aggregate demand	**–0.5**	**0.1**	**3.5**	**2.8**	**4.3**	**1.8**	**2.6**	**–1.2**	**2.2**	**7.2**	**3.2**	**4.9**
Total imports	–2.6	1.3	7.4	5.3	5.0	6.0	8.2	–4.8	2.9	16.8	2.5	12.2
Goods	–3.0	2.1	6.4	5.8	0.8	6.1	10.5	–6.5	2.9	19.9	3.0	13.2
Excluding valuables[1]	–2.2	2.7	6.6	5.3	5.5	1.6	13.4	–5.8	0.6	16.9	6.7	10.8
Services	–0.7	–2.7	12.0	2.7	27.1	5.5	–2.1	3.3	2.9	3.7	0.4	7.6
GDP	**0.3**	**–0.3**	**2.1**	**1.9**	**4.1**	**0.2**	**0.5**	**0.3**	**1.9**	**3.6**	**3.5**	**2.1**

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

Source: seco

Favourable economic outlook

Both the export industry and domestically-oriented companies were expecting orders to rise over the next few months. The talks held between December and February by the SNB delegates for regional economic relations with representatives from the various sectors confirmed the generally favourable picture. The majority of companies reported good to excellent business results for 2005 and expect 2006 to be yet another successful year. Representatives from the service sector were also more optimistic than they have been in the past. The same applied to the retail trade, albeit to a lesser degree.

Stronger export growth

After practically stagnating in the third quarter, exports of goods and services rallied once again in the last quarter, rising overall by 6.1% year-on-year. The rise in exports of goods, however, was less robust than that of services, which continued to be driven by higher receipts from tourism and banks' financial services. Where real exports of goods (excluding valuables) are concerned, exports of consumer goods (including pharmaceuticals and watches) and semi-manufactures rose at an above-average rate. The upward trend observed in goods exports continued in January. Capital goods exports, which had previously grown only moderately, exhibited the largest increase.

Export demand remained firm across the regions. While exports to the United States picked up further compared with the previous quarter and the pace of growth remained strong in the EU countries, exports to Asia slowed. Exports to the OPEC states slipped slightly after having risen sharply in the first half of 2005.

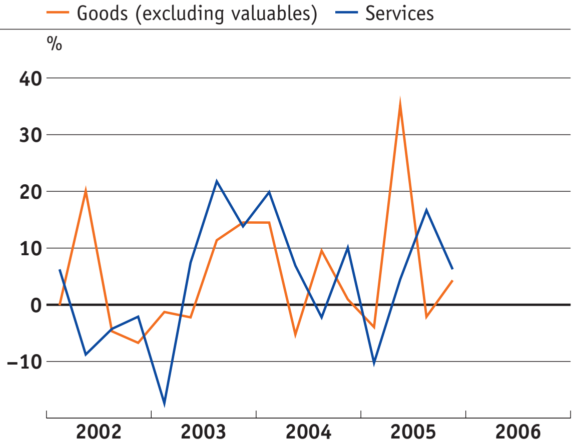
Import growth up

Imports of goods and services, too, were up in the fourth quarter, exceeding their year-back level by 8.6%. The increase in payments for financial services from other countries was particularly marked, while spending by Swiss tourists abroad and expenditure for transport services displayed slightly less vigorous growth.

Goods imports (excluding valuables) also picked up compared with the previous period. Imports of consumer durables (especially cars and household appliances) and imports of raw materials and semi-manufactures exhibited above-average growth. Capital goods imports, by contrast, developed at a more modest pace, while imports of petroleum products fell off considerably. The buoyant growth in imports continued in January, particularly in consumer goods.

Graph 2.3
Exports

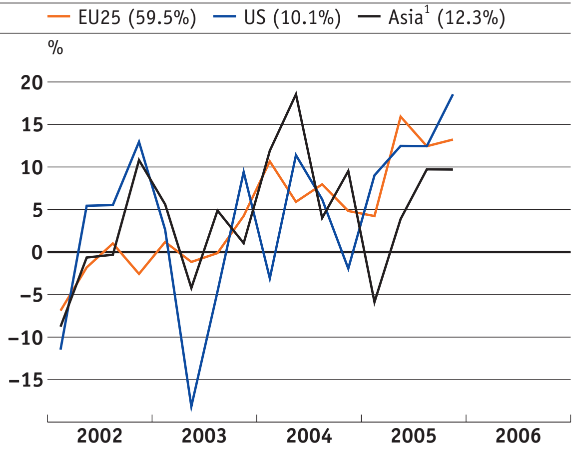
Change from previous period



Source: seco

Graph 2.4
Exports by trading partners

Year-on-year change; 2004 shares in brackets



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

Weaker growth in consumption

Having surged forward in the first three quarters of 2005, growth in private consumption slowed in the last quarter of the year, rising 1.8% year-on-year. The increase in real retail turnover suggested continued robust growth in goods consumption, with demand for consumer durables (including home furnishings) in particular climbing significantly. The strong rise in imports of automobiles confirms that there is indeed a recovery in this area.

The situation in domestic tourism also saw an improvement. The number of overnight stays by Swiss guests was again up on the previous year. According to the quarterly survey of KOF/FIT, hotel businesses were also far more optimistic about trade in the near future than they were in the previous period. This sentiment was reflected in the talks held by the SNB delegates for regional economic relations with representatives from the hospitality trade. The ski resorts enjoyed high occupancy levels in the winter season of 2005/2006 and reported an increase in customer spending on the whole.

Consumer sentiment improved

Consumer sentiment was quite upbeat at the beginning of 2006. In January, the consumer sentiment index edged back into the positive range, thereby topping the long-term average considerably. The households surveyed took a more optimistic view of both the economic situation and their personal financial situation than before. While this also applies to job security, the corresponding index still remained at a relatively low level by historical standards.

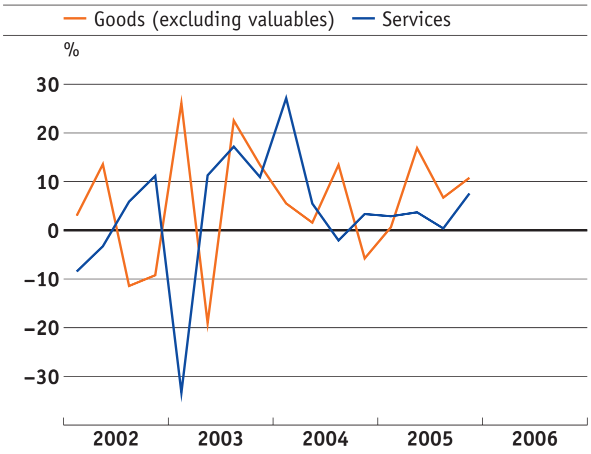
Private consumption can be expected to continue to underpin economic activity in this year, too. Following a rise of 1.0% in 2005, the SNB anticipates that the real income of employees will climb by a further 2.2%. The stronger growth in income can be attributed to a substantial rise in nominal wages which – owing not least to high bonus payments – significantly exceeds the inflation rate anticipated by the SNB.

Slight fall in construction investment

The normalisation which followed the surge in investment in the second quarter of 2005 continued in the fourth quarter, with the result that real construction investment declined again slightly on the previous period. Nevertheless, the level of investment was still 4.4% higher than a year earlier. Data from the Swiss Federal Office of Statistics (SFSO) reveal brisk growth in residential construction. The quarterly survey of the Swiss Association of Builders (SBV/SSE) also points to a slight rise in

Graph 2.5
Imports

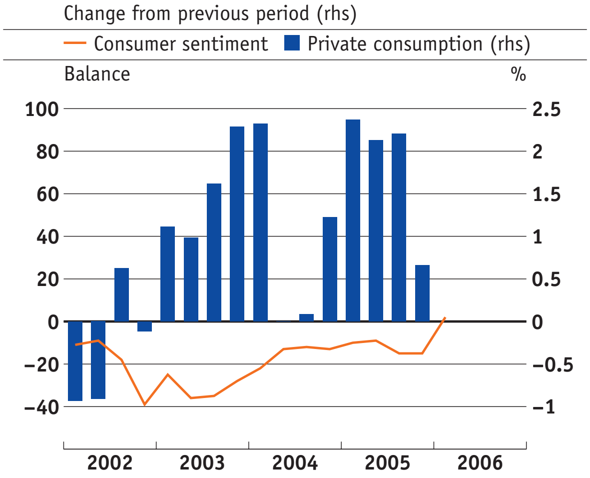
Change from previous period



Source: seco

Graph 2.6
Private consumption

Change from previous period (rhs)



Source: seco

growth in civil engineering, while commercial construction is expected to have fallen off further.

Construction investment is set to increase only marginally in 2006. Although the renewed rise in the number of residential building permits in the second half of 2005 indicates an expansion in residential construction in the near term, a gradual decline in momentum in this area has to be expected, given that the excess demand now seems to have been largely absorbed after three years of intensive construction activity. Commercial construction will benefit little from the upswing for the time being. The annual investment survey conducted by KOF/FIT revealed that, although industrial companies were intending to step up investment in construction, the planned investment volume in the service sector remained depressed. Civil engineering is not expected to have any significant effect on growth either.

Higher equipment investment

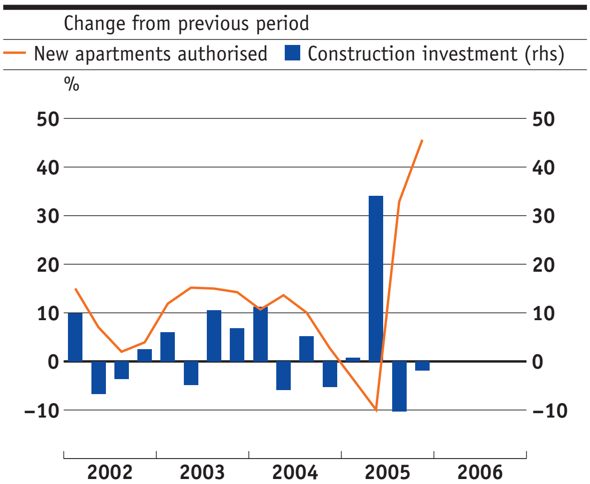
Having experienced a moderate recovery in the first six months of 2005, growth in equipment investment continued to slow in the second half of the year. In the fourth quarter, the level of investment was 4.3% higher than a year previously.

In comparison to earlier phases of economic upswing, investment activity has remained restrained thus far. The volume of investments made in 2005 is unlikely to have been sufficient to cover demand for replacements, which could explain why the overall economic, technical production capacity remained virtually unchanged. This situation stands in contrast to the increased economic activity and the considerably more optimistic outlook. Considerable pent-up demand has probably since accumulated; this should lead to a rise in investment activity in the next few quarters. This process appears to have already started in the industrial sector (cf. chapter 2.2).

GDP forecast for 2006

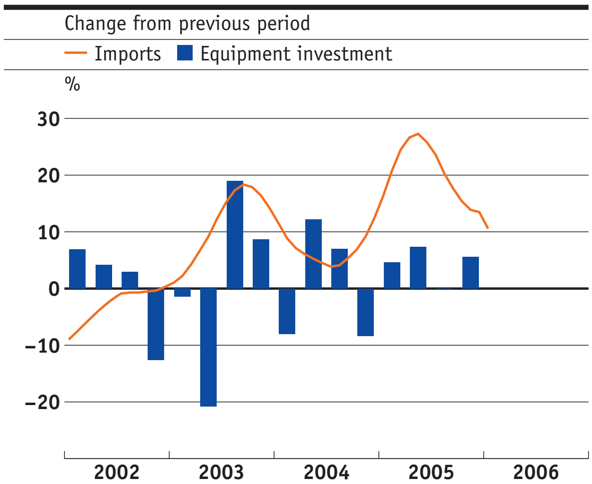
The SNB anticipates the broad-based economic recovery to continue in 2006 and forecasts real GDP to grow by over 2%. What is more, it expects employment to pick up and the unemployment rate to retreat further by the end of the year. Given the favourable global economic situation, Swiss exports of goods and services can be once again expected to contribute considerably to growth. While the importance of construction investment as a growth driver is likely to wane, equipment investment should recover significantly. Owing to the anticipated favourable income trend, private consumption will remain an anchor for economic activity.

Graph 2.7
Construction



Sources: SFSO, seco

Graph 2.8
Equipment



Sources: FCA, seco

2.2 Capacity utilisation

Higher capacity utilisation and rise in capacity

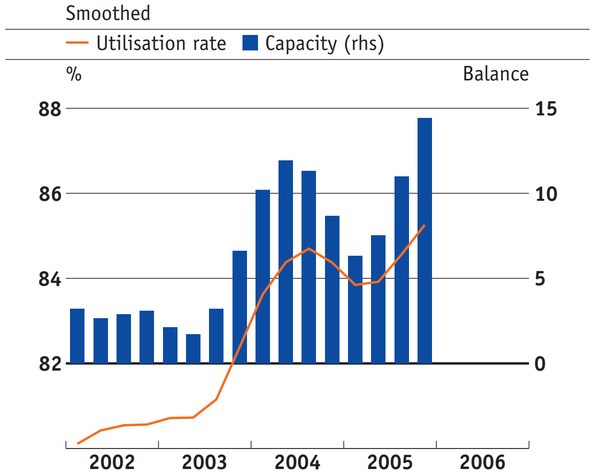
Utilisation of technical capacity in manufacturing rose from 84.6% to 85.6% in the fourth quarter and was therefore clearly above the long-term average. Capacity utilisation is established on the basis of the quarterly KOF/FIT survey of industry, in which companies are asked to indicate the average utilisation of their output capacity in the survey quarter; according to the questionnaire, it may range from 50% to 110%.

According to the quarterly survey, technical capacity in manufacturing also expanded significantly. The survey indicated the highest level since the end of the 1980s. The strongly export-oriented companies boosted their investment activity at an above-average rate and also accounted for the highest capacity utilisation (almost 89%).

Further narrowing of the output gap

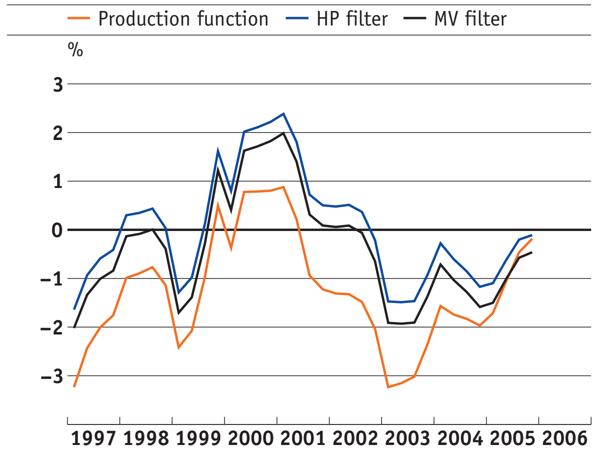
The overall economic output gap is measured as the difference in percent between real GDP and estimated production potential. Graph 2.10 shows three calculations of the output gap based on three different methods of estimating production potential (production function, Hodrick-Prescott (HP) filter and multivariate (MV) filter). As fourth-quarter GDP again expanded faster (2.1%) than the production potential, the output gap continued to narrow according to all three estimation methods and is now only slightly negative. The closing of the output gap reflects the steep increase in the utilisation of technical capacity and – to a lesser degree – the decline in labour market underutilisation.

Graph 2.9
Technical capacity in manufacturing



Source: KOF/FIT

Graph 2.10
Output gap



Source: SNB

2.3 Labour market

Improvement in the labour market

The economic revival is increasingly being mirrored in the labour market. In the fourth quarter, the number of persons in employment grew by 0.4% from the previous period, thus exceeding the corresponding year-earlier level by 0.3%. The number of full-time jobs rose further, albeit at a slower rate than the number of part-time jobs. Total hours worked were up by 0.6% from the previous period, which is the largest increase since 2001.

The boost in employment figures continued to be restricted to the manufacturing sector (0.8%) and the construction industry (1.9%), however, while the number of jobs in the service sector stagnated. Within the manufacturing sector, apparatus engineering, electrical and electronic engineering, medical technology and watchmaking accounted for the strongest employment increases. In the services sector, the retail trade in particular and – to a lesser extent – the financial industry reduced headcount, whereas the hospitality and hotel industries recorded higher employment.

Slow fall in unemployment

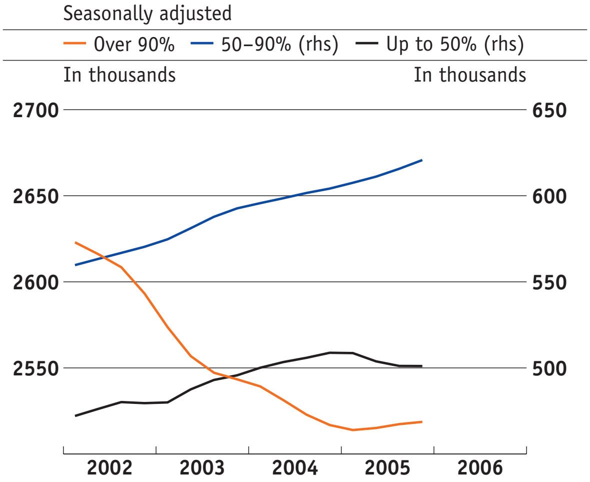
Thanks to the slight growth in employment, seasonally adjusted unemployment continued to edge down. The unemployment rate stood at 3.5% in February, 0.2 percentage points lower than in November. The proportion of job seekers dipped by 0.1 percentage points to 5.3%.

In particular, the number of persons who have been unemployed for less than six months has been on the decline since mid-2005. They accounted for 55.5% of unemployed in January, compared with 56.6% in July. This is in line with the moderate pick-up in employment observed since mid-2005.

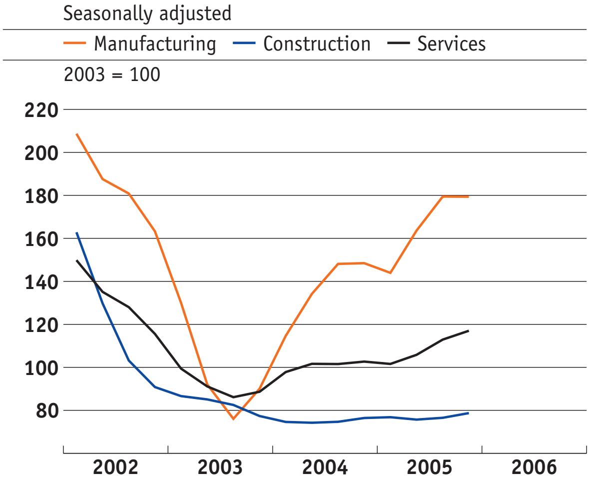
Better labour market outlook

Graph 2.12 shows that the vacancies index for the manufacturing and services sectors moved up in the fourth quarter. While employment levels in manufacturing already started to increase in the second quarter of 2005, employment in the services sector should follow suit in the months ahead. The SNB anticipates considerably higher employment figures for 2006, which should bring the jobless rate down to almost 3% by December 2006.

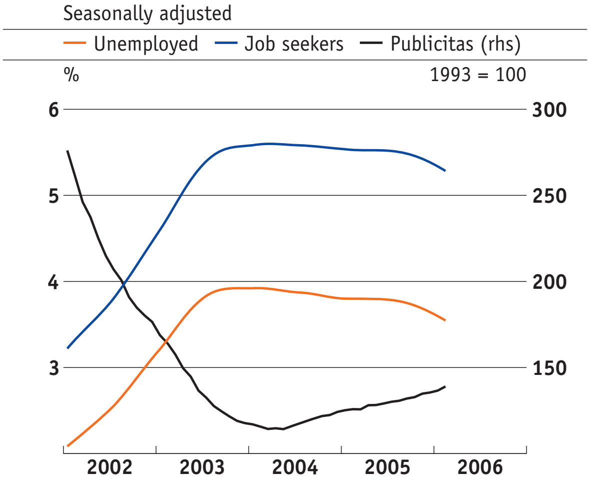
Graph 2.11
Full-time and part-time employment



Graph 2.12
Vacancy index



Graph 2.13
Unemployment rates and vacancies



Graphs 2.11 and 2.12:
Source: SFSO

Graph 2.13:
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 Goods prices

Rise in producer and import prices

The knock-on inflationary pressure exerted by producer and import prices on consumer prices mounted slightly between October and January. Annual price inflation for domestically produced goods increased from 0.9% to 1.5% and that for imported goods from 1.4% to 2.1%. Once again, a significant part of the rise in prices was attributable to energy sources (petroleum products, gas, electricity). Their annual rate of inflation reached 20.9% in January, as against 15.6% in October. Another major factor were the higher prices of preliminary products, including metal products. While prices of capital goods were still on the decline, the price downtrend for agricultural products came to a halt. Price rises for consumer goods accelerated slightly.

Higher consumer price inflation

Annual inflation measured by the national consumer price index (CPI) climbed from 1.0% in November to 1.4% in February. It thus rose somewhat faster than the SNB had predicted in its inflation forecast in mid-December 2005. Inflation was still driven mainly by petroleum products (heating oil and fuel), which accounted for an average of just over three-quarters of total consumer price inflation between November and February.

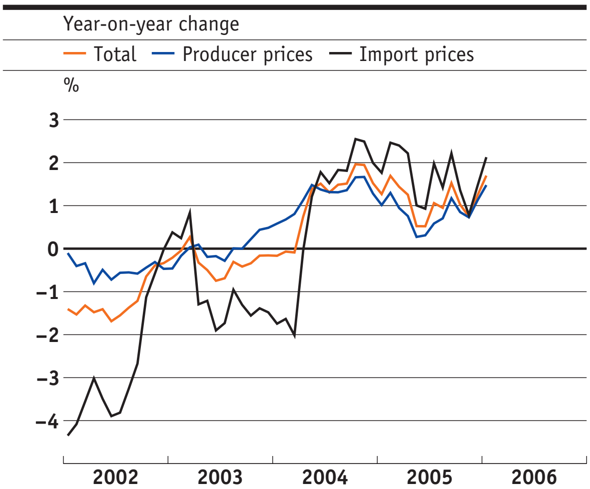
Moderate increase in domestic inflation

The annual price inflation of domestic goods and services quickened from 0.2% to 0.5% between November and February. For one thing, the prices of goods that make up almost 40% of the CPI did not slip any further. For another, the quarterly rentals index climbed by 0.9% in February compared with the previous quarter. As a result, the annual rate of rent increases moved up 0.8 percentage points to 1.8%. Other private services, by contrast, did not exert any upward pressure on prices. Price growth in telecommunications, air transport and hospitality services slowed. The same applies to public services, where annual inflation decelerated from 1.5% to 0.9%.

Import inflation rising further

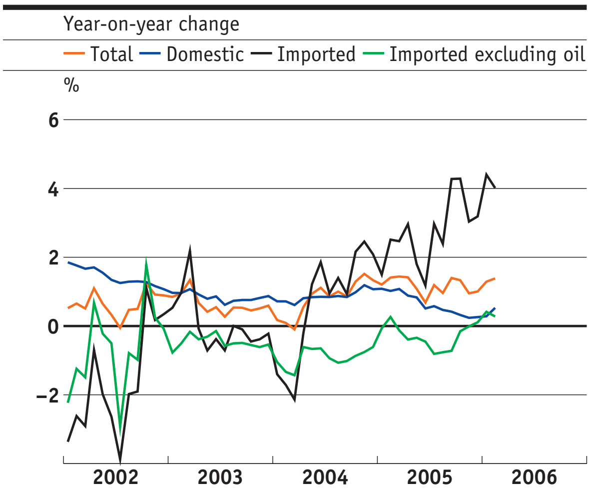
The annual rate of inflation for imported consumer goods rose from 3.0% in November to 4.0% in February, largely due to the continued rise in the prices of heating oil and fuel. In addition, prices of other imported goods – clothing and gas in particular – also accelerated slightly (February: 0.3%). Prices of consumer electronics products receded again, though at a slower pace.

Graph 2.14
Prices of total supply



Source: SFSO

Graph 2.15
CPI: Domestic and imported goods and services



Sources: SFSO, SNB

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

	2005	2005			2005		2006	
		Q2	Q3	Q4	November	December	January	February
Overall CPI	**1.2**	**1.1**	**1.2**	**1.1**	**1.0**	**1.0**	**1.3**	**1.4**
Domestic goods and services	0.6	0.7	0.5	0.3	0.2	0.3	0.3	0.5
Goods	–0.4	–0.4	–0.4	–0.7	–0.7	–0.6	–0.2	0.0
Services	1.0	1.1	0.8	0.6	0.5	0.5	0.4	0.7
Private services excluding rents	0.5	0.7	0.3	0.1	0.0	0.0	–0.0	–0.1
Rents	1.4	1.6	1.2	1.0	1.0	1.0	1.0	1.8
Public services	1.5	1.3	1.5	1.3	1.3	1.3	0.9	0.9
Imported goods and services	2.7	2.0	3.2	3.5	3.0	3.2	4.4	4.0
Excluding oil products	–0.3	–0.4	–0.8	–0.0	–0.0	0.1	0.4	0.3
Oil products	18.5	14.7	23.5	21.0	18.1	18.8	25.6	23.5

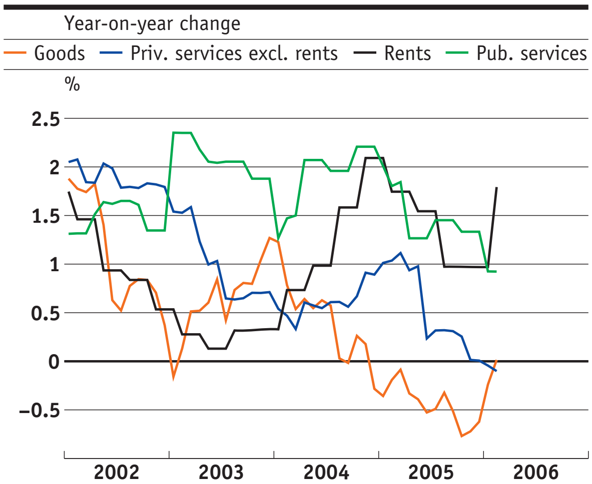
Sources: SFSO, SNB

Higher core inflation rates

Inflation, as measured by the CPI, is subject to numerous short-term influences which may distort perceptions of the general inflation trend. For this reason, statistical methods are employed to calculate so-called core inflation rates, which capture the permanent component of price movements. The SNB therefore computes a measure for the core inflation rate which, for any given month, excludes those 15% of goods with the highest and those 15% with the lowest annual price variation from the CPI. In addition, the SNB also takes account of the two SFSO core inflation rates, which both exclude the same goods from the commodities basket in each period. In the case of core inflation 1, food, beverages, tobacco, seasonal products, energy and fuels are excluded. Core inflation 2 also factors out products with administered prices.

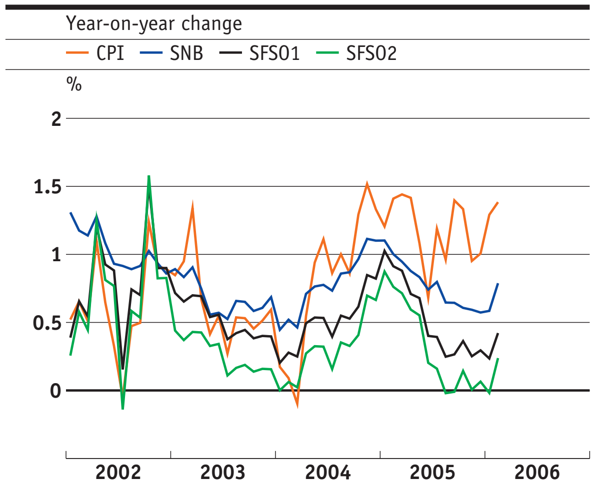
SNB core inflation increased by 0.2 percentage points to 0.8% between November and February. This development indicates a weak, yet accelerating general inflation trend. Moreover, the core inflation rate was considerably lower than total consumer price inflation. This shows that the inflation-driving factors still outweighed the special price-dampening pressures. The SFSO's core inflation 1 stood at 0.4% in February, slightly above its November level, whereas core inflation 2 edged up 0.2 percentage points to 0.2% over the same period. The SFSO's core inflation rates are significantly lower than that of the SNB; this is largely due to the falling prices of electronics products, telecommunication services and certain articles of clothing. The SNB core inflation rate excludes these inflation-curbing special effects from its commodities basket.

Graph 2.16
CPI: Domestic goods and services



Sources: SFSO, SNB

Graph 2.17
Core inflation



Sources: SFSO, SNB

3 Monetary development

3.1 Interest rates

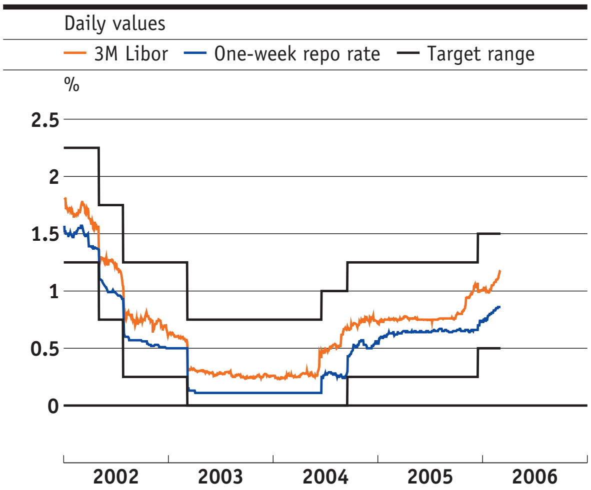
At its monetary policy assessment in December 2005, the National Bank decided to increase the target range for the three-month Libor to 0.50–1.50%, a change which took immediate effect. It announced that it would be aiming for the middle of the target range. The decision to adjust monetary policy was based on two considerations. First, the economy had already recovered and economic indicators were pointing to a sustained, broad-based upswing. Second, by increasing interest rates, excess liquidity in the economy could be reduced. The SNB also stated that, in the event of continued recovery in the economy, it would make gradual further adjustments to its expansionary monetary policy.

Further tightening of monetary policy expected

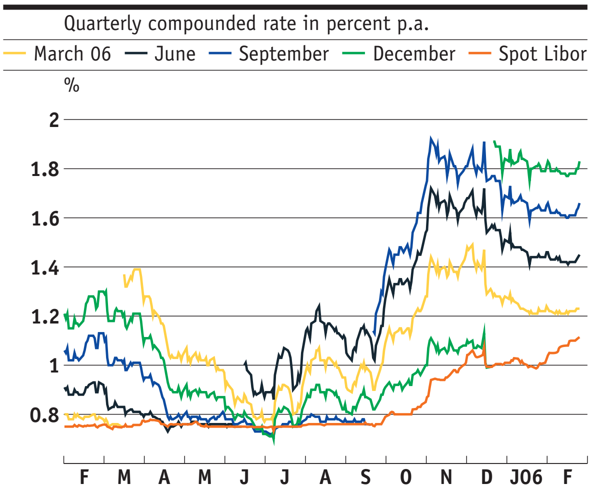
From mid-December to the end of January, the three-month Libor fluctuated around the 1.0% mark. From then on, it rose continuously, showing that markets were expecting the target range for the three-month Libor to be raised further. This increase was consistent with the increasing momentum in the economy and was tolerated by the SNB. Repo rates, which the SNB uses indirectly to manage the three-month Libor, rose gradually. The one-week repo rate stood at 0.7% at the time of the last monetary policy assessment and climbed thereafter to 0.86% at the end of February 2006.

The expectations that the target range would be lifted were also reflected in developments on the futures market. At the end of February, the interest rate for futures contracts with a maturity of mid-March 2006 was 1.27%, corresponding to expectations of a 25 basis point rise in the interest rate. The futures rates for contracts maturing in June, September and December suggested that the market is anticipating further moderate upward nudges in the interest rate over the course of 2006.

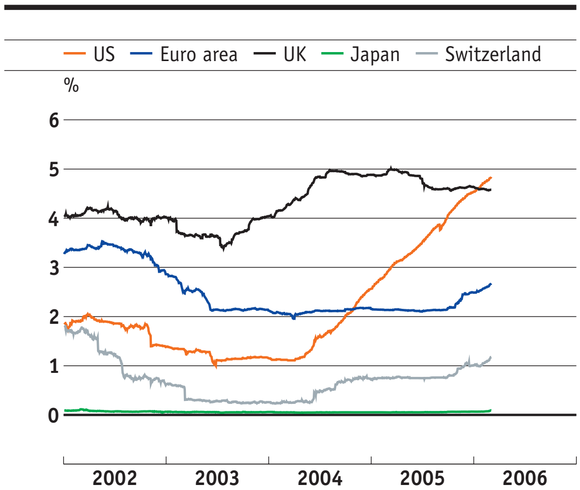
Graph 3.1
Money market rates



Graph 3.2
Three-month interest rate futures



Graph 3.3
International short-term interest rates (three months)



Graphs 3.1, 3.2 and 3.3:
Source: SNB

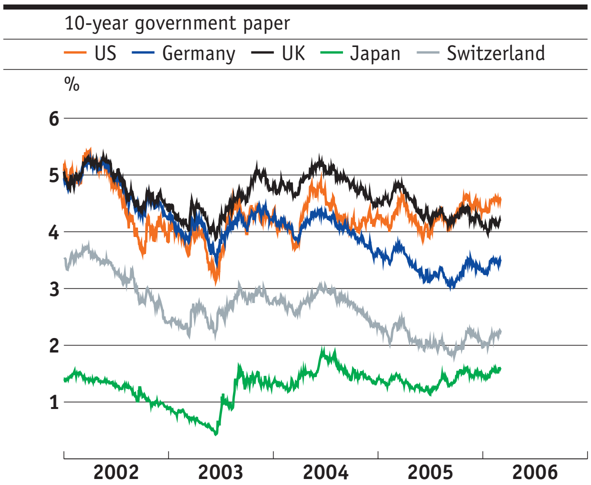
Foreign short-term rates also climbing

Short-term interest rates rose in other countries as well (cf. graph 3.3). The European Central Bank (ECB) and the US Fed both continued lifting their key interest rates on a step-by-step basis. The three-month Libor for investments in euros climbed from 2.48% in mid-December to 2.70% in mid-March, while short-term dollar rates advanced from 4.50% to 4.92% in the same time period. The yield spread between short-term Swiss franc investments and investments in euros, as measured by the 3M Libor, remained almost unchanged at 1.49 percentage points in mid-March, while that between Swiss francs and US dollar investments rose from 3.49 percentage points in mid-December to 3.71 points in mid-March.

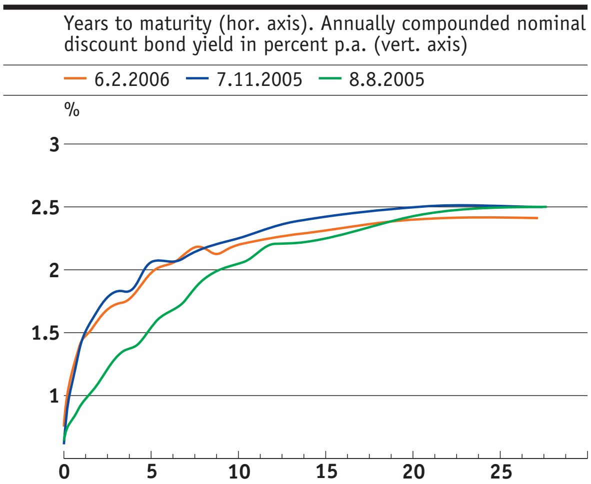
Long-term rates trending upwards

Unlike the advance in short-term interest rates over 2005, long-term bond yields gave way slightly or remained static. However, since the beginning of 2006, short and long-term interest rates have again been pointing in the same direction. In mid-March, the yield on 10-year US government bonds was 4.73%, 26 basis points higher than in mid-December. In the same period, the yield on German government bonds rose by 30 basis points to 3.67% and long-term yields on bonds issued by the Swiss Confederation experienced a similar development. After moving down slightly in January, they stood 28 basis points higher in mid-March (2.41%) than they had in mid-December.

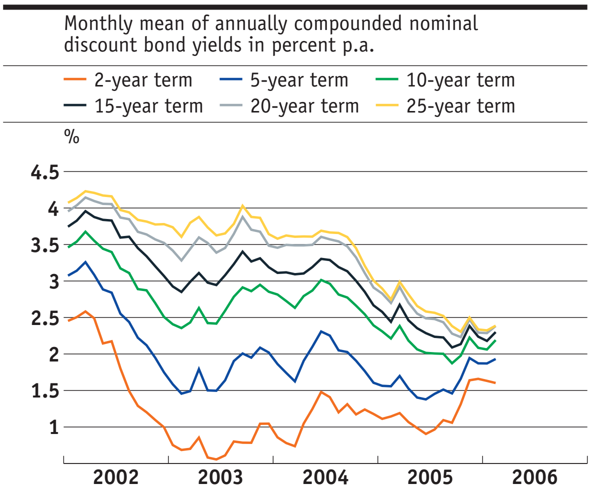
Graph 3.4
International interest rates



Graph 3.5
Term structure of Swiss Confederation bonds



Graph 3.6
Swiss Confederation bond yields



Graph 3.4:
Sources: Thomson Datastream, SNB

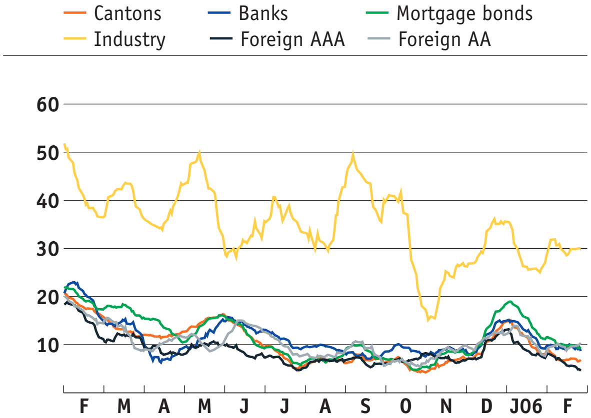
Graphs 3.5 and 3.6:
Source: SNB

Lower credit spreads

The development of financing conditions for bond issuers can be illustrated by credit spreads, which correspond to the difference between the yield on cantonal and corporate bond issues, on the one hand, and that on government bonds, on the other. This difference can be interpreted as a credit risk premium (cf. “Box: Assignment of bonds to ratings classes”, p.33, Monetary Policy Report 1/2004). Graphs 3.7 and 3.8 show that the credit spreads for first-class industry bonds have risen slightly since the beginning of November, while those of third-class bonds remained static in the same period. Consequently, credit spreads remain at a low level. The yields used in these calculations relate to discount bonds with a five-year maturity. In a phase of economic upswing, the risk of a company being unable to service its bonds is considerably lower than in a downswing. The persistence of low credit spreads is consistent with a favourable economic environment.

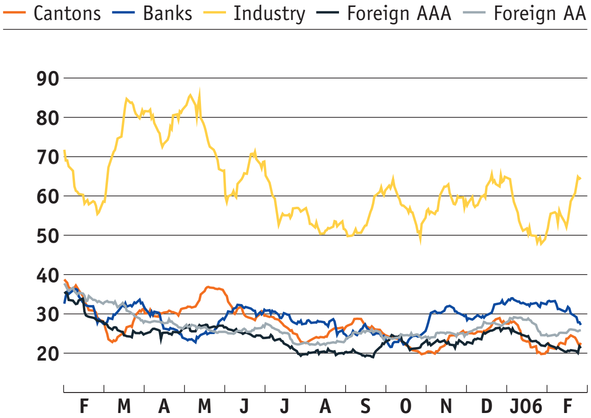
Graph 3.7
Five-year spread of Swiss first-class bonds

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



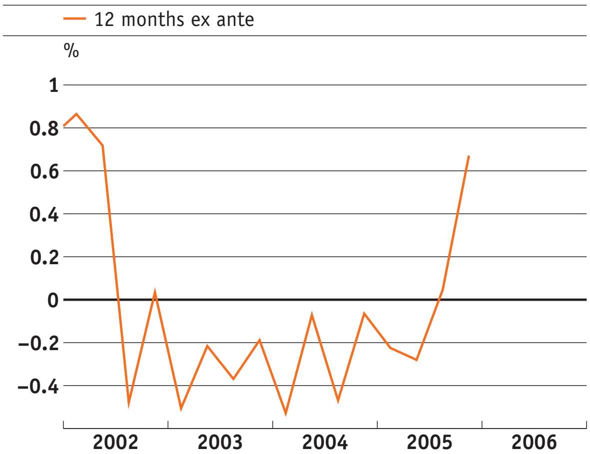
Graph 3.8
Five-year spread of Swiss third-class bonds

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



Graph 3.9
Estimated real interest rate

Quarterly values



Graphs 3.7, 3.8 and 3.9:
Source: SNB

Rise in short-term real interest rates

Graph 3.9 shows movements in the real interest rate with a one-year maturity, where the real interest rate reflects the differential between the twelve-month nominal interest rate and the expected rise in consumer prices for the same period, according to the consensus forecast.[1]

Following the longest period of negative real interest rates since the transition to flexible exchange rates in 1973, the short-term real interest rate measured in this way had returned to marginally positive territory in the third quarter of 2005. It continued rising in the fourth quarter, reaching 0.7% at the end of 2005. With inflation expectations largely unchanged, the increase in the fourth quarter was due almost entirely to an increase in nominal interest rates.

1 Cf. table 1.1 for the consensus forecast.

3.2 Exchange rates

Dollar stronger

Over the course of 2005, the US dollar appreciated by 12.9% against the euro. This may be the result of a more restrictive monetary policy on the part of the US Fed than that pursued by the ECB. While the former lifted its key rate by a total of two percentage points in several steps, the ECB raised its key rate only once, by 25 basis points in December. The Swiss franc remained more or less stable with respect to the euro. The explanation for this lies in a parallel economic recovery and similar interest rate developments. Against the US dollar, the Swiss currency lost 14.5%. The real export-weighted external value of the Swiss franc, which takes account of disparities in inflation rates between the various currencies, declined with respect to both the 24 most important trading partners and the euro area (graph 3.11).

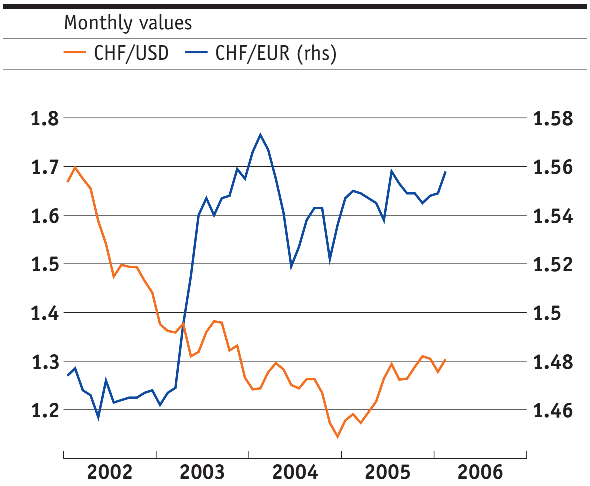
Since the last monetary policy assessment, the Swiss franc has depreciated slightly against both the US dollar and the euro. In mid-March, the CHF/USD exchange rate was 1.302, as compared to 1.284 in mid-December. Over the same period, the euro appreciated by about 2 Swiss centimes to CHF/EUR 1.566. However, the real external value of the Swiss franc changed very little.

Monetary conditions more expansionary

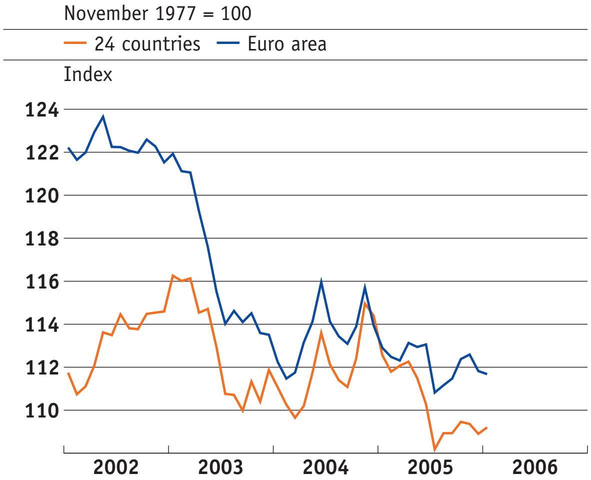
The Monetary Conditions Index (MCI) combines the three-month interest rate and the nominal trade-weighted external value of the Swiss franc to gauge the extent to which restrictive monetary policies are being applied. It identifies the monetary conditions faced by the Swiss economy. The two components of the MCI are weighted 5:1 and 3:1 to obtain the indices shown in graph 3.12. The purpose of the two scenarios is to illustrate the uncertainty with respect to the relative importance of interest rates and the exchange rate. A rise in an index indicates a tightening of monetary policy conditions while a decline corresponds to a relaxation in these conditions (cf. “Box: The Monetary Conditions Index”, p.27, Monetary Policy Report 1/2004). The indices are set at zero following each monetary policy assessment.

Since the last assessment, the indices have remained below zero, which means that monetary conditions in Switzerland have been more expansionary. The gradual rise in the three-month Libor in February was more than compensated by the weakness in the Swiss franc.

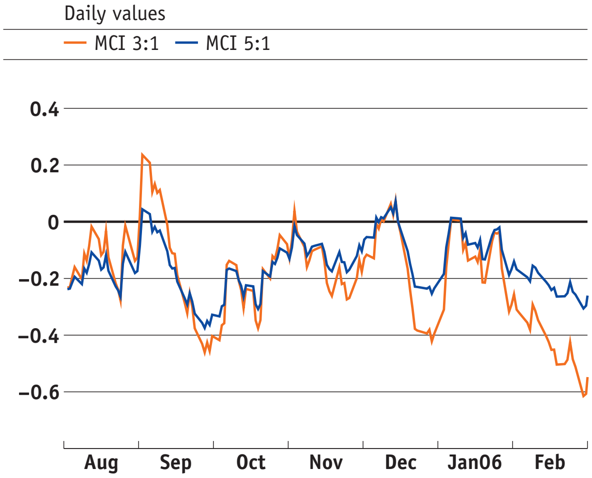
Graph 3.10
Exchange rates



Graph 3.11
Export-weighted real exchange rate of Swiss franc



Graph 3.12
MCI nominal



Graphs 3.11, 3.12 and 3.13:
Source: SNB

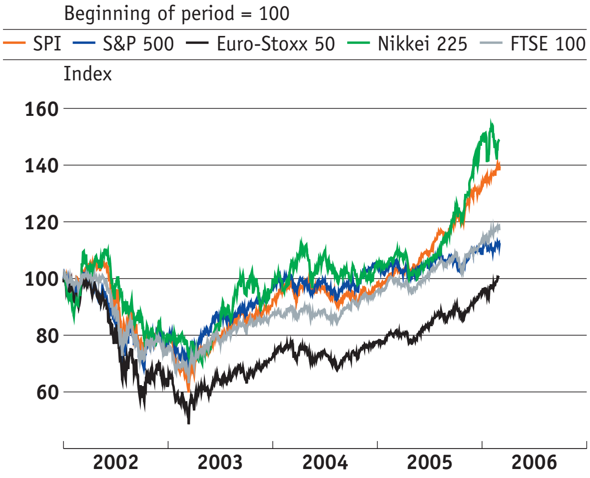
3.3 Share, commodity and real estate prices

Stock markets continue to perform well

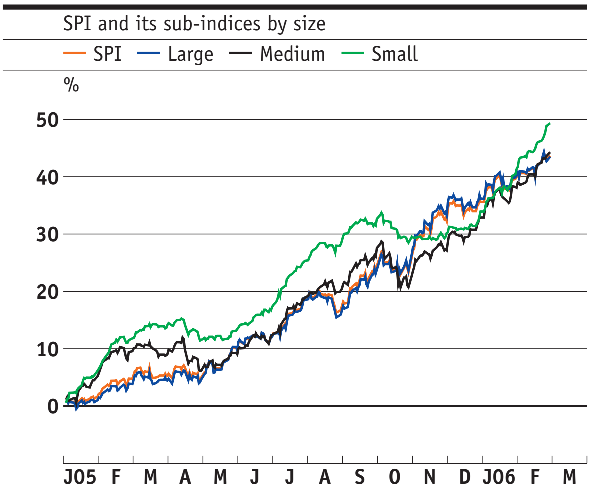
In view of the healthy situation in the world economy, most stock markets performed well, with the Swiss stock exchange registering a particularly strong increase. The rise in the Swiss equity index (SPI) was broad-based. Growth rates of over 30% were enjoyed by small, medium and large companies. The only stock market that remained unchanged was the US market. This may be due in part to the tightening in monetary policy and to nervousness about the deficits in the US federal budget and current account.

The upward movement in the international stock markets continued unabated in early 2006. At the same time the volatility of equity returns, which reflects nervous sentiment, was low (graph 3.15). Market players were apparently expecting the economic upswing to continue, while regarding the risk of a drastic correction as minimal. The Japanese stock market was an exception to the general situation. Volatility in this market increased, and with it the uncertainty about further price developments.

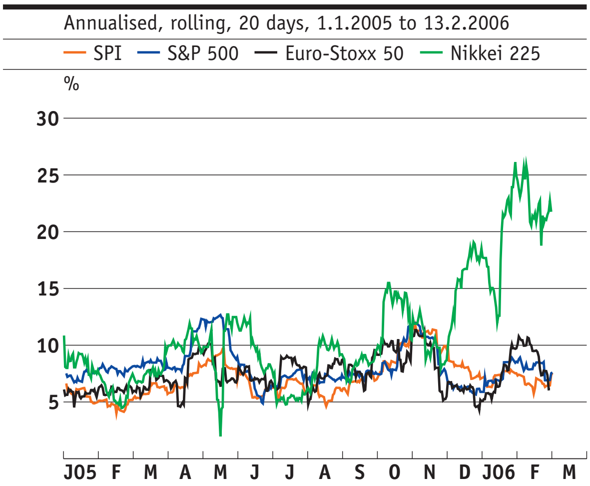
Graph 3.13
Stock prices



Graph 3.14
Performance of Swiss equities



Graph 3.15
Equity return volatility



Graph 3.13:
Sources: BIS, Bloomberg

Graph 3.14:
Source: SWX Swiss Exchange

Graph 3.15:
Sources: Thomson Datastream, SNB

High prices for commodities

The commodity index compiled by the Commodity Research Bureau (CRB) rose by 3.2% in 2005 (cf. graph 3.16), well above the long-term average of 1.2% for the period since 1951. However, volatility too was slightly above the historical average. The sharp upturn in prices is mainly attributable to strong industrial demand, as well as substantial demand on the part of private investors and hedge funds. A comparison of different commodities reveals that precious metals and crude oil recorded the largest price increases in 2005, with gold rising by 16% and crude oil by as much as 36% (both measured in dollars).

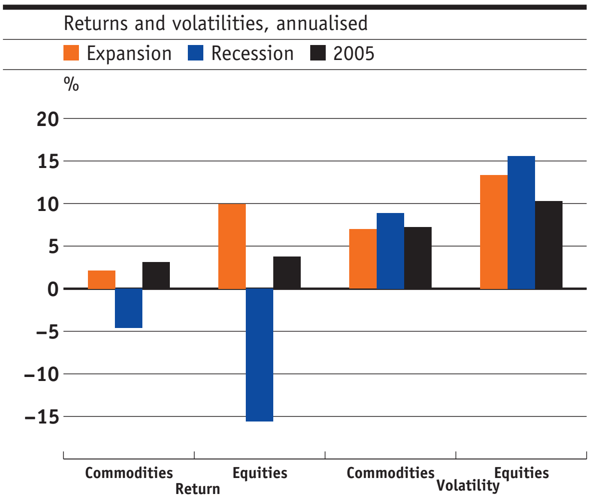
Generally speaking, commodity prices behave pro-cyclically, adding an average 2.1% (annualised) in the upswing phase of the cycle but declining by 4.6% during economic downturns. The fact that the 3.2% increase exceeded the average for expansionary phases is in line with the favourable situation in the world economy.

Greater stability in real estate prices

Low interest rates and inexpensive financing terms in the fiercely contested commercial banking sector helped to stimulate demand for real estate. As a result, real estate prices continued to rise in 2005, although not as strongly as in the previous year. In real terms, i.e. as compared to the CPI, prices for commercial buildings declined by 0.2%, while those for single-family homes and owner-occupied apartments were up by 0.4%. Rents were 2.3% higher – although this measure applies largely to the existing housing stock. Rents for newly built dwellings declined by 1.3% in real terms. Since rents for new dwellings give a less distorted picture of the real estate market, the market for rented housing can be regarded as stable. Nevertheless, there are differences between the different regions of Switzerland and these are also reflected in the prices for single-family homes, which rose by 2% in Zurich, by 1.8% in Geneva and by 3.4% in southern Switzerland. For Switzerland as a whole, the increase amounted to only 0.9%.

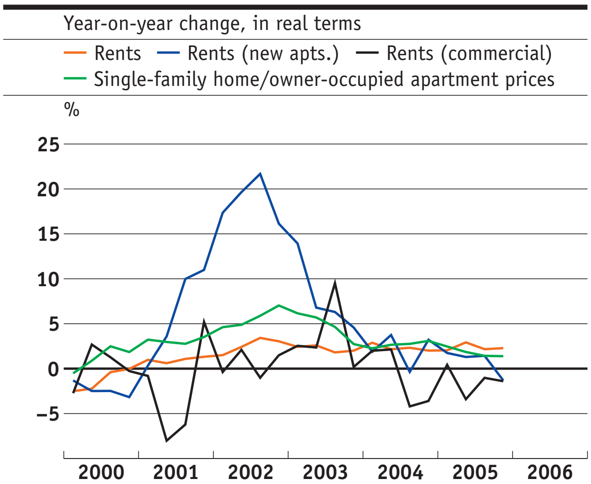
All in all, demand appears to have picked up mainly in the metropolitan areas, while remaining more restrained in other regions. At the same time, price increases may also be observed in peripheral regions such as the canton of Graubünden. This is attributable to the growth in demand for second homes and holiday homes.

Graph 3.16
Commodities and equities across business cycles



Sources: Thomson Datastream, SNB
The calculations are based on the Commodity Research Bureau's (CRB) aggregated commodity index (from 1951) and the S&P 500 index (from 1965). Business cycles are defined on the basis of the NBER criteria.

Graph 3.17
Real estate prices and rents



Source: Wüest & Partner

3.4 Monetary aggregates

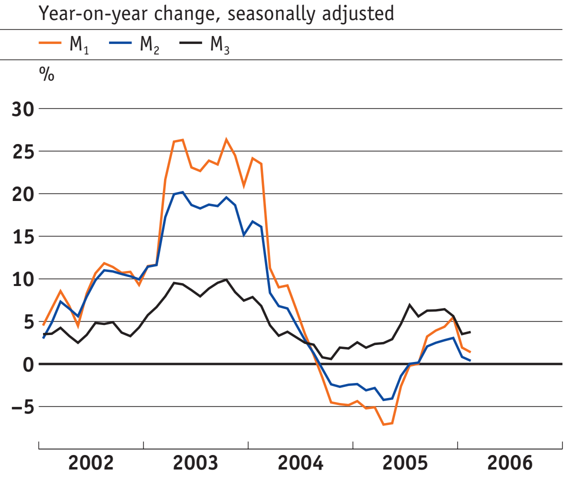
Growth in the money stock slows a little

In February the M_1 money stock (note and coin circulation, sight deposits and transaction accounts) increased by 1.4% year-on-year, while M_2 (M_1 plus savings deposits) was up by 0.4%. M_3 (M_2 plus time deposits) grew by 3.8%. In the first two months of 2006, there was a marked slowdown in growth following the substantial expansion recorded in the second half of 2005. The various measures of money stock have dropped marginally since November 2005.

To assess the supply of money to the economy and the possible risk of inflation, an estimate is made of the money overhang (see "Box: Money supply growth and inflation", p. 33, Monetary Policy Report 1/2005). An equilibrium money supply is calculated on the basis of the transaction volume in the economy and the opportunity costs of holding money. This serves as a benchmark for an appropriate supply of money to the economy. If the current money supply exceeds this level, there is too much liquidity available and thus a danger of increased inflation in the next four to six quarters. Graph 3.19 shows the percentage deviations of the M_3 money stock from the calculated equilibrium value (ECM approach). To allow for the uncertainties inherent in this model, estimates are made for two different model variants. Since the estimates for the fourth quarter showed little or no money overhang, the indicator constructed in this way suggests that there is little risk of inflation in the next twelve to eighteen months.

Graph 3.18
Monetary aggregates

Year-on-year change, seasonally adjusted



Source: SNB

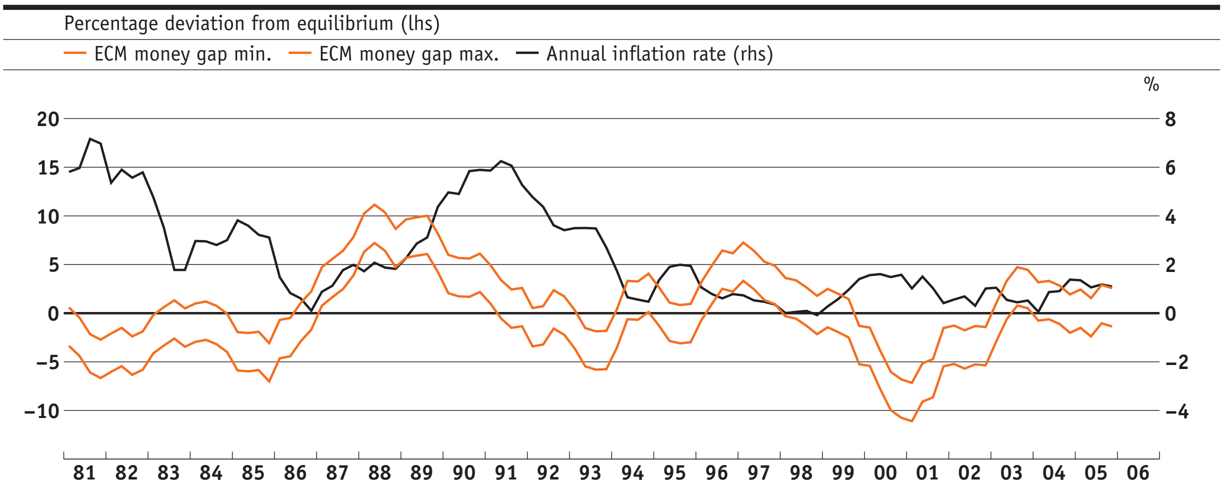
Monetary aggregates[1]

Table 3.1

	2004	2005	2004 4Q	2005 1Q	2Q	3Q	4Q	2005 December	2006 January	February
Monetary base[2]	**41.7**	**41.9**	**41.8**	**42.1**	**41.6**	**41.2**	**42.7**	**44.7**	**43.5**	**43.1**
Change[3]	*3.2*	*0.4*	*0.7*	*–0.5*	*–0.2*	*0.3*	*2.0*	*3.1*	*1.5*	*3.2*
M_1[2]	**288.5**	**284.6**	**279.1**	**283.0**	**279.0**	**284.8**	**291.7**	**291.2**	**289.9**	**288.8**
Change[3]	*5.5*	*–1.3*	*–4.8*	*–4.9*	*–5.6*	*1.0*	*4.5*	*5.4*	*2.0*	*1.4*
M_2[2]	**495.6**	**492.3**	**485.4**	**491.2**	**487.3**	**492.1**	**498.7**	**498.3**	**496.7**	**495.1**
Change[3]	*4.3*	*–0.7*	*–2.6*	*–2.8*	*–3.2*	*0.8*	*2.7*	*3.0*	*0.9*	*0.4*
M_3[2]	**562.5**	**587.8**	**564.8**	**576.6**	**582.4**	**593.0**	**599.1**	**598.4**	**598.7**	**598.6**
Change[3]	*3.2*	*4.5*	*1.4*	*2.3*	*3.3*	*6.3*	*6.1*	*5.5*	*3.5*	*3.8*

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

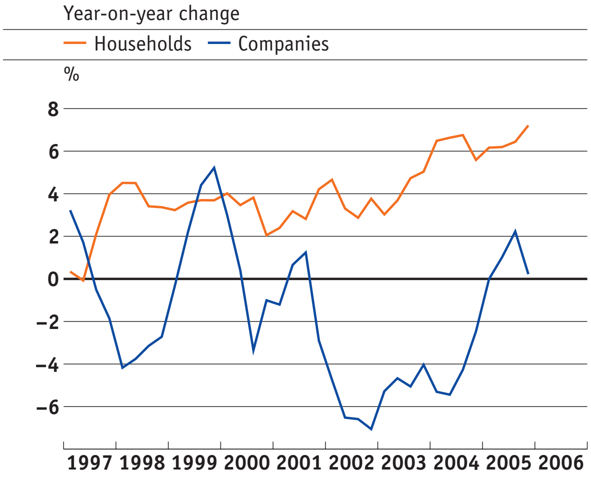
3.5 Loans

Continued growth in lending

Bank lending increased again and was up by 4.3% year-on-year in the fourth quarter of 2005. Loans to households have grown particularly strongly over the past two and a half years, as shown by graph 3.20. Loans to the corporate sector, however, did not return to positive growth territory until the second quarter of 2005. In the fourth quarter this trend continued with a moderate increase of 0.2%.

The rise in lending to households is attributable to mortgages, which account for 80% of all bank loans and were up 5.5% year-on-year in the fourth quarter. By contrast, other types of loan declined by 0.6%. Particularly noticeable is the further decline in other unsecured loans, which dropped back 2.9%, while other secured loans grew by 2.4%.

Graph 3.20
Bank loans



Source: SNB

Bank loans
Year-on-year change in percent

Table 3.2

	2004	2005	2004 Q4	2005 Q1	Q2	Q3	Q4	2005 November	December	2006 January
Total	**3.6**	**4.0**	**3.6**	**3.6**	**3.8**	**4.3**	**4.3**	**4.3**	**4.3**	**4.2**
Mortgage claims	5.4	5.3	5.2	5.1	5.1	5.3	5.5	5.5	5.6	5.5
Other loans	–3.1	–0.9	–2.6	–1.9	–1.2	0.1	–0.6	–0.9	–1.3	–1.5
of which secured	3.2	2.3	4.0	3.5	–0.1	3.2	2.4	4.3	–1.6	–0.3
of which unsecured	–7.1	–3.2	–6.8	–5.7	–1.9	–2.2	–2.9	–4.6	–1.2	–2.4

Source: SNB

4 Inflation forecast of the SNB

Monetary policy impacts on production and prices with a considerable time lag. In Switzerland, monetary policy stimuli have their maximum effect on inflation after a period of approximately three years. For this reason, the SNB's monetary policy is guided not by current inflation, but by the inflation rate to be expected in two to three years if monetary policy were to remain unchanged. The inflation forecast is one of the three key elements of the SNB's monetary policy concept, 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 embedded in an international economic scenario. This represents what the SNB considers to be the most likely development over the next three years. Table 4.1 contains the main exogenous assumptions and the corresponding assumptions underlying the December forecast.

Global economy still assumed to pick up pace

Global economic assumptions have been altered only slightly overall. According to the revised GDP figures, growth in Europe recovered faster than anticipated in 2005 and exceeds last December's projections even in the short term. GDP growth in the US, by contrast, was surprisingly weak in the fourth quarter of 2005. This is attributed to special effects, though. Growth is still anticipated to be robust in the medium term, trending towards the potential growth rate of approximately 3%. The oil price assumptions were revised slightly upwards and foreign prices were adjusted accordingly. The dollar/euro exchange rate was assumed to be 1.21, almost exactly in line with the December forecast.

Assumptions for inflation forecasts Table 4.1

	2006	2007	2008
Inflation forecast of March 2006			
GDP US[1]	3.3	3.6	3.4
GDP EU15[1]	2.3	2.3	2.2
Exchange rate USD/EU[2]	1.21	1.21	1.21
Oil price in USD/barrel[2]	63.0	63.0	63.0
Inflation forecast of December 2005			
GDP US[1]	3.6	3.5	3.4
GDP EU15[1]	2.0	2.4	2.2
Exchange rate USD/EU[2]	1.20	1.20	1.20
Oil price in USD/barrel[2]	59.0	59.0	59.0

1 Change in percent
2 Level

Box: Inflation forecasting as part of the monetary policy concept

The Swiss National Bank (SNB) has the 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 concept. First, it regards prices as stable when the national consumer price index (CPI) rises by less than 2% per annum. This allows it to take account of the fact that the CPI slightly overstates actual inflation. At the same time, it allows inflation to fluctuate somewhat with the economic cycle. Second, the SNB summarises its assessment of the situation and of the need for monetary policy action in a quarterly inflation forecast. This forecast, which is based on the assumption of a constant short-term interest rate, shows the CPI development expected by the SNB over the next three years. Third, the SNB sets its operational goal in the form of a target range for the three-month Swiss franc Libor. The target range provides the SNB with a certain amount of leeway, enabling it to react to unexpected developments in the money and foreign exchange markets without having to change its basic monetary policy course.

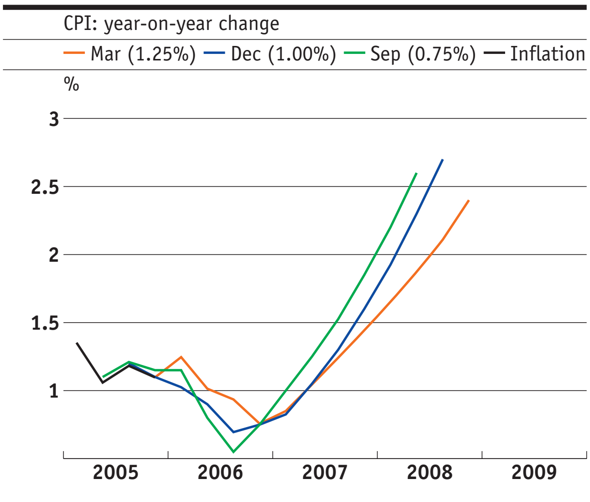
4.2 Inflation forecast Q1 2006 to Q4 2008

The inflation forecast is derived from the analysis of different indicators, model estimates and the assessment of any special factors. Graph 4.1 depicts the inflation forecast of March 2006 alongside those of December and September 2005. The new forecast, which extends from the first quarter of 2006 to the fourth quarter of 2008, is based on a steady three-month Libor of 1.25%, i.e. the mid-point in the 0.75–1.75% target range for the three-month rate which the SNB lifted by 25 basis points on 16 March. The December and September forecasts were based on a three-month Libor of 1.0% and 0.75% respectively.

The inflation forecast of March 2006 indicates that annual inflation in the coming months will fluctuate around 1%. Annual inflation is expected to amount to 1.2% in the first quarter of 2006 before easing in the course of the year. Fourth-quarter inflation is put at 0.8%. In line with the assumption on the future development of the oil price (cf. section 4.1), the SNB expects that the oil components included in the consumer price index will continue to make a significant contribution to inflation in the months ahead. While inflation in other goods and services is likely to mount gradually with the closing of the production gap, the scope for price increases in various segments – particularly in the retail trade – should remain narrow owing to the persistently fierce competition.

Solid economic expansion went hand-in-hand with a rise in the monetary aggregates and in lending. Owing to the two interest rate hikes in 2004 and the last increase in December 2005, however, the money overhang that formed as a result of strongly expansionary monetary policy in the last few years did not grow any further. Nevertheless, the economy is still amply supplied with liquidity, which poses a risk to price stability in the two to three years ahead. But the monetary tightening of March is intended to head off an overutilisation of production capacity and an excessive liquidity supply. Accordingly, the new inflation forecast lies below the previous one as of mid-2007. Based on an unchanged three-month Libor of 1.25%, inflation in 2007 is projected to reach 1.1% on average. Yet even with the interest rate at 1.25%, the forecast indicates a rise in inflationary pressure that would breach price stability in mid-2008. So if the economy continues to recover as expected, the SNB will further pursue the gradual adjustment of its monetary policy.

Graph 4.1
SNB inflation forecasts: a comparison



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

Summary report to the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of March 2006

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. The main results of the talks held between December 2005 and February 2006 on the current and future economic situation are summarised in this section.

Summary

The talks held by the SNB delegates for regional economic relations with around 180 representatives from various economic sectors and industries again yielded a favourable picture of the economy for the three months up to February 2006. Compared with the preceding round of talks, the upswing seems to have gathered momentum and gained a broader footing. Most representatives of the export sector and the domestic industry reported good to excellent business results for 2005 and a promising start to the year 2006. For the first time in a long while, the retail sector was also somewhat more upbeat.

All industries were optimistic about the outlook for 2006. Given the high level of capacity utilisation and the satisfactory earnings performance, companies were again considering investing in expansion, often coupled with recruiting new staff. The surge in raw material and energy prices put pressure on some companies. However, more and more companies seem to be able to pass on at least part of the higher production costs to customers.

1 Production

Manufacturing

Most representatives from the manufacturing sector recorded a high order intake at the turn of 2005/2006, which should ensure full order books well into the year. Although production was buoyant in many industries, inventories fell to record lows in some cases and delivery periods lengthened. Asia (China), Central and Eastern Europe and the US remained particularly dynamic markets. Business with the rest of Europe now also seems to be rebounding, though. A number of companies surveyed registered higher demand from Germany in particular.

In addition to those industries that have been enjoying an upswing for some time now, notably the chemical/pharmaceutical sector, medical technology, and the watchmaking and metal industries, most other industries also rated business activity as good to excellent. Demand in the area of energy technology in particular exhibited a positive trend, reflecting an improvement in the global investment climate in the energy-generating industry. Suppliers and subcontractors also benefited, partly due to the outsourcing of activities that had previously been performed internally when order levels were low.

Services

The retail situation seems to be brightening slowly. A growing number of companies reported an improvement in turnover and in consumer sentiment, though there were few mentions yet of an actual trend reversal. Christmas business was judged surprisingly good in some cases. As before, the performance of luxury and budget items was satisfactory to very good, whereas products in the medium price bracket have been struggling.

The survey participants from the ski resorts were very satisfied with the winter season. Excellent weather and snow conditions helped push the occupancy rate up to high levels; moreover, tourist spending also revived. In addition, positive mention was made of the pick-up in bookings by German tourists. Higher spending, both amongst private and business customers, was also reported by the representatives of the hospitality trade and the urban hotel sector. A fundamental change in sentiment was mentioned on a number of occasions.

The picture which emerged from most of the talks with representatives of other service-sector industries was also satisfactory to positive. Air travel registered considerably brisker activity than a year ago. The business consultancies surveyed noted an increase in demand for their services and a significant improvement in the financial standing of their customers. IT service providers made similar observations.

After a successful 2005, the survey participants from the banking industry remain optimistic about future business activity. Contrary to the mortgage business and trading, corporate lending remained muted until the end of the period under review. Loans were paid back and investment projects were financed with internally generated funds thanks to the improved financial situation. At the same time, however, there were signs that credit lines were drawn down to a greater extent. The representatives from the insurance industry mentioned the continued pressure to increase productivity and anticipated further job cuts this year.

Construction

Boosted by the dynamic residential construction market, building activity was still vigorous. Consequently, the construction industry proper and the finishing industry were satisfied with the situation. The high order backlog ensures a healthy rate of capacity utilisation for the foreseeable future. Residential construction remained the most important segment by far. Some companies also saw a moderate improvement in commercial and public-sector construction and are hoping that these segments will provide increased stimulus should the residential construction boom slow down. Although pressure on prices and the tight earnings situation were mentioned again, this problem seems to have lost some of its urgency in view of the healthy order books. The soaring land prices in some areas were pointed out on a number of occasions.

2 Labour market

Demand for labour appears to be picking up gradually. While hiring new staff was barely considered until recently, the mood seems to have changed. A number of companies were planning to recruit new staff this year. This applies especially to the manufacturing sector. By contrast, the major service-sector industries – the retail trade in particular – are continuing to reduce their headcount. The lack of skills in the Swiss labour market is persisting in some fields, but the situation has eased thanks to the freedom of movement agreement with the EU.

3 Prices, margins and earnings situation

In some instances, concerns were expressed about surging prices in the area of energy, raw materials (aluminium, plastic) and transportation as well as higher accident insurance premiums. The development of salaries and wages, by contrast, did not give any reason for complaint and was judged adequate. With the exception of the construction industry and retail trade, the earnings situation was by and large considered good to very good. Unlike in the past, a number of companies were able to raise selling prices, thus passing on at least part of the increased costs to customers. This applies to exporters as well as to companies producing for the home market. Only in exceptional cases did the higher selling prices result in improved margins. Those industries facing fierce import competition continued to be affected by the high pressure on selling prices. The exchange rate situation gave hardly any grounds for concern. This is particularly true of the CHF/EUR relationship, which was regarded as unproblematic. The current USD exchange rate is deemed acceptable.

Swiss National Bank Working Papers and Swiss National Bank Economic Studies: Summaries

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On the Inadequacy of Newswire Reports for Empirical Research on Foreign Exchange Interventions

Andreas M. Fischer
Working Paper 2005-2

Newswire reports are frequently used as an information source for empirical studies examining the influence of central bank interventions in the foreign exchange market. An important feature of newswire reports for central bank interventions is their time stamp. In the absence of information when central bank interventions were conducted, the time stamp of newswire reports serves as a valid proxy. The view is that the time span between central bank interventions and newswire reports should be fairly small. Empirical studies that focus on information asymmetries in the foreign exchange market assume that the time lag between the central bank intervention and a newswire announcement can be measured in minutes. This assumption implies that the electronic archives of newswire reports enjoy a high degree of accuracy. Whether this is true has never been empirically tested.

The above titled study analyzes the accuracy of newswire reports as a viable information source for official interventions by the Swiss National Bank (SNB) from 1989 to the year the last intervention took place, in 1995. The study finds that the time between the SNB transaction in the foreign exchange market and the corresponding newswire report – opposite to what empirical studies assume – can be measured not only in minutes but also in hours. This result questions whether newswire reports are a valid proxy for intervention studies. Given that the SNB followed a relatively transparent intervention policy, it is more than likely that the time lag is larger for central banks that communicated their interventions less openly. On the other hand, with the most recent technological advances in telecommunications, it can be assumed that the time span between a central bank intervention on the foreign exchange market and the newswire announcement has narrowed.

Measuring Income Elasticity for Swiss Money Demand: What do the Cantons say about Financial Innovation?

Andreas M. Fischer
Working Paper 2006-1

Recent money demand studies based on time series analysis show that the income elasticity is greater than unity. Such results deviate sharply from Tobin's theory of transactions demand, which defines the income elasticity to be around 0.5. The above titled study investigates the discrepancy in the elasticity measures using Swiss data. The route taken to estimate the income elasticity does not rely on time series information but on cantonal cross-section data. Because many of the time series studies also suffer from unstable regressions, which are interpreted as stemming from financial innovation, the analysis also asks whether financial innovation influenced differently the cantonal income elasticities.

The study's main results are the following. First, the regressions with cross-sectional data in contrast to the times series data are stable across time and cantons. The results find that the income elasticity lies between 0.4 and 0.6; consistent with Tobin's transactions theory of money demand. Second, financial innovation, measured through several proxies, is found to have no influence on the estimates for income elasticity. Also this result differs from time series regressions. These results have the following implications for monetary policymakers. The first concerns identifying an acceptable level of money growth. If per capita output growth proceeds at 2 percent, an overestimate of the income elasticity by 0.5 or 1.0 would result in a higher inflation rate of 1% to 2% instead of the intended level. Empirical studies with cross-sectional data for the United States and Japan estimate a higher income elasticity than for Switzerland, but these estimates tend to be lower than the time series regressions. In general the consequences of a money overhang on inflation increase, if the income elasticity of money is measured to be small. Time series estimates of money demand thus suggest a higher acceptable level of money growth. A further important result for monetary policy, stemming from the stability of the income elasticity estimates, is the high indicator value attributed to money by the Swiss monetary authority.

Realized Bond-Stock Correlation: Macroeconomic Announcement Effects

Charlotte Christiansen and Angelo Ranaldo
Working Paper 2006-2

Recent micro-structure studies based on high-frequency data, i.e. very short-term data fluctuations, allow precise measuring of yield correlation and yield volatility, which are referred to as realized correlation or volatility. This study uses high-frequency data in order to analyze the effect of publishing macroeconomic data on the realized volatilities and correlations between bond and stock returns in the US for the period 1988 to 2003. There are several reasons why analyzing the common movements of different asset classes is important. First, the correlation between different asset classes is a key variable in asset allocation. Second, in risk management and hedging, the correlation measure takes center stage. Third, correlation patterns during an economic cycle and after important macroeconomic announcements yield interesting information on the determining factors for the valuation of stocks and bonds. Fourth, the sensitivity of asset valuation with regard to inflation, real interest rates and other asset-specific factors over time and between economic cycles are important elements in the monetary policy decision-making process. This study focuses on the two last mentioned aspects.

For one thing, the study reveals that after macroeconomic announcements, realized volatility of bonds is generally higher than that of stocks. This effect is most pronounced during a recession. For another, the study demonstrates that such announcements also affect the correlation between bonds and stocks. Realized correlation between bonds and stocks is not so much influenced by the element of surprise of an announcement, but rather by the mere fact that an announcement was actually made. Moreover, the analysis demonstrates that the correlation differs, depending on the position in the economic cycle: It becomes stronger during an economic upswing and weakens during a downturn. The reason why it strengthens during an upturn is that unexpectedly positive economic news, e.g. better-than-anticipated retail turnover, results in falling prices for both stocks and bonds. Positive news during a phase of expansion can be interpreted as a sign of mounting inflationary pressure, which in turn gives rise to the expectation that key rates will be lifted. The opposite is true during an economic downturn. A positive report is more likely to be interpreted as a sign of economic recovery, hence the prospect of higher corporate earnings. Since new assessments of earnings trends only refer to stock prices, however, bond prices remain largely unaffected. Consequently, while stock and bond prices – triggered by fears of an impending increase in interest rates – move in the same direction in an upturn, the effect of expected earnings performance on stocks is the dominant factor during a downturn. Finally, the study shows that around 1997 in the US, a positive sign changed to a negative sign in the realized correlation between bonds and stocks.

Chronicle of monetary events

Increase in the target range for the three-month Libor

At its monetary policy assessment on 16 March 2006, the Swiss National Bank decided to lift the target range for the three-month Libor with immediate effect by 0.25 percentage points to 0.75–1.75%. It intends to hold the rate in the middle of the target range for the time being.

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