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Contents

5	Overview
6	Monetary policy report
38	The economic situation from the vantage point of the delegates for regional economic relations
42	Swiss National Bank Working Papers and Swiss National Bank Economic Studies: Summaries
44	Chronicle of monetary events
46	Table of contents, volume 24, 2006

Overview

Monetary policy report (p. 6)

The global economy continued to grow powerfully in the second half of 2006. The growth impetus emanating from the Asian region was strong, but economic growth in the US and Europe was weaker than in the first half of the year. Inflation rates declined in most countries. The main reason for this was the price of crude oil, which dropped back to USD 60 a barrel in September. However, given the level of core inflation rates, caution was still called for. Consequently, central banks maintained their more restrictive monetary policies. The outlook for the international economy remained favourable overall. As before, the risks include oil price movements as well as the present imbalances in current accounts with the associated danger of abrupt corrections to exchange rates.

In this favourable global economic environment, Switzerland's economic upswing continued into the second half of the year. Both exports and domestic demand – especially private consumption – contributed to economic growth. Following a stagnation in the second quarter, employment recorded a substantial increase over the previous quarter and unemployment declined further. For 2006, the SNB forecasts real GDP growth of almost 3% on average, and for 2007, an increase of about 2%. The economic recovery will thus continue at a slower pace.

On 14 December, the SNB raised the target range for the three-month Libor rate by 0.25 percentage points to 1.50%–2.50%. By lifting rates, it has brought its monetary policy course in line with economic activity, thereby ensuring that the inflation outlook remains favourable, even in view of the very healthy level of utilisation of economic resources.

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 140 representatives from various economic sectors and industries yielded a picture of an economy that was in excellent shape. Right through to the end of the period, the companies surveyed detected no evidence of any slowing trend, and in some cases even stated that business was accelerating. The most flourishing sectors of all were the export industry, tourism, construction and the banks. By contrast, the retail trade presented a muted picture. Prospects for 2007 were viewed as positive. While a number of respondents were expecting a slowdown in the growth of turnover, they considered this part of the process of 'returning to normal'.

Swiss National Bank Working Papers (p. 42)

Abstract of a paper by Angelo Ranaldo, *Intra-day market dynamics around public information arrivals*, SNB Working Paper 2006-11.

Monetary policy report

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

This report is based primarily on the data and information available as at mid-December 2006.

Contents

8	About this report
9	Key developments
11	1 Developments in the global economy
15	2 Developments in the Swiss economy
15	2.1 Aggregate demand and output
20	2.2 Capacity utilisation
21	2.3 Labour market
22	2.4 Goods prices
25	3 Monetary developments
25	3.1 Interest rates
28	3.2 Exchange rates
29	3.3 Equity, commodity and real estate prices
31	3.4 Monetary aggregates
33	3.5 Loans
34	4 The SNB inflation forecast
34	4.1 Assumptions for global economic developments
36	4.2 Inflation forecast Q4 2006 to Q3 2009
35	Box: Inflation forecasting as part of the monetary policy concept

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 economic and monetary developments in Switzerland and explains the inflation forecast. It shows how the SNB views the economic situation and what conclusions it draws from this assessment.

Sections 1–3 of the present report were drawn up for the Governing Board's assessment of December 2006. The key developments and section 4 (inflation forecast) take due account of the Governing Board's monetary policy decision of 14 December 2006.

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

Key developments

The global economy continued to grow powerfully in the second half of 2006. The growth impetus emanating from the Asian region was strong, but economic growth in the US and Europe was lower than in the first half of the year. Inflation rates declined in most countries. The main reason for this was the price of crude oil, which dropped back to USD 60 a barrel in September. However, given the level of core inflation rates, caution was still called for. Consequently, central banks maintained their more restrictive monetary policies. The outlook for the international economy remained favourable overall. As before, the risks include oil price movements as well as the imbalances in current accounts and the associated danger of abrupt corrections to exchange rates.

In the run-up to each inflation forecast, the SNB prepares a global economic scenario. For the December forecast, the SNB lowered its 2007 growth rate assumption for the US from that used in the September inflation forecast by 0.5 percentage points, to 2.9%. In doing so, it was responding to the signs of a temporary growth slowdown that have been amassing over the autumn months. For the EU countries (EU15), however, it lifted its GDP forecast slightly to 2.3% in order to take account of the strong economic momentum in Europe. In response to the substantial drop in oil prices, the SNB also reduced its assumption on the barrel price of oil by USD 20 to USD 58.

In this favourable global economic environment, Switzerland's upswing continued into the second half of the year. Both exports and domestic demand – especially private consumption – contributed to economic growth. Following a stagnation in the second quarter, employment recorded a substantial increase over the previous quarter and unemployment declined further. Once again, the talks held by the SNB delegates for regional economic relations with representatives from various industries yielded a very favourable picture of the economy, and their stance on 2007 was optimistic.

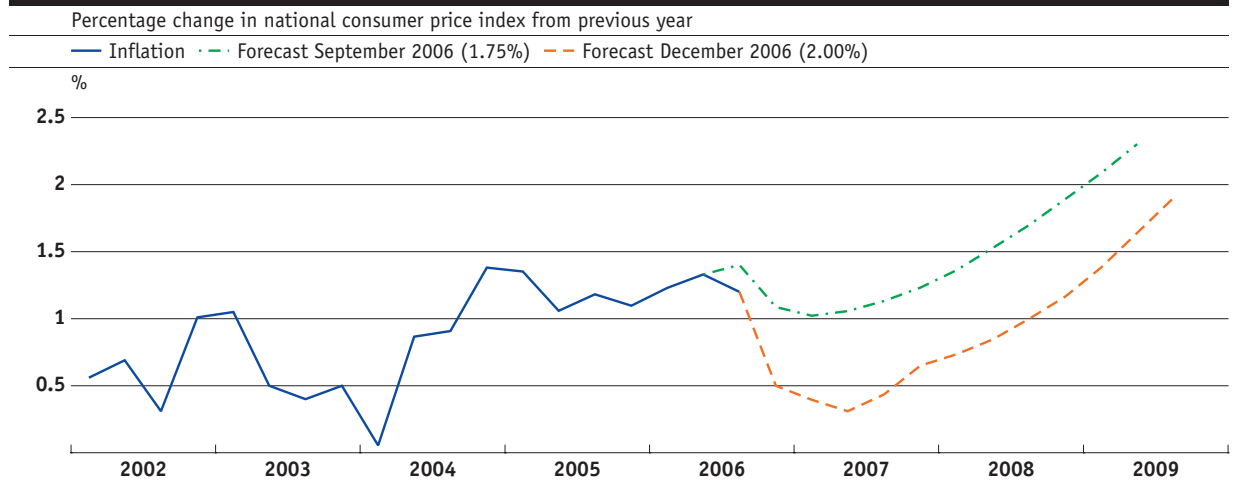
For 2006, the SNB forecasts real GDP growth of almost 3% on average, and for 2007, an increase of about 2%. The economic recovery will thus continue at a slower pace. However, forecast economic growth will remain broadly based and will continue above the estimated growth potential for the Swiss economy. This means that utilisation of economic capacities – which rose considerably in 2006 – will probably remain high and unemployment is likely to decline further by the end of 2007.

At its quarterly assessment in December, the SNB decided to lift the target range for the three-month Libor by 0.25 percentage points to 1.50–2.50% and to keep the rate in the middle of the target range for the time being. With this adjustment, the SNB brought its monetary policy further into line with economic trends, ensuring a continuation of the favourable inflation outlook, even in view of the very healthy level of utilisation of economic resources.

According to the December inflation forecast, which is based on the assumption that the three-month Libor remains steady at 2.0% over the next three years, the inflation outlook has improved. There are three main reasons for this. First, in the short-term, lower oil prices have led to a substantial decline in the annual rate of inflation. Second, the opening of the Swiss labour market is leading to greater production flexibility which, in general, tends to reduce inflation. Third, the tightening of monetary policy to date is countering a further rise in inflation.

With its decision to increase the three-month Libor by a further 25 basis points, the SNB is maintaining its monetary policy course of gradual normalisation. If the economy performs as expected, we will further pursue this strategy.

Inflation forecast of September 2006 with Libor at 1.75% and of December 2006 with Libor at 2.00%



Inflation forecast of December 2006 with Libor at 2.00%

	2006	2007	2008
Average annual inflation in percent	1.1	0.4	0.9

1 Developments in the global economy

The global economy continued to expand rapidly in the second half of 2006. Asia was the main driver, whereas growth in the United States and Europe was slower than in the first half. Inflation rates fell in most countries. This was due mainly to the crude oil price, which dropped back to USD 60 per barrel in September. As core inflation continued to present a risk, however, central banks adhered to their more restrictive monetary stance.

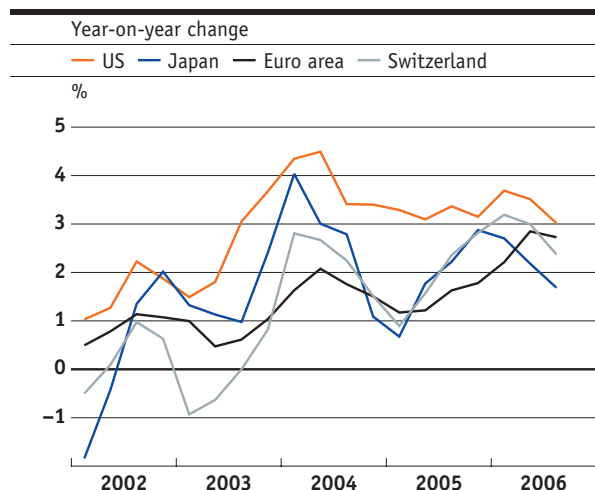
The outlook for the international economy remained bright on the whole. This is reflected in the consensus forecasts for 2007, which were lower than in August only in the case of the US. As before, the risk factors include the oil price, plus current account imbalances, with the attendant danger of sudden exchange rate corrections.

Cooler business climate in the US

In the third quarter, real GDP in the United States rose by 2.2% quarter-on-quarter, compared with a 2.6% rise in Q2. The slowdown was due mainly to a steep dive in housebuilding activity and, to a lesser extent, to the unexpected decline in exports of services. By contrast, private consumption and corporate investment remained buoyant.

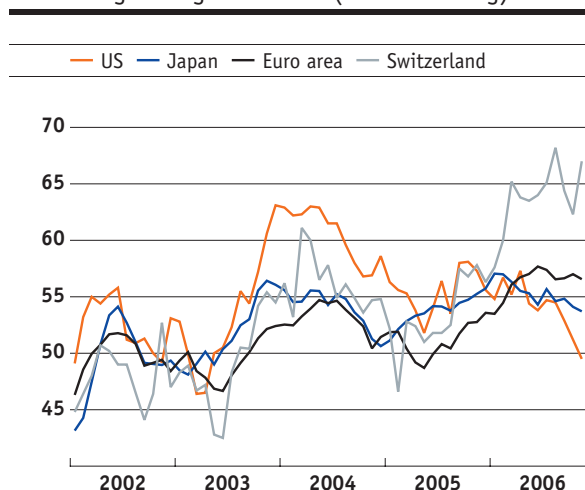
Economic growth looks set to edge up again in the fourth quarter. The subsequent periods, however, will probably see a mixed business trend, as two major sectors – real estate and vehicle manufacturing – are currently in a difficult transition phase. On the other hand, consumers remain upbeat. Most indicators of consumer sentiment have improved since August. Private consumption is being boosted by both pay rises and the downturn in oil prices. Given high capacity utilisation levels, healthy earnings and favourable financing terms, the investment climate also remained sound. Moreover, exporters should benefit from the thriving Asian and European economies. In November, the consensus forecast put real GDP growth at 2.5% for 2007, i.e. just below the estimated potential growth of approximately 3%.

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

Euro area economies robust

In the euro area, too, economic growth slowed down in the third quarter. Real GDP was up by 2.1% compared with 4% in the second quarter. The driving forces were private consumption and investment, both of which had been subdued in the upswing to date. By contrast, the role played by foreign stimuli diminished. The softening was evident in all three major countries, though most notably so in France, which had recorded GDP growth of almost 5% in the second quarter.

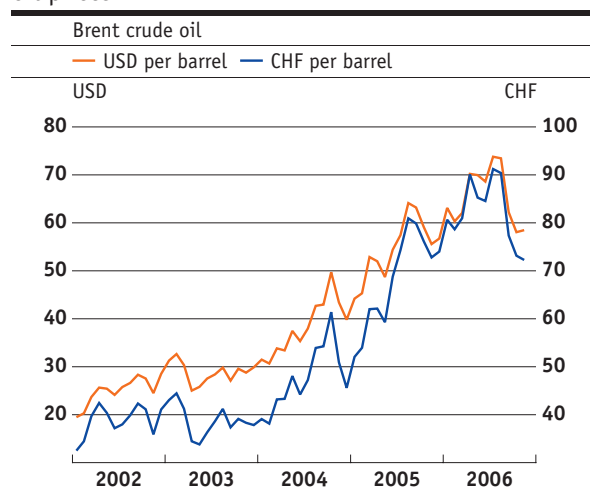
The economic outlook for the euro area remained bright. Sentiment in the corporate sector improved right up until the end of the reporting period, and demand for labour also rose. This applies in particular to Germany and Italy, where employment levels firmed up again after a lengthy slack period – with a concomitant fall in the unemployment rate. Allied with lower oil prices, this should lend impetus to private consumption. At the same time, the robust demand for corporate loans suggests that capital investment was still high. In the near term, however, a rise in German value added tax (taking effect at the beginning of 2007) and tighter fiscal policies in Italy will probably slow down growth in the euro area. The consensus forecast for real GDP in 2007 was 1.9% in November – somewhat higher than in August.

Asian boom driven by exports

Japan saw real GDP grow by an unexpectedly weak 0.8% in the third quarter. This was due mainly to a substantial fall in private consumption – itself partly due to weather conditions. By contrast, exports and corporate investment continued to surge. The flourishing export sector, which benefited from strong Asian demand and a cheaper yen, should continue to support the Japanese economy. November's consensus forecast for 2007 was 2%.

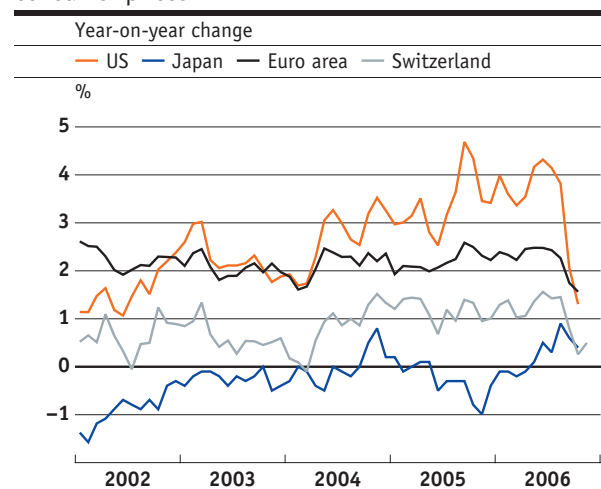
The Chinese economy lost virtually nothing of its brisk momentum in the third quarter. Real GDP was up by 10.4% year-on-year, compared with 11.3% in the previous quarter. Investment activity and exports were the main drivers. In October, growth in industrial output and investment eased slightly, though no significant fall-off is in sight. The other East Asian economies also continued to power ahead. Having been hit by bad weather, labour conflicts and inventory adjustments in the ICT sector in the first half, growth recovered in the reporting period.

Graph 1.3
Oil prices



Sources: Reuters, SNB

Graph 1.4
Consumer prices



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

Inflation easing

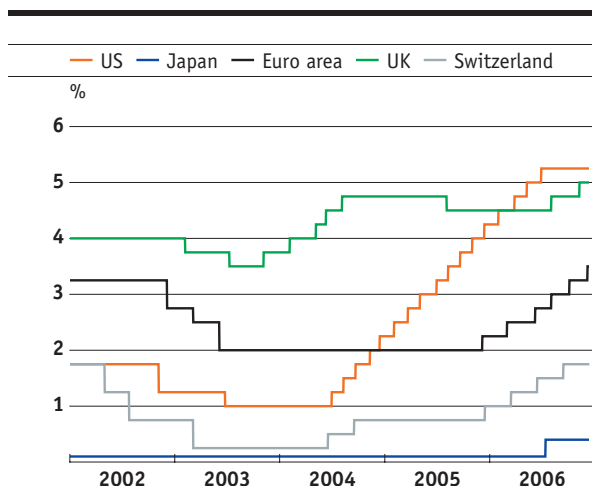
In the third quarter, annual inflation (as measured by consumer prices) declined in the G7 countries. The drop in oil prices was the main factor. In September, average annual inflation was 1.8%, down from 3.2% in June. By contrast, core inflation – which factors oil and food prices out of the index – continued to rise. This rate reached 2.0% in September – its highest level since November 2001.

Prices in the US and the euro area followed a similar course. Annual inflation rates fell sharply in the four months to October, dropping to 1.3% in the US and to 1.6% in the euro area – their lowest points since November 2001 and February 2004 respectively. On the other hand, core inflation rates lingered at 2.7% (US) and 1.5% (euro area). In Japan, annual inflation from June to September decreased by 0.1 percentage points to 0.6% while the core inflation rate remained negative (-0.5%).

Differing monetary policies

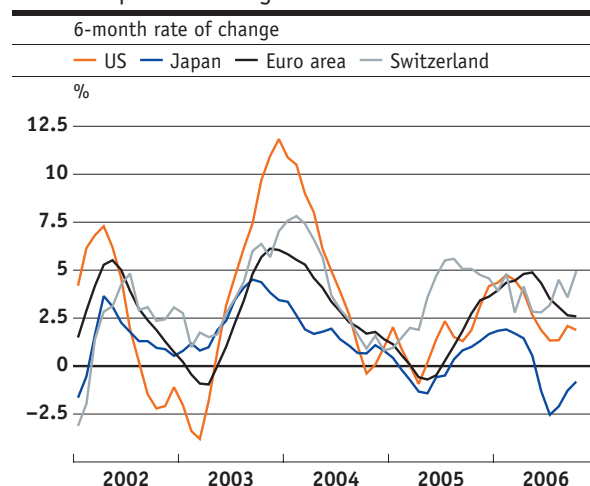
Monetary policies in the major industrial countries remained divergent. The US central bank left its call money rate unchanged at 5.25% in the second half of the year following the last quarter-point rise in June. It thus retained its moderately restrictive monetary stance, pointing out that there is still a residual risk of inflation despite the slowing pace of the economy. The European Central Bank (ECB) raised its minimum bid rate for main refinancing operations by a quarter of a percentage point in both October and December, bringing it to 3.5%. It cited the inflation risks emanating from the brisker economic expansion and strong growth in lending. The Chinese central bank also tightened up its monetary policy to counter the rapid growth in loans and investment. In August it nudged up the short-term (1-year) rate to 6.12%; this was followed in November by a 0.5-point rise in the minimum reserve rate to 9%. The Japanese central bank, however, decided not to adjust its monetary policy after having raised its call money rate by a quarter of a percentage point to 0.25% in July. It gave uncertain developments in prices as the reason for this decision.

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			
	August		November		August		November	
	2006	2007	2006	2007	2006	2007	2006	2007
United States	3.4	2.7	3.3	2.5	3.6	2.8	3.4	2.3
Japan	2.9	2.2	2.7	2.0	0.6	0.7	0.2	0.4
Euro area	2.3	1.8	2.6	1.9	2.3	2.2	2.2	2.1
Germany	1.9	1.1	2.3	1.3	1.8	2.4	1.7	2.2
France	2.1	1.9	2.2	2.0	1.8	1.7	1.8	1.6
Italy	1.4	1.2	1.7	1.3	2.2	1.9	2.2	1.9
United Kingdom	2.5	2.4	2.6	2.4	2.2	2.1	2.3	2.2
Switzerland	2.8	1.9	2.9	2.0	1.3	1.2	1.1	1.0

1 Real GDP, year-on-year change in percent

2 Consumer prices, year-on-year change in percent

Source: Consensus Forecasts, August 2006, November 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

Weaker GDP growth – rising employment levels

Switzerland, too, continued to enjoy an economic upswing in the third quarter of 2006. According to estimates by the State Secretariat for Economic Affairs (seco), real GDP rose by 1.5% from the previous period and was 2.4% above its level a year earlier. The number of persons in employment soared during the quarter, while the unemployment rate continued its descent.

GDP growth was lower than in the first half of the year, and the slowdown was somewhat more pronounced than the SNB had expected. With the business climate remaining buoyant, overall demand (excluding inventories) climbed steeply. A conspicuous feature was the considerable fall-off in imports, which resulted in a substantial positive contribution to GDP growth. However, inventories made a similarly large negative contribution to growth.

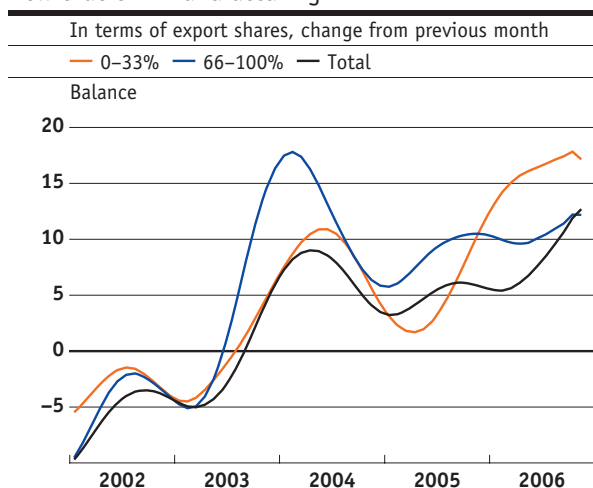
Manufacturing industry remains the driving force

On the production side, manufacturing industry, insurance, real estate and the public sector were the main drivers of growth. Whereas value creation in the construction sector declined slightly, banking saw a significant decrease after having contributed more to GDP growth than any other sector in 2005.

The continuing buoyancy of manufacturing was also reflected in the production figures published by the Swiss Federal Statistical Office (SFSO). Accordingly, third-quarter manufacturing output was up 8.6% on the previous period, exceeding the year-earlier level by 8.3%. Various other indicators of the level of manufacturing activity were also at historically high levels when last reported. According to the monthly survey of industry conducted by the Swiss Institute for Business Cycle Research at ETH Zurich, orders and output were rising steeply through to September. Moreover, companies were reporting a good level of orders and, to an increasing extent, were adjusting their prices upwards.

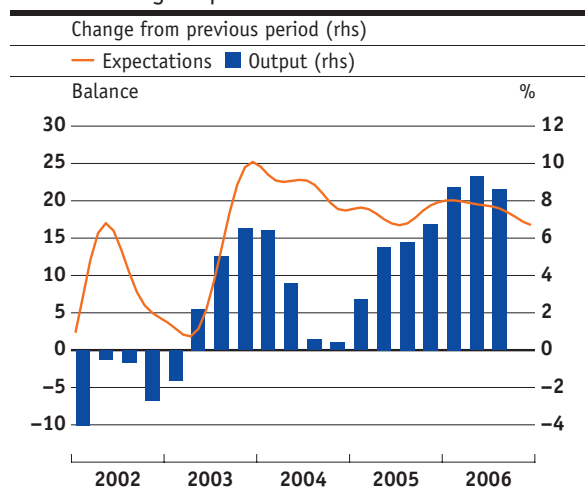
The first available indicators for the fourth quarter point to a gradual slowdown in the manufacturing sector. Nevertheless, production growth was still robust overall and companies were expecting trends in both demand and output to remain positive over the coming months.

Graph 2.1
New orders in manufacturing



Source: Institute for Business Cycle Research at ETH Zurich (KOF/ETH)

Graph 2.2
Manufacturing output



Sources: SFSO, KOF/ETH

Real GDP and components
Growth rates on previous period, annualised

Table 2.1

	2002	2003	2004	2005	2004					2005			2006				
					Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Private consumption	-0.0	0.8	1.5	1.3	0.7	2.1	0.9	2.5	2.7	1.1	2.0	2.0					
Government consumption	1.7	2.6	-0.8	-1.6	-0.1	-2.8	-0.2	-2.8	0.4	1.6	-4.7	3.0					
Investment in fixed assets	0.3	-1.4	4.5	3.2	-8.0	6.6	15.2	-4.8	0.7	3.2	15.4	-0.7					
Construction	2.2	1.8	3.9	3.5	-8.3	9.4	27.8	-10.8	-3.7	-3.3	7.7	3.5					
Equipment	-1.2	-3.9	4.9	2.9	-7.8	4.4	5.3	0.7	4.6	9.1	22.1	-4.0					
Domestic final demand	0.2	0.5	1.9	1.4	-1.5	2.4	3.9	0.1	2.0	1.6	4.1	1.5					
Domestic demand	-0.5	0.4	1.5	1.1	-1.5	1.2	-1.2	3.5	5.3	1.6	2.3	-6.4					
Total exports	-0.7	-0.4	8.4	6.4	-1.2	0.3	26.2	6.9	11.5	10.6	0.4	11.6					
Goods	1.1	-0.1	7.8	5.8	-4.3	-1.5	33.5	-2.0	12.2	21.2	-0.7	15.1					
Excluding valuables ¹	0.4	0.7	7.6	6.3	1.3	-5.0	39.0	-5.0	11.9	17.5	6.4	7.1					
Services	-5.7	-1.4	10.0	8.0	7.5	5.2	8.7	34.2	9.8	-13.4	3.8	2.2					
Aggregate demand	-0.5	0.1	3.7	2.9	-1.4	0.9	7.3	4.7	7.4	4.6	1.7	-0.4					
Total imports	-2.6	1.0	7.4	5.3	-6.6	0.1	17.6	6.7	19.7	8.6	-0.1	-4.5					
Goods	-3.0	2.2	6.4	5.5	-7.4	-2.2	20.7	6.8	19.8	11.7	-1.2	-5.0					
Excluding valuables ¹	-2.2	2.8	6.6	5.1	-7.9	-1.3	18.6	9.0	13.6	14.1	-1.6	-8.0					
Services	-0.7	-4.8	12.1	4.4	-2.6	11.0	4.1	6.4	19.2	-6.2	5.8	-2.3					
GDP	0.3	-0.2	2.3	1.9	0.7	1.3	3.5	3.9	2.7	2.8	2.5	1.5					

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

Good economic prospects for 2007

The 140 or so representatives of various industries interviewed by the SNB delegates for regional economic relations between September and November continued to express confidence about 2007. Almost all of them were expecting sales to advance strongly. The main risk they singled out was the development of the commodity markets (cf. "The economic situation from the vantage point of the delegates for regional economic relations" on page 38 of this *Quarterly Bulletin*).

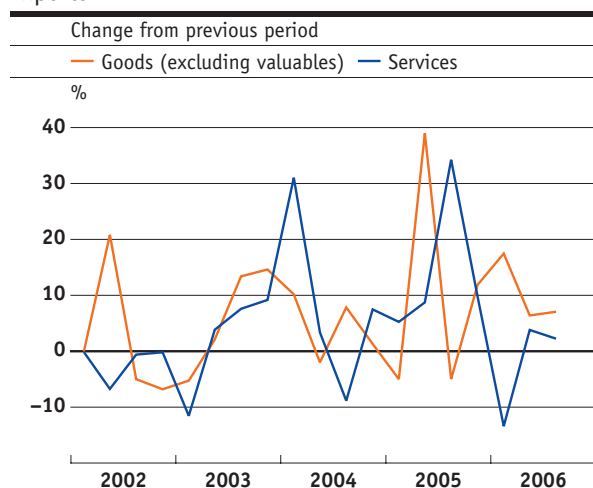
The SNB puts real GDP growth at an average of just under 3.0% for 2006, while it predicts expansion of around 2% for 2007. This would spell a moderate slowdown in the economic upswing that has been in progress since mid-2003. Forecast economic growth remains broad-based, however, and is still slightly above the potential figure estimated for the Swiss economy. Consequently, capacity utilisation, which had already reached high levels in 2006, should hold up while unemployment gradually recedes up to the end of 2007. Thanks to the improved employment and earnings situation, private consumption in particular should remain as a support to growth. However, investment and exports will also continue to provide a significant impetus.

Exports rising – imports receding

Real exports of goods and services continued their uptrend in the third quarter. Whereas goods exports grew faster than in the previous quarter, growth in exports of services faltered slightly, mainly because of lower commissions income in banking. The growth in goods exports was broad-based, though with an above-average contribution from exports of investment and semi-manufactured goods. In geographical terms, exports to the EU, the US and the OPEC countries advanced strongly again. However, exports to Germany lost momentum towards the end of the third quarter, as did exports to Asia (notably Japan).

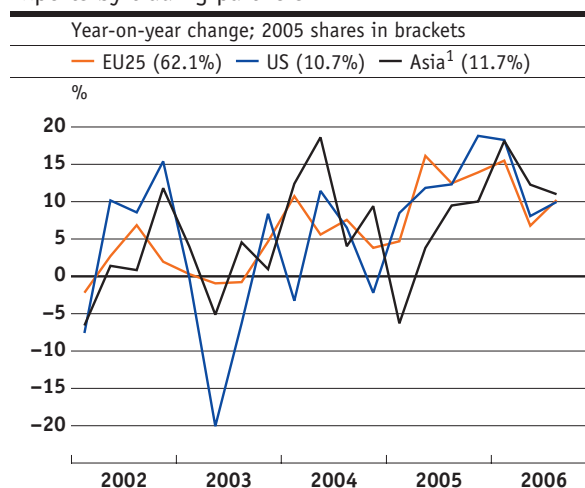
Real imports of goods and services fell off markedly in the third quarter after having stagnated in Q2. Owing to a strong rise in the preceding quarters, however, they were still almost 4% up on their level a year earlier. Lower imports of raw materials and semi-manufactured goods, as well as of capital goods, were particularly significant. On top of this, imports in the chemical and pharmaceutical sectors suffered a sharp and unexpected dip in September. With the exception of capital goods, however, imports staged a significant recovery in October.

Graph 2.3
Exports



Source: seco

Graph 2.4
Exports by trading partners



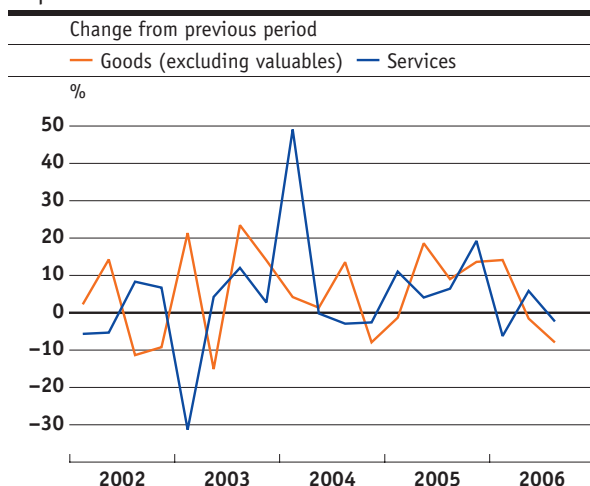
1 Asia: Japan, China, South Korea, Hong Kong, Singapore, Taiwan, Malaysia, Thailand, Philippines, Indonesia
Source: Federal Customs Administration (FCA)

Private consumption robust

Private consumption continued to buoy up economic activity in the third quarter: it rose 2.0% from the previous period and was also 2.0% above the corresponding year-earlier level. Consumption of both goods and services increased. In the third quarter, retail sales were 3.7% up on the third quarter in real terms – again a larger rise than in Q2. Among consumer durables, sales of watches and jewellery saw particularly strong growth quarter-on-quarter, whereas sales of new cars declined following a sharp rise at the beginning of the year. Where consumption of services is concerned, domestic tourism enjoyed rising turnover, and room occupancy at Swiss hotels soared to its highest level since 2001.

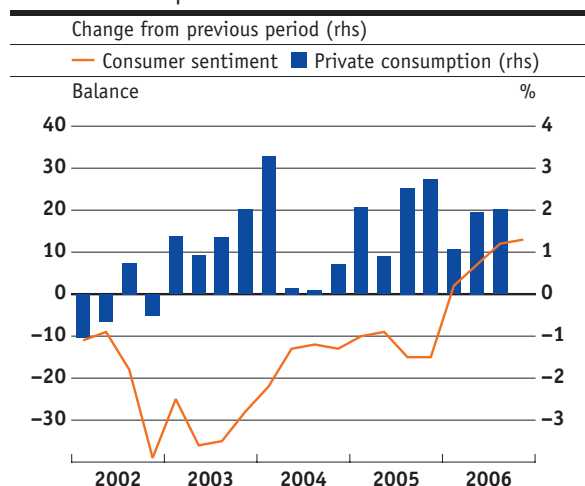
The consumer sentiment index, which had moved up sharply during the year to date, remained high in October. Survey results indicate that, compared with the previous survey, households had become more bullish about the past and present situation in the economy and the labour market, whereas expectations of the coming year were unchanged. The SNB anticipates that the real income of wage and salary earners will rise by at least 2% in 2007 thanks to improving employment prospects and a higher level of real wages. This would correspond roughly to the increase in 2006. As a result, private consumption looks set to continue underpinning economic activity in the coming year.

Graph 2.5
Imports



Source: seco

Graph 2.6
Private consumption



Source: seco

Construction investment higher

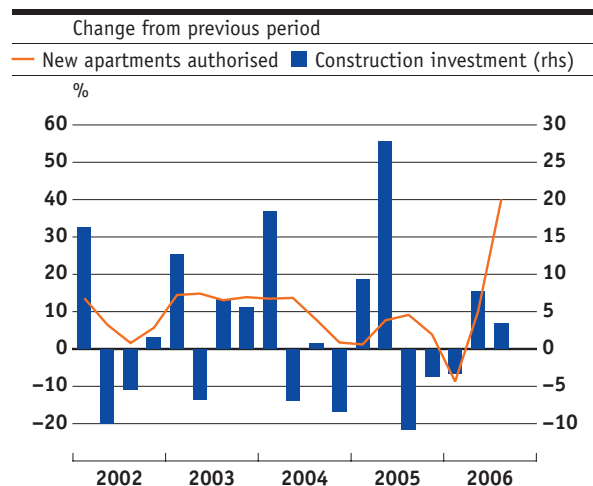
Construction investment expanded by 3.5% in the third quarter compared with the previous period and exceeded the year-earlier level by 1%. In terms of the number of apartments under construction, housing investment continued to expand. According to the Swiss contractors' association (SBV), construction of commercial buildings also increased.

The building industry is in excellent health at the moment. Not only is there a high level of ongoing construction work and orders in hand, but employment has also been rising. Moreover, the SFSO's construction price index suggests that the industry has been able to push through considerable price increases within the last year. In residential construction, the signs of stagnation that were evident in the first half of the year evaporated in the third quarter. The number of residential building permits, which had been constant since the end of 2005, moved upwards again. This was due both to higher income and employment levels and to the fact that interest rates are still attractive. According to the SBV's quarterly survey, commercial construction should also expand again in the next few quarters whereas the volume of civil engineering work is set to contract.

Short-lived fall in equipment investment

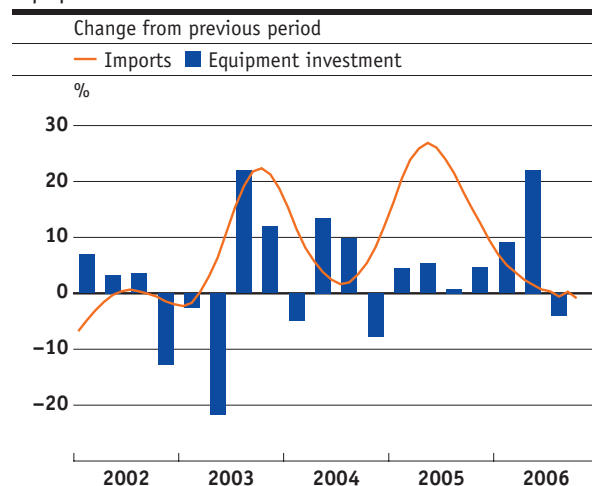
Following a hefty rise in Q2 2006, investment in equipment eased a little in the third quarter. However, it was still 7.6% higher than a year previously. Broken down by category, the volatile aerospace sector showed a particularly sharp fall. The next few quarters are likely to see a revival in corporate investment activity, given that the business climate is expected to remain buoyant and that capacity utilisation and corporate earnings are currently high.

Graph 2.7
Construction



Sources: SFSO, seco

Graph 2.8
Equipment



Sources: FCA, seco

2.2 Capacity utilisation

Slower growth in utilisation figures

Utilisation of technical capacity in manufacturing increased again slightly in the third quarter, rising to 87.4%. According to the quarterly KOF/ETH survey, this was its highest level for over 15 years (as was already the case in the first half of 2006). Since the surveys began in 1966, this level has only been exceeded during the boom of the early 1970s and in 1989–90.

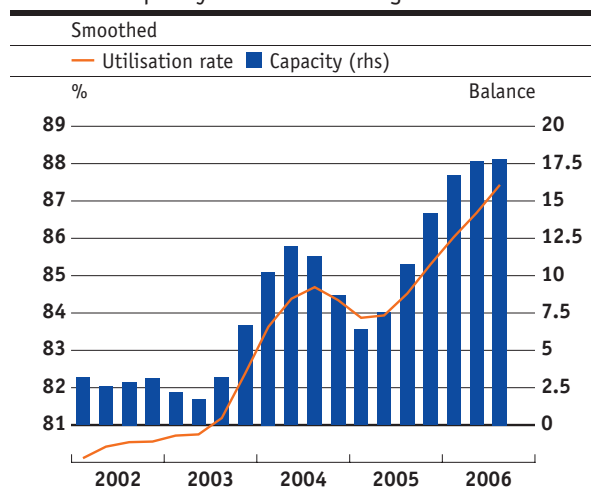
An impressive feature of the high level of capacity utilisation is that a considerable proportion of the companies surveyed had already been reporting expansion in their technical capacity for a long time. This indicator, too, has been at a historic high over the past few quarters. Experience shows, however, that it can take a while for investment goods to become fully integrated into production processes. It is hardly surprising, therefore, that companies are still mentioning technical capacity as a greater obstacle to output growth than availability of manpower, despite the higher level of investment.

Positive output gap

A more comprehensive measure of capacity utilisation in the economy is the output gap, which is calculated as the difference between real GDP and estimated production potential, computed in percentage terms. This measure takes account not only of manufacturing industry but of other sectors as well. Moreover, it provides an indication of the tightness of the labour market as well as utilisation of technical capacity. Graph 2.10 shows three estimates of the output gap based on different methods of estimating production potential: production function (PF), Hodrick-Prescott filter (HP) and multivariate filter (MV).

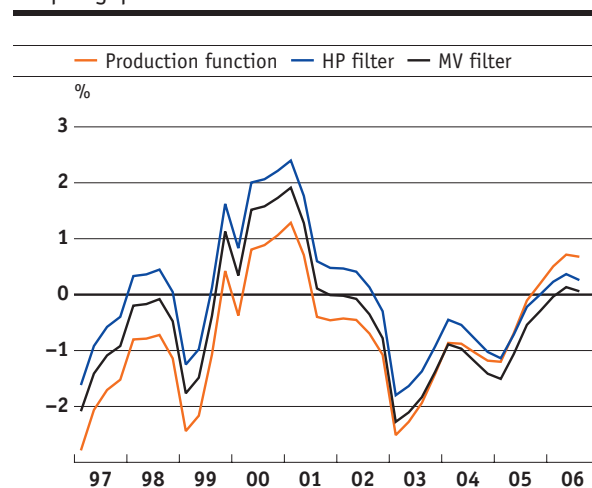
According to these estimates, real GDP has been above production potential since the fourth quarter of 2005 (using the production function and HP filter methods), or since the second quarter of 2006, going by the MV filter estimation method. Furthermore, all three estimates indicate that growth in real GDP differed only slightly from growth in production potential in the third quarter. Thus, the production gap thus changed only slightly in relation to the preceding quarter.

Graph 2.9
Technical capacity in manufacturing



Source: KOF/FIT

Graph 2.10
Output gap



Source: SNB

2.3 Labour market

Strong rise in employment

The number of persons in employment rose strongly in the third quarter after having almost stagnated in the preceding period. A 1.8% increase, compared with the previous period, left this figure 1.3% above the corresponding year-earlier level. In the third quarter, too, employment in manufacturing industry rose by an above-average margin quarter-on-quarter (3.5%). Substantial growth was also recorded by the construction industry and service sector (both 1.4%). Within the service sector, banking and real estate made particularly large additions to their payrolls. By contrast, downsizing in retailing continued, albeit at a slower pace.

Graph 2.11 shows movements in full-time employment, as compared to those for different degrees of part-time employment. All three employment categories have benefited from the higher demand for labour, though full-time jobs have seen the biggest increase. Converted into full-time positions, the volume of work rose by 1.6% in the third quarter, exceeding the level of a year previously by 1.1%.

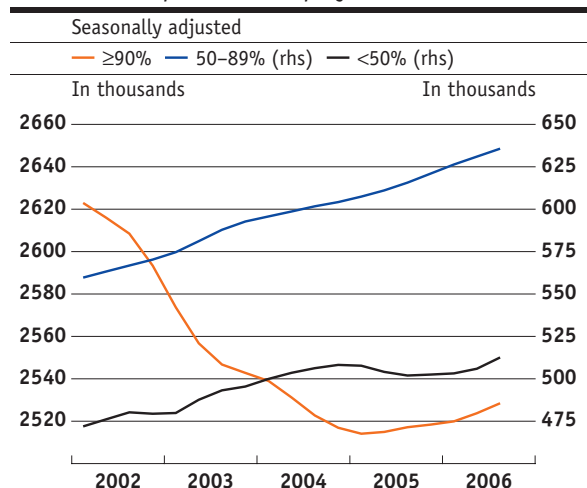
Unemployment eases further – more job vacancies

The seasonally adjusted unemployment rate dropped by 0.3 percentage points to 3.1% between July and November. Accordingly, 122,600 unemployed persons were registered with employment offices in November. In this period, the proportion of job seekers declined by 0.3 percentage points to 4.7%, which corresponded to 186,600 persons.

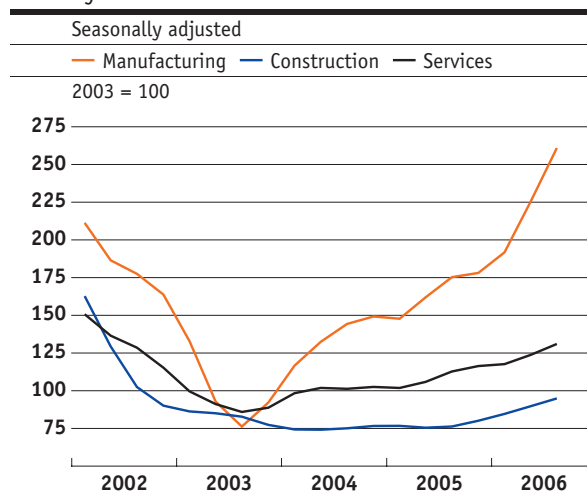
At 49,000, the increase in the number of persons in employment within the past 12 months was much greater than the decrease in the number of job seekers (-28,000). This difference is due to the rise in the participation rate in the Swiss workforce, inward flows of labour and a larger number of cross-border commuters.

As can be seen from graphs 2.12 and 2.13, the number of job vacancies rose according to the statistics published by both the SFSO and Publicitas. Demand for labour rose more rapidly in manufacturing industry than in services. Within the service sector, the growth in job vacancies was particularly pronounced in financial services. Employment looks set to continue rising in the next quarters, with a concomitant fall in unemployment.

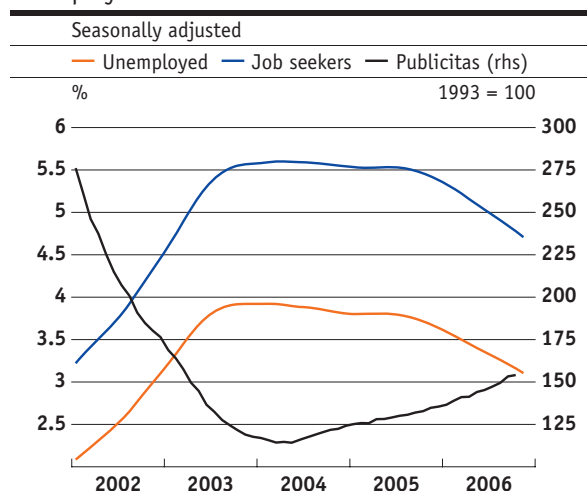
Graph 2.11
Full-time and part-time employment



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

Lower inflationary pressure on overall goods supply

The price pressure exerted by producer and import prices on the downstream consumer level decreased again between July and October. Annual inflation on domestically produced goods decreased from 2.6% to 2.0%, while that of imported goods went down from 3.5% to 3.1%. The decline was due mainly to energy prices. In October, these were 2.7% lower than the year-earlier level, having posted a 10.5% rise in the year to July. Prices of inputs, investment goods and consumer goods continued to rise, however.

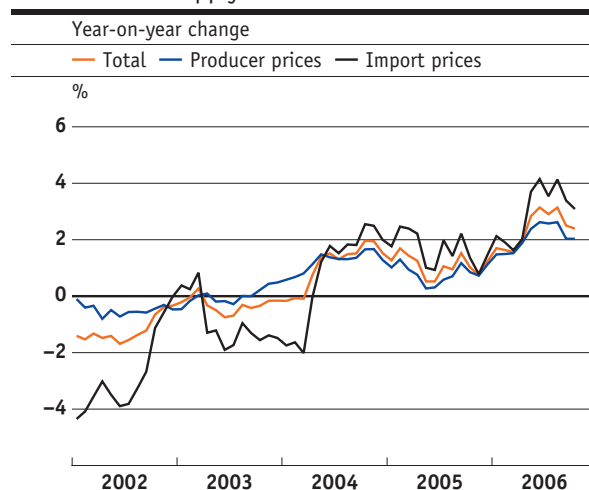
Consumer price inflation falls

Between August and October, annual inflation measured by the national consumer price index (CPI) fell by 1.2 percentage points to 0.3%, its lowest level since March 2004. In November, it edged up to 0.5%. Overall, it was below the SNB's mid-September inflation forecast, which had assumed that the oil price would persist at high levels (USD 78 per barrel). Factoring the oil component out of the CPI, consumer inflation was 0.8% in November, i.e. just 0.1 percentage points lower than in August.

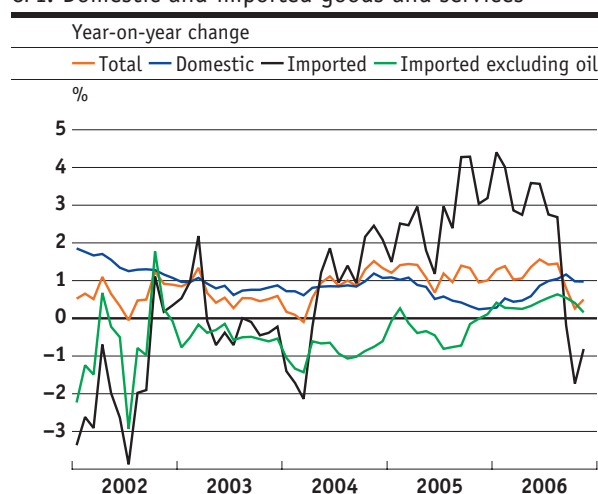
Domestic inflation stabilises

The annual inflation rate for domestic goods and services was 1.0% in November, as it had been in August. Domestic inflation thus stabilised after having risen continuously since the beginning of the year. The year-on-year decline in prices of domestic goods continued almost unchanged (November: -0.2%), with especially pronounced drops in various processed foods (e.g. chocolate and pasta). The quarterly rentals index showed a 0.5% rise between August and November, the net result being a 0.1 percentage point decline in the annualised rate of rent inflation to 2.2%. With regard to the other private services, too, inflation in November was 0.7% lower than in August (0.9%), mainly as a result of price cuts in the catering, hotels and airline sectors. The slide in prices of telecoms services continued (November: -2.2%). Charges for public services remained stable, however, leaving the inflation rate unchanged at 1.3%.

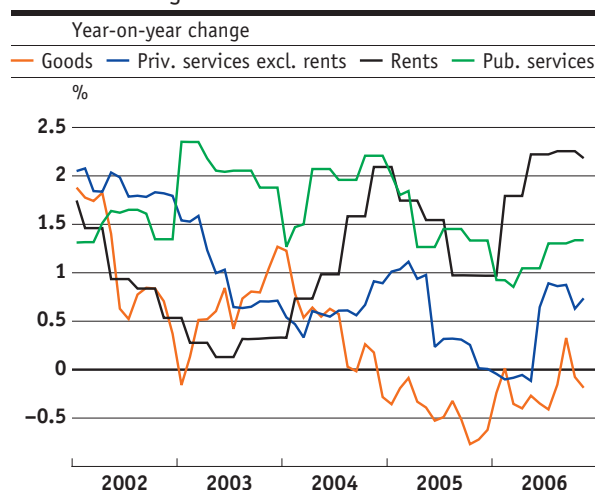
Graph 2.14
Prices of total supply



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

Import prices falling

Inflation on imported goods and services decreased from 2.7% in August to -0.8% in November, due mainly to the marked cheapening of the petroleum products contained in the CPI (heating oil and fuels). These prices slumped by 12.3% between August and November, and by the end of the reporting period they were 5.2% lower than a year earlier. For other imported goods, inflation receded from 0.6% to 0.2%. The slightly accentuated fall in consumer electronics prices, as well as cheaper medicines, contributed to the decrease.

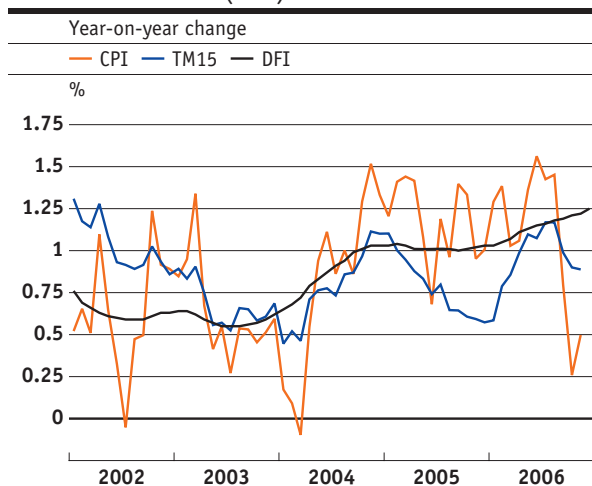
Mixed signals from the core inflation rates

Inflation, as measured by the CPI, undergoes numerous short-term fluctuations which may distort perceptions of the general inflation trend. For this reason, core inflation rates are calculated with the aim of capturing the longer-term price movements. The SNB computes two measures of core inflation, as shown in graph 2.17. The trimmed means method (TM15) excludes from the CPI – for any given month – those 15% of goods with the highest and those

15% with the lowest annual inflation. Dynamic factor inflation (DFI) takes account not only of prices but of data on the real economy, financial market indicators and monetary variables. The two core inflation rates calculated by the SFSO exclude the same goods from the commodities basket 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.

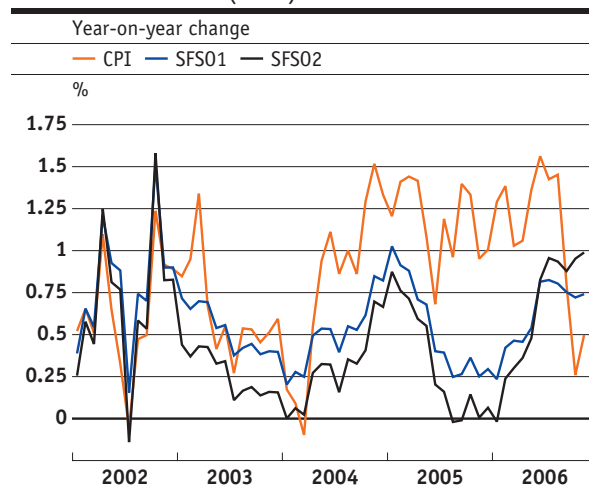
Core inflation calculated on the basis of the trimmed means method fell by 0.3 percentage points to 0.9% between August and November, after having risen continuously since the beginning of the year. Inflation calculated by the DFI method, however, indicates a stable inflation trend of 1.2%. The two core inflation rates calculated by the SFSO also produce an uneven picture of inflation trends: Core inflation 1 lost 0.1 percentage point between August and November, ending the period at 0.7%, while core inflation 2 edged up from 0.9% to 1.0% during this same period.

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
Year-on-year change in percent

Table 2.2

	2005	2006			2006			
		Q1	Q2	Q3	August	September	October	November
Overall CPI	1.2	1.2	1.3	1.2	1.5	0.8	0.3	0.5
Domestic goods and services	0.6	0.4	0.6	1.1	1.0	1.2	1.0	1.0
Goods	-0.4	-0.2	-0.3	-0.1	-0.2	0.3	-0.1	-0.2
Services	1.0	0.6	0.9	1.4	1.4	1.4	1.3	1.3
Private services excluding rents	0.5	-0.1	0.2	0.9	0.9	0.9	0.6	0.7
Rents	1.4	1.5	2.1	2.2	2.3	2.3	2.3	2.2
Public services	1.5	0.9	1.0	1.3	1.3	1.3	1.3	1.3
Imported goods and services	2.7	3.8	3.3	1.7	2.7	-0.2	-1.7	-0.8
Excluding oil products	-0.3	0.3	0.3	0.6	0.6	0.5	0.4	0.2
Oil products	18.5	21.4	18.1	7.7	12.8	-2.2	-10.0	-5.2

Sources: SFSO, SNB

3 Monetary developments

3.1 Interest rates

At its monetary policy assessment in September 2006, the SNB decided to increase the target range for the three-month Libor by 0.25 percentage points to 1.25–2.25% with immediate effect. It announced that it intended to hold the rate in the middle of the target range for the time being. At the same time, it indicated that further interest rate raises could be expected to follow if the economy were to develop as anticipated.

Further tightening of monetary policy expected

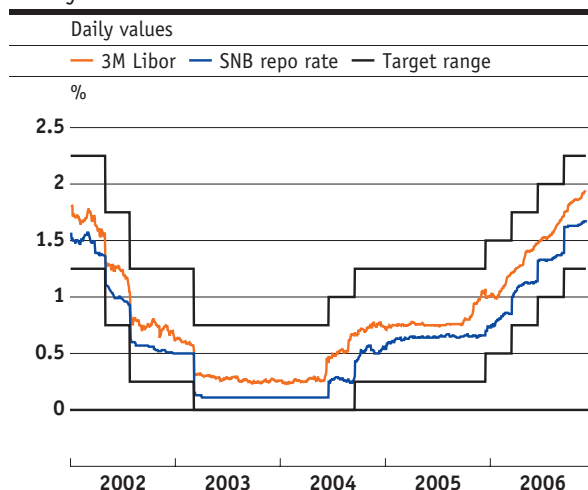
The three-month Libor rose continuously from mid-September to mid-December 2006, climbing from 1.75% after the last interest rate decision to 1.99% in mid-December. This indicates that the markets were expecting another increase in the target corridor for the three-month Libor at the December assessment.

These expectations were also mirrored in the futures market (cf. graph 3.2). At the end of November 2006, the interest rate for futures contracts with a mid-December maturity stood at 2.01%, corresponding to an anticipated interest rate hike of 25 basis points. Rates for futures contracts maturing in March and June 2007 have receded slightly since the last assessment, amounting to 2.21% and 2.33% respectively at the end of November. This was an indicator that market participants were still expecting further increases in the interest rate target range in the first half of 2007.

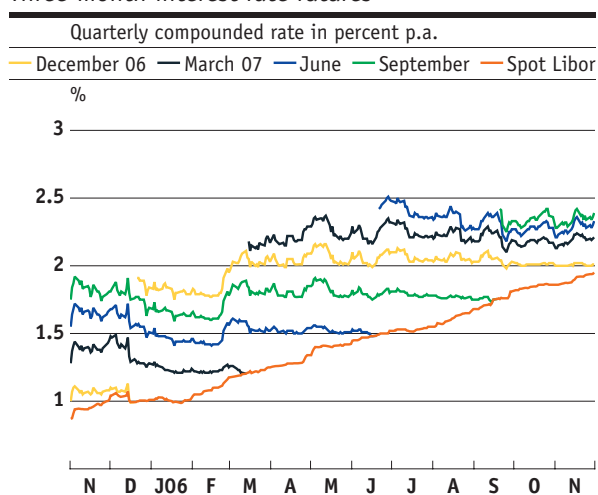
International short-term interest rates also rising

While the three-month Libor in Switzerland edged up within the target range between mid-September and mid-December, short-term interest rates in the euro area rose rather more sharply, as the European Central Bank (ECB) further tightened the reins. The three-month Libor rate for investments in euros rose from 3.34% in mid-September to 3.68% in mid-December. The interest rate differential between short-term Swiss franc investments and euro investments thus widened from 1.59 percentage points in mid-September to 1.69 percentage points in mid-December. By contrast, the inter-

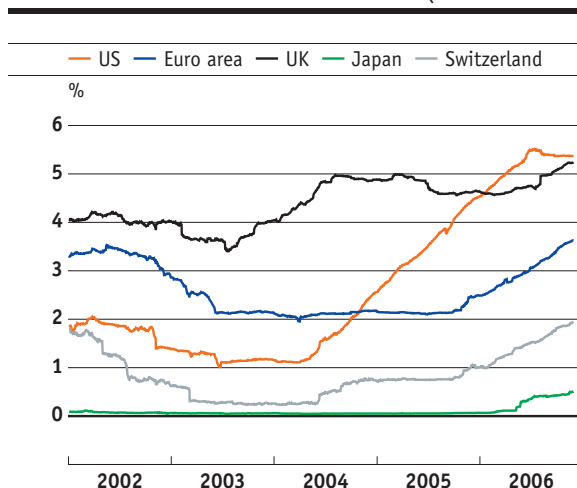
Graph 3.1
Money market rates



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

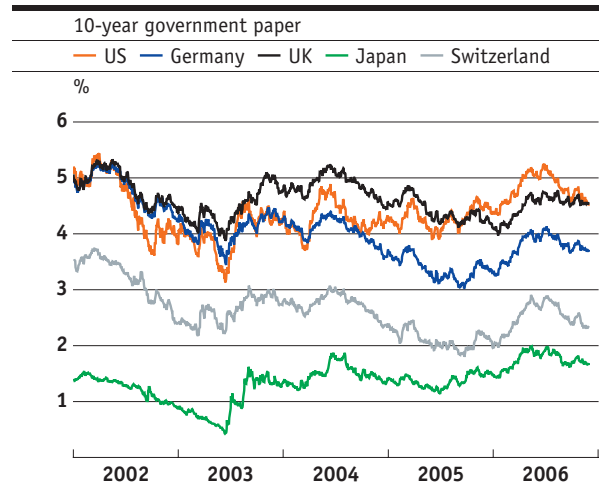
est rate differential between Swiss franc and US dollar investments narrowed further from 3.64 percentage points to 3.37 percentage points during the same period. This was due to short-term Swiss franc investments attracting a slightly higher interest rate, whereas short-term US rates were virtually static, as the US Federal Reserve has left the key rate unchanged at 5.25% since the beginning of August 2006.

Further decline in long-term interest rates

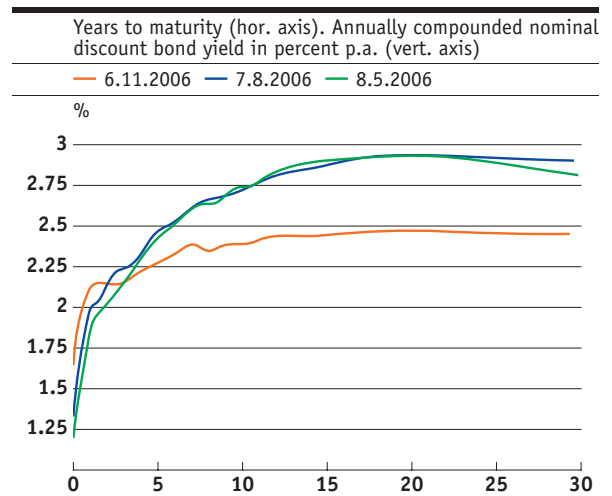
Unlike short-term interest rates, which have been rising continuously, long-term interest rates have decreased since the last monetary policy assessment. The yield on ten-year Swiss Confederation bonds fell by 6 basis points to 2.44% between mid-September and mid-December. This was the second quarterly decline in succession, following the steep increase in the first half of 2006. Yields in the international bond markets exhibited a similar trend. For example, yields on ten-year US government bonds stood at 4.49% in mid-December, i.e. 31 basis points below the mid-September level, while yields on German government bonds dropped 7 basis points to 3.80% during the same period.

Graph 3.6 depicts the yields on nominal discount bonds with differing maturities issued by the Swiss Confederation. It shows that yields at the short end of the maturity spectrum increased slightly while those at the long end declined. This is also reflected in the flatter yield curve (cf. graph 3.5). This development is similar to that observed in international bond markets and may either be due to an expected economic slowdown or to the drop in commodity prices which may have calmed inflationary fears.

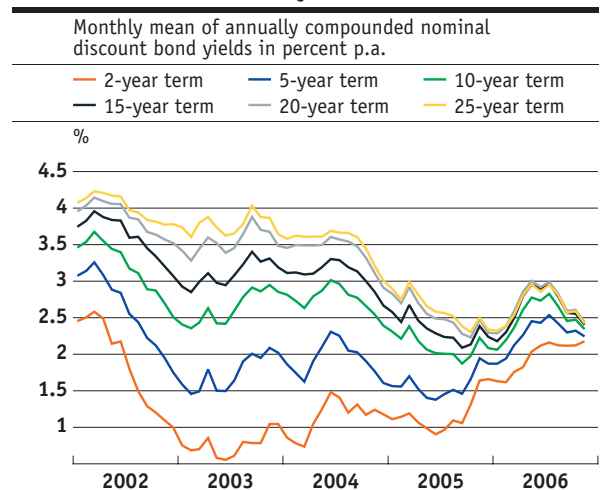
Graph 3.4
International interest rates



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

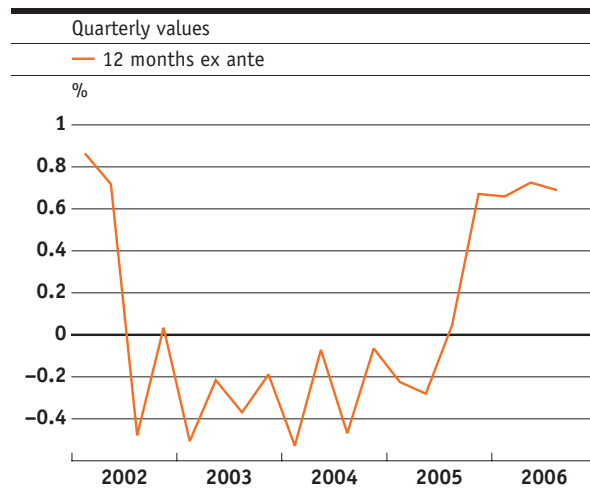
Short-term real interest rates still positive

Graph 3.7 shows movements in the one-year real interest rate. This interest rate is defined as the difference between the 12-month nominal interest rate and the expected rise in consumer prices during the period in question. Inflation expectations are taken as an average of the forecasts published by a number of different institutions (cf. "Consensus Forecast": October 2006). In the third quarter of 2006, the real interest rate obtained in this manner, which had been negative for an extended period, remained virtually unchanged at about 0.7% for the fourth quarter running. The slight increase in nominal interest rates was offset by somewhat higher expectations for short-term inflation. The one-year real interest rate remains well below its historical average of 1.6%.

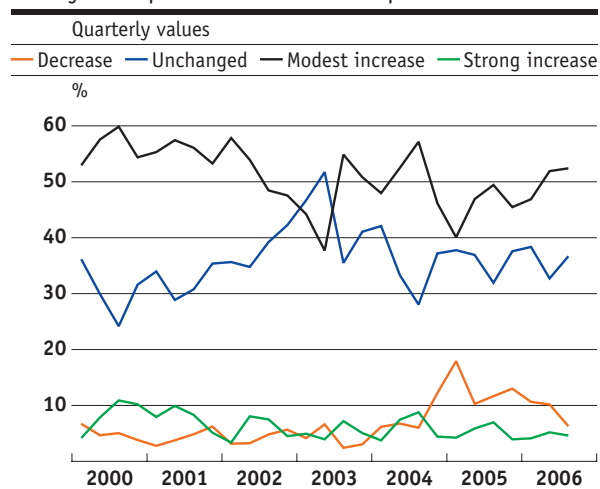
Data on consumer sentiment published by the State Secretariat for Economic Affairs (seco) in October continue to reflect subdued inflation expectations. Again, over half of the interviewees believed that prices would rise only modestly in the next twelve months. The proportion of those anticipating substantially higher prices remained very small.

1 Cf. table 1.1

Graph 3.7
Estimated real interest rate



Graph 3.8
Survey on expected movements in prices



Graph 3.7:
Source: SNB

Graph 3.8:
Sources: seco, SNB

3.2 Exchange rates

US dollar weaker

The euro has appreciated against the US dollar since the monetary policy assessment of September 2006. The Swiss franc remained virtually constant against the euro during the period under review. Thus, in mid-December, the dollar was trading weaker at CHF/USD 1.202, compared with CHF/USD 1.256 in mid-September. The CHF/EUR exchange rate was 1.594 in mid-December, as against 1.595 three months earlier.

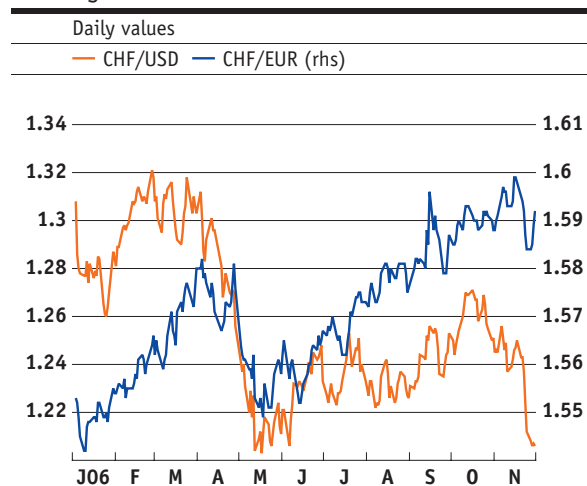
The export-weighted real external value of the Swiss franc, which takes inflation differences between currencies into account, has also stabilised since September, with respect to both Switzerland's 24 major trading partners and the euro area (cf. graph 3.10).

Tighter monetary conditions

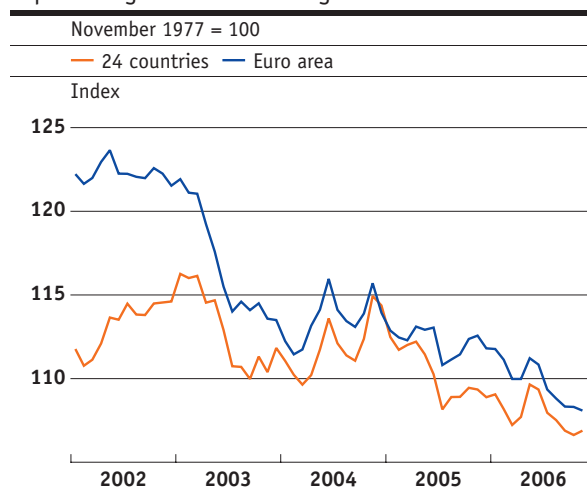
The Monetary Conditions Index (MCI) combines the three-month Libor and the trade-weighted nominal external value of the Swiss franc. It provides a measure of monetary conditions facing the Swiss economy. The MCI is reset to zero straight after each monetary policy assessment. An increase to positive values (decline to negative values) thus signifies a tightening (loosening) of monetary conditions (cf. "Box: The Monetary Conditions Index (MCI)", *Monetary Policy Report 1/2004*, p. 27).

If the changes in the three-month Libor and in the export-weighted nominal external value of the Swiss franc are weighted 3:1, monetary conditions in Switzerland at the end of November were tighter than in the immediate aftermath of the September assessment (cf. graph 3.11). While the MCI was still fluctuating around zero until mid-November, by the end of the month it had risen to about 30 basis points, reflecting a modest appreciation of the Swiss franc in the foreign exchange markets and a firming of short-term interest rates.

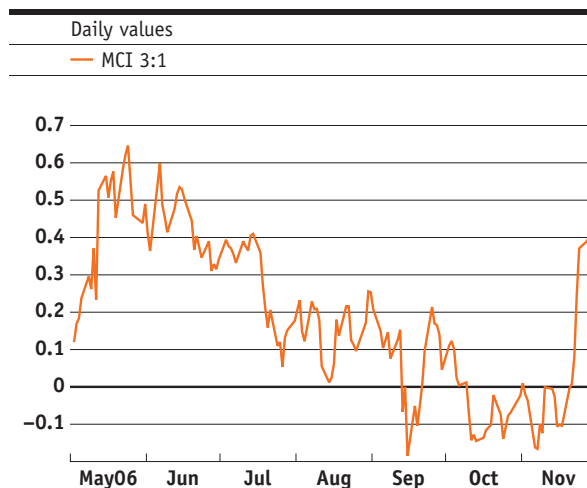
Graph 3.9
Exchange rates



Graph 3.10
Export-weighted real exchange rate of Swiss franc



Graph 3.11
MCI nominal



Graphs 3.9, 3.10 and 3.11:
Source: SNB

3.3 Equity, commodity and real estate prices

Trends on the equity, commodity and real estate markets can provide pointers to future inflation trends. Furthermore, price swings in these markets may trigger wealth effects. Since the September assessment, the equity markets, real estate and precious metals are likely to have had a positive impact on wealth. Inflation expectations have remained at a moderate level and may have been curbed additionally by the fall in oil prices.

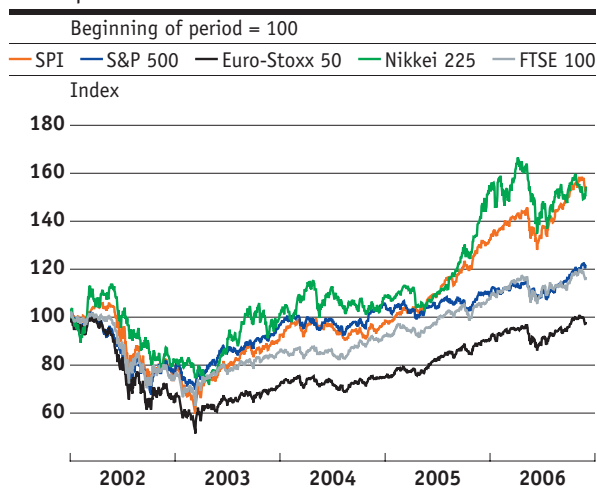
Equity prices on the rise

The share price rally continued all the way through from September to December. Most international equity markets came close to – or even reached – their all-time peak during this period. The US S&P 500 advanced by around 7% between mid-September and mid-December, and the European Euro-Stoxx 50 climbed by approximately 5%. Buoyed up by all sectors, the Swiss Performance Index (SPI) gained roughly 6%, putting it at the middle of the league table (cf. graph 3.13). The recovery staged by technology stocks was particularly remarkable, given their still-negative performance in the first half of 2006.

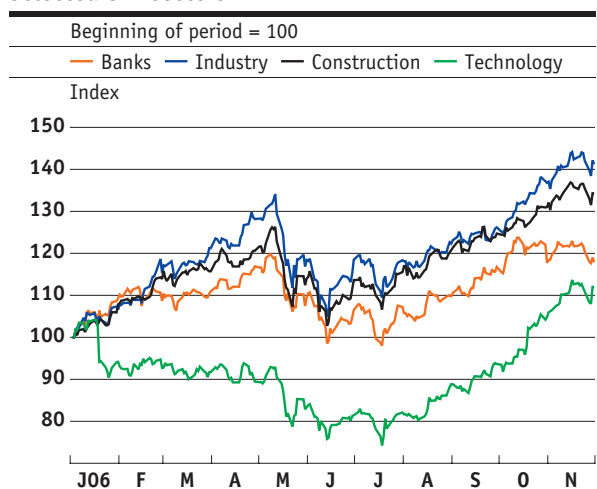
The SPI's 17% leap between January and mid-December 2006 is comparable to its gains in 2003 (20%) and 2005 (30%). The rally was driven not only by the robust business environment but by high corporate profits and the efforts undertaken by various companies to improve their balance sheets. In addition, mergers and acquisitions (or takeover bids) helped to boost share prices.

Graph 3.14 shows the volatility of equity returns, which indicates the level of uncertainty. After having increased steeply in May and June, it retreated again in the period under review, reaching virtually the same low level as at the beginning of 2006.

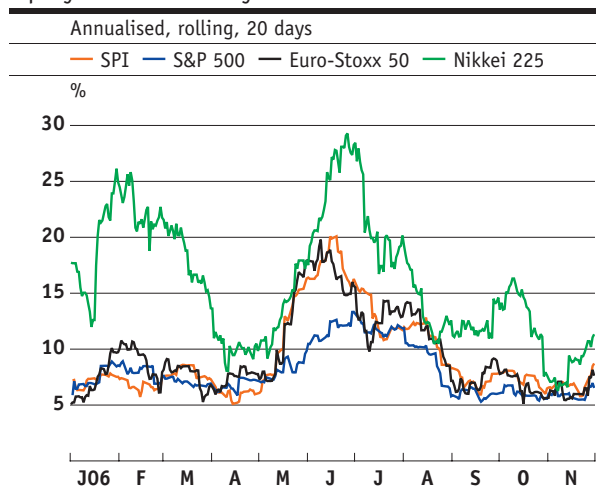
Graph 3.12
Stock prices



Graph 3.13
Selected SPI sectors



Graph 3.14
Equity return volatility



Graph 3.12:
Sources: Thomson Datastream, Bloomberg

Graph 3.13:
Source: Thomson Datastream

Graph 3.14:
Sources: Thomson Datastream, SNB

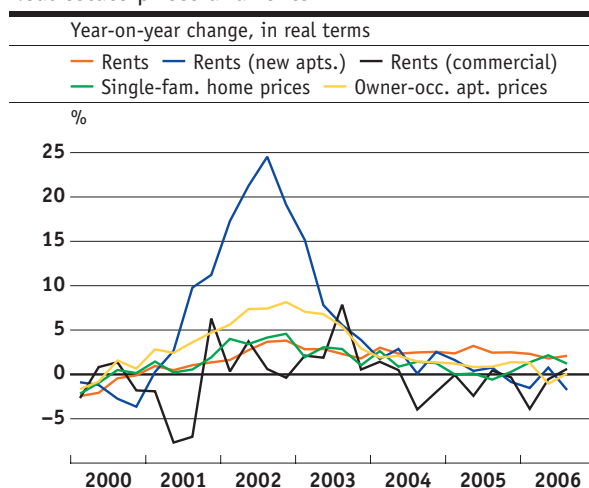
Real estate market still stable

Price trends in the housing market are measured by apartment rents, in particular, since they make up the biggest segment of this market in Switzerland. Rents also constitute the largest component of the CPI, accounting for roughly 20%. In addition, developments in the single-family home and owner-occupied apartment segments can be taken into consideration, though they account for a smaller share of the overall market. In the third quarter of 2006, apartment rents increased by 2.1% in real terms (i.e. in relation to the CPI), as against 1.8% in the preceding quarter. However, it should be noted that this figure relates mainly to old apartments. Rents for new apartments, which had edged up in the second quarter, slipped by 1.7% in the third quarter. While third-quarter prices for single-family homes were 1.2% above the year-earlier level, those for owner-occupied apartments remained almost unchanged. Trends in commercial rents were mixed. Whereas rents for commercial property went up somewhat after having declined for three consecutive quarters, rents for office space dipped for the second quarter in a row. Overall, developments in the real estate market indicate that the moderate price pressure remains unchanged. Regional variations are apparent, however.

Fall in the price of oil

According to the Goldman Sachs Commodity Index, commodity prices in early November were slightly below the level recorded at the beginning of 2006 and in mid-September 2006. They subsequently moved up and, as a result, the overall index had increased 3% by mid-December. Metal prices followed a similar pattern. By contrast, precious metals registered a 10% price increase from mid-September to mid-December. Compared with their position at the beginning of the year, they have even gained a hefty 23%. Oil prices were volatile again, dipping to USD 56 per barrel during the period under review. This corresponds to the price level of the beginning of 2006.

Graph 3.15
Real estate prices and rents



Source: Wüest & Partner

3.4 Monetary aggregates

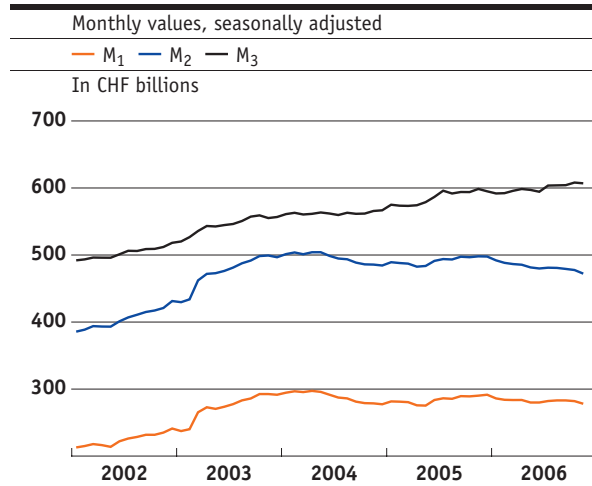
Money supply trends do not point to inflationary threats

In November, the M_1 monetary aggregate (note and coin circulation, sight deposits and transaction accounts) and the M_2 monetary aggregate (M_1 plus savings deposits) were lower by 4.2% and 5.2% respectively compared with their year-back levels. As graph 3.16 shows, M_1 and M_2 are thus back at the level of mid-2003. Meanwhile, M_3 (M_2 plus time deposits) grew at an annual rate of 1.4%. While time deposits continued to expand strongly (by 34.7%), savings deposits and, to a lesser degree, sight deposits, declined. This points to portfolio restructuring in a climate of rising interest rates.

A way of assessing potential inflationary threats owing to an excessive supply of liquidity to the economy is to calculate a money overhang. There are various ways of doing this. Here, the ECM approach is used (see "Box: Money supply growth and inflation", *Monetary Policy Report 1/2005*, p. 33). 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 actual 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 3.17 shows

the percentage deviations of the M_3 money stock from the calculated equilibrium value. In order to take account of statistical uncertainty, the money overhang is presented as a range that spans one standard deviation. The zero line continues to be located between the upper money overhang and the lower money overhang. This suggests that there will be no monetary pressure on prices in the next few quarters.

Graph 3.16
Monetary aggregates



Source: SNB

Monetary aggregates¹

Table 3.1

	2004	2005	2005		2006					
			Q3	Q4	Q1	Q2	Q3	September	October	November
Monetary base²	41.7	41.9	41.2	42.7	43.3	43.3	42.3	42.2	42.5	42.7
<i>Change³</i>	3.2	0.4	0.3	2.0	3.0	4.2	2.6	2.5	2.5	2.4
M₁²	288.5	284.2	284.3	290.9	286.4	281.6	280.1	280.3	281.7	281.6
<i>Change³</i>	5.5	-1.5	0.8	4.3	1.3	1.1	-1.5	-2.2	-2.4	-4.2
M₂²	495.6	491.6	491.2	497.5	491.7	483.1	476.9	475.3	475.9	474.8
<i>Change³</i>	4.3	-0.8	0.6	2.5	0.1	-0.7	-2.9	-3.6	-3.8	-5.2
M₃²	562.5	585.9	590.6	595.9	595.4	597.7	600.7	600.8	607.0	608.7
<i>Change³</i>	3.2	4.2	5.9	5.5	3.3	2.9	1.7	1.7	2.4	1.4

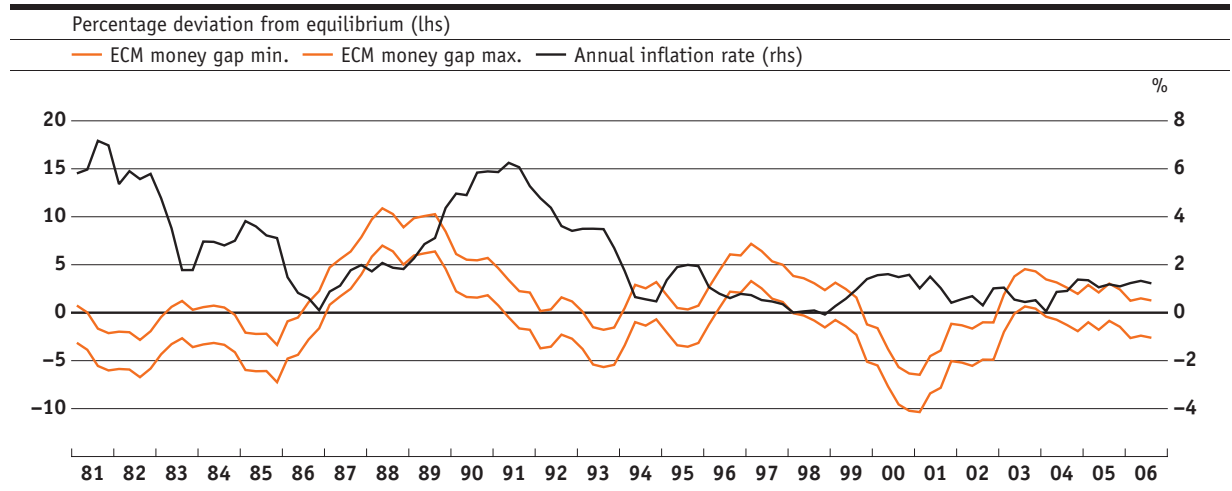
1 1995 definition

2 Level in CHF billions

3 Year-on-year change in percent

Source: SNB

Graph 3.17
 Money gap and annual inflation rate



Source: SNB

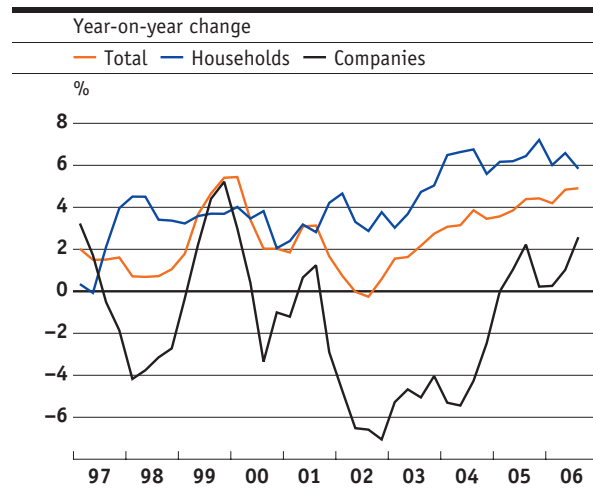
3.5 Loans

Stable growth in lending

Against a backdrop of low or even negative growth in monetary aggregates, growth in lending stabilised in the third quarter. The annual growth rate came to 4.9%, as against 4.8% in the previous quarter. Graph 3.18 shows that the expansion in household borrowing, in particular, slowed – to 5.8% from 6.6% in the previous quarter. By contrast, lending to companies accelerated (to 2.6% versus 1.0%).

Table 3.2 provides figures on lending by type of use. Mortgages, which account for the great majority (80%) of all bank loans, grew by 4.8%, which is almost the same rate as in the previous quarter (4.9%). Mortgage lending to households again expanded significantly, albeit at a slightly slower pace than a quarter previously, while growth in mortgage loans extended to companies remained sluggish (1.5%). After having contracted until mid-2005, other loans rose by 5.4% due to the steep increase in unsecured lending. Unsecured loans expanded by 9.3%, following 4.3% in the previous quarter and negative growth rates from the third quarter of 2001 through to the first quarter of 2006. The brisk growth in unsecured loans indicates that the banks have been more willing to take on greater risks in the current boom.

Graph 3.18
Bank loans



Source: SNB

Bank loans

Year-on-year change in percent

Table 3.2

	2004	2005	2005		2006					
			Q3	Q4	Q1	Q2	Q3	August	September	Oktober
Total	3.4	4.1	4.4	4.4	4.2	4.8	4.9	4.8	4.7	4.9
Households	6.4	6.5	6.4	7.2	6.0	6.6	5.8	6.1	5.1	5.6
Companies	-4.4	0.9	2.2	0.2	0.2	1.0	2.6	1.7	3.5	3.2
Mortgage claims	5.4	5.2	5.3	5.4	5.0	4.9	4.8	4.8	4.6	4.6
of which households	6.4	6.9	6.9	6.9	5.7	5.7	5.4	5.5	5.1	5.3
of which companies	-1.7	3.1	3.9	2.8	1.8	1.5	1.5	1.3	1.7	1.4
Other loans	-4.1	-0.7	0.5	0.3	0.7	4.4	5.4	4.9	5.2	6.0
of which secured	3.1	2.6	3.5	4.0	3.5	4.4	0.6	0.3	1.5	0.2
of which unsecured	-8.7	-3.1	-1.8	-2.4	-1.4	4.3	9.3	8.7	8.2	10.6

Source: SNB

4 The SNB inflation forecast

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 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.

Lower oil prices and a mixed economic situation

As compared with the last quarterly assessment in September, the global economic environment has changed in two respects. On the one hand, oil has become considerably cheaper, which is dampening consumer price inflation around the world. On the other, the US economy has weakened more rapidly than expected while the situation in Europe is stronger than was assumed in September. Consequently, the US forecast for 2006 and 2007 has been adjusted downwards slightly and the assumption for European GDP growth in the next few years revised upwards. In both economic regions, growth is still expected to be robust in the medium term, trending towards the potential growth rate of approximately 3% (US) and 2% (EU) by the end of the forecasting period. We continue to assume a constant USD/EUR exchange rate of 1.27.

Assumptions for inflation forecasts

Table 4.1

	2006	2007	2008
Inflation forecast of December 2006			
GDP US ¹	3.3	2.9	3.2
GDP EU15 ¹	2.7	2.3	2.2
Exchange rate USD/EUR ²	1.25	1.27	1.27
Oil price in USD/barrel ²	64.9	58.0	58.0
Inflation forecast of September 2006			
GDP US ¹	3.4	3.0	3.2
GDP EU15 ¹	2.3	2.1	2.1
Exchange rate USD/EUR ²	1.25	1.27	1.27
Oil price in USD/barrel ²	72.0	78.0	78.0

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 for Q4 2006 to Q3 2009

The quarterly inflation forecast is derived from the analysis of different indicators, model estimates and the assessment of any special factors. Graph 4.1 depicts the December 2006 inflation forecast alongside those made in September and June. The new forecast, which extends from the fourth quarter of 2006 to the third quarter of 2009, is based on a steady three-month Libor of 2.00%, i.e. the mid-point in the 1.50–2.50% target range for the three-month rate which the SNB lifted by 25 basis points on 14 December. The September and June forecasts were based on a three-month Libor of 1.75% and 1.50% respectively.

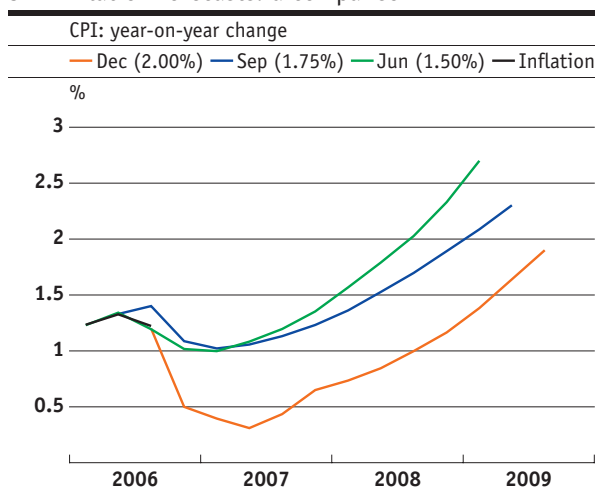
Despite the fact that economic resources remain very well utilised, the SNB is forecasting a substantially lower rate of inflation in the short term than it was in September. This is attributable to the retreating oil prices in August and September. Due to a base effect, the impact of the inflationary contribution of the oil products contained in the CPI will be felt until the third quarter of 2007. The annual inflation forecast for 2007 amounts to 0.4%, following 1.1% in 2006. As graph 4.1 shows, the expected rate of inflation for the medium-term will also fall short of that projected in September. Turning to the economic outlook,

there has been no change in the forecast since the SNB's positive assessment in September, even if the momentum is expected to subside a little. However, the decline in inflation due to oil price developments means that inflationary pressures will begin to build from a lower level than had been anticipated in September.

The long-term inflation outlook has also improved further. The interest rate increase in December 2006 represents a further step in the process of monetary policy normalisation which was resumed in December 2005, and is helping to achieve a suitable level of money stocks. The fact that growth in the M_3 monetary aggregate is now no more than moderate is evidence of this development. For this reason we may also expect that the growth in lending will slow. As the rate of increase in monetary aggregates and lending diminishes, economic growth will lessen and the economy will then develop in line with its long-term growth potential. As a result, excessive utilisation of economic resources will be prevented and inflationary tendencies will be countered.

It is evident from the inflation dynamics, however, that the effect of a three-month Libor of 2.00% is still too expansionary. If the economy performs as expected, the SNB will therefore further pursue the gradual normalisation of interest rates.

Graph 4.1
SNB inflation forecasts: a comparison



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

Summary report to the attention of the Governing Board of the Swiss National Bank for its quarterly assessment of December 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. In the following, the most important results of the talks held from September to November 2006 on the current and future economic situation are summarised.

Summary

The talks held by the SNB delegates for regional economic relations with around 140 representatives from various economic sectors and industries from September to November 2006 yielded a picture of an economy that was in excellent shape. Right through to the end of the period, the companies surveyed detected no evidence of any slowing trend, and in some cases even stated that business was accelerating. The most flourishing sectors included the export industry, tourism, construction and the banks. By contrast, the retail trade presented a muted picture. Prospects for 2007

were viewed as positive. While a number of respondents were expecting a slowdown in the pace of expansion, they considered this part of the process of 'returning to normal'.

Helped by the generally high level of earnings, companies showed a greater propensity to invest. As before, however, investment projects were scrutinised carefully, with consideration also given to alternatives such as relocating some production facilities. A mood of caution also continued to permeate the question of permanent hirings. Increasing problems with the procurement of commodities were cited as a primary concern.

1 Production

Manufacturing

Most export companies reported a persistently firm level of new orders and full order books, in many cases guaranteeing capacity utilisation until well into the new year. Demand remained broad-based. Respondents stressed the strong business trend in the EU region, specifically in Germany and in the East European countries. Demand from Asia, Latin America and the US also showed a positive trend. Suppliers of products destined for the US construction and automotive industries nevertheless detected a significant slowdown in new orders. Many respondents spoke of supply bottlenecks in the case of primary products, which in turn resulted in extended delivery times for their customers. They expressed concern about developments on the commodity markets. Alongside higher prices for key raw materials such as metals, steel and timber, there was mention of the growing difficulties in obtaining the required quantities within a reasonable time frame.

The healthy business climate extended across all sectors. Energy technology benefited from considerably higher capital investment on the part of the petrochemical and electricity sectors. Representatives of the metalworking industry, medical technology, civil aviation and a broad segment of mechanical engineering also expressed satisfaction with the way sales were developing. Moreover, excellent levels of business were reported by suppliers of upmarket consumer products, including the watchmaking industry and the luxury end of the food, clothing and fashion accessories sectors.

Services

Representatives of the tourism and hospitality industries were able to look back on a successful summer season. The fine autumn weather was more than sufficient to offset the impact of a rainy August. Both the number of guests and the average expenditure per guest rose by a gratifying margin. 2006 has so far been a record year for the city tourism sector. There was widespread optimism about the forthcoming winter season, as a large volume of bookings had already been received by the autumn.

The travel industry and transportation sector, and aviation in particular, also reported a good to excellent business trend. Load factors and average

revenue per passenger kilometre both rose significantly. Suppliers of business services also made positive statements. While the business consultancy sector in general has been enjoying an upswing for some time now, representatives of the ICT sector are also beginning to note a significant increase in the willingness to invest – albeit against a backdrop of persistently heavy pressure on prices.

Respondents from the banking sector saw no signs of a downturn in economic activity. Commission and fee business showed a pleasing trend, driven partly by the stock market recovery. Mortgage business expanded despite higher interest rates, though margin pressures remained high. Most representatives reported an improvement on the corporate banking side. Profitability among corporate clients was judged to be very strong, thereby improving the quality of the banks' loan books. The abundant liquidity provided an opportunity for many corporate clients to repay their bank loans. As for customer deposits, there was evidence of a switch to higher-interest products. Views on developments in the real estate sector were again mixed. Some respondents witnessed signs of overheating, while others stressed the speed at which new properties could be sold or let even though a large number were being built.

Views also diverged in relation to private consumption. While representatives of B2C services expressed satisfaction with the way business was progressing, a majority of spokespersons for the retail trade viewed the situation as muted. Although the number of customers and their willingness to spend increased, the sales trend remained volatile. On top of that, demand presented a very mixed picture in terms of the different price segments. In general, sales in the top and bottom price brackets were distinctly firmer, whereas the middle segment was sluggish. At the major retailers, price cuts for food and other day-to-day items depressed the nominal sales figures. Despite a difficult business situation in some areas, most respondents were optimistic about Christmas trading following the encouraging level of sales in November.

Construction

Representatives of the construction sector rated the utilisation rate and order backlog as good to excellent. Residential construction was once again the principal driving force; commercial con-

struction and civil engineering, together with a high level of renovation activity, are now providing an additional fillip, however. To some extent, the healthy order situation afforded companies the luxury of being selective when deciding which contracts to take on. Prospects were viewed as positive. None of the respondents expected the trend to reverse in the near future. A small number mentioned signs of saturation in the new residential construction sector, pointing in particular to dwindling land reserves.

2 Labour market

Many companies increased their staffing levels. In most cases, however, the expansion was incremental and only came about following in-depth analysis of longer-term staffing requirements. Spikes in production were generally countered by hiring temporary personnel. In the few instances where staffing levels increased sharply, the firms in question were expanding into foreign markets for the first time. Recruitment firms mentioned a rise in staff turnover, especially among middle and senior management. Recruitment of specialist technical personnel continued to pose problems, with senior managers in particular proving very difficult to find. In addition, the labour market in regions close to the German and French borders has now dried up at this level.

3 Prices, margins and earnings situation

Most representatives found that profitability had improved significantly. While export-oriented firms in particular continued to face downward pressure on prices, this does appear to be easing. A number of companies were able to pass on higher costs for energy and raw materials, or improve their margins through selective customer acquisition and/or marketing efforts. In many instances, price increases were considered inevitable in 2007 in order to offset rising costs. Representatives of the construction sector continued to see only limited opportunities to raise prices, and in some cases reported a deterioration in profitability as a consequence of higher wage and material costs. On the other hand, clients frequently cited significantly higher construction prices. This contrasting picture may reflect the fact that discounts are now almost impossible to obtain, which the construction firms do not necessarily view as a rise in prices.

Companies were expecting larger wage increases for 2007 compared with the previous year, with most quoting figures in the region of 2.0% to 2.5%. No discernible differences were identified between the sectors.

The current euro exchange rate of around 1.60 Swiss francs offers clear benefits for most of the companies surveyed, and in some cases facilitates considerable margin gains. Companies nonetheless remain cautious, and are basing their calculations on a significantly lower euro exchange rate. The fate of the dollar is being watched with some concern.

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

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Intraday market dynamics around public information arrivals

Angelo Ranaldo

Working Paper 2006-11

This study analyses how the real-time release of news relating to specific companies impacts on order flow and stock trading activity at the Paris Bourse. On the one hand, it allows us to arrive at a better understanding of whether information releases deteriorate or improve market liquidity. This question is particularly relevant for a market structure based on voluntary liquidity such as (electronically) order-driven markets. On the other hand, it sheds new light on the price-discovery process around these specific information events. In this respect, the study examines whether those placing limit orders require more compensation for providing liquidity during the price-revision process. In addition, it investigates whether news announcements are preceded or followed by information asymmetry.

A distinguishing characteristic of this study concerns the type and timing of news items. Using the Reuters alert system, it covers all news items relating to specific companies and routed in real time to traders' trading screens. This kind of information flow represents the relevant information set that influences a trader's decisions (e.g. information officially released by a company, interviews, press digests, analysts' research, but also all market and corporate information such as market index compositions, the issue of corporate bonds or new shares, mergers and acquisitions, etc.). Thus, this research provides insights into the dynamic relationships between real-time news and order flows.

By contrasting the market impact of earnings announcements and other news announcements relating to specific companies, two major points emerge. First, the whole flow of information, and not just earnings announcements, has a significant market impact. Second, and more importantly, typical real-time firm-specific news and earnings announcements determine trading in opposing ways. While earnings announcements widen bid-ask spread and volatility, as extensively documented in the literature, firm-specific news attracts both liquidity and trading. These results suggest that liquidity providers promptly recognise and efficiently react to the information content of real-time news releases. When news items convey no major information content, they cause increased competition

in liquidity provision that results in a thinner spread and greater market depth. When information releases impact more strongly on prices, a sharp price adjustment demands immediate execution of greater trading volumes that absorb market liquidity. Even in the event of extreme price disruptions, however, new limit orders fill books and the supply of liquidity remains elevated. Thus, the findings suggest a dynamic adaptation of liquidity provision along with market conditions and the real-time flow of information.

The second main contribution of this study is to analyse the price discovery process and information asymmetry risk around the release of news relating to specific companies. To do this, a structural model for estimating the transaction-cost components that takes price discreteness into account and yet is sensitive to the protracted effects of the trade process is used. This model expands some of the existing price formation models based on the autoregressive process of the order flow. The estimation of transaction-cost components around public information releases shows few adverse selection problems and no additional compensation for supplying liquidity. At the same time, when a news release causes a big price impact, cost components increase. This can be interpreted as a sign of adverse selection problems and larger compensation for liquidity providers.

Overall, this study provides empirical evidence on the quality of limit order book markets. It shows that there is a dynamic relationship between order and information flows. It also shows that a market structure based on voluntary liquidity provision is able to supply additional liquidity precisely when necessary, i.e. around information events. Even when news releases cause severe price disruptions, liquidity provision remains high and adverse selection and order processing costs quickly revert to their normal value.

Chronicle of monetary events

Increase in the target range for the three-month Libor

On 14 December 2006, following its quarterly assessment, the Swiss National Bank increased the target range for the three-month Libor with immediate effect by 0.25 percentage points to 1.5–2.5%. The SNB intends to hold the rate in the middle of the target range for the time being.

Table of contents, volume 24, 2006

Issue no.	Page	
1	6	Monetary policy report
2	6	
3	6	
4	6	
1	38	The economic situation from the vantage point of the delegates for regional economic relations
2	38	
3	40	
4	38	
1	42	Swiss National Bank Working Papers and Swiss National Bank Economic Studies: Summaries
2	64	
3	44	
4	42	
		Articles and speeches
2	54	Cuche-Curti, Nicolas A. Policy-relevant models for central banks
2	42	Raggenbass, Hansueli Opening speech by the President of the Bank Council at the General Meeting of Shareholders of the Swiss National Bank
2	48	Roth, Jean-Pierre Speech by the Chairman of the Governing Board at the General Meeting of Shareholders of the Swiss National Bank
1	46	Chronicle of monetary events
2	70	
3	48	
4	44	

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